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3. COMMENT SUMMARIES AND RESPONSES

3.1 Introduction

This chapter summarizes all of the comments DOE received on the Draft EIS and provides DOE's responses to those comments. As discussed in Chapter 1 of this CRD, DOE received approximately 950 comment documents on the Draft EIS from federal agencies; state, local, and tribal governments; public and private organizations; and individuals. In addition, during the 15 public hearings that DOE held, more than 270 speakers made oral comments. DOE has placed this material, including the names of commenters, comment documents, and the public hearing transcripts on the project website (www.plainsandeasterneis.com).

Although the closing date of the public comment period was April 20, 2015, DOE was able to process all comments that it received through April 27, 2015, and to prepare comment summaries and responses for inclusion in this CRD. Comments that were received after April 27, 2015, are included in this CRD as Attachment 1.

3.2 How DOE Considered Public Comments

DOE assessed and considered public comments on the Draft EIS, both individually and collectively. Some comments led to EIS modifications; others resulted in a response to answer or explain policy questions, refer readers to information in the EIS, answer technical questions, explain technical issues, or provide clarification. A number of comments provided valuable suggestions on improving the EIS. As applicable, the responses in this chapter identify changes that DOE made to the Final EIS as a result of comments.

The following list highlights key aspects of DOE's approach to capturing, tracking, and responding to public comments on the Draft EIS:

- At the beginning of the public comment period, DOE developed a list of major issue categories as a starting point for capturing and tracking public comments that were anticipated. As comments were received, they were reviewed and coded into applicable issue categories or into new issue categories that were created. Because coding was a continuous process during the public comment period, issue categories were expanded or created as necessary to ensure that comments were assigned into a proper issue category. If an existing comment code was not specific enough, a new code or subcode was created.
- DOE reviewed and considered every comment received, including written and oral comments made during the public hearings, to identify, categorize, and summarize those comments. As shown in Chapter 2 of this CRD, the written documents received have been annotated with sidebars, comment numbering, and comment codes. These sidebars and codes provide the information that identifies where those comments are addressed in the CRD. In some cases, multiple comment codes were assigned to a comment to indicate that an identified comment was considered in multiple comment summaries and responses.
- After comment identification, DOE grouped individual comments by codes and assigned each comment group to an expert in the appropriate discipline to prepare the response.
- Comment summaries are intended to capture the substantive issues raised by a commenter for a specific issue. Comments grouped and summarized for response are, of necessity, paraphrased, but DOE made every effort to capture the essence of comments included in a

comment summary. If the meaning of a comment was not clear, DOE attempted to interpret the comment and respond based on that interpretation. In some cases, DOE used specific language from one or more commenters to develop a particular comment summary. This should not be interpreted to mean that DOE considered any comment to be more or less important than other comments received relative to that comment summary; rather, DOE felt that a commenter's particular language was a reasonable articulation of many comments for a particular subject. In some cases, a commenter submitted a comment that was so unique that it was responded to individually. DOE chose not to include information from commenters that disclosed health or privacy information of others or if a commenter made threats to other individuals, companies, or agencies.

- In some instances, a comment summary and response are related to another comment summary and response. In these instances, the comment response cross references the related comment summary and response.
- Senior-level experts reviewed and revised each comment summary and response to ensure technical and scientific accuracy, clarity, and consistency and to ensure that the response addressed the summarized comments.

In this process, DOE has attempted to provide an accurate record of the comments received as well as DOE's responses to those comments. The responses indicate whether any changes were made to the EIS and the reasons for making those changes. Section 1.3 describes the organization of this CRD, and the tables provided in Chapter 1 assist readers in tracking their comments to the appropriate comment summary and response. Each commenter should readily be able to locate their comment, the comment summary in which those comments were summarized, and the response that addresses those comments.

3.2.1 DOE's Consideration of Routing Comments

During the public comment process on the Draft EIS, DOE received numerous comments, some providing new information not known at the time of the Draft EIS and some requesting re-routing of the Applicant Proposed Route. This section provides an overview of the process DOE used to evaluate these routing comments. A more detailed explanation is provided in Appendix M, Route Variations.

For each comment that specifically requested a re-routing consideration, DOE reviewed the information supplied with the comment and coordinated with Clean Line through a series of formal data requests. For each comment that provided information indicating a potential conflict between a route and resources not known at the time of the Draft EIS, DOE reviewed the comment and related data request responses from Clean Line, and determined the feasibility of developing route variations to avoid those areas (e.g., previously unknown residences or structures, environmentally or culturally sensitive areas). In each instance, any consideration of a route variation needed to remain consistent with the routing criteria used for route development. These criteria and a description of the route development process are included in Appendix G of this EIS. For each of the data requests submitted to Clean Line by DOE, Clean Line prepared responses detailing whether avoidance or re-routing was technically feasible. No more analysis was completed for those data requests where re-routing was not technically feasible.

DOE reviewed the individual public comments, evaluated the information provided by Clean Line, and conducted an independent verification of the feasible route variations. DOE also conducted an independent comparison of the potential impacts to resources under the original Applicant Proposed Route versus each feasible route variation. DOE's evaluation demonstrated that while some variations may be technically feasible, they would result in potentially more adverse effects or only a negligible overall reduction in potential environmental impacts. After completing these evaluations, DOE chose whether to carry forward the proposed changes to the Applicant Proposed Route in the Final EIS. In total, DOE analyzed 23 route variations in this Final EIS. In one case, DOE chose to carry forward both the route variation and the original corresponding segment of the Applicant Proposed Route for analysis in the Final EIS.

3.3 Organization of Comment and Response Summaries

The comment summaries and responses that follow are organized within issue codes, as shown in Chapter 1, Table 1.3-1, of this CRD. For example, issue code 1 contains comments related to policy, purpose and need, and scope of the Project. Within this issue code, specific comment summaries and responses related to topics such as clean energy policy, the need for the Project, the broad scope of analysis in EIS, and the relation of the proposed project to the national power grid may be found.

Depending upon the comments that were received on the Draft EIS, some topics within an issue code contain many comment summaries and responses. Comment summaries and responses within issue codes are not presented in any particular order of importance.

In some instances, a similar topic is addressed in multiple comment summaries and responses. This occurred due to the fact that comments were often intertwined, and the coding process captured these comments in multiple issue codes. While this resulted in some redundancy, DOE decided that redundancy was preferred to ensure comments were addressed thoroughly.

If a commenter, for example Mr. Dunk, wants to track his comments, he would go to Table 1.3-5 in Chapter 1 to find his name, and the corresponding page on which his comment document appears in Chapter 2 (page 2-239). For example, on page 2-239, Mr. Dunk would find that his scanned document has been side-barred and coded. He would find 1|34 for the first comment. Numbers to the left of the vertical line denote the comment number, in this case 1, while numbers to the right correspond to the category code. Mr. Dunk would then refer to Table 1.3-1 in Chapter 1 to interpret this "34" as "General Opposition Comments." The next comment, 2|7, would therefore be interpreted as comment 2, and "No Action Alternative." After obtaining the issue codes from the scanned document, Mr. Dunk could locate those issue codes below, in Section 3.4, and read the responses. For example, the first comment was assigned issue code 34. He would then go to issue code 34 below, in Section 3.4, and find the response to issue code 34 on page 3-473. The second comment was assigned issue code 7. He would go to issue code 7 below and find the response to issue code 7 on page 3-137. Mr. Dunk could use Table 1.3-8 in Chapter 1 to locate the page numbers on which other comments that address the same issues appear in Chapter 2.

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3.4 Comment and Response Summaries

As described in Chapter 1 and listed in Table 1.3-1 of the CRD, the comments and responses are organized by issue code in chronological order (i.e., codes 1–37).

1 Policy/Purpose and Need/Scope

The following comments were received relative to policy/purpose and need/scope:

- Several commenters believe that this project is not necessary or needed and that the EIS is therefore unnecessary. Another commenter notes that the EIS is inadequate because DOE's purpose and need does nothing to explain or describe the purpose and need of this project (EIS Section 1.1, p. 1-2). The only reference to purpose and need is that the DOE needs to decide whether and under what conditions it would participate in the Applicant Proposed Project. The EIS must explain the "need" for the project related to the DOE. One commenter quotes a news article about a recent TVA study: "The power plan also suggests that TVA has no immediate need for the 3,500-megawatt high-voltage direct-current line proposed by Clean Line Energy LLC, which wants to import Texas and Oklahoma wind power into the Tennessee Valley. The Clean Line project could be needed by 2025 or so, according to one scenario. But other power scenarios for the future suggest that TVA won't need the wind generation." Another commenter states that wind energy is not an appropriate solution.

Response:

As stated in Section 1.1 the DOE's purpose and need for agency action is to implement Section 1222 of the EPCA. To that end, DOE needs to decide whether and under what conditions it would participate in the Applicant Proposed Project. Prior to making a decision as to whether and under what conditions to participate in the Applicant Proposed Project, DOE must fully evaluate the Applicant Proposed Project. This EIS provides the evaluation of the environmental impacts of the Applicant Proposed Project. That evaluation, together with other information such as whether the Project is consistent with transmission needs as required by Section 1222, will inform DOE's decision on whether to participate in the Applicant Proposed Project.

An additional and parallel process to this EIS was used to review Clean Line's application against the criteria in Section 1222, which began when DOE made the application available for public review through a notice in the Federal Register (80 FR 23520, April 28, 2015). After considering, among other things, public input from that process, DOE will determine whether the criteria of Section 1222 have been satisfied. Based on that determination and the analysis in the EIS, DOE will either issue a ROD that indicates how and under what conditions DOE will participate in the Applicant Proposed Project or DOE will select the No Action Alternative in the EIS and not participate.

DOE assumes the commenter is referring to the TVA's Draft 2015 Integrated Resource Plan (IRP), which can be found at <http://www.tva.com/environment/reports/irp/>. While the Draft IRP does not specifically mention the Project, it does identify an HVDC option to transport wind electricity from Oklahoma in its assessment of new resource options. In the accompanying Draft Supplemental EIS for the draft IRP (<http://www.tva.com/environment/reports/irp/pdf/TVA-Draft-irp-EIS.pdf>), the HVDC option

for transporting wind energy is identified as “similar” to the proposed Clean Line Plains and Eastern HVDC Project (Chapter 5, page 149). TVA has provided Clean Line with a letter of interest, dated November 3, 2014 (<http://www.energy.gov/sites/prod/files/2015/04/f22/CleanLinePt2-Appendix-2-C.pdf>). This letter of interest is included as Appendix 2-C to Clean Line’s Section 1222 Application—Part 2, submitted January 2015 (<http://www.energy.gov/sites/prod/files/2015/04/f22/Clean%20Line%20Part%202%20Application%20-%20Final%203-6%20version.pdf>). The letter states:

TVA supports the advancement of the Plains and Eastern Clean Line as a potential option for the future needs of the region and encourages the appropriate authorities to provide the regulatory and other government review needed to move the project forward. The implementation of the project could provide TVA with the potential to directly access low-cost wind generation from the Oklahoma Panhandle region to serve its customers.

As described in depth in Clean Line’s Section 1222 Application to DOE—Parts 1 and 2 (<http://www.energy.gov/oe/services/electricity-policy-coordination-and-implementation/transmission-planning/section-1222-0>), the Project was designed to serve primarily renewable energy resources. This goal is reinforced by market conditions described in the Section 1222 Application, which also identifies interest from wind developers in the Project. For the reasons described in the Section 1222 Application, it is reasonably foreseeable that the majority of power transferred on the proposed HVDC transmission line will originate from future wind farms. Development of future wind farms in the vicinity of the HVDC transmission line route is included as a connected action and analyzed appropriately in the Final EIS as described in Section 2.5.1.

- A commenter states that 40 CFR §1502.13 provides that “the statement shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action.” The Draft EIS does not justify the need for the transmission line. There is serious question regarding the need for additional electrical power in the areas to which the proposed transmission line is run. Further, there is no discussion of the availability of electrical power currently available from electrical generation plants such as the Entegra Power Group Plant near El Dorado in southern Arkansas, which has 12 generating units with a capacity of 2,200MW and is operating at far less than capacity.

Response:

Section 1.1 provides a statement that identifies DOE’s purpose and need for agency action. The DOE’s purpose and need for agency action is to implement Section 1222 of the EPCA. To that end, DOE needs to decide whether and under what conditions it would participate in the Applicant Proposed Project. Prior to making a decision as to whether and under what conditions to participate in the Applicant Proposed Project, DOE must fully evaluate the Project. This EIS will inform DOE’s decision by analyzing the potential environmental impacts of the Project. In the Final EIS, DOE analyzes the potential environmental impacts of the Proposed Action, the range of reasonable alternatives, and a No Action Alternative. DOE’s Proposed Action is described in Section 2.1.1, and the range of reasonable alternatives, including the No Action Alternative, is described in Section 2.4.

Clean Line’s Section 1222 Application—Part 2, Section 2, submitted January 2015 (<http://www.energy.gov/sites/prod/files/2015/04/f22/Clean%20Line%20Part%202%20Application%20-%20Final%203-6%20version.pdf>), documents (1) the results of the Project’s capacity solicitation, confirming the Project is needed to accommodate the actual and projected increase in demand for interregional electric transmission capacity; (2) wind energy development in Oklahoma is driving an actual and projected increase in demand for transmission capacity to export power but faces limitations from the existing grid; (3) Mid-South and Southeast load-serving entities are increasingly seeking affordable renewable energy sources and need new transmission capacity to import low-cost wind power; and (4) the demand for the Project’s transmission capacity cannot be met by the existing grid or existing planning processes.

The need for the Project is being evaluated as part of DOE’s non-NEPA due diligence evaluation of Clean Line’s application to ensure that the Project meets the statutory criteria under Section 1222 and the other factors identified in DOE’s request for proposals.

- Commenter feels there is no indication that Southwest Power Pool or that the areas served by the Tennessee Valley Authority suffer from any congestion that the line will alleviate. Additionally, construction of this line will have to be completed in Tennessee to prevent the line from adding reliability and congestion problems. There is, therefore, no compelling and immediate need for transmission capacity from western Oklahoma to the southeastern United States.

Response:

Section 2.2 of the EIS describes the studies that have been performed and will be performed by SPP and TVA to review the potential interconnections and identify any upgrades to existing facilities or additions of new facilities to allow a reliable interconnection. TVA’s Interconnection System Impact Study has identified the following connected actions as necessary to enable the injection of 3,500MW from the Plains & Eastern Clean Line: (1) upgrades to existing infrastructure and (2) construction of a new 500kV AC transmission line, approximately 37 miles long, in western Tennessee, including necessary modifications to existing substations on the terminal ends of the new line. These are described in Section 2.5.2 of the EIS and are analyzed as connected actions throughout the EIS.

Clean Line’s Section 1222 Application—Part 2, Section 2, submitted January 2015 (<http://www.energy.gov/sites/prod/files/2015/04/f22/Clean%20Line%20Part%202%20Application%20-%20Final%203-6%20version.pdf>), documents (1) the results of the Project’s capacity solicitation, confirming the Project is needed to accommodate the actual and projected increase in demand for interregional electric transmission capacity; (2) wind energy development in Oklahoma is driving an actual and projected increase in demand for transmission capacity to export power but faces limitations from the existing grid; (3) Mid-South and Southeast load-serving entities are increasingly seeking affordable renewable energy sources and need new transmission capacity to import low-cost wind power; and (4) the demand for the Project’s transmission capacity cannot be met by the existing grid or existing planning processes.

The need for the Project is being evaluated as part of DOE's non-NEPA due diligence evaluation of Clean Line's application to ensure that the Project meets the statutory criteria under Section 1222 and the other factors identified in DOE's request for proposals.

- This is a waste of time and resources that should be used on better projects that are truly innovative and environmentally sound. In spite of the “green washing” of this project it would be more harmful to the environment than beneficial. The claims of reduced coal as a result of this line are extreme exaggerations. The negative impacts far outweigh the assumed benefit of so-called clean energy. Disturbing and destroying 720 miles of right-of-way for wind energy is like pouring a glass of water in a lake and patting yourself on the back for making the lake water cleaner.

Response:

Environmental impacts (both positive and negative) from the Project have been evaluated and disclosed for 19 different resources. Section 3.3 describes the use of a commercially available simulation model (PROMOD version 10.1) to determine a best estimate of which power sources would be displaced, including coal and natural gas, and what would be the corresponding emissions reduction. The purpose of the EIS is to disclose potential impacts of a proposed action. The Final EIS, including the input from the public, is one element that contributes to the decision by DOE whether to move forward with the proposed action.

- Commenters reject DOE's purpose and need to implement Section 1222. Commenters note that DOE declares that the “purpose and need for agency action is to implement Section 1222 of the EPAct,” which authorizes the Secretary of Energy to participate with other entities in designing, developing, constructing, operating, maintaining, or owning new electric power transmission facilities located within the Southwestern Power Administration area of operation. The commenter does not dispute that DOE must perform the action to proceed with this or any other proposed project under Section 1222; however, avers that DOE failed to first ascertain whether the Project meets and complies with the statutory language of Section 1222. In the absence of Section 1222 applicability, any consideration of the Project's environmental impacts is superfluous and unnecessary. Of particular import, Section 1222 explicitly states that “[n]othing in this section affects any requirement of ... any Federal or State law relating to the siting of energy facilities.” Commenter notes that Clean Line was denied approval from the Arkansas Public Service Commission to site, construct or operate a transmission-only facility and so has no legal authority to site a transmission line in Arkansas. Moreover, DOE has no adequate basis to participate with Clean Line in designing, developing, constructing, operating, maintaining, or owning the Project—i.e., no purpose and need for the Draft EIS.

Another commenter states that the purpose and need “to meet section 1222 of the EPAct” is a manufactured need and therefore inadequate. This project serves to meet an energy “initiative,” not to fulfill a need for electricity, and the TVA did not ask for and does not want the electricity that would potentially be provided.

Response:

Evaluating the Applicant Proposed Project against the statutory criteria identified in Section 1222 of the EAct is not the purpose of the EIS. There is an additional and parallel process to review Clean Line’s application against those criteria, which began when Clean Line’s application was made available for public review through a notice in the Federal Register (80 FR 23520, April 28, 2015). DOE will consider comments received in response to this notice, along with information included in the Final EIS, in making its determination of whether to participate in the Applicant Proposed Project.

- Commenters provide statements to support the purpose and need of the Project. The Project serves as a representative example of the new long-distance interstate electric transmission infrastructure needed throughout the U.S. The need for new transmission infrastructure is not merely one grounded in industry efficiency considerations; rather, it is grounded in benefiting and protecting the public. Without a modernized and expanded grid, the public will be increasingly susceptible to widespread power outages caused by extreme weather events, reliability failures, and congestion constraints; will be left exposed to grid-targeting cyberattacks and growing energy prices; and will be unable to realize the benefits of large-scale renewable energy integration. Accordingly, DOE must recognize that efforts to meet the country's transmission needs are synonymous with efforts to serve the public interest. Commenter suggests that DOE's participation in the Project be comprehensive to ensure that it is “done right.” DOE should meaningfully take responsibility for the Project—not its monetary liabilities, but its success and its progression, particularly as presented to the public. DOE should step beyond merely “designing” or “developing” the Project in conjunction with Clean Line and should participate by “owning” the transmission line as well as the ROW.

Response:

Comment noted. An additional and parallel process was used to review Clean Line’s application against the Section 1222 criteria as well as factors included in DOE’s 2010 Request for Proposals. This process began when DOE made the application available for public review through a notice in the Federal Register (80 FR 23520, April 28, 2015). DOE performed its Section 1222 due diligence on factors other than the potential environmental impacts, including technical feasibility and economic viability, and whether the Project is in the public interest. DOE will consider information from this due diligence review, information included in the Final EIS, and comments received in response to the Federal Register notice when making its determination of whether to participate in the Applicant Proposed Project.

- Several commenters believe that the project will help harness renewable energy and is necessary to continue the nation’s leadership in clean energy production. Commenters state that efficient and direct delivery of electricity via HVDC transmission will enhance access for utilities in population centers in the mid-south and southeastern United States that need reliable, affordable power. HVDC is the lowest cost, most reliable transmission technology with the smallest land footprint to integrate large volumes of renewable energy over long distances. Another commenter feels this transmission line is critical to continuing the nation's leadership in clean energy production. Commenter notes the transmission infrastructure in

the U.S. does not yet exist to connect the bulk of these resources, which are located predominantly in remote areas, to distant load centers. The Project helps to solve this problem by delivering wind power produced in the Oklahoma panhandle region to utilities and customers in Arkansas, Tennessee, and other markets in the mid-south and southeast—areas that lack access to low-cost, renewable power.

Response:

Comment noted.

- Several commenters note that the project may help solve transmission infrastructure problems. One commenter notes that this project will relieve the bottleneck that currently exists for moving southern Great Plains wind to the southern and southeastern United States and will allow for reduced use of fossil fuel generation in the southeastern states, in favor of low-cost, zero-carbon wind energy generation. The project will also stimulate additional wind development in Texas and Oklahoma, providing additional economic benefits to rural communities and landowners. Another commenter notes that the project is an example of how America can modernize an aging electrical system to accommodate a growing diversity of energy resources. While the U.S. has some of the best renewable resources in the world, the transmission infrastructure does not exist to connect the bulk of these resources. This project will deliver wind power produced in the Oklahoma Panhandle to utilities and customers in Arkansas, Tennessee and other markets.

Response:

Comment noted.

- Commenters note that the Sierra Club both nationally and in Arkansas has long been a proponent of transitioning away from dirty coal plants and gas-fired electricity and replacing these facilities with clean wind and solar. Commenters believe that using wind energy is far more efficient and healthier than the way we are gleaning our energy now. Clean Line Energy is working to move 4,000MW of clean wind energy from the sparsely populated plains of Oklahoma to where it is needed in the east. The project is a large direct current transmission line carrying wind energy across Oklahoma, Texas, Arkansas, and into Tennessee where it can feed into the TVA system. Commenter notes that closing coal-fired power plants would create the market for clean energy to thrive—now that prediction is coming true.

Response:

Comment noted.

- Commenters ask why is the project not constructed near population centers or transport and electricity sold to closer population centers instead of to the east coast market? Commenter feels that renewable energy makes more sense if it is generated in the general region where used. It is more secure and avoids large financial losses imposed on the landowners and public who receive little or no benefits from such a project. Another commenter states that it seems a little strange that the HVDC transmission line would bypass selling electricity to Oklahoma City, Tulsa, Wichita, as well as the Oklahoma electric companies and asks who is

buying the electricity being generated at the panhandle as we speak? Are they idle? Are they all locked up? Additionally, another commenter feels this project is likely to benefit very few. Commenter does not feel there is any logic in transporting energy from western Oklahoma to the southeast. Commenter would be able to support eminent domain in situations of demonstrated need or significant public benefit, but commenter cannot see either in this project. Commenter feels all regions involved already have affordable electricity and more local or regional options are a better solution to promote renewable energy.

Response:

Consumers and utilities in Oklahoma and Texas currently purchase wind energy generated in western and central Oklahoma from Xcel Energy and Oklahoma Gas and Electric (OG&E). The HVDC transmission line would allow the transmission of additional electricity generated by wind resources in western Oklahoma to load centers (areas of higher population) in the Mid-South and Southeast regions. The transmission needs are not limited to those at current levels but also include future needs for electricity from a growing population. The graphic of the United States presented at the scoping meetings and public hearings on the Draft EIS (<http://plainsandeasterneis.com/public-scoping-materials.html?download=22:display-boards>; page 8 of 11) illustrates that the average wind speeds in the Oklahoma Panhandle are more than twice those of Tennessee. Therefore, wind energy generation is not as available in other areas of the Mid-South or Southeast as compared to Oklahoma.

- Commenter states that Clean Line and the Department of Energy say this is clean, affordable, renewable energy. That's not true. When you read the literature, it's not clean, it's not green, it's not going to end up being affordable.

Response:

As described in depth in Clean Line's Section 1222 Application to DOE—Parts 1 and 2 (<http://www.energy.gov/oe/services/electricity-policy-coordination-and-implementation/transmission-planning/section-1222-0>), the Project was designed to serve primarily renewable energy resources. This goal is reinforced by policy and market conditions described in the Section 1222 Application. For the reasons described in the Section 1222 Application, it is reasonably foreseeable that the majority of power transferred on the proposed HVDC transmission line will originate from wind resources. Development of future wind farms in the vicinity of the HVDC transmission line route is included as a connected action and analyzed appropriately in the Final EIS.

DOE is evaluating the technical feasibility, market conditions, and financial viability of the Applicant Proposed Project in an additional and parallel process. DOE will consider information from this due diligence review and information included in the Final EIS when making its determination of whether to participate in the Applicant Proposed Project.

- Commenter states that the purpose and need stated in the EIS, which is essentially the Proposed Action, is so broad that environmental impacts cannot be scoped or reasonably

documented. The commenter also states that NEPA requires the Proposed Action to be specific enough that detailed environmental consequences can be understood.

Response:

The description of the Proposed Action (Section 2.1.1) and reasonable alternatives (Section 2.4) are sufficiently detailed to support analysis of potential impacts at discrete locations, as well as along the length of the Applicant Proposed Route and HVDC alternative routes. Potential environmental impacts are analyzed in Chapter 3 of the EIS.

- Commenter requests that DOE and Clean Line provide information about other similar projects, including pros and cons, benefits, health consequences, to allow the public to make intelligent, informed decisions.

Response:

The EIS presents the potential impacts (both positive and negative) of the Project. The information provided includes an analysis of potential health consequences and potential environmental impacts to 19 other environmental resource areas, which should be adequate to allow DOE to make an intelligent, informed decision as to whether and under what conditions it would participate in the Applicant Proposed Project and to keep the public informed about those potential impacts and allow the public to comment on actions that may significantly impact the environment. The evaluation and presentation of potential impacts or histories of analogous, or similar, projects is outside the scope of this EIS. This EIS focuses on the disclosure of potential environmental impacts of the Applicant Proposed Project.

- Why is the project being considered if it is not part of the National Interest Electric Transmission Corridor? DOE should focus on the National Interest and not on the efforts of a private company. Since the project is not in the National Interest, it makes no sense to involve TVA when the outcome of the NEPA analysis has yet to be determined.

Response:

Under Section 1222 of the EPAct, a proposed project must be either (a) located in an area designated under section 216(a) of the Federal Power Act (16 USC 824p(a)) and will reduce congestion of electric transmission interstate commerce; or (b) necessary to accommodate an actual or projected increase in demand for electric transmission capacity. Therefore a proposed project does not need to be part of a National Interest Electric Transmission Corridor designated under section 216(a) of the Federal Power Act (16 USC 824p(a)).

An additional and parallel process to this EIS was used to review Clean Line's application against the criteria in Section 1222, which began when DOE made the application available for public review through a notice in the Federal Register (80 FR 23520, April 28, 2015). After considering, among other things, public input from that process, DOE will determine whether the criteria of Section 1222 have been satisfied. Based on that determination and the analysis in the EIS, DOE will either issue a ROD that indicates how and under what conditions DOE will participate in the Applicant Proposed Project or DOE will select the No Action Alternative in the EIS and not participate.

- Commenter states that DOE's own wind studies show excellent wind resources along the Atlantic coast near the population centers where most of the electricity from the proposed lines would flow.

Response:

It is noted that excellent wind resources do exist on the Atlantic seaboard. DOE's proposed action, however, is to evaluate the Applicant Proposed Project, which would allow the transmission of additional electricity generated by wind resources in western Oklahoma (which are not currently being used to their potential) to load centers (areas of higher population) in the Mid-South and Southeast regions.

- Commenter challenges DOE to work together with the citizens of Arkansas and Oklahoma to find a way to achieve objectives that are in our national interests in a way that is truly equitable.

Response:

DOE established criteria in its Request for Proposals under Section 1222, one of which was that any project should be in the public interest. DOE is evaluating Clean Line's application in an additional and parallel process to review against those criteria. This process began with making the application available for public review by placing a notice in the Federal Register (see 80 FR23520). DOE will consider comments received in response to this notice, along with information included in the Final EIS, in making its determination of whether to participate in the Applicant Proposed Project.

Public comments have resulted in changes to the EIS. For example, as a result of comments received during the scoping period for the EIS, DOE introduced an alternative that would site an AC/DC converter station in Arkansas to allow the injection of 500MW of renewable energy into the Arkansas electrical grid. Also, numerous changes were made to the network of potential routes identified during the scoping period as a result of public comments.

- Commenter notes that recently a planned transmission line by Southwestern Electric Power Company (SWEPCO) in northern Arkansas was scrapped because "Southwest Power Pool had notified it that the project was no longer needed due to lower demand and the cancellation of several, large, long-term transmission service reservations", according to an AP article dated 12/30/14. Continuing, the commenter states that since Clean Line would be interconnecting with the Southwest Power Pool, logic would dictate that there would be no need for this transmission line either. In addition, National Grid, one of Clean Line's primary investors, recently pulled out of the Cape Wind project in part because with falling natural gas prices "the contract began to look worse day by day". If the prices for this electricity are not competitive, no utility will buy the product, making the line completely useless. Finally, it is not clear who these customers on the East Coast who so desperately need this energy, at least according to Clean Line, actually are. According to the Department of Energy's "National Electric Transmission Congestion Study" dated August 2014, in reference to the Southeast region, which Clean Line claims "needs" this service, "There are no reports of persistent transmission constraints within the region". So, where is the need? Certainly the DOE cannot prove there is a need, by their own admission. The TVA cannot prove the need

since they have already met their goals of reducing emissions and the Southwest Power Pool is cancelling projects due to reduced demand for services. It seems as if the “need” for this project is merely a figment of Clean Line executives' imaginations. My greatest fear is that this devastation will be wreaked on Arkansas, the line will be built and no electricity will be transmitted because there is not then, nor was there ever any “need” for the line to be built. Clean Line’s “need” is greed, pure and simple.

Response:

DOE recognizes that, under Section 1222 of the EPAct, a proposed project must be either (a) located in an area designated under section 216(a) of the Federal Power Act (16 USC 824p(a)) and will reduce congestion of electric transmission interstate commerce; or (b) necessary to accommodate an actual or projected increase in demand for electric transmission capacity. DOE is evaluating whether the Applicant Proposed Project is needed to accommodate an actual or projected increase in demand for electric transmission capacity in an additional and parallel process to the NEPA process. This parallel process also includes the evaluation of the technical feasibility and economic viability of the Project by independent contractors hired by DOE. These evaluations, coupled with the environmental review of the Project in the Final EIS, provide DOE with the information necessary to make a decision.

Clean Line has signed term sheets for Precedent Agreements with five transmission service customers. These agreements are commitments to purchase power once certain conditions are met. The agreements are included in Clean Line’s application and will be considered in DOE’s evaluation of the Project under Section 1222.

- Commenter has spoken to several representatives of Clean Line and DOE about how the proposed route was determined but no one can provide that information, nor can they explain why the project is being pursued without any request or demand for the end product (wind-powered electricity). To commenter’s knowledge there are no signed contracts, nor any wind farms completed.

Response:

The details associated with the process of route development are presented in Appendix G of the EIS. DOE is evaluating the technical viability of Clean Line’s Applicant Proposed Project in an additional and parallel process, which began when DOE made the application available for public review through a notice in the Federal Register (80 FR 23520, April 28, 2015). Clean Line has signed term sheets for Precedent Agreements with five transmission service customers. These agreements are commitments to purchase power once certain conditions are met. The agreements are included in Clean Line’s application and will be considered in DOE’s evaluation of the Project under Section 1222. Clean Line’s Wind Generation Technical Report (Clean Line 2014) indicates that there are wind energy resources and interest available to develop more than four times the capacity of the proposed HVDC transmission line. These wind facilities would not be developed (by parties other than Clean Line or DOE) until DOE makes a decision to participate.

- The project is apparently not necessary to supply the power grid of the eastern United States, yet heroic measures are proposed to install the high voltage line/towers, and adverse impacts to Oklahoma and Arkansas from construction and operation of the high voltage line/towers will be experienced for decades and perhaps generations, according to the Draft EIS. This project can be considered analogous to removal of a healthy appendix now because the patient may be at risk for appendicitis in the future. It is counterintuitive to risk the known complications of surgery because of possibilities about the future. Likewise, unless it is known that the southeastern United States does need this energy, there is little point in shipping it across two states if it can be used closer to where it was generated (e.g., Oklahoma, Texas, New Mexico, Colorado, Kansas). Will the wind farm produce more energy than can be effectively used locally?

Response:

DOE recognizes that, under Section 1222 of the EPAct, a proposed project must be either (a) located in an area designated under section 216(a) of the Federal Power Act (16 USC 824p(a)) and will reduce congestion of electric transmission interstate commerce; or (b) necessary to accommodate an actual or projected increase in demand for electric transmission capacity. DOE is evaluating whether the Applicant Proposed Project is needed to accommodate an actual or projected increase in demand for electric transmission capacity in an additional and parallel process to the NEPA process. Clean Line has signed term sheets for Precedent Agreements with five transmission service customers. These agreements are commitments to purchase power once certain conditions are met. The agreements are included in Clean Line's application and will be considered in DOE's evaluation of the Project under Section 1222.

Consumers and utilities currently purchase wind energy generated in western and central Oklahoma. The HVDC transmission line would allow the tremendous additional wind resources in western Oklahoma (which are not currently being used to their potential) to generate electricity and transmit it to load centers (areas of higher population) in the Mid-South and Southeast regions. Neither DOE nor Clean Line are proposing to build wind farms; however, Clean Line's Wind Generation Technical Report (Clean Line 2014) indicates wind energy resources and interest that are available to develop more than four times the capacity of the proposed HVDC transmission line. These wind facilities would not be developed (by parties other than Clean Line or DOE) until a decision has been made by DOE to participate.

- Commenter asks about two existing transmission lines already in place in Oklahoma. One is owned by Xcel Energy and the other, the commenter believes, by OEG. How many transmission lines will be necessary to build here and continually disturb the environment and us, the landowners here? Simply to satisfy the needs of the eastern states' electrical needs?

Response:

Existing transmission lines that have been built by Xcel Energy/Southwestern Public Service Company and OG&E in western Oklahoma serve customers in each of these utilities' service territories. Linear corridors along existing transmission lines often provide opportunities for

routing new transmission lines. Clean Line used this existing linear infrastructure when developing the Applicant Proposed Route and HVDC alternative routes for the Project to minimize additional environmental disturbance. The criteria for routing the HVDC transmission line are documented in the DOE Alternatives Development Report (Appendix G of the Final EIS). In addition, present and reasonably foreseeable actions, including existing and planned transmission lines, were analyzed in the cumulative effects section (Chapter 4, Table 4.2-1a).

2 NEPA Process

The following comments were received relative to the NEPA process:

- DOE's analysis undertaken pursuant to NEPA must take into account potential adverse impacts on natural gas exploration, production, and gathering, including critically important safety issues and the socio-economic benefits that accrue from development of the Fayetteville Shale in Arkansas. As it stands, the Draft EIS does not adequately identify and address these issues. Such an analysis also will be central to DOE's public interest review, as DOE must weigh whether locating the proposed Plains and Eastern Project in the heart of the Fayetteville Shale can be justified given the likely adverse economic impacts to the state of Arkansas, local economies, and businesses such as SWN that have propelled economic development and job creation in this region.

Response:

As described in Section 3.6.1.6.1.1.2, Project infrastructure would avoid impacts to active mineral resources and would not preclude development of underground mineral resources in most cases. Section 3.4.11.2.1.2.2.10 has been added to discuss potential safety issues related to grounding and stray voltage. This section includes a description of potential impacts of the Project on oil and gas infrastructure.

As described in EIS Section 3.6.1.5.1.2, the Applicant has developed and committed to implementing a list of EPMs, including numerous measures that would minimize the potential for adverse impacts to mineral resources, including natural gas resources and natural gas operations. Specifically, EPMs GE-19, GE-29, LU-1, and LU-4 will be in place. GE-19 relates to grounding of conductive objects within the ROW to reduce the potential for induced voltage and currents on these objects. These other measures state that the Applicant will work with landowners and operators of active oil and gas wells, utilities, and other infrastructure to identify and verify the location of facilities and to minimize adverse impacts (GE-29); the Project will be designed to avoid crossing existing operations (such as the well pads of any active oil and gas wells or impeding access to these resources (LU-1)); and that the Applicant will work with landowners and operators to ensure that access is maintained as needed to existing operations (e.g., to oil/gas wells, private land, agricultural areas, pasture, hunting leases) (LU-4). Micrositing of the transmission line and structures can be employed when necessary to allow adequate access to existing infrastructure, so DOE does not anticipate that the transmission line will impede access to these resources. A complete list of EPMs that would be followed by the Applicant is presented in Appendix F of the EIS.

- Commenter recommends that DOE review this Section against each of the resource sections in Chapter 3 and the Summary as part of preparing the Final EIS to ensure internal consistency.

Commenter reviewed Section 2.6 and its summary tables; Attachment 1 provides additional comments and proposed revisions to the text in Tables 2.6-1, 2.6-2 and 2.6-3. In general, we encourage DOE to include the defined temporal components of the impacts (as defined at p 2-43, ln 1-9) in Section 2.6 and its tables. For example, the DOE should include more

references to which impacts are temporary, short-term, long-term, or permanent to more accurately connect the anticipated impacts with their anticipated time frames.

Response:

DOE has made the changes to Tables 2.6-1, 2.6-2, and 2.6-3 in the Final EIS to include the defined temporal components of the impacts where appropriate.

- Further, in reviewing Tables 2.6-1 through 2.6-3, we noted differences in the level of detail regarding the comparison of alternatives. For some resources and Project components, the Tables include a more extensive comparison (see e.g., discussion of recreation impacts, p. 2-66 - 2-67; discussion of wetlands, floodplains, and riparian areas, p. 2-71), while for other resource areas, the Tables contain more limited comparison (see, e.g., discussion of agricultural impacts, p. 2-64). We recommend that as part of preparing the Final EIS, DOE adopt one consistent approach within these Tables. Further, we encourage DOE to include a comparison of the potential impacts of the Project with and without the Arkansas converter station. (See e.g., Section 2.6, p. 2-45 - 2.58, Table 2.6-1, discussion of the Arkansas converter station).

Response:

In Tables 2.6-1 through 2.6-3 in the Final EIS, DOE uses a consistent approach for presenting potential impacts, including potential impacts that are minor, such as to agricultural resources. The EIS uses the sliding scale approach to documentation. Where there is greater potential for significant environmental impacts from the Proposed Action, the EIS will identify and analyze these potential impacts more thoroughly than other potentially less significant impacts. In other words, where the anticipated impacts of a Proposed Action fall on the sliding scale will affect the depth of the impacts analysis documentation.

DOE has included a comparison of the potential impacts of the Project with and without the Arkansas converter station in the Final EIS in Section 2.6, Table 2.6-1.

- Section 2.9.1 of the Draft EIS defines the terms "irretrievable commitment of resources" and "an irreversible commitment of resources." Section 2.9.1, p. 2-78, ln 9-12. In contrast, the CEQ and DOE NEPA implementing regulations use the singular phrase an "irreversible and irretrievable commitment of resources." We urge DOE to clarify and consistently apply the concept of an "irreversible and irretrievable commitment of resources" within the Final EIS.

Response:

DOE revised the Final EIS to provide a definition and example of what is meant by both terms; "irretrievable commitment of resources" and "an irreversible commitment of resources." DOE consistently applied the concept of irreversible and irretrievable commitment of resources within the Final EIS.

- An irreversible and irretrievable commitment of resources occurs where a resource, once used, consumed, destroyed or degraded during construction, operation, or decommissioning of a project is no longer available for use by future generations. An appropriate example of

an "irreversible and irretrievable commitment of resources" would be the granting of a permit for the drilling or mining of oil, gas, and coal on federal lands. Once the authorized activity commences, the mining or oil/gas extraction will result in a permanent removal of those resources-i.e., an irreversible and irretrievable commitment. However, long-term use of a property is not, alone, an irreversible and irretrievable commitment of resources. In particular, there are many long-term activities which have reversible impacts and therefore do not irretrievably affect the resource in question. The Draft EIS, however, sometimes assumes that long-term impacts constitute an irreversible and irretrievable commitment of resources. See Attachment 1 for examples of improper or inconsistent use of "irreversible and irretrievable commitment of resources" in the Draft EIS.

Response:

DOE clarified and consistently applied the concept of an "irreversible and irretrievable commitment of resources" within the Final EIS.

- The Draft EIS appropriately defines the time frames in which various potential impacts may occur, as well as the different durations over which the Project may impact the resource areas. See Section 2.6, p. 2-43, ln 3-9; Section 2.10.1, p. 2-81, ln 34-37. In some instances, however, the defined temporal terms (i.e., temporary, short-term, long-term and permanent) are applied inconsistently with the definitions. For example, commenter identified a number of instances within the Draft EIS where the term "permanent" is used to refer to an impact that would occur for the length of the Project. As noted in Section 2.6, impacts that continue for the life of the Project would be long term, and not necessarily permanent (unless the underlying land is not restored following decommissioning). As part of finalizing the EIS, we encourage the DOE to review its temporal terms to ensure consistent application throughout the Final EIS.

Response:

DOE reviewed its use of temporal terms and characterization of impacts in the Final EIS to ensure consistent application.

- Commenter feels the Draft EIS did not result from a sufficiently inclusive process. Commenter notes that the lack of adequate process is particularly troubling given the actual state of power generation in the Oklahoma and Texas panhandles.

Response:

DOE has prepared this EIS pursuant to NEPA (42USC § 4321; NEPA), the CEQ NEPA regulations (40 CFR Parts 1500–1508), and the DOE NEPA implementing regulations (10 CFR Part 1021).

In particular, DOE has conducted public scoping in accordance with 40 CFR Part 1501.07, in accordance with public commenting as described in 40 CFR Part 1503 and in accordance with Public Involvement as described in 40 CFR Part 1506.6.

Public scoping is described in Section 1.5.2 of the Final EIS.

Public involvement approaches and notifications are described in the public scoping summary report that is included in Appendix E. The public scoping period for the Project began when DOE published the NOI on December 21, 2012. The public scoping period continued for 90 days through March 21, 2013. DOE held 13 public scoping meetings in communities along the Applicant Proposed Route and HVDC alternative routes and 5 interagency meetings during the scoping period.

Public involvement approaches and notifications regarding public review of the Draft EIS are described in Chapter 1 of the CRD. The public comment period on the Draft EIS began when DOE published the Notice of Availability on December 19, 2014. The public comment period continued for 120 days through April 20, 2015. DOE held 15 public hearings to collect public comments in communities along the Applicant Proposed Route and HVDC alternative routes and 3 interagency meetings during the comment period.

- Commenters state that in order to prepare the EIS there need to be “boots on the ground.” One commenter questions how an EIS on her property was prepared when no one was allowed to come onto her property.

Response:

DOE prepared the EIS using the best available public data. A Reference CD has been provided for the reader to ensure easy access to certain reference documents used to develop this EIS. Included on the CD are the resource-specific technical reports developed by Clean Line to describe existing environmental conditions in the ROI. Field work has been conducted for threatened and endangered species in suitable habitat where landowners have allowed access on their properties. Cultural resource fieldwork, to identify historic and cultural properties is taking place in 2015. Other fieldwork, such as wetland delineations, would occur prior to construction and would be conducted according to specific agency requirements. DOE and the third-party contractor independently verified the data in the resource-specific technical reports developed by Clean Line, and conducted additional analysis of the best available public data. The methodology and data used for each resource is specifically described in each resource chapter. In addition, the Reference CD includes PDF files of reference works consulted during the development of this EIS that are not available on the internet and not protected by copyright laws.

- Commenter is concerned that in the last few weeks, stakeholders have been approached by Clean Line agents attempting to purchase easements. These agents are stating that this project is a "done deal". Commenter questions if this an indication that the DOE is not taking any public input into account? Are we to believe that no matter what feedback the DOE receives, the decision was made prior to the process being completed? According to the DOE, no decision to participate will be made until after all comments are reviewed. Since there have been thousands of comments in opposition to this project, we can only hope that the fix was not in the first time Mr. Glotfelty picked up the phone and called his buddies and former co-workers at the DOE and asked for their help in forcing this project on the people of Arkansas.

Response:

The Applicant may attempt to purchase easements for the Project at its own risk and with no guarantee that DOE will participate in the Project.

Prior to making a decision as to whether and under what conditions to participate in Clean Line's proposed Plains & Eastern Project (the Applicant Proposed Project), DOE will fully evaluate the Project. This EIS will inform DOE's decision by analyzing the potential environmental impacts of the Project. DOE's decision will be announced in the ROD.

- Commenter believes that the EIS is based on faulty assumptions, undefinable terms (what is a major impact?). It should not have been published in the form it is in; it should be published with accurate "boots on the ground" for all properties.

Response:

DOE prepared the EIS using the best available public data. A Reference CD has been provided for the reader to ensure easy access to certain reference documents used to develop this EIS. Included on the CD are the resource-specific technical reports developed by Clean Line to describe existing environmental conditions in the ROI. DOE and the third-party contractor independently verified the data in the resource-specific technical reports developed by Clean Line, and conducted additional analysis of the best available public data. The methodology and data used for each resource is specifically described in each resource chapter. In addition, the Reference CD includes PDF files of reference works that were reviewed during the development of this EIS but that are not available on the internet and not protected by copyright laws. Definitions and a description of how impacts are analyzed are included in Section 3.4.11.2.

- Commenter believes the environmental assumptions in the EIS are minimized or dismissed.

Response:

DOE uses a sliding scale approach to determine the level of detail to present in documentation as encouraged in the CEQ NEPA regulations (40 CFR 1502.15): "Data and analyses in a statement shall be commensurate with the importance of the impact, with less important material summarized, consolidated, or simply referenced." The EIS analyzes in greater detail the environmental impacts that have greater potential for significance.

- Commenter feels the public is not equipped to respond to the legal and technical ramifications of the Clean Line project. Furthermore, there is some concern that DOE may not be a completely independent body in this case. Therefore, the DOE should create a completely independent legal and technical team to review and report on concerns raised by the public and landowners affected. Hopefully, this would provide some guard against advancement of the agendas of profits and politics the expense of concerned landowners and public.

Response:

As lead agency, DOE retains overall responsibility for the NEPA process including the Draft EIS and Final EIS and DOE's ROD, if any. DOE's responsibilities include determining the

purpose and need for DOE's agency action, identifying for analysis the range of reasonable alternatives to its Proposed Action, identifying potential environmental impacts of the Proposed Action and reasonable alternatives, identifying its preferred alternative, and determining appropriate mitigation measures. DOE conducted a review and independent verification of the data in the resource-specific technical reports developed by Clean Line and conducted additional analysis based on best available public data.

- Commenter states that, in one portion of the Draft EIS Summary, DOE says that they will participate; however, in another section it says that DOE hasn't decided. This appears that DOE has made a decision prior to seeing all the comments. This flaws the entire decision process and the project needs to be thrown out or started again.

Response:

DOE has prepared this EIS pursuant to NEPA (42USC § 4321; NEPA), the CEQ NEPA regulations (40 CFR Parts 1500–1508), and the DOE NEPA implementing regulations (10 CFR Part 1021). Prior to making a decision as to whether and under what conditions to participate in Clean Line's proposed Plains & Eastern Project (the Applicant Proposed Project), DOE will fully evaluate the Project. This EIS will inform DOE's decision by analyzing the potential environmental impacts of the Project. DOE's decision will be announced in the ROD.

- Commenter states that in addition to an ombudsman, the developer should be required to fund, through the DOE, an ad litem attorney or representative to act on behalf of the people. This independent individual would be included in planning meetings between the developer and the Department of Energy to ensure that no unintentional collusion or even the appearance of such collusion takes place. This person should be provided with opportunities and resources to review, request amendments to, and contradict aspects of the 1222 application that seem to unduly benefit only the position of the developer. Such a representative would provide balance in the process and assist the DOE in maintaining a neutral position based on unbiased information. To prevent public policy from being developed for an individual's ten-year plan, and to protect the DOE's image at large, former employees of the Department of Energy should be prohibited from availing themselves of Section 1222. The DOE should develop a truly neutral, third-party process to ensure that studies and papers obtained by the developer for Environmental Impact Statements are not biased in the developer's favor. Employees of the developer offering expertise for the EIS should be subjected to questioning by the ad litem attorney, or corroborating/contrasting testimony sought. The developer and the DOE are the ones who initiated this process, not the people of Oklahoma, Arkansas, or Tennessee.

Response:

DOE and the NEPA contractor have prepared the EIS pursuant to NEPA, CEQ NEPA regulations, and the DOE NEPA implementing regulations (10 CFR Part 1021). These regulations require that the NEPA contractor not have a financial or other interest in the outcome of the Project. All contractors involved have signed Organizational Conflict of Interest disclosure forms, which were included in the Draft EIS and Administrative Record. DOE is required under NEPA to perform their environmental analysis without bias. In 10

CFR 1021.215, DOE's regulations state that, under an Applicant process, "DOE shall independently evaluate and verify the accuracy of information received from an applicant."

Evaluating the Applicant Proposed Project against the statutory criteria identified in Section 1222 of the EAct is not the purpose of the Plains & Eastern EIS. A separate and parallel process was used to review Clean Line's application against those criteria, which began with making the application available for public review (See 80FR23520). DOE will consider comments received in response to this notice, along with information included in the Final Plains & Eastern EIS, in making its determination of whether to participate in the Applicant Proposed Project.

- Commenter wants to know why the references in the EIS are so outdated, specifically health information, property value references from the 1990's and cattle fertility studies from the 1970's. In addition, why were school administrators not informed about the project until recently when they were informed by locals? They did not participate in the scoping process because they were not aware that the project existed.

Response:

DOE prepared the EIS using the best available public data. In the case of health, property value, and cattle fertility information, reports from past decades represent the forefront of scientific consensus on subjects and no additional newer conclusions have been made in the field.

DOE has conducted public scoping in accordance with 40 CFR Part 1501.07, in accordance with public commenting as described in 40 CFR Part 1503 and in accordance with Public Involvement as described in 40 CFR Part 1506.6.

Public scoping is described in Section 1.5.2 of the Final EIS. The public scoping period for the Project began when DOE published the NOI on December 21, 2012. The public scoping period continued for 90 days through March 21, 2013. DOE held 13 public scoping meetings in communities along the Applicant Proposed Route and HVDC alternative routes and 5 interagency meetings during the scoping period. Notifications and attempts to involve the public are documented in the public scoping report that is included in Appendix D.

- Several commenters expressed concern over the errors made during the scoping period. Several landowners were not notified of the scoping process and some landowners are just being notified. Commenter states that the cities of Alma and Mulberry and Uniontown and Figure Five were never notified of the scoping process while the route cuts through the hearts of these cities. DOE failed to notify the public. Another commenter believes that scoping process should be started again with more diligent exploration of additional alternatives. Commenters do not believe the NEPA process was adequately implemented as required by law.

Response:

DOE has prepared this EIS pursuant to NEPA (42USC § 4321; NEPA), the CEQ NEPA regulations (40 CFR Parts 1500–1508), and the DOE NEPA implementing regulations (10 CFR Part 1021).

DOE has conducted public scoping in accordance with 40 CFR Part 1501.07, in accordance with public commenting as described in 40 CFR Part 1503 and in accordance with Public Involvement as described in 40 CFR Part 1506.6. Public scoping is described in Section 1.5.2 of the Final EIS. This information includes a description of the notification process for communities and landowners.

The public scoping period for the Project began when DOE published the NOI on December 21, 2012. The public scoping period continued for 90 days through March 21, 2013. DOE held 13 public scoping meetings in communities along the Applicant Proposed Route and HVDC alternative routes and 5 interagency meetings during the scoping period. Notifications and attempts to involve the public are documented in the public scoping report that is included in Appendix D.

The public comment period on the Draft EIS began when DOE published the Notice of Availability on December 19, 2014. The public comment period continued for 120 days through April 20, 2015. DOE held 15 public hearings to collect public comments in communities along the Applicant Proposed Route and HVDC alternative routes and 3 interagency meetings during the comment period. Documentation of this process, including public notification, is included in Chapter 1 of the CRD.

- The EIS locates the churches, cemeteries, and houses but fails to locate all Alma and Mulberry Schools. This line will be approx. 2600 ft. from Alma Schools and 1300ft from Mulberry Schools. I feel this was very careless and shows the lack of importance your process has placed on the children of our community. The maps do however locate schools in other areas but not on the purposed route is this a matter of convenience to not draw attention to how closely these line are to these schools?

Response:

Comment noted. DOE has evaluated and updated its dataset for schools in the Final EIS. Churches, cemeteries, houses and schools are shown within the ROI (1,000-foot-wide corridor). Schools outside this ROI do not appear on the maps in the Final EIS. A discussion of churches, cemeteries, houses, and schools within the ROI is included in Section 3.10 Land Use.

- Commenter does not think much of the process has been in the best interest of the people.

Response:

DOE has prepared this EIS pursuant to NEPA (42USC § 4321; NEPA), the CEQ NEPA regulations (40 CFR Parts 1500–1508), and the DOE NEPA implementing regulations (10 CFR Part 1021).

DOE has conducted public scoping in accordance with 40 CFR Part 1501.07, in accordance with public commenting as described in 40 CFR Part 1503 and in accordance with Public Involvement as described in 40 CFR Part 1506.6. Public scoping is described in Section 1.5.2 of the Final EIS.

The public scoping period for the Project began when DOE published the NOI on December 21, 2012. The public scoping period continued for 90 days through March 21, 2013. DOE held 13 public scoping meetings in communities along the Applicant Proposed Route and HVDC alternative routes and 5 interagency meetings during the scoping period. Notifications and attempts to involve the public are documented in the public scoping report that is included in Appendix D.

The public comment period on the Draft EIS began when DOE published the Notice of Availability on December 19, 2014. The public comment period continued for 120 days through April 20, 2015. DOE held 15 public hearings to collect public comments in communities along the Applicant Proposed Route and HVDC alternative routes and 3 agency meetings during the comment period. Documentation of this process, including public notification, is included in Chapter 1 of the CRD.

- Commenter feels the Draft EIS substantially lacks details that would allow it to adequately meet the requirements of the NEPA process.

Response:

DOE has prepared this EIS pursuant to NEPA (42USC § 4321; NEPA), the CEQ NEPA regulations (40 CFR Parts 1500–1508), and the DOE NEPA implementing regulations (10 CFR Part 1021).

- Commenter states that comments were submitted during the scoping period and his concerns were not addressed in the EIS that he received.

Response:

The public scoping period for the Project began when DOE published the NOI on December 21, 2012. The public scoping period continued for 90 days through March 21, 2013. DOE held 13 public scoping meetings in communities along the Applicant Proposed Route and HVDC alternative routes and 5 interagency meetings during the scoping period.

DOE received 664 scoping comment documents, many of which included multiple scoping comments. DOE reviewed and considered all scoping comments received during the scoping period to help determine the issues and impacts to be addressed in the Draft EIS and prepared a Scoping Summary Report (Appendix E). Additionally, this CRD includes comments received after the scoping period ended and before the Draft EIS was issued for public review and comment.

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2A General NEPA Process and Compliance

The following comments were received relative to the general NEPA process and compliance:

- Commenter notes that the EPA has rated the Draft EIS as LO "Lack of Objections." The EPA feels that the Department of Energy (DOE) has done a thorough assessment and has been inclusive and transparent in accordance to the regulations.

Response:

Comment noted.

- Commenter expresses appreciation for the extensive review process, the dedication for those involved to thoroughly examine the impact of the process and project, and the opportunity for the public to comment on the proposed project.

Response:

Comment noted.

- Commenter said the Draft EIS does not adequately demonstrate that all significant background documents, including the technical support documents and environmental review documents prepared and/or supplied by the applicant, were independently evaluated and verified. The Council on Environmental Quality regulations implementing the statutory intent of the National Environmental Policy Act, 42 USC §§ 4321 et seq., require that environmental information provided by the applicant and used by the agency in the preparation of the environmental impact statement must be "independently evaluate[d]" such that the agency becomes "responsible for its accuracy." In this case, there is no indication that DOE independently evaluated and verified the information from multiple, significant background documents. The commenter provided an example of there being no documentation that the Arkansas Delta Agricultural Economic Impact Study, which was (i) prepared for Clean Line by an independent contractor, (ii) cited by the DOE throughout the agricultural resources section, and (iii) included as an appendix to the Draft EIS, was ever independently evaluated by DOE. The Commenter stated that this is particularly concerning because the study states that "Clean Line is providing th[e] study to [DOE] for their use in preparing the [Draft EIS]." Also, the document was only completed at the end of August 2014, just three short months before publication of the Draft EIS. The Commenter states that the comment is not intended to impugn the integrity or sufficiency of the underlying reports and information, but the public review process demands that DOE independently verify the adequacy of applicant-provided information and, where appropriate, to document the parties responsible for the information. The Commenter stated that the failure to provide verification undermines the public process and raises questions regarding the basis of DOE's review and analysis. Commenter believes these processes are particularly pertinent when, as here, the federal agency is evaluating not only the merits of an applicant's project but also federal participation in the project, which may include the exercise of the United States' power of eminent domain.

Response:

DOE prepared the Draft EIS using the best available public data and a Reference CD was provided to the reader to ensure easy access to certain reference documents used to develop the Draft EIS. Included on the CD are the resource-specific technical reports developed by the Applicant to document existing environmental conditions in the ROI. DOE independently verified the data in the resource-specific technical reports developed by the Applicant, including the Arkansas Delta Agricultural Economic Impact Study (Study), and conducted additional analysis for each resource section in Chapter 3 based on the best available public data. The methodology and data used for each resource is specifically described in each resource chapter. Section 3.2.6.1 of the Final EIS has been revised to state that DOE conducted an independent review of this Study. The Applicant provided DOE with a draft Study in July 2014. DOE reviewed the draft and requested additional information. The Applicant submitted a final Study in August 2014, which DOE independently reviewed.

- The data quality issue created by the absence of independent verification is exacerbated by DOE's failure to include the independent contractor on the list of preparers—another requirement of the federal regulations.

Response:

The Applicant Study was included as Appendix J of the Draft EIS and includes information about who prepared the Study. In addition, the Applicant Study is cited in Chapter 6, References. Because DOE and DOE's third-party contractor evaluated the Study and prepared the related chapters of the EIS, they are included in the list of preparers in Chapter 5 of the Draft EIS. The Applicant's contractor did not prepare the EIS chapters related to the Study.

- Commenter requests that DOE, in preparing the Final EIS, review the narrative section of the Summary against the corresponding text in Chapters 1 through 3 to ensure that the Final EIS is internally consistent throughout. In the commenter's review, there were several instances where the findings and conclusions varied between the Summary, the summary sections of Chapter 2 (2.6 through 2.13), and the resource sections in Chapter 3 (3.2-3.20). The commenter noted that the Summary inadvertently mischaracterized the impacts when trying to restate them. As DOE notes, the NEPA implementing regulations issued by the Council on Environmental Quality (CEQ) provide that the EIS must include a summary that adequately and accurately summarizes the EIS, including identification of "major conclusions," areas of controversy, and issues to be resolved. (40 CFR § 1502.12.) Accordingly, the summary set forth in S.7 includes a discussion of "major conclusions" and "issues to be resolved." However, for areas of controversy, the Draft EIS refers to the summary of public participation set forth in S.4.2, which does not clearly identify areas of controversy. In the Final EIS, the commenter encourages DOE to include a specific discussion of areas of controversy relating to the analysis of environmental impacts of the Project (e.g., disagreement regarding assumptions or factors relevant to the analysis of impacts) in its summary of the EIS consistent with the requirements of 40 CFR § 1502.12. An additional clarification is warranted regarding the discussion in S.7.1. In summarizing the evaluation of impacts, the Draft EIS appropriately summarizes the overall analysis of potential direct, indirect and cumulative impacts within the Draft EIS. In discussing the "relative importance"

of identified impacts, however, the Summary includes a statement that the Draft EIS did not identify "widespread major impacts" as a result of construction or operations of the Project.

Response:

DOE has performed crosschecks of the Final EIS to ensure internal consistency between the Summary, Chapter 1, the summary sections of Chapter 2 (2.6–2.13), and the resource sections in Chapter 3 (3.2–3.20). DOE also included in the Final EIS a specific discussion of areas of controversy relating to the analysis of environmental impacts of the Project, rather than simply referring to Section S.4.2 (as done in the Draft EIS). The statement “widespread major impacts” has been revised in S.7.1; “major” was not a category used in the evaluation of impacts and has been removed from this statement.

- Commenter raises concern that proper environmental analysis has not been done to site the wind farms. This process is flawed if the exact location of the wind farms isn't known, because the impacts cannot be properly analyzed. Commenter further states that this process is flawed because the delivery through this transmission line hinges on NEPA through TVA. There is no guarantee that such a request would be approved after completion of the NEPA review.

Response:

The construction, operation, and maintenance of reasonably foreseeable wind energy facilities are evaluated as connected actions in the Draft EIS. Wind farms will not be developed by the Applicant or DOE. The analysis is a representation of a best estimate of what may occur as a connected action. More information regarding the connected actions analysis is included in Section 2.5.1.

- Commenter would like to know if the summary of impacts and major conclusions (from the public hearing presentation) is the criteria that will be used to determine whether the project goes through or not. The concerns presented by the public include socioeconomic impact, adverse impact on natural beauty, personal safety, health concerns, leukemia, heart defibrillation, visual pollution, auditory pollution. If the criteria for decision are the short and long term effects listed in the presentation, the Commenter feels that the concerns of the public are not being addressed.

Response:

The public hearing presentation summarized some of the potential impacts that were discussed in the Draft EIS. These criteria presented at the public hearing are only part of the information that DOE will use to determine whether to participate in the Project. The presentation did not include all of the resource areas, which are more fully discussed in the Final EIS. Impacts to each resource are discussed in Sections 3.2–3.20 of the Final EIS. In making the decision as to whether and under what conditions to participate in the Applicant Proposed Project, DOE will consider, among other factors listed in Section 1.1 of the Final EIS, whether the Project would be in the public interest and the benefits and impacts of the Project in each state it traverses, including economic and environmental factors. This EIS will inform DOE's decision by analyzing the potential environmental impacts of the Project. A separate and parallel process was used to review Clean Line's application against the

statutory criteria identified in Section 1222 of the EAct, which began when DOE made the application available for public review through a notice in the Federal Register (see 80 FR 23520). DOE will consider comments received in response to this notice, along with information included in the Final EIS, in making its determination of whether to participate in the Applicant Proposed Project.

- Commenter states that a friend just received a copy of the EIS that he requested 2 months ago 2 days before the end of the comment period. How is the public expected to make informed comments when he just received the EIS?

Response:

Due to overwhelming requests for hard copies of the EIS, hard copies were backordered, and the public comment period associated with the public hearings was extended to 120 days. This extension was based on requests from the public, and gave commenters 30 extra days to receive and review the Draft EIS. The total comment period associated with the public hearings ran for 120 days between December 19, 2014, and April 20, 2015. In addition, the Draft EIS was available online at <http://www.plainsandeasterneis.com> and <http://energy.gov/nepa/eis-0486-plains-eastern-clean-line-transmission-project>. The Draft EIS was also sent (either hard copy or on CD) to 25 libraries throughout Regions I–VII of the Project. In response to this comment, DOE analyzed the tracking information related to EIS requests. The longest period between DOE’s receipt of a request for a hardcopy and DOE’s receipt of confirmation that the hardcopy EIS was delivered was 27 days. (An EIS requested on February 4, 2015, was confirmed delivered on March 3, 2015.) DOE confirmed that a total of five EIS hardcopies were delivered in April 2015. DOE received the requests for each of these five EIS hardcopies between March 26 and April 3; all were confirmed delivered by April 14.

- Commenters believe that the spirit of the NEPA process was not met because stakeholders were kept uninformed about the project for so long. Public scoping meetings were not adequately advertised and the public was not given 15 days’ notice for several meetings. Also, the postcard mailings announcing the scoping period and meeting were not sent to every landowner. It is very possible that thousands of landowners never received the mailing.

Response:

The chronology during which DOE learned about the Project and informed the public is documented in Chapter 1 of the EIS. In June 2010, DOE issued a Request for Proposals for New or Upgraded Transmission Line Projects under Section 1222 of EAct. In response to the DOE Request for Proposals, the Applicant prepared a proposal which they submitted in July 2010 and updated in August 2011. In 2012, DOE concluded that the Applicant’s modified proposal complied with and was responsive to DOE’s Request for Proposals and on December 21, 2012, DOE issued the NOI to prepare an EIS.

DOE has met and exceeded its requirements under applicable regulations, which are summarized below. DOE has conducted public scoping in accordance with 40 CFR Part 1501.07, in accordance with public commenting as described in 40 CFR Part 1503 and in accordance with Public Involvement as described in 40 CFR Part 1506.6. NEPA regulations

(40 CFR 1501.7) require scoping to determine the scope of the issues to be addressed in the environmental review and to identify significant issues. According to NEPA, scoping should occur early on in the environmental review process and should involve the participation of the affected parties.

The public scoping invitation was direct mailed to agencies and included landowners within the network of potential routes. The list of agencies and tribes and a description of the direct mail postcard mailing list is included as Section 2 of Appendix E of the Final EIS. DOE notified the public about the scoping comment period through the NOI, media announcements, direct mail postcards, and information posted to the Project website. DOE provided four methods for the public to submit comments during the scoping period and collected approximately 664 scoping documents. DOE reviewed each scoping comment document and identified individual comments within each document. DOE categorized each comment by topic and entered the comment in the comment management system database. Comment summaries, including out-of-scope comments are summaries included in Section 4 of Appendix E of the Final EIS, The Scoping Summary Report.

Public involvement activities are required by CEQ regulations that state “Agencies shall: Make diligent efforts to involve the public in preparing and implementing their NEPA procedures” (40 CFR 1506.6). Public scoping meetings help to satisfy this requirement. DOE hosted 13 public scoping meetings in January, February, and March 2013 to provide the public with information about the NEPA process and the Applicant Proposed Project and allow them an opportunity to identify issues and concerns to DOE.

As required by NEPA (40 CFR 1503), the general public, interested parties and government agencies were provided the opportunity to comment. DOE provided four methods for the public to submit comments during the scoping period. Commenters provided comments via letters, comment forms, email, and oral comments, which were transcribed by a court reporter at public scoping meetings. Project staff made annotations on the large-scale sheet maps of the proposed route segments that were available at the public scoping meetings. These notes were not considered scoping comments, but were used as sources of clarification and additional information when the scoping comments were considered. The written notes on the sheet maps were primarily site-specific information or concerns regarding particular preliminary corridors or segments within the network of potential routes. Representatives of DOE, DOE’s EIS contractor, the Applicant, and the Applicant’s environmental support contractor engaged attendees at the public scoping meetings and encouraged them to submit comments using comment forms or by presenting oral comments to the court reporter. Comments provided by regular mail, email letters or electronic comment form, written comments submitted at the scoping meetings, and oral comments were considered in the Scoping Summary Report. The Scoping Summary Report summarizes all comments received during the scoping period, comments submitted electronically through the electronic comment form by March 24, 2013, and comments that were received in the mail by April 3, 2013. As indicated in the NOI, comments submitted or postmarked after the end of the public scoping period on March 21, 2013, were considered to the extent practicable.

Public scoping is described in Section 1.5.2 of the Final EIS. More information about the public scoping process is included as Section 4 of Appendix E of the Final EIS.

The public scoping period for the Project began when DOE published the NOI in the Federal Register on December 21, 2012. The public scoping period continued for 90 days through March 21, 2013. DOE held 13 public scoping meetings in communities along the Applicant Proposed Route and HVDC alternative routes and 5 interagency meetings during the scoping period. Notification of public scoping and scoping meetings included media announcements, direct mail postcards, and information posted to the Project website. Although not required, DOE sent notices to landowners in the vicinity of Project features 2 weeks (14 days) prior to public scoping meetings and 42 days prior to the Draft EIS public hearings. Landowner information was based on the best available information provided by county tax assessors at the time of the mailings. Notifications and attempts to involve the public are documented in the public scoping report that is included in Appendix E of the Final EIS.

The public comment period on the Draft EIS began when DOE published the Notice of Availability on December 19, 2014. The public comment period continued for 120 days through April 20, 2015. DOE held 15 public hearings to collect public comments in communities along the Applicant Proposed Route and HVDC alternative routes and 3 agency meetings during the comment period. Documentation of this process, including public notification, is included in Chapter 1 of the CRD.

The DOE has developed a website and email address to correspond with the public and to take comments. All public Project information is posted on the website and is available for review.

- Commenter states that in setting national environmental policy to improve and coordinate federal plans, functions, and programs, Congress recognized that each person should enjoy a healthful environment and that each person has a responsibility to contribute to the preservation and enhancement of the environment. Weighing the destruction of one part of the environment to benefit another is not a matter of simple tradeoffs when there are other options available that are not as damaging to the environment. As you prepare the final EIS in this matter, commenter urges you to take a step back and contemplate whether you have fulfilled your mission as required under national environmental policy.

Response:

Comment noted.

- Commenter believes that under the National Environment Protection Act (NEPA), DOE is obligated to ensure the public's involvement is designed to develop an environmentally preferred alternative to meet the Applicant's needs.

Response:

DOE prepared the Draft EIS pursuant to NEPA (42 USC § 4321; NEPA), the CEQ NEPA regulations (40 CFR Parts 1500–1508), and the DOE NEPA implementing regulations (10

CFR Part 1021). Based on the analysis in the EIS, DOE will identify the environmentally preferred alternative or alternatives in the ROD (10 CFR 1505.2(b)).

- Commenter feels that, as a whole, the Draft EIS is substantially lacking in details to adequately meet the requirements of the NEPA process.

Response:

DOE believes that it adequately met the requirements of the NEPA process. DOE prepared the Draft EIS pursuant to NEPA (42 USC § 4321; NEPA), the CEQ NEPA regulations (40 CFR Parts 1500–1508), and the DOE NEPA implementing regulations (10 CFR Part 1021).

- Commenter questions the use of old/outdated data in the EIS, stating that it appears to have been drawn from the Pine Mountain Dam project and may be 15–20 years old.

Response:

DOE prepared the Draft EIS using the best available public data and a Reference CD was provided to the reader to ensure easy access to certain reference documents used to develop the Draft EIS. Included on the CD are the resource-specific technical reports developed by the Applicant to document existing environmental conditions in the ROI. In addition, the Reference CD includes PDF files of reference works consulted during the development of this EIS that are not available on the internet and not protected by copyright laws. The third-party contractor independently verified the data in the resource-specific technical reports developed by the Applicant and conducted additional analysis for each resource based on the best available public data. The methodology and data used to evaluate each resource is specifically described in each resource section.

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2B Length of Comment Period, Number and Location of Public Hearings

The following comments were received relative to public scoping, the length of the comment period, and the number and location of public hearings:

- The EPA believes the communication strategy goes beyond the Federal Register requirements. Due to the number of communities impacted, the EPA recommends continued implementation of the on-going communication strategy to meet with landowners to discuss their options. The EPA believes the public meetings are advantageous and will benefit the impacted communities.

Response:

Comment noted.

- Commenter feels the initial scoping period from December 2012 to March 2013 was inadequate.

Response:

DOE has conducted public scoping in accordance with 40 CFR Part 1501.07, in accordance with public commenting as described in 40 CFR Part 1503 and in accordance with public involvement as described in 40 CFR Part 1506.6.

Public scoping is described in Section 1.5.2 of the Final EIS. The public scoping period for the Project began when DOE published the NOI on December 21, 2012. The public scoping period continued for 90 days through March 21, 2013. DOE held 13 public scoping meetings in vicinity of Project features and held 5 additional interagency meetings. Notifications and attempts to involve the public were documented in the Scoping Summary Report that is included as Appendix E of the Final EIS.

- Commenter urges the Department of Energy and cooperating agencies (especially the Bureau of Indian Affairs) to extend the comment period by at least 60 days and conduct formal consultation with Indian tribes in accordance with Executive Order 13175 and other policies.

Response:

Comment noted. DOE extended the public comment period on the Draft EIS by an additional 30 days, for a total of 120 days, from the date the Notice of Availability was published in the Federal Register on December 19, 2014, to April 20, 2015. The Section 106 consultation process was initiated by DOE in 2012, and the preparation of a Programmatic Agreement for the Project is nearing completion (the draft Programmatic Agreement is included in Appendix P of the Final EIS). DOE intends to execute the Programmatic Agreement prior to issuance of the ROD or otherwise comply with procedures set forth in 36 CFR Part 800. The BIA has been engaged in the Section 106 consultation process since its initiation, as have many Tribes and Nations.

- Commenter discusses how Arkansas' congressional delegation was instrumental in extending the public comment period for the Plains and Eastern EIS.

Response:

Comment noted.

- Commenters request the comment period be extended an additional 30 days. Commenter does not believe that 57 days (from the 88 days from 12/21 to 3/21) is enough time to alert stakeholders within the "contact zone." Another commenter was amazed that they have been allowed such a short time period to review the forty pounds and several folders of EIS draft materials and break out data, for this project's review. Even with the time extension, following field research, and just reading over and reviewing this material, it all takes time from regular work and life. Commenter states that the comment period should be extended to accommodate the delay in availability of the printed Draft EIS. A commenter notes that the full Arkansas congressional delegation, as well as Senator Lamar Alexander of Tennessee, sent a letter to the Department of Energy requesting the comment period for the Draft EIS be extended.

Response:

DOE extended the public comment period on the Draft EIS by an additional 30 days, for a total of 120 days, from the date the Notice of Availability was published in the Federal Register on December 19, 2014, to April 20, 2015.

- Commenter believes that DOE should notice a new public comment period specifically to consider Section 1222 issues.

Response:

In December 2014, DOE requested additional information from the Applicant to supplement and update its original Section 1222 application. The updated Part 2 application and other documentation was made available for public comment on the DOE website at <http://www.energy.gov/oe/downloads/plains-eastern-clean-line-transmission-line-part-2-application>. The 45-day public comment period began on April 28, 2015, the date the Notice of Availability was published in the Federal Register. DOE extended the time allowed for submittal of comments on the application to July 13, 2015, resulting in a 77-day comment period on the updated application. The public were notified of the extension of the comment period by notice in the Federal Register on June 17, 2015, and by email to the Plains & Eastern EIS email subscription list on June 11, 2015.

- Commenter notes that, since the Department of Energy required more public input, Clean Line started that process with their "Office Hours" meetings. The only problem there was it was during "office hours" which precluded most people from attending without taking time off work. Commenter feels this is exactly what Clean Line intended. Commenter feels they knew precisely how to stage these meetings so they could say to the Department of Energy that they did not have much opposition.

Response:

DOE is conducting the NEPA process independent of the Applicant's public outreach program. DOE has conducted public scoping in accordance with 40 CFR Part 1501.07, in

accordance with public commenting as described in 40 CFR Part 1503 and in accordance with public involvement as described in 40 CFR Part 1506.6.

Public scoping is described in Section 1.5.2 of the Final EIS. Notification of the availability of the Draft EIS and public hearings are described in Chapter 1 of the CRD. These hearings began at 5 p.m. to accommodate work schedules. In addition to DOE and NEPA support contractor staff, Clean Line personnel were available to answer questions at each public hearing.

- Commenter believes that meetings should have been held in the small towns up and down the area, more localized.

Response:

DOE held 13 public scoping meetings and four meetings with tribes and agencies in communities in the vicinity of Project features during the scoping period. Notifications and attempts to involve the public were documented in the Scoping Summary Report that is included as Appendix E of the Draft EIS. DOE held 15 public hearings following the publication of the Notice of Availability in the Federal Register for the Draft EIS on December 19, 2014. Every attempt was made to select meeting locations that were within approximately one hour's drive from potentially affected landowners. All public hearing materials were available on the Plains & Eastern EIS website for review by those unable to attend a public hearing. The public was notified by direct mail, newspaper, the EIS website, and the EIS email list.

- Commenter questions length of comment period when people were only hearing of project in February 2015.

Response:

DOE extended the public comment period on the Draft EIS by an additional 30 days, for a total of 120 days, from the date the Notice of Availability was published in the Federal Register on December 19, 2014, to April 20, 2015. DOE held 15 public hearings following the publication of the Notice of Availability in the Federal Register for the Draft EIS on December 19, 2014. All public hearing materials were available on the Plains & Eastern EIS website for review by those unable to attend a public hearing. The public was notified by direct mail, newspaper notices, the EIS website, and the EIS email list.

- Commenter believes that the process of informing Arkansans about a proposal to cut the state in half has already resulted in marked division. The series of public meetings scheduled to share public information regarding this mammoth project all take place in the upper half of the state. Despite repeated requests that a meeting be scheduled in the lower half of the state, preferably near the White River Delta to inform Arkansans downstream, such reasonable requests were denied.

Response:

DOE has conducted public scoping in accordance with 40 CFR Part 1501.07, in accordance with public commenting as described in 40 CFR Part 1503 and in accordance with public

involvement as described in 40 CFR Part 1506.6. Public scoping is described in Section 1.5.2 of the Final EIS. The public scoping period for the Project began when DOE published the NOI on December 21, 2012. The public scoping period continued for 90 days through March 21, 2013. DOE held 13 public scoping meetings in vicinity of Project features and held 5 additional interagency meetings. Notifications and attempts to involve the public were documented in the Scoping Summary Report that is included in Appendix E of the Final EIS.

DOE held 15 public hearings following the publication of the Notice of Availability in the Federal Register for the Draft EIS on December 19, 2014. Every attempt was made to select meeting locations that were within approximately one hour's drive from potentially affected landowners. All public hearing materials were available on the Plains & Eastern EIS website for review by those unable to attend a public hearing. The public was notified by direct mail, newspaper, the EIS website, and the EIS email list. None of the Project features intersect the Lower White River Watershed. Section 3.15 of the Draft EIS included lists of watersheds the Project is located within. A public scoping meeting and public hearing was held in Newport, Arkansas, which is located within the Upper White Village watershed.

- Commenter believes it is a grave injustice to prevent the state's poorest demographic (residents of the Delta) from participating in a process that (if approved) will affect them. The fact that no public meetings regarding this project are or will be scheduled in the Lower White River watershed demonstrates the inadequacy of the Plains and Eastern EIS from both a historical and environmental standpoint.

Response:

DOE has conducted public scoping in accordance with 40 CFR Part 1501.07, in accordance with public commenting as described in 40 CFR Part 1503 and in accordance with public involvement as described in 40 CFR Part 1506.6.

Public scoping is described in Section 1.5.2 of the Final EIS. DOE held 13 public scoping meetings in vicinity of Project features and held 5 additional interagency meetings. Notifications and attempts to involve the public were documented in the Scoping Summary Report that is included as Appendix E of the Final EIS. Every attempt was made to select locations that were within approximately one hour's drive from potentially affected landowners. DOE held 15 public hearings following the publication of the Notice of Availability in the Federal Register for the Draft EIS on December 19, 2014. All public hearing materials were available on the Plains & Eastern EIS website for review by those unable to attend a public hearing. The public was notified by direct mail, newspaper, the EIS website, and the EIS email list.

None of the Project features intersects the Lower White River Watershed. Section 3.15 of the Final EIS lists the watersheds within which the Project is located. A public scoping meeting and public hearing was held in Newport, Arkansas, which is located within the Upper White Village watershed.

- Commenter notes that they appreciate the Department of Energy hosting the public meeting. Commenter feels that public discourse is losing ground in society, and this is what makes democracy strong. Commenter appreciates the public hearings that were held.

Response:

Comment noted.

- Commenter states that all 12 public scoping meetings were improperly advertised for less than 15 days. In addition, not all local areas got the scoping announcement on the same day. For example, Morrilton, AR had 13 days notice and Russellville, AR had 6 days notice. The second meeting in Woodward, Oklahoma, was held to make up for the error in the mailing but in correcting the mailing error, another error was made by giving less than 15 days notice in the newspaper. Only 12 days notice were given when DOE stated "at least 15". The entire scoping process was hurried and should be started again.

Response:

DOE announced the dates and locations of the public scoping meetings in the NOI published in the Federal Register on December 21, 2012 (Appendix D of the Final EIS) and at the same time posted the scoping meeting information on the EIS website. This provided 32-day notice before the first scoping meeting on January 22, 2013. DOE's NEPA regulations require at least 15 days' notice prior to a public scoping meeting (10 CFR 1021.311(d)). In addition, subsequent to publication of the NOI, DOE provided notice of the scoping meetings via newspaper advertisements and by mailing approximately 28,000 postcards to landowners and others throughout the Project area. The steps DOE undertook to publicize the scoping meetings, and other facets of the scoping process, are described further in the Scoping Summary Report that is included in Appendix E of the Final EIS.

A supplemental scoping meeting was held in Woodward, Oklahoma, to make up for an error in the original public scoping announcement notification mailing. To address the error, an additional scoping meeting was held in Woodward on March 4, 2013, and a second postcard was sent to nearly 1,600 individuals on February 13, 2013, including the individuals who were not on the initial mailing. An email was sent to the EIS email list to inform them of the additional scoping meeting and a notice of the additional meeting was posted on the EIS website. Announcements were also made in the Woodward News newspaper on Feb. 19 and 25, 2013. The direct mail postcard provided 19 calendar days' notice, and the newspaper advertisements provided 13 and 7 calendar days' notice, respectively.

- Commenter notes that Clean Line has conducted literally hundreds of meetings across the state and across the state of Arkansas to allow people to provide their inputs and their concerns. They have held what they've called office hours where they will set up in a small community to allow people to come in one-on-one without the glare of public scrutiny and without their peers where they can speak privately with them about their concerns or their support of this issue. They've held roundtable meetings with county commissioners and city officials and chambers of commerce to get their concerns and issues. Commenter notes they have seen Clean Line employees at more meetings in northwest Oklahoma than many rural community leaders.

Response:

Comment noted.

- Commenters expressed frustration with the scoping process. Commenter notes that alternatives are supposed to be directly linked to public comments during the public scoping period. The EIS dismissed the limited public scoping comments without substantiated justification or reasons why the alternatives suggested were not considered. Commenter notes that, while they were able to see and read the scoping process of the Department of Energy, they have been unable to ask questions concerning the process, who did the scoping process, and why the Department of Energy does not answer questions.

Response:

DOE held 15 public hearings following the publication of the Notice of Availability in the Federal Register for the Draft EIS on December 19, 2014. The public scoping period continued for 90 days through March 21, 2013. DOE held 13 public scoping meetings in communities along the Applicant Proposed Route and HVDC alternative routes and 5 interagency meetings during the scoping period.

DOE received 664 scoping comment documents, many of which included multiple scoping comments. DOE reviewed all scoping comments and prepared a Scoping Summary Report that is included as Appendix E of the Final EIS. Issues that were identified during scoping were categorized by environmental resource area and presented in Table 1.5-1 of the Draft EIS. A discussion of alternatives and alternatives considered but dismissed was presented in Section 2.4.4. During the scoping period, DOE received comments from stakeholders in Arkansas who were concerned that the state would endure impacts from the Project without receiving any of the benefits (e.g., ability to accept increased amounts of renewable energy, tax revenues from property and ad valorem taxes associated with new facilities, and increased number of jobs).

As a result of these scoping comments, DOE requested that Clean Line evaluate the feasibility of an alternative that would add a converter station in Arkansas to facilitate the delivery of up to 500MW of electricity to the state. The DOE Alternatives evaluated in the EIS include a converter station alternative in Arkansas. The development of route alternatives considered the numerous scoping comments on the topic of transmission line routing. The details of the route selection process are provided in Sections 2.3 and 2.4 of the Final EIS and in the DOE Alternatives Development Report (DOE 2013). Changes to route alternatives were made based on public scoping comments in Regions 2–7, as discussed in Section 2.4 of the Final EIS.

DOE considered several additional potential alternatives, in part based on public scoping comments, but eliminated them from detailed analysis as discussed in Chapter 2, Section 2.4.4 of the Final EIS. These include the alternative transmission line routes, underground HVDC transmission line, local generation and distribution, and energy conservation programs.

2C Stakeholder Involvement

The following comments were received relative to stakeholder involvement:

- Several commenters note that they were never contacted or received notice of any of the meetings that have taken place. Commenters provided the names of 623 Sequoyah County landowners and other area landowners, most of whom had no idea this project is coming through their land. Commenters state that there are still several landowners that are unaware of the project.

Response:

The public scoping period began on December 21, 2012, the date the Notice of Availability was published in the Federal Register. The public scoping period continued for 90 days through March 21, 2013. DOE held 13 public scoping meetings in communities along the Applicant Proposed Route and HVDC alternative routes and 5 interagency meetings during the scoping period. Notifications and attempts to involve the public are documented in the Scoping Summary Report that is included in Appendix E.

The public comment period on the Draft EIS began on December 19, 2014, the date the Notice of Availability was published in the Federal Register. The public comment period continued for 120 days through April 20, 2015. DOE held 15 public hearings to collect public comments in communities in the vicinity of Project features and 3 interagency meetings during the comment period. Documentation of this process, including public notification, is included in Chapter 1 of the CRD. The Draft EIS and public hearing materials were also available online at <http://www.plainsandeaneris.com>.

Direct mail notification to landowners in the vicinity of Project features for the public scoping meetings and Draft EIS public hearings was based on the best available information provided by county tax assessors.

- Commenter states that aside from broad support for the concept of expanding access to renewable energy generation, one of the most prominent messages we have heard from affected communities is that the project developer should communicate early and often with the property owners potentially affected by each of the alternative routes under consideration. We strongly encourage Clean Line Energy Partners to work with public and private landowners whose property may be affected by the development to reach mutually agreeable solutions and avoid the use of eminent domain to the extent possible. We note that this is already the stated strategy of Clean Line Energy Partners and are optimistic that negotiated sales or easements will be achievable in most circumstances with proper disclosure and communication.

Response:

Comment noted.

- Commenters are displeased with the scoping process. Commenters state that hundreds of property owners have yet to receive any project definition. Commenters believe that Clean Line has not been up front with residents and requests evidence showing that certified letters

were sent to residents. A commenter states that the scoping period defined in the scoping report was not done. Another commenter objects to the lack of legal notice and absence of shareholder input by Applicant prior to selecting the proposed route. The maps provided by the Applicant appear to reflect that this project will cross the main portion of the contiguous 920 acres, most of which is tillable, graded, and/or pivot-watered farm acreage of the highest value. Applicant has not attempted to contact us to gain input or give notice of its plans. Applicant's plan or DOE suggesting that Banks Co. consents to the route plans of Applicant is inaccurate and mistaken.

Response:

The DOE scoping period for the Draft EIS lasted 90 days, from December 21, 2012, through March 21, 2013; DOE regulations require a minimum of 30 days. The DOE has developed a dedicated Plains & Eastern EIS website and email address to correspond with the public and to take comments. All public Project information is posted on the website and is available for review. In addition, the EIS process has included 28 public meetings (13 during public scoping and 15 Draft EIS public hearings) throughout Regions 1–7 of the Project over a period of 3 years. DOE is conducting the NEPA process independent of the Applicant's public outreach program. The Applicant has hosted numerous non-NEPA public outreach activities throughout the development phase of the Project.

- Commenter notes that they have been contacted for possible survey on sections 31-32 but nothing about the north line in section 16, which is on the north side of the property.

Response:

Comment noted. The Applicant has been in contact with certain landowners for access for environmental surveys. More surveys may be required in the future for permitting with other federal agencies such as the USFWS or USACE.

- Commenter states that Clean Line Energy has worked tirelessly to cooperate with the affected states, their agencies and affected stakeholders at each stage of the Plains & Eastern Clean Line transmission project and has demonstrated itself to be a responsible corporate partner. The extensive review process Clean Line has participated in developed a route for the transmission line that avoids and minimizes to the greatest extent possible any major environmental or cultural impacts.

Response:

Comment noted.

- For its part, Clean Line mailed notices to surface property owners adjacent to the Project. No such notices, however, were received by SWN-A or DGC, which are record owners of oil and gas leases and pipeline rights-of-way. In many instances, a surface owner leases its surface or minerals to natural gas operators such as SWN-A, and those operators would not receive notice in such an event. Regardless, oil and gas leases and other conveyances of mineral interests are recorded in each county in Arkansas, and such records are readily obtainable. In a unique region such as the Fayetteville Shale play, Clean Line should have provided early and direct notice to sub-surface interest holders. This raises the question of

how many natural gas operators, pipelines, and other parties with sub-surface interests in the vicinity of the Project have not been adequately or timely notified or remain unaware of the Project's existence. As a practical matter, Clean Line also should have undertaken early, direct outreach to SWN-A, DGC, and other natural gas and pipeline operators in the Fayetteville Shale play. Given the extent of natural gas development in the play, it would have been prudent to hold discussions with the natural gas operators to discuss the feasibility of the proposed routing, safety concerns, and other matters.

Response:

Impacts to the Fayetteville shale as a seismic hazard are addressed in Section 3.6.1.4.3.1, and Table 3.6.1-16 summarizes mineral resources in Regions 4 of the Project.

As described in Section 3.6.1.6.1 the Applicant has developed and committed to implementing a list of EPMs, including numerous measures that would minimize the potential for adverse impacts to mineral resources such as natural gas resources and natural gas operations. Specifically, EPMs GE-29, LU-1, and LU-4 will be in place. These measures state that the Applicant will work with landowners and operators of active oil and gas wells, utilities, and other infrastructure to identify and verify the location of facilities and to minimize adverse impacts (GE-29); the Project will be designed to avoid crossing existing operations (such as the well pads of any active oil and gas wells or impeding access to these resources (LU-1); and that the Applicant will work with landowners and operators to ensure that access is maintained as needed to existing operations (e.g., to oil/gas wells, private land, agricultural areas, pasture, hunting leases) (LU-4). Micrositing of the transmission line and structures can be employed when necessary to allow adequate access to existing infrastructure, so DOE does not anticipate that the transmission line structures will impede access to these resources. A complete list of EPMs that would be followed by the Applicant is presented in Appendix F of the EIS.

DOE has conducted public scoping in accordance with 40 CFR Part 1501.07, in accordance with public commenting as described in 40 CFR Part 1503 and with public involvement as described in 40 CFR Part 1506.6. DOE sent notices to landowners in the vicinity of Project features prior to public scoping meetings and the Draft EIS public hearings. Landowner information was based on the best available information provided by county tax assessors.

- Commenter states that Clean Line has engaged in outreach with landowners along the Applicant Proposed Route. Such outreach has included Office Hours and direct one-on-one communication with landowners. The focus of early contact with landowners along the ROW in Oklahoma and Arkansas has been to answer questions and to provide information about the Project.

Response:

Comment noted.

- Commenter notes that the development of the line as well as the Draft EIS did not meet the expectations of an inclusive, community-driven feedback process expected from administrative agencies. Commenter notes that landowners in Oklahoma did not have

sufficient opportunity to have meaningful input on the route of the line, and significant communities have been ignored. For example, the Tribal Council of the Cherokee Nation has passed a resolution opposing the line. The Town Council of Vian, Oklahoma, also passed a resolution opposing the line. Groups have organized on Facebook. Commenter feels that these facts show that the project has not been seriously conformed to input received on the line. Commenter feels there should not be any rush to complete this process, and landowners as well as tribal and local communities should have greater opportunities to be included in routing decisions because of the ample time available. Commenter feels the Department should make use of a more inclusive process for considering the input of Oklahomans.

Response:

DOE has conducted public scoping in accordance with 40 CFR Part 1501.07, in accordance with public commenting as described in 40 CFR Part 1503 and in accordance with public involvement as described in 40 CFR Part 1506.6. Public scoping is described in Section 1.5.2 of the Final EIS.

The public scoping period began on December 21, 2012, the date the Notice of Availability was published in the Federal Register. The public scoping period continued for 90 days through March 21, 2013. DOE held 13 public scoping meetings in communities along the Applicant Proposed Route and HVDC alternative routes and 5 interagency meetings during the scoping period. Notifications and attempts to involve the public are documented in the Scoping Summary Report that is included in Appendix E.

The public comment period on the Draft EIS began on December 19, 2014, the date the Notice of Availability was published in the Federal Register. The public comment period continued for 120 days through April 20, 2015. DOE held 15 public hearings to collect public comments in communities in the vicinity of Project features and 3 interagency meetings during the comment period. With regard to involving all affected communities, every attempt was made to hold hearings in select locations that were within approximately one hour's drive from potentially affected landowners. Documentation of this process, including public notification, is included in Chapter 1 of the CRD.

DOE is aware of the position of the Council of the Cherokee Nation (Enactment # R-003-15) and has provided the Council with a letter in response (Jane Summerson, NEPA DOE/EIS-0486 Document Manager, to the Council of the Cherokee Nation, March 17, 2015). DOE recognizes the government-to-government relationship between the federal government and the Cherokee Nation, acknowledges the participation of the Cherokee Nation to date in consultation about the Project and review of the environmental analysis of this Project, and looks forward to continuing the relationship as the environmental review moves forward. The Cherokee Nation is a consulting party in the Section 106 consultation process for the Project. Prior to making a decision as to whether and under what conditions to participate in the Applicant Proposed Project, DOE must fully evaluate the Project. This EIS will inform DOE's decision by analyzing the potential environmental impacts of the Project. A separate and parallel process was used to review Clean Line's application against the statutory criteria identified in Section 1222 of the EAct, which began when DOE made the application available for public review through a notice in the Federal Register (80 FR

23520, April 28, 2015). DOE will consider comments received in response to this notice, along with information included in the Final EIS, and other reviews required by federal law, in making its determination of whether to participate in the Applicant Proposed Project.

- Commenter notes that Clean Line has done a good job getting the information out there to us so we can comment on it, go to these meetings and let people know what we think about it in our area. They've also done a good job going around the populated areas in the community that I live in.

Response:

Comment noted.

- Commenter lives in Guy in North Faulkner County and owns property in Conway County. Commenter states he received several notices about the project at my home because he is very close to one of the alternate routes. Commenter also attended the first public meeting on this project over two years ago in Greenbrier. Commenter believes Department of Energy and Clean Line have done a good job notifying about public meetings so we can get together and talk about the project and see what the issues are in his area.

Response:

Comment noted.

- Commenter has property in Jackson County, Arkansas, and requests any new information about the project.

Response:

Commenter has been added to the EIS distribution list and will receive updates from DOE related to the NEPA process.

- Commenter notes that he and his wife own 125 acres in Franklin County, Arkansas, which was affected by an initial proposed route alternative, though it is not currently in the “preferred route” (one of the routes under consideration in the EIS). Commenter notes that not one of his neighbors recalls receiving a postcard regarding this project. Commenter asks why a registered or certified letter and a map could not be sent. Commenter notes that many landowners first knew about the project either by the company requesting to access their land for archeological or biological surveys, or through the public meeting process well after the comment period had closed.

Response:

DOE has conducted public scoping in accordance with 40 CFR Part 1501.07, in accordance with public commenting as described in 40 CFR Part 1503 and in accordance with public involvement as described in 40 CFR Part 1506.6. Public scoping is described in Section 1.5.2 of the Final EIS.

The public scoping period began on December 21, 2012, the date the Notice of Availability was published in the Federal Register. The public scoping period continued for 90 days

through March 21, 2013. DOE held 13 public scoping meetings in communities along the Applicant Proposed Route and HVDC alternative routes and 5 interagency meetings during the scoping period. Notifications and attempts to involve the public are documented in the Scoping Summary Report that is included in Appendix E.

The public comment period on the Draft EIS began on December 19, 2014, the date the Notice of Availability was published in the Federal Register. The public comment period continued for 120 days through April 20, 2015. DOE held 15 public hearings to collect public comments in communities in the vicinity of Project features and 3 agency meetings during the comment period. Documentation of this process, including public notification, is included in Chapter 1 of the CRD. The Draft EIS and public hearing materials were also available online at <http://www.plainsandeasterneis.com>.

Direct mail notification to landowners in the vicinity of Project features for the public scoping meetings and Draft EIS public hearings was based on the best available information provided by county tax assessors.

- Commenter believes the Applicant needs to do the following: Contact impacted landowners to determine what parties may be interested in selling their land or granting easements. Implying the power of eminent domain in public presentations does not replace stakeholder engagement. Conduct environmental screening of potential route alternatives to identify route segments that have lesser environmental impacts. Prepare and provide accurate visual simulations that allow the public the opportunity to determine the visual impact this significant feature may have. Otherwise the requirement for public disclosure is absent and there is no meaningful due process of public involvement or dialog with the Applicant.

Response:

DOE has notified the public and affected landowners prior to public scoping and the Draft EIS. The Draft EIS evaluated the environmental impacts of construction, operations and maintenance, and decommissioning of the Applicant Proposed Route as well as numerous alternative routes. Visual simulations have been provided from representative areas throughout the regions of the Project and these were available in the Draft EIS (Appendix K).

- Commenter feels it is not possible for the public to be completely involved if they are not able to get a hard copy of the EIS.

Response:

The Draft EIS was made available on the DOE Project website and the DOE NEPA website beginning on December 12, 2014. Due to overwhelming requests for hard copies of the EIS, hard copies were backordered, and the public comment period associated with the Draft EIS was extended to 120 days. This extension was based on requests from the public and gave commenters 30 extra days to receive and review the Draft EIS. All requests for hard copies of the Draft EIS were fulfilled. The total comment period associated with the public hearings ran for 120 days between December 12, 2014, and April 20, 2015. Additionally, 25 libraries in the vicinity of Project features were asked to carry hard copies of the Draft EIS prior to

the public comment period. Not all libraries were willing to accept hard copies, and requested either CD copies, or refused any copies of the Draft EIS, opting for online access to the Draft EIS instead.

- Commenter notes that representative had assured them that an environmental representative would contact them. That was 2 months ago and nobody has called.

Response:

Contact information for DOE representatives are included on the Plains & Eastern EIS website at <http://www.plainsandeasterneis.com/contact-us.html>. Contact information is provided for the DOE Document Manager and the Director for the Office of NEPA Policy and Compliance.

- Commenter notes they oppose the project because they are an affected landowner and have had no "negotiations in good faith" with Clean Line. Commenter notes they have had no contact with Clean Line in any form whatsoever. Commenter feels Clean Line has failed to meet the requirements set forth by Deputy Secretary Poneman, and, therefore, believes the Department of Energy should not participate in this project.

Response:

Comment noted.

- Commenter notes that the meeting was a little informative, but there was not a forum for questions.

Response:

DOE has conducted public scoping in accordance with 40 CFR Part 1501.07, in accordance with public commenting as described in 40 CFR Part 1503 and in accordance with public involvement as described in 40 CFR Part 1506.6.

Each public hearing included an open house at the beginning of the hearing, during which DOE, the Applicant, and third-party contractor staff were available to answer questions. The primary purpose of the public hearings was to allow the public to provide formal comments on the Draft EIS via the court reporter or handwritten comments submitted during or after the meeting.

- The proposed routing of the Plains & Eastern clean Line Transmission Project included land that had never been identified as within possible corridors for the project. The altered routing precluded the newly identified landowners from having the opportunity to address concerns. This is a perceived unethical position for the DOE'S stated objective for public awareness and input.

Response:

DOE has conducted public scoping in accordance with 40 CFR Part 1501.07, in accordance with public commenting as described in 40 CFR Part 1503 and in accordance with public involvement as described in 40 CFR Part 1506.6.

Public scoping is described in Section 1.5.2 of the Final EIS.

The public scoping period began on December 21, 2012, the date the NOI was published in the Federal Register. The public scoping period continued for 90 days through March 21, 2013. DOE held 13 public scoping meetings in communities along the Applicant Proposed Route and HVDC alternative routes and 5 interagency meetings during the scoping period. Notifications and attempts to involve the public are documented in the Scoping Summary Report that is included in Appendix E.

The public comment period began on December 17, 2014, the date the Notice of Availability was published in the Federal Register. The public comment period continued for 120 days through April 20, 2015. DOE held 15 public hearings to collect public comments in communities in the vicinity of Project features and 3 interagency meetings during the comment period. Documentation of this process, including public notification, is included in Chapter 1 of the CRD.

DOE sent notices to landowners in the vicinity of Project features and proposed alternative routes prior to public scoping meetings and the Draft EIS public hearings. Landowner information was based on the best available information provided by county tax assessors.

- Commenters state that they have submitted comments, written letters and have offered to meet with project representatives and show them their property that will be crossed, but have received no response.

Response:

Contact information for DOE representatives are included on the Plains & Eastern EIS website at <http://www.plainsandeasterneis.com/contact-us.html>. Contact information is provided for the DOE Document Manager and the Director for the Office of NEPA Policy and Compliance. DOE is not aware of all meetings or correspondence between the Applicant and landowners.

- Commenter feels that stakeholders have no avenue for questions regarding this project. DOE only accepts comments. They have a right of virtually ignoring freedom of information requests and give our elected officials the runaround when questions are asked. DOE needs to implement a system of reportable questions and answers that go on the public record.

Response:

This CRD is the process by which comments are answered on the record. The primary purpose of the public hearings was to allow the public to provide comment on the Draft EIS. There was time allocated during the public hearings for review of maps and display boards and informal discussion with DOE or the Applicant. Any requests pertaining to this Project under the Freedom of Information Act are given serious review and consideration by DOE.

- Commenter expresses concern that officials and community leaders were met with on an individual basis by Plains and Eastern representatives, one by one, at the local Starbucks. A Millington alderman has expressed discomfort about this to me, saying they'd have felt more comfortable about interacting with Plains and Eastern in a public forum where sunshine laws

prevail. Commenter states that after speaking with other community leaders it has become evident that there is misunderstanding about the project, for example, a member of the industrial development board expressed that individuals will be able to buy power directly from Plains and Eastern and it would be cheaper because it would compete with our local power company, Memphis Light Gas & Water. This cannot be true. Commenter notes that leaders back the project because they are thinking that Millington will be able to form their own power company, apparently using only power generated by the Plains and Eastern Line. They seem to believe this was never a possibility before, and that P & E, alone, brings them this opportunity (even though it is obvious that P & E is selling to TVA through the Mudville Road substation). Commenter has severe concerns that local leaders and officials have not all got the same information and ideas about what the project will and will not do with or for our community, and believes that the Plains and Eastern representatives need to come back and meet with all the applicable boards in a forum setting where questions can be asked and public record is made of what is said, and everything be made clear to all the principals involved.

Response:

DOE is conducting the NEPA process independent of the Applicant's public outreach program. The Applicant has hosted numerous non-NEPA public outreach activities throughout the development phase of the Project. Project information, such as the Draft EIS and the Final EIS, are available on the Plains & Eastern EIS website for public review.

- Commenter feels both the siting and development of the route and Draft EIS were conducted without adequate landowner input. Commenter notes that recent court resolutions against the line and a resolution by the Tribal Council of the Cherokee Nation prove this point.

Response:

DOE prepared this EIS pursuant to NEPA (42 USC § 4321; NEPA), the CEQ NEPA regulations (40 CFR Parts 1500–1508), and the DOE NEPA implementing regulations (10 CFR Part 1021).

DOE has conducted public scoping in accordance with 40 CFR Part 1501.07, in accordance with public commenting as described in 40 CFR Part 1503 and in accordance with public involvement as described in 40 CFR Part 1506.6.

Public scoping is described in Section 1.5.2 of the Final EIS. The public scoping period began on December 21, 2012, the date the Notice of Availability was published in the Federal Register. The public scoping period continued for 90 days through March 21, 2013. DOE held 13 public scoping meetings in communities along the Applicant Proposed Route and HVDC alternative routes and 5 interagency meetings during the scoping period. Notifications and attempts to involve the public are documented in the Scoping Summary Report that is included in Appendix E. Although not required, DOE sent notices to landowners in the vicinity of Project features 2 weeks (14 days) prior to public scoping meetings and 42 days prior to the Draft EIS public hearings. The public comment period on the Draft EIS began on December 19, 2014, the date the Notice of Availability was published in the Federal Register. The public comment period continued for 120 days through April 20,

2015. DOE held 15 public hearings to collect public comments in communities along the Applicant Proposed Route and HVDC alternative routes and 3 interagency meetings during the comment period. Documentation of this process, including public notification, is included in Chapter 1 of the CRD.

Large maps of the Project features were presented at the Draft EIS public hearings and during the public scoping meetings. An interactive map was also shown on the Plains & Eastern EIS website that allowed users to zoom into a specific Project feature or area of interest. This tool allowed the general public, including landowners, to provide specific input on routes. Several route variations have occurred since publication of the Draft EIS as a result of public comments received during the comment period.

DOE is aware of the position of the Council of the Cherokee Nation (Enactment # R-003-15) and has provided the Council with a letter in response (Jane Summerson, NEPA DOE/EIS-0486 Document Manager, to the Council of the Cherokee Nation, March 17, 2015). DOE recognizes the government-to-government relationship between the federal government and the Cherokee Nation, acknowledges the participation of the Cherokee Nation to date in consultation about the Project and review of the environmental analysis of this Project, and looks forward to continuing the relationship as the environmental review moves forward. The Cherokee Nation is a consulting party in the Section 106 consultation process for the Project.

- Commenter asks who is making sure that people that could be affected by this project are notified. How does the DOE expect landowners to comment during the public comment period about this project if they are not aware? I feel the DOE has failed the American public by not requiring Clean Line to make contact with every landowner that could potentially be affected by this project.

Response:

DOE prepared this EIS pursuant to NEPA (42 USC § 4321; NEPA), the CEQ NEPA regulations (40 CFR Parts 1500–1508), and the DOE NEPA implementing regulations (10 CFR Part 1021).

DOE has conducted public scoping in accordance with 40 CFR Part 1501.07, in accordance with public commenting as described in 40 CFR Part 1503 and in accordance with public involvement as described in 40 CFR Part 1506.6.

Public scoping is described in Section 1.5.2 of the Final EIS.

The public scoping period began on December 21, 2012, the date the Notice of Availability was published in the Federal Register. The public scoping period continued for 90 days through March 21, 2013. DOE held 13 public scoping meetings in communities along the Applicant Proposed Route and HVDC alternative routes and 5 interagency meetings during the scoping period. Notifications and attempts to involve the public are documented in the Scoping Summary Report that is included in Appendix E.

The public comment period on the Draft EIS began on December 19, 2014, the date the Notice of Availability was published in the Federal Register. The public comment period continued for 120 days through April 20, 2015. DOE held 15 public hearings to collect public comments in communities near Project features and 3 interagency meetings during the comment period. Documentation of this process, including public notification, is included in Chapter 1 of the CRD.

- Commenter gives "kudos" to Clean Line for their efforts regarding stakeholder involvement and believes they have done a good job in getting information out to the public about the project.

Response:

Comment noted.

- Commenter believes that (1) There must be increased Department of Energy involvement with the public. A designated representative, point of contact, or ombudsman for landowners would be ideal. For the DOE to be seen as truly unbiased and representative of all of us, this is a necessity. There should be someone to whom land owners can bring their complaints throughout the entire process. Someone responsible for addressing those complaints at the time they arise instead of allowing them to fester and grow into mass discontent. Such a person would be incapable of resolving every issue, of course, but the act of being heard and acknowledged is palliative in and of itself. This person should have a public presence and not be just an email address. (2) Landowner and neighboring landowner involvement must be increased substantially. Specifically, landowner involvement must be increased during the scoping period. The current NEPA requirements for notification, as this case clearly demonstrates, are not enough to ensure that landowners feel like a valued partner in development. The DOE could require a higher level of landowner participation as a condition of its 1222 participation. Instead of the postcard that was sent to announce the scoping period, I proposed a certified letter be sent to all landowners within the mile-wide corridor. This letter should contain a description of the proposed project, contact information for the DOE's ombudsman and the developer of the proposed line, a list of important dates, and a simple survey with a return SASE. The survey should include questions that would help the developer and DOE figure out a path of least resistance composed of informed and supportive landowners, as opposed to those simply without resources or knowledge of the project. Sample questions: Would you be interested in allowing a transmission line on your property in exchange for payment? Why kind of payment would you require? A flat fee or royalties based on subscription? Is there anything we should know about your property in particular? Does it flood? Do you have existing easements? Do you know of any endangered species? Do you plan to build anywhere on the land in the near future? Please look at the attached map of your property and note any concerns you have or errors you see. Etc. A simple spreadsheet could be used to indicate who received their letter, which letters were returned as undeliverable, and who returned their survey request form. In our experience, using the county tax rolls to send out letters to affected landowners resulted in roughly in 25 percent of the letters being returned as undeliverable. Such a system would enable the developer to follow up with either a telephone call, a second letter, or a physical visit to the landowner, depending on each situation. While such a thorough attempt to reach land owners

would absolutely be more expensive at the outset, I believe it would eventually prove cost effective in terms of public relations and eventual litigation. Clean Line may well currently have a list of people it mailed postcards to.

Response:

Commenters' suggestions are noted. DOE prepared this EIS pursuant to NEPA (42 USC § 4321; NEPA), the CEQ NEPA regulations (40 CFR Parts 1500–1508), and the DOE NEPA implementing regulations (10 CFR Part 1021).

DOE held 13 public scoping meetings in communities along the Applicant Proposed Route and HVDC alternative routes and 5 interagency meetings during the scoping period. Notifications to include direct mail notification to landowners in the vicinity of Project features, and attempts to involve the public are documented in the Scoping Summary Report that is included in Appendix E.

The public comment period on the Draft EIS began on December 19, 2014, the date the Notice of Availability was published in the Federal Register. The public comment period continued for 120 days through April 20, 2015. DOE held 15 public hearings to collect public comments in communities along the Applicant Proposed Route and HVDC alternative routes and 3 interagency meetings during the comment period. Documentation of this process, including public notification, is included in Chapter 1 of the CRD.

- Commenter states that their primary concern is that the NEPA process does not allow for all comments to be given equal weight in the decision making process. A DOE representative stated in an email to me dated April 13, 2015 that "During the NEPA process the Department of Energy considers all comments. Comments most helpful are those relevant to the goals of the NEPA process which are the evaluation of potential environmental impacts and supporting a better informed decision by a Federal Agency." My issue is that those comments not related to the environmental aspect of this project will not be given due consideration. There are many comments of record regarding particular properties. These stakeholders are concerned with the loss of their lifestyles and livelihoods, many of which have been shared by multiple generations of these families. Are their voices going to be heard or will they be ignored because their comments do not fit the strict criteria set out by the DOE. There are many people who will not be able to decipher the complex information in the Draft EIS. There are also many people who are not particularly adept at expressing themselves in writing. Will their pleas to preserve their health and well-being fall on deaf ears? At what point in this process are these comments taken into account? I see this as a fox in the henhouse situation. Only those comments deemed to be worthy will be taken into consideration and the judge of their worthiness is one of the potential participants in the project. How can this possibly be an impartial judgment call? How fair can a process be when one of the potential participants has editorial rights over the opposition?

Response:

DOE prepared this EIS pursuant to NEPA (42 USC § 4321; NEPA), the CEQ NEPA regulations (40 CFR Parts 1500–1508), and the DOE NEPA implementing regulations (10 CFR Part 1021). Prior to making a decision as to whether and under what conditions to

participate in the Applicant Proposed Project, DOE must fully evaluate the Project. This EIS will inform DOE's decision by analyzing the potential environmental impacts of the Project. A separate and parallel process was used to review Clean Line's application against the statutory criteria identified in Section 1222 of the EAct, which began when DOE made the application available for public review through a notice in the Federal Register (80 FR 23520, April 28, 2015). Those comments made on non-NEPA factors relevant to the Section 1222 application, along with comments submitted on the EIS, will be considered by DOE in making its determination of whether to participate in the Applicant Proposed Project.

NEPA requires appropriate consideration of the human environment per 42 USC § 4332, Sec. 102. Such impacts are discussed in the socioeconomic section of the Final EIS. The comment response process described in Chapter 1 of the CRD demonstrates the "equal" treatment of all comments.

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2D Public Hearing Process

The following comments were received relative to the length of the public hearing process:

- Commenter expresses thanks for holding public meetings.

Response:

Comment noted.

- A third year law student at the University of Colorado Law School has chosen to comment on the Plains and Eastern Draft EIS in connection with a class assignment dealing with environmental decisionmaking by government agencies that focuses largely on the NEPA process. Commenter requests permission to submit his comments on May 1, 2015, after the April 20, 2015 close of the public comment period.

Response:

Comment noted. Comments submitted after the deadline were considered to the extent practicable.

- Commenter was told by Clean Line they needed to attend a DOE meeting before they could talk to the landowner about their property. Commenter states this is going to put a bind in trying to get everyone's concerns met if you only have 30-90 days to respond.

Response:

DOE is not aware of all meetings or correspondence between the Applicant and landowners. The public comment period associated with the Draft EIS was extended to 120 days. This extension was based on requests from the public and gave commenters 30 extra days to review the Draft EIS and provide comments.

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2E NEPA Compliance

The following comments were received relative to NEPA compliance:

- Commenter believes it is imperative that an independent and governmental environmental impact assessment along with an independent and government assessment of the impact on wildlife be performed prior to these lands even being considered for this line.

Response:

Potential impacts from the Project to wildlife and special status wildlife are addressed in the Final EIS in Sections 3.14 and 3.20. DOE and Clean Line are consulting with the USFWS under Section 7 of the ESA for those special status species listed as threatened or endangered. Through the separate, but parallel Section 7 consultation process that includes a detailed Biological Assessment (BA) of potential threats to ESA-listed species, DOE and USFWS will identify specific protection and mitigation measures to avoid, reduce, and mitigate any potential impacts to these species, including possible surveys. The Biological Opinion, to be issued by the USFWS prior to the issuance of the ROD, may identify additional protective measures to avoid or minimize impacts to special status species.

- Commenter believes that the environmental impact study has been performed solely from a desk with no on-site investigation.

Response:

DOE prepared the EIS using the best available public data. A Reference CD has been provided for the reader to ensure easy access to certain reference documents used to develop this EIS. Included on the CD are the resource-specific technical reports developed by Clean Line of existing environmental conditions in the ROI. Field work has been conducted for threatened and endangered species in suitable habitat where landowners have allowed access on their properties. Cultural resource fieldwork to identify historic and cultural properties is taking place in 2015. Other fieldwork, such as wetland delineations, would occur prior to construction and would be conducted according to specific agency requirements.

DOE independently verified the data in the resource-specific technical reports developed by Clean Line, and conducted additional analysis using the best available public data. The methodology and data used for each resource is specifically described in each resource chapter. In addition, the Reference CD includes PDF files of reference works consulted during the development of this EIS that are not available on the internet and not protected by copyright laws.

- Commenter believes that out-of-date materials are being supplied by Clean Line to landowners along the proposed route. These materials were published in 2002, and knowledge concerning the issues addressed therein has clearly advanced in the last 13 years.

Response:

Comment noted. DOE prepared the EIS using the best available public data.

DOE has prepared this EIS pursuant to NEPA (42USC § 4321; NEPA), the CEQ NEPA regulations (40 CFR Parts 1500–1508), and the DOE NEPA implementing regulations (10 CFR Part 1021).

- Commenter states that the ROI is not sufficiently fixed or described to enable a commenter to evaluate the potential effects of the construction, operation, maintenance and decommissioning of the transmission line on each of the study subjects or resources. The Draft EIS acknowledges, "the siting of a transmission line ROW and the converter stations would require detailed engineering that considers a number of factors listed in the Draft EIS on Page 3:1-3. If the promoter of this project is unable to identify the specific route that the right-of-way and the transmission line will follow, it is unreasonable to expect commenters on the Draft EIS to identify potential environmental impacts and provide specific, comprehensible comments.

Response:

Section 3.1 of the EIS defines the area potentially affected by the Project as the ROI. The ROI extends beyond the physical dimensions of the HVDC and AC transmission ROWs and converter station footprints. The ROIs defined for the various Project components are the "base" or standard ROI for the analysis. These ROIs have been expanded or modified on a resource-specific basis where appropriate as described in certain resource area sections. Resources for which the ROIs have been expanded or modified include air quality and climate change, environmental justice, groundwater, surface water, special status wildlife and fish species, socioeconomics, transportation, and visual resources. Specific routes and locations of Project features are shown on maps in Appendix A of the Final EIS. In addition, the same Project features shown in Appendix A of the Draft EIS also were shown on an interactive map on the Plains & Eastern website that allowed users to zoom in to a particular area of interest.

- Commenter believes the Draft EIS is premature, and should be withdrawn until a specific corridor and right-of-way is determined, outlined for all to see, and upon which all could comment about specific impacts. 40 CFR §1502.14 requires that the environmental assessment discuss the direct effects of the proposed action and their significance.

Response:

The analysis of potential resource impacts was based on a ROI and representative ROW within the ROI. An explanation of the ROI and approach to resource analysis was included in Chapter 3, Section 3.1.1, in the Draft EIS. Specific routes and locations of Project features were shown on maps in Appendix A of the Draft EIS. In addition, the same Project features shown in Appendix A of the Draft EIS also were shown on an interactive map on the Plains & Eastern website that allowed users to zoom in to a particular area of interest.

- Commenter believes that the scope of consideration of direct and indirect impacts of the proposed project for each alternative is entirely too narrow. Direct impacts are those impacts that are caused by the Project and occur at the same time and place. 40 CFR 1508.8(a). The Draft EIS limits the scope of consideration for those impacts to the Applicant Proposed Route. Obviously, a project of this size and nature would have direct and indirect impacts

that affect areas beyond the project site itself, and those have not been adequately addressed. 40 CFR §1502.14 also requires that the environmental assessment discuss the indirect effects of the proposed action and their significance. Indirect impacts are those caused by the Project and are later in time or further removed in distance, but are still reasonably foreseeable. (40 CFR §1508(b)) The same comment set forth above regarding the inadequate analysis of direct impacts is true of the analysis of indirect impacts.

Response:

Chapter 3 of the EIS evaluates potential impacts associated with the Applicant Proposed Route, other elements of the Applicant Proposed Project, DOE Alternatives, and a No Action Alternative. The EIS defines the area potentially affected by the Project as the ROI. The ROI extends beyond the physical dimensions of the HVDC and AC transmission ROWs and converter station footprints. The ROIs defined for the various Project components are the “base” or standard ROI for the analysis. These ROIs have been expanded or modified on a resource-specific basis where appropriate as described in certain resource area sections. Resources for which the ROIs have been expanded or modified include air quality and climate change, environmental justice, groundwater, surface water, special status wildlife and fish species, socioeconomics, transportation, and visual resources.

Section 3.1.3 discusses direct and indirect impacts and these impacts are analyzed across 19 different resource sections from Section 3.2-3.20.

- Commenter states that the Draft EIS does not designate a single Preferred Alternative. NEPA regulations require that an alternative must be designated as the agency's preferred alternative. Commenter states the Draft EIS is not valid without the designation of a single preferred alternative. Any additional analysis of the Alternatives and No Action Alternative, and the identification of a preferred alternative (including the rationale for the selection of such alternative as the preferred alternative) should be made available to the public for review and comment.

Response:

DOE has prepared this EIS pursuant to NEPA (42USC § 4321; NEPA), the CEQ NEPA regulations (40 CFR Parts 1500–1508), and the DOE NEPA implementing regulations (10 CFR Part 1021). DOE is required to identify a preferred alternative in the Final EIS. A discussion of the preferred alternative is included in Section 2.14.

- Commenters believe the Alternatives Analysis is flawed in that there is insufficient information provided regarding each alternative to enable a reviewer to determine the applicability of the criteria for selection and analysis of alternatives. The EIS does not provide an adequate consideration of alternatives, beyond the No Action and Proposed Action. The only alternatives provided are engineering/economical alternatives that do not give the decision maker complete data on all reasonable alternatives, as required by NEPA and CEQ. In addition DOE has not documented or considered impacts of reasonable alternatives to the Proposed Action, and the EIS should be redone to address real alternatives.

Response:

DOE has provided a discussion of reasonable alternatives in Section 2.4 of the Final EIS, including the No Action Alternative, HVDC route alternatives by region, and construction of an Arkansas converter station. Discussion of alternatives that were considered but eliminated from detailed analysis is provided in Section 2.4.4 of the Draft EIS.

Details regarding the route development process are described in the DOE Alternatives Development Report (DOE 2013) and are summarized in Appendix G of this EIS.

- Commenter believes the analysis in the Draft EIS ignored ten residences, a church, a cemetery, active gas wells that will be directly under the transmission line, a designated Civil War trail and the general lay of the land. Commenter questions why DOE's key observation point (KOP) was 1.8 miles away. Virtually every observation that DOE made was invalid. Commenter states this is not acceptable and wonders how many other assessments were botched?

Response:

DOE prepared the EIS using the best available public data. A Reference CD has been provided for the reader to ensure easy access to certain reference documents used to develop this EIS. Included on the CD are the resource-specific technical reports developed by Clean Line of existing environmental conditions in the ROI. DOE independently verified the data in the resource-specific technical reports developed by Clean Line, and conducted additional analysis using the best available public data. Data have been updated since the Draft EIS, as practicable, to include features identified by comments that also included locational information that was not previously included on the maps for analysis. However, if the comment did not specifically identify the location of these resources, the features cannot be added to the maps. All designated Civil War Trails have been documented to the best of DOE's knowledge.

Visual impacts to historic trails are discussed in the visual resources assessment in Section 3.18 of the Final EIS. KOPs represent critical or representative viewpoints used to assess impacts. The visual impacts vary depending on factors such as location, topography, vegetation, other existing features in the landscape, and distance a viewer is from the Project.

- Commenter believes that the Draft EIS for this project appears to be thorough and consistent with the requirements of NEPA. The Draft EIS outlines impacts, some of which are unavoidable. Knowing the regulatory environment here in Arkansas, commenter believes that the line can be constructed with minimal permanent environmental impact.

Response:

Comment noted.

- Commenters state that maps being used by Clean Line are old and outdated. For example, a commenter states that the map of existing transmission lines (commenter is not sure what section the maps were in or if they were in the initial application or in 2013) is flawed

because it failed to show at least one Southwestern Transmission across the Ozark NF. Also, a proposed alternative route goes through the commenter's home, however the commenter's home is not on the map. In addition, commenters state the maps do not accurately reflect current populations. Another example is that the current location of schools are not shown accurately. Clean Line must be required to base their studies on current maps with accurate population information; otherwise their studies and conclusions are completely inaccurate and unreliable. DOE and Clean Line need to practice due diligence to locate existing transmission lines and display them to the public on a legible map.

Response:

DOE prepared the EIS using the best available public data. A Reference CD has been provided for the reader to ensure easy access to certain reference documents used to develop this EIS. Sources for the reference data are included in Chapter 6 of the Final EIS. Included on the CD are the resource-specific technical reports developed by Clean Line of existing environmental conditions in the ROI. DOE independently verified the data in the resource-specific technical reports developed by Clean Line and conducted additional analysis using the best available public data. Data have been updated since the Draft EIS with information provided from the public on structures, cemeteries, schools, transmission lines, etc. Most data collection focused on the ROI for Project features.

The analyses of impacts for the Applicant Proposed Route, AC collection system, and HVDC alternative routes are based on a representative 200-foot-wide ROW (100 feet on either side of a representative centerline). Quantitative data regarding the resources that would be directly intersected by the representative 200-foot-wide ROW are used as a representative example of potential impacts from a ROW that could be sited within the 1,000-foot-wide corridor in the given ROI. The resources that could be affected by the Project vary throughout the 1,000-foot-wide corridor where the actual ROW could be located. The representative ROW does not necessarily reflect where particular resources are most or least concentrated or an average. For example, the representative ROW avoids many homes and environmental resources, and so moving the ROW within the 1,000-foot-wide corridor could result in environmental impacts different from those described for the representative ROW.

The siting of a transmission line ROW and the converter stations would require detailed engineering that considers existing conditions; compliance with federal, state, and local permits and authorizations; and incorporation of all EPMs adopted by the Applicant. The potential impacts presented in this EIS would serve as one source informing the siting of the HVDC and AC transmission line ROWs and converter stations. Further, the siting of the four to six ROWs for the AC transmission lines that would be part of the AC collection system would also depend on the final locations of the wind generation projects. Those locations would not be known until after completion of this EIS process (including issuance of the ROD) and closer to the time of construction of the Project.

- Commenter states that all properties within 2,000 feet of the ROW need to be identified in the EIS. In addition, the EIS needs to recognize that adjacent and nearby property owners may be affected by corona noise and visual pollution just as those property owners whose

land is under the ROW. The EIS also needs to assess and catalog the adverse impacts borne by adjacent and nearby landowners.

Response:

The analyses of impacts for the Applicant Proposed Route, AC collection system, and HVDC alternative routes are based on a representative 200-foot-wide ROW (100 feet on either side of a representative centerline). Quantitative data regarding the resources that would be directly intersected by the representative 200-foot-wide ROW are used as a representative example of potential impacts from a ROW that could be sited within the 1,000-foot-wide corridor in the given ROI. The resources that could be affected by the Project vary throughout the 1,000-foot-wide corridor where the actual ROW could be located. The representative ROW does not necessarily reflect where particular resources are most or least concentrated or an average. For example, the representative ROW avoids many homes and environmental resources, and so moving the ROW within the 1,000-foot-wide corridor could result in environmental impacts different from those described for the representative ROW.

- Commenter states that the EIS needs to catalog all identified adverse impacts into an Avoidable and Unavoidable Adverse Impacts List in the EIS. For avoidable impacts, clearly describe how they may be mitigated so that just outcomes prevail. For unavoidable impacts, look for and assess new routes that may eliminate or reduce the adverse impacts. Where unavoidable adverse impacts remain, describe and quantify what parts of each impact can or cannot be mitigated.

Response:

This information is summarized in Chapter 2, Section 2.6 of the Final EIS.

- Commenter states that the EIS should quantify and evaluate the impact on key issues including impacts on special-status species on both a state and federal level; route alternatives should be included that minimize such impacts; visual impacts including impacts on scenic vistas must be addressed; impacts on property values and continued agricultural use of the land; and socioeconomic and environmental justice concerns must be carefully evaluated.

Response:

The EIS quantifies and evaluates the impact on Special Status Species in Section 3.14, visual impacts in Section 3.18, agriculture in Section 3.2, socioeconomics in Section 3.13, and environmental justice in Section 3.5. Each of these sections contains the quantified description of impacts for alternative routes.

- The commenter objects to the proposed plan and will do so in the future unless the DOE requires this Applicant to do the following: Contact impacted landowners to determine what parties may be interested in selling their land or granting easements. Implying the power of eminent domain in public presentations does not replace stakeholder engagement; conduct environmental screening of potential route alternatives to identify route segments that have lesser environmental impacts; prepare and provide accurate visual simulations that allow the public the opportunity to determine the visual impact this significant feature may have.

Response:

DOE notified the public and affected landowners prior to public scoping and the Draft EIS. The EIS evaluates the environmental impacts of construction, operations and maintenance, and decommissioning of the Applicant Proposed Route as well as numerous alternative routes. Visual simulations have been provided from representative areas throughout the regions of the Project and these are available in the Final EIS (Appendix K).

To the extent that the DOE participates in the Project, the acquisition of easements and in limited areas, land purchased in fee (such as for the converter stations), may be subject to applicable provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1940 (Uniform Act), the purpose of which is to ensure that landowners are treated fairly and consistently. The Applicant intends to acquire all of the necessary ROWs for the Project through voluntary negotiations, and has developed a Code of Conduct for its negotiations with landowners. This Code of Conduct requires that all communications with landowners be factually correct, in good faith, and respectful. A copy of this Code of Conduct can be found in comments submitted by the Applicant, which are included in this CRD (see page 2-856 of this CRD). The Code of Conduct is also available on Clean Line's website at: <http://www.plainsandeasterncleanline.com/site/page/code-of-conduct>. In addition, the Applicant has executed a Private Rights Settlement Agreement (also available at the above website), which requires, when negotiating easements with landowners in Oklahoma, that the issue of compensation be determined by binding arbitration if the landowner and the Applicant are able to reach agreement on the form of easement but are not able to reach agreement on the amount of compensation.

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2F Availability of Information

The following comments were received relative to the availability of information:

- Commenter requests that ESRI shapefile or geodatabase format files be made available for the Applicant Proposed Route and HVDC alternative routes that are available on the interactive and PDF maps on the website.

Response:

GIS data is only provided in shapefile format to cooperating and consulting agency staff during the EIS process. All data that the DOE and the third-party contractor have access to are disclosed and included in the analysis of potential impacts in the Final EIS. These data will not be available for distribution in shapefile format.

- Commenters state that the availability of information on the project is not good. Commenters request communication from DOE or Clean Line to voice their concerns. Commenters believe that DOE has a lack of information available to landowners/stakeholders and that Clean Line is ignoring questions from landowners placed on Clean Line's Facebook page and believes that Clean Line is not engaging landowners.

Response:

The DOE has developed a website and email address to correspond with the public and to take comments. All public Project information is posted on the website and is available for review. In addition, the EIS process has included 28 public meetings throughout the Project area over 3 years. Contact information for DOE representatives are included on the Plains & Eastern EIS website at <http://www.plainsandeasterneis.com/contact-us.html>. Contact information is provided for the DOE Document Manager and the Director for the Office of NEPA Policy and Compliance. The Applicant is responsible for its own public outreach efforts and communicating with public outside the NEPA process.

- Commenters note that they have not received their requested copies of the EIS. Commenters note that there are a lot of landowners that have not received the printed material from the EIS Study. Commenters ask how they are supposed to make informed comments when they cannot review the EIS. Commenter questions what the holdup is on shipping the printed material.

Commenter states that the information on the project's technical and financial feasibility is not easy to obtain. Commenter was not able to find information on the Plains and Eastern website or the DOE NEPA website. Commenter asks where and when will this information be available and how can the public make informed comments if all the information is not available.

Response:

The Draft EIS was made available on the DOE Project website and the DOE NEPA website beginning on December 12, 2014. Due to overwhelming requests for hard copies of the EIS, hard copies were backordered, and the public comment period associated with the Draft EIS was extended to 120 days. This extension was based on requests from the public and gave

commenters 30 extra days to receive and review the Draft EIS. All requests for hard copies of the Draft EIS were fulfilled. The total comment period associated with the public hearings ran for 120 days between December 12, 2014, and April 20, 2015. Additionally, 25 libraries along the proposed route were asked to carry hard copies of the Draft EIS prior to the public comment period. Not all libraries were willing to accept hard copies, and requested either CD copies, or refused any copies of the Draft EIS, opting for online access to the Draft EIS instead.

DOE's non-NEPA evaluation of the Applicant Proposed Project occurred separately and parallel to the NEPA process. DOE performed its Section 1222 due diligence on other factors, including technical and economic feasibility and whether the Project is in the public interest. In December 2014, DOE requested additional information from the Applicant to supplement and update its original application. The updated Part 2 application and other documentation were made available for public review on April 28, 2015 (<http://www.energy.gov/oe/downloads/plains-eastern-clean-line-transmission-line-part-2-application>) for an initial 45-day public comment period (80 FR 23520, April 28, 2015). As a result of public and Congressional requests, DOE extended the public comment period an additional 31 days to July 13, 2015 (80 FR 34626). DOE accepted comments on whether the proposed Project meets the statutory criteria listed in Section 1222 of the EAct as well as all factors included in DOE's 2010 Request for Proposals. DOE will consider comments received in response to this notice, along with information included in the Final EIS, in making its determination of whether to participate in the Applicant Proposed Project.

- Commenter states that when a Clean Line representative discussed the project with them, there were no details given about the size and scope of this project, or that there was a proposed "preferred corridor." Information he gave was completely untrue. Commenter notes they were never initially informed that their property was part of an "alternative route" or the "preferred route." Commenter felt frustrated by this lack of information, or incorrect information.

Response:

The DOE has developed a website and email address to correspond with the public and to take comments. All public Project information is posted on the website and is available for review. Interested individuals can find route maps on the Project website at: <http://plainsandeasterneis.com/interactive-map.html> and resource maps are available in Appendix A of the Final EIS. In addition, the EIS process undertaken by DOE has included 28 public meetings throughout the Project area over 3 years. Contact information for DOE representatives are included on the Plains & Eastern EIS website at <http://www.plainsandeasterneis.com/contact-us.html>. Contact information is provided for the DOE Document Manager and the Director for the Office of NEPA Policy and Compliance. The Applicant is responsible for its own public outreach efforts and communicating with public outside the NEPA process. The preferred route is identified in the Final EIS. Interested individuals can find route maps on the Project website at: <http://plainsandeasterneis.com/interactive-map.html> and resource maps are available in Appendix A of the Final EIS.

- Commenters expressed concern regarding the availability of the Draft EIS at local libraries. One commenter was disappointed that the Draft EIS was not available at the Johnson County Public Library or the Franklin County Public Library for review before the public meeting as listed on the DOE website. Commenter noted the Draft EIS was only available at Pope County Public Library as of February 13, 2015, only five days before the public meeting. Another commenter noted that the Pope County Library in Russellville, Arkansas, only had the Draft EIS on disk. Commenter would prefer the library to have a hard copy of the EIS. Another commenter states that despite repeated requests for a hard copy, the Johnson County Regional Library, Clarksville, Arkansas, has never received a hard copy of the Draft EIS. The lack of availability has created problems for stakeholders in reviewing the document and providing meaningful comment.

Response:

Twenty-five libraries in the vicinity of Project features were asked to carry hard copies of the Draft EIS prior to the public comment period. Not all libraries were willing to accept hard copies, and requested either CD copies, or refused any copies of the Draft EIS, opting for online access to the Draft EIS instead. During the Draft EIS public hearings, DOE contacted libraries again and asked them if they wished to receive hard copies of the Draft EIS. Additional hard copies of the Draft EIS were sent at that time.

- Several commenters are disappointed that they are just finding out about the project. Commenter also states as lessons learned, make sure to let people know.

Response:

Comment noted. Please review Appendix D of the Final EIS for details regarding public outreach efforts made by the DOE, including a summary of the scoping process in 2012 and 2013, and Chapter 1 of the CRD for a summary of the public hearing process in 2014 and 2015.

- The most affected people were to last to find out, LONG after the Scoping period.

Response:

Comment noted. Please review the Appendix D of the Final EIS for details regarding public outreach efforts made by the DOE, including a summary of the scoping process in 2012 and 2013, and Chapter 1 of the CRD for a summary of the public hearing process in 2014 and 2015.

- Commenter states that there has been silence and lack of transparency about comparing potential use of public lands to the current route proposals. This data and costs should be shared.

Response:

Some routes investigated were considered but eliminated from consideration through the course of the routing process. Routes that were considered and eliminated, and rationales for their elimination, are provided in the DOE Alternatives Development Report, and excerpts from that report are provided in Appendix G of the EIS. The full Alternatives Development

Report is available online at:

<http://plainsandeasterneis.com/component/phocadownload/category/20-reference-cd.html>.

Section S.5.5 of the Final EIS summary explains why HVDC Alternative Route 4-B, which would cross the Ozark National Forest in Crawford County, Arkansas, was not selected for the Applicant Preferred Route. In the routing effort, certain types of federal lands were considered sensitivities based on environmental and resource characteristics as described in Appendix G.

- Commenter states that, with the amount of funding the project has, more research and detailed scientific data should be provided to the public so that they can understand the full scope of the effects and potential the project has to irreversibly commit all resource areas identified/analyzed in the EIS.

Response:

DOE prepared the EIS using the best available public data. A Reference CD has been provided for the reader to ensure easy access to certain reference documents used to develop this EIS. Included on the CD are the resource-specific technical reports developed by Clean Line of existing environmental conditions in the ROI. The third-party contractor independently verified the data in the resource-specific technical reports developed by Clean Line and conducted additional analysis using the best available public data. The methodology and data used for each resource is specifically described in each resource chapter. The research and scientific data used to prepare the EIS can be found in Chapter 6 (References). In addition, the Reference CD (available online at: <http://plainsandeasterneis.com/component/phocadownload/category/20-reference-cd.html>) includes PDF files of reference works consulted during the development of this EIS that are not available on the internet and not protected by copyright laws.

2G Cooperating Agencies

The following comments were received relative to cooperating agencies:

- Commenter is concerned that no consultation was made with the National Oceanic and Atmospheric Administration.

Response:

The Project was not identified as having components or activities related to jurisdiction, authority, or expertise of the National Oceanic and Atmospheric Administration. However, the Draft EIS was made available for the public and agencies to review and comment.

- Commenter notes that the Draft EIS Summary states that the Bureau of Indian Affairs has jurisdiction by law and/or has special expertise. Commenter feels that it is important to honor the wishes of the Tribes and Sovereign Nations. If the Bureau of Indian Affairs' expertise conflicts with the Tribes/Sovereign Nations wishes, then the Tribes/Sovereign Nations should have final say over their lands.

Response:

BIA is a cooperating agency for the EIS under NEPA; BIA is also a consulting party under Section 106 of the NHPA. In accordance with NHPA Section 106, DOE is involved in consultations with SHPOs, certain Indian Tribes and Nations on whose tribal lands the undertaking may occur or that attach religious and cultural significance to historic properties that may be affected by the undertaking; THPOs; local, state, and federal agencies; and others to develop a draft Programmatic Agreement (Appendix P of the Final EIS) that will provide a process for addressing the Project's potential effects on historic properties, including archeological sites, historic buildings and structures, and TCPs. See Section 3.9.1.1.2 of the EIS. The only location along the Project involving tribal lands is in the vicinity of a crossing of the Arkansas River south of Webbers Falls Lock and Dam 16. Tribal interests here are managed by the Arkansas Riverbed Authority, an entity created jointly by the Chickasaw, Choctaw, and Cherokee Nations (Title 25 USC §§ 1779-1779f) to administer tribal interests in this section of the river. In addition, the BIA has legal jurisdiction with regard to ROWs over land held in trust for American Indians (Final EIS Section 1.2.1). DOE intends to execute the Programmatic Agreement prior to issuance of the ROD or otherwise comply with procedures set forth in 36 CFR Part 800.

- Commenter feels that the Arkansas Forestry Commission needs to be contacted.

Response:

Comment noted. DOE has engaged and consulted with state agencies during the NEPA process. A list of agencies contacted was provided in the Draft EIS. The Draft EIS was made available for public and agencies to review and comment.

- Commenter notes that on Page 1-6 of the EIS, there is no need for the Tulsa District Regulatory Office to be listed twice.

Response:

DOE reviewed Page 1-6 of the Draft EIS and could not find the “Tulsa District Regulatory Office” listed twice. One mention of the USACE Tulsa “District” occurs in Table 1.6-1.

3 Permits/Laws/Regulations

The following comments were received relative to permits, laws, and regulations:

- Commenter states that, while the public record indicates that outreach to Indian tribes occurred, it omits mention of the DOE having conducted any formal consultation with tribal officials pursuant to Executive Order 13175. Tribal leaders were instead invited to participate in public forums under the NHPA and NEPA procedures. The failure to consult directly with Indian tribes is inconsistent with the administration's practices and policies of engaging with tribal nations on a government-to-government basis. Commenter strongly urges the Department of Energy and cooperating agencies to extend the comment period and conduct formal consultation with Indian tribes in accordance with Executive Order 13175 and other policies. Commenter states that, while the Cherokee Nation supports clean energy projects, they believe that tribal consultation in accordance with Executive Order 13175 is consistent with the principles of tribal sovereignty and Indian self-determination, and will foster a sound and productive dialogue about any issues confronting the communities as a result of the Clean Line project. Commenter feels that, unless and until such consultation occurs, no further action on the Clean Line project should be taken that impacts Cherokee Nation.

Response:

Pursuant to Executive Order 13175, the DOE's Section 106 consultation process, which requires government-to-government consultation with Tribes and Nations, was formally initiated by DOE in 2012, and the preparation of a Programmatic Agreement for the Project is nearing completion. The commenter's statement that government-to-government consultation has not been initiated is incorrect. Tribes and Nations have received multiple invitations since 2012 to participate in the DOE NHPA Section 106 consultation process, including the Cherokee Nation. The Tribes and Nations, including the Cherokee Nation, listed below are participating as Consulting Parties to the Section 106 consultation process and development of a Programmatic Agreement (the draft Programmatic Agreement is included in Appendix P of the Final EIS). The Consulting Parties are engaging in government-to-government consultation with DOE regarding the Project and the Programmatic Agreement. DOE intends to execute the Programmatic Agreement prior to issuance of the ROD or otherwise comply with procedures set forth in 36 CFR Part 800. Current Consulting Parties to the Section 106 consultation process at this time include:

*U.S. Department of Energy
Southwestern Power Administration
Advisory Council on Historic Preservation
Tennessee Valley Authority
U.S. Department of the Interior, Bureau of Indian Affairs
U.S. Department of the Interior, Fish and Wildlife Service
U.S. Department of Interior, National Park Service
Oklahoma State Historic Preservation Office
Oklahoma Archaeological Survey
Arkansas Historic Preservation Program
Tennessee Historical Commission
Texas Historical Commission*

Cherokee Nation
Absentee-Shawnee Tribe of Oklahoma
Chickasaw Nation
Choctaw Nation
Iowa Tribe of Oklahoma
Muscogee (Creek) Nation
Osage Nation
Quapaw Tribe of Oklahoma
Sac and Fox Nation
Thlopthlocco Tribal Town
United Keetoowah Band of Cherokee Indians in Oklahoma
Wichita and Affiliated Tribes
Kialegee Tribal Town
Apache Tribe of Oklahoma
Plains and Eastern Clean Line LLC and
Plains and Eastern Clean Line Oklahoma LLC
Woodward County, Oklahoma

- Commenter notes that their Division of Water Resources stated several permits may be required for the proposed action. Permits issued by the Division of Water Resources that might be required include but are not limited to an aquatic resource alteration permit for any stream crossings; a national pollutant discharge elimination permit (NPDES) if there are surface water discharges; a NPDES construction stormwater general permit due to the size of the footprint and associated area of disturbance of the converter stations and the length of the power line; and an underground injection control permit if there are discharges to ground water, dry wells/blowdown or sumps at the converter station.

Response:

DOE appreciates the list of permits that may be required from the Department of Water Resources. Section 2.1.7 of the Final EIS addresses federal, state and local laws, regulations and permits, and Appendix C of the EIS provides an overview of potential federal and state permits, including the aquatic resource alteration permit and NPDES construction permit. Discharges to surface water, groundwater, wells, or sumps that would require an NPDES discharge permit or underground injection control permit are not anticipated, but would be obtained if such activities were later implemented as part of this Project.

- Commenter notes concern about legal challenges that may delay the line 5 to 10 years, and additionally changes in laws during construction that could allow one of the affected states to block the Clean Line project from moving forward. Arkansas Electric Cooperative Corporation supports the Assuring Private Property Rights Over Vast Access to Lands Act introduced by Arkansas's United States Senators John Boozman and Tom Cotton. If passed, this legislation would require that the DOE receive the approval of both the governor and the public service commission of an affected state before exercising the federal power of eminent domain to acquire property for Section 1222 transmission projects, such as Clean Line.

Response:

As stated in Section 2.1.7 of the Final EIS, for the purpose of all analyses for the EIS, it is assumed that the Applicant and DOE would conduct each phase of the Project in compliance with applicable federal, state, and local laws, regulations, and permits related to construction, operations and maintenance and decommissioning of the Project. These would include any newly enacted laws relevant to the Project.

- Commenter states that Section 1222, does not preempt state siting requirements. Accordingly, Clean Line will be required to obtain applicable state authorizations for the siting of the transmission line (e.g., a public utility commission certificate of public convenience and necessity or certificate of environmental compatibility and public need). In a proceeding before the Arkansas Public Service Commission (PSC), the PSC noted that “Clean Line has acknowledged that there will be a future [Certificate of Environmental Compatibility and Public Need (CECPN)] proceeding.” Consequently, Appendix C to the Draft EIS (“Potential Federal and State Permits and Consultation Required for the Project”) should include the CECPN proceeding under the list of Arkansas regulatory proceedings.

Response:

Comment noted; however, the comment is outside the scope of the Final EIS. Siting requirements of the sort identified by the commenter do not change the environmental impacts of the Project. DOE does not intend to speculate about whether the Arkansas Public Service Commission or any other regulatory body would authorize the siting of the Plains and Eastern transmission line should DOE decide to participate in the Project.

- Commenter states that the Draft EIS describes the status of Clean Line's filing with the Tennessee Regulatory Authority (TRA). See Section 2.2.1.3, p. 2-23, line 16-21. In January, the TRA granted without restriction Plains and Eastern Clean Line, LLC's Petition for a Certificate of Public Convenience and Necessity to construct and operate electric transmission facilities in the state of Tennessee. As part of preparing the Final EIS, please update this Section to reflect that TRA decision.

Response:

Section 2.2.1.3 of the Final EIS has been revised to reflect this change.

- Commenter suggests that DOE revise the ROI discussion for the TVA upgrades to include differentiation between direct assignment facilities and network upgrades. The ROI for the direct assignment facilities lies within the Tennessee converter station ROI. The ROI for the network upgrades, and in particular TVA's future 500kV transmission line, is not be determinable at this time. The Final EIS should reflect this clarification in the articulation of the ROI for the TVA upgrades within Chapters 2 and 3.

Response:

The EIS has been revised to include this clarification in Chapters 2 and 3 of the Final EIS.

- Commenter notes that within the Draft EIS, DOE has provided summaries of regulatory authorities for cooperating agencies, as well as a section describing the Regulatory

Background that may be relevant for each resource area within Chapter 3. Appendix C to the Draft EIS also includes a list of the potential federal and state permits or authorizations that may be required for the Project. As recognized by DOE, the discussions of relevant regulatory backgrounds and the potential application of federal or state permits/authorizations is intended to inform the public as to the scope of the Project and place its activities within the context of other regulatory programs and statutory requirements. However, in certain instances, the Draft EIS includes statements that could be misconstrued as determinative that certain permits or authorizations “will be” obtained. For example, the introductions to Section 3.10.1 and 3.12.1 refer to Appendix C detailing “applicable permits” (Section 3.10.1, p. 3.10-1 and Section 3.12.1, p.3.12-1) without further explanation that Appendix C actually describes permitting or authorization requirements that may be applicable to the Project. See also Section 3.19.6.1.2.1, p. 3.19-33, ln 15-22, regarding Clean Water Act Section 404 permits.

Response:

The specific wording of these sections of the Final EIS has been revised to reflect that Appendix C lists permits that may apply, depending on final details, should the Project be implemented.

- Determining the applicability and scope of specific regulatory requirements remains the responsibility of the administering agency. In the case of DOE's fulfillment of its consultation requirements with USFWS under Section 7 of the ESA, it is appropriate for the EIS to reflect DOE's determination and actions. However, where the determination regarding applicability is within the province of another federal, state, or local agency, the Final EIS should continue to discuss such requirements with appropriate conditionality.

In addition to clarifying the potential applicability and/or relevance of particular regulatory requirements, other modifications and clarifications of the regulatory discussions are warranted. These detailed recommendations are included in Attachment 1 of the commenter's letter.

Response:

The Final EIS describes the Section 7 consultation process as a parallel and separate process and indicates that additional measures may be identified and adopted.

- Commenter notes that in Section 1.2.4, references should be corrected to read as:
 - Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403)
 - Section 9 of the Rivers and Harbors Act of 1899 (33 U.S.C. 401) (this reference is not applicable to the EIS), modifications to existing Corps of Engineers Projects (33 U.S.C. 408).

Response:

These references have been updated in Chapter 1, Section 1.2.4, of the Final EIS.

- The USACE is responsible for reviewing and granting permission for any work performed within the federal project boundaries as required by 33 USC 408. Federal projects include structures such as the levees found along the Mississippi River and its tributaries. Additionally, work performed within 1,500 feet of Mississippi River levees has the potential to adversely affect the ability of the levee to perform as intended. Any excavation or sub grade construction within 1,500 feet of a levee should be coordinated with the USACE to ensure no negative impact to the level of flood risk reduction being provided.

Response:

The description of Section 408 has been revised in Chapter 1 of the Final EIS.

- Commenter notes that water lines to converter station operation could possibly require permit verification.

Response:

This information has been added to Section 3.15.6.2.1.2 of the Final EIS.

- In Chapter 3.19, construction equipment within wetlands and use of construction matting would require permit verification with the Corps of Engineers.

Response:

This information has been added to Section 3.19.6.1.2.1 of the Final EIS.

- Commenter additionally notes that, within Fayetteville Shale Play area, impacts to wetlands or waters of the United States will require permit verification. Verification could be with the Nationwide Permits but also with other types of permits may be required, depending on the impacts. At this time, it would be pre-decisional to say impacts would be verified by and issued under the Nationwide Permit Program until the impacts are further evaluated.

Response:

The related wording has been revised in Section 3.19.6.2.1.1 of the Final EIS.

- Commenter states that private business should not be given exceptions to current laws related to wildlife, specifically overlooking the potential killing of eagles.

Response:

Comment noted. Section 3.20.1.7 of the EIS discusses potential impacts to wildlife.

- Commenter states that Clean Line should not be able to avoid dealing with state laws through partnership with a federal agency.

Response:

Comment noted. Sections 3.2–3.20 each include a subsection (e.g., 3.2.1 for Section 3.2, Agriculture) that discusses the regulatory background for each resource.

- Commenters note that several counties have passed resolutions that are in opposition to the Project. Commenters note that county judges and quorum courts in these county governments are all elected officials.

Response:

DOE received several county resolutions as comments on the Draft EIS and will consider these and all other comments.

- Executive Order 13406 states in Section One that the federal government must limit its use to taking property for public use for just compensation for the purpose for benefiting the general public. It should not be used for advancing the economic interest of private parties.

Response:

Comment noted. Responses related to eminent domain and public good are addressed in Section 4, Section 1222 Process (and subsections 4A–4C), and in Section 6, Easements and Property Rights/Value of the CRD.

- Commenter states that DOE should figure out a process by which the state is ultimately able to maintain its veto authority. It's one thing to say that old laws create situations where good interstate projects can't move forward. It's quite another to simply override decisions by a state PSC. Courtesy alone would dictate the second scenario is unacceptable.

Response:

Section 1222 of EPA Act does not require the federal government to obtain the approval of the state before taking action under the statute.

- Commenter attaches Act 842 of the Arkansas State Legislature. Commenter notes that this act was passed unanimously by both houses of the Arkansas State Legislature. This law gives the Arkansas Public Service Commission the right to approve or disapprove elements of CPCN applications, rather than being required to simply approve or disapprove the application in whole. Also, it more clearly defines the criteria for entities obtaining a CPCN. Commenter thanks legislators for their support against the project and the incursion into Arkansas's rights by the federal government.

Response:

Comment noted.

- Commenter notes that Arkansas legislators have introduced HB1592, strengthening the state's process of utility oversight. Additionally, federal legislation S.485, the "Approval" act, has been introduced by Senators Cotton and Boozman from Arkansas, returning the oversight of the use of eminent domain to the authority of the states, as it has been historically.

Response:

Comment noted. As stated in Section 2.1.7 of the Final EIS, for the purpose of all analyses for the EIS, it is assumed that the Applicant and DOE would conduct each phase of the Project in compliance with applicable federal, state, and local laws, regulations, and permits

related to construction, operations and maintenance and decommissioning of the Project. These would include any newly enacted laws applicable to the Project.

- It disturbs the commenter that the Project is not a part of any regional transmission authority plan.

Response:

Comment noted. The Applicant's Section 1222 application, Part 1 (<http://www.energy.gov/oe/downloads/plains-eastern-clean-line-project-proposal-new-or-upgraded-transmission-line-projects>) and Part 2 (<http://www.energy.gov/oe/downloads/plains-eastern-clean-line-transmission-line-part-2-application>) contains information on how the Project was developed using analyses and steps consistent with Regional Transmission Organization planning and how regional transmission plans show the need for west-east transmission lines, including HVDC transmission lines, similar to the Project. DOE is currently evaluating this and the rest of the Applicant's Section 1222 application and will reach a decision to approve or deny the application prior to DOE's issuing the ROD for the EIS.

- Commenter states problems with the project include lack of oversight from legislators or agencies.

Response:

Comment noted. Section 1.2 of the Final EIS lists the six cooperating agencies and their jurisdictions, authorities, or areas of expertise. Section 1.3 of the Final EIS lists the potential roles and responsibilities of other federal agencies with respect to their jurisdictions. Appendix C lists potential federal and state permits and consultation required for the Project. In addition, Chapter 3 of the Final EIS summarizes the laws and regulations applicable to the Project by resource area.

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4 Section 1222 Process

The following comments were received relative to the Section 1222 process:

- Several commenters state that the project is not compliant with Section 1222 of the EPAct.
 - Commenters state that the project does not meet the intent of Section 1222.
 - Commenters state that the project is not located in a Section 216(a) corridor, and thus must demonstrate that it is necessary to accommodate increase in demand; this needs to be explored more fully in the Draft EIS.
 - Commenters do not believe the project is for public use.
 - Commenter notes that there are serious obstacles that should prevent this project from proceeding with Department support. Section 1222 of the Energy Policy of 2005 requires that a project “will reduce congestion of electric transmission in interstate commerce” or “is necessary to accommodate an actual or projected increase in demand for electric transmission capacity.” Commenter feels the line does not satisfy these requirements because there is no indication that the Southwest Power Pool or that the areas served by the Tennessee Valley Authority suffer from any congestion that this will alleviate. Commenter feels the additional construction will have to be completed in Tennessee to prevent the line from adding reliability and congestion problems. Further, the only demand to be served by the line will be demand Clean Line attempts to drum up itself. Commenter feels it is a suspect move to use government support for a transmission project where the anticipated demand for the project is being secured largely because of the transmission project itself being completed. Commenter feels the strangest aspect of using Section 1222 to justify Department support of this project is that no aspect of this project will benefit the energy grid in Oklahoma. Section 1222 only authorizes Department support for projects in the Southwestern and Western power areas. Commenter feels “[t]he Department would be using legal authority granted with a clear purpose to benefit particular power systems in order to provide benefits to another, completely different power system.” Commenter feels that such an exercise of authority would be beyond what the statute grants. Commenter feels that the Department should not proceed with the use of the federal government's eminent domain power mainly for the benefit of a private company. The line's private developers should be able to negotiate themselves for property necessary for the development of the line or, in the alternative, should be able to navigate the legal framework of Oklahoma before engaging in the serious exercise of property seizure within the state.
 - Commenter asks what process DOE will use to review applications under Section 1222. The commenter states that DOE states it will consider all criteria listed in Section 1222, but there are no rules for Section 1222 review. Are there Section 1222 implementing rules and regulations? If there are rules for Section 1222 review, please provide ASAP and post on the DOE site.

Response:

Evaluating the Applicant Proposed Project against the statutory criteria identified in Section 1222 of the EPAct is not the purpose of the EIS. There was an additional and parallel process to review Clean Line's application against the Section 1222 criteria as well as factors included in DOE's 2010 Request for Proposals. This process began when DOE made the application available for public review through a notice in the Federal

Register (80 FR 23520, April 28, 2015). DOE performed its Section 1222 due diligence on factors other than the potential environmental impacts, including technical and economic feasibility, and whether the project is in the public interest. DOE will consider information from this due diligence review, information included in the Final EIS, and comments received in response to the Federal Register notice when making its determination of whether to participate in the Applicant Proposed Project.

With regard to the potential need in Tennessee, TVA has provided Clean Line with a letter of interest, dated November 3, 2014

(<http://www.energy.gov/sites/prod/files/2015/04/f22/CleanLinePt2-Appendix-2-C.pdf>).

This letter of interest is included in Clean Line’s Section 1222 Application—Part 2, submitted January 2015

(<http://www.energy.gov/sites/prod/files/2015/04/f22/Clean%20Line%20Part%202%20Application%20-%20Final%203-6%20version.pdf>). The letter states:

TVA supports the advancement of the Plains and Eastern Clean Line as a potential option for the future needs of the region and encourages the appropriate authorities to provide the regulatory and other government review needed to move the project forward. The implementation of the Project could provide TVA with the potential to directly access low-cost wind generation from the Oklahoma Panhandle region to serve its customers.

- Commenters oppose the use of eminent domain and Section 1222 for a variety of reasons:
 - Commenters oppose granting eminent domain authority to entities that do not have it under current statutes. Commenters feel that eminent domain should be used only when absolutely necessary to serve critical public needs, not to advance private enterprise.
 - Commenter states that this abuse of power will only weaken legitimate utility needs in the future by the laws that will be brought forward to eliminate this abuse. Once the precedent of allowing eminent domain for private gain is set, other organizations or federal agencies will continue this abuse.
 - Commenter questions why Clean Line needs to partner with DOE to use Section 1222 if the project is “so good” for Oklahoma. Commenter believes DOE is wasting millions of taxpayer dollars only to serve the private investors in Houston, TX.
 - Commenter states that under legislation in Arkansas, only utility companies can be granted eminent domain.
 - Commenters state that having DOE involved so that eminent domain may be used is a repeat of history where the federal government takes important lands that are Cherokee and part of their history.
 - Commenter notes that if DOE does partner with Clean Line, DOE will be held accountable as well. Commenter notes that DOE should be prepared for a huge backlash from property owners once they realize their property is being taken from them to give to a private company through Section 1222.
 - Commenter states that being a private venture, Clean Line should be required to purchase the property it needs like other private concerns, that is by way of private negotiations and purchase. Using the power of eminent domain should be reserved to regulated public service companies where its use is mandated to be used only to benefit the public and not private interests.

- Commenter questions how much private property is the DOE and Clean Line willing to take in Oklahoma, Arkansas, and Tennessee under Section 1222.
- Commenter notes that the Southwestern Power Resource Association (SPRA) is concerned about the legal challenge to the right for the government to condemn land for this project. Commenter feels that the Department of Justice will more than likely be challenged on the use of Section 1222 to condemn land for this project. Commenter notes that Section 5 of the Flood Control Act of 1944 authorizes Southwestern to market and transmit hydroelectric power generated at Corps owned projects, and to construct and/or acquire only such transmission lines and related facilities that are necessary to market the hydroelectric power received from the Corps. Commenter does not feel that Section 1222 is explicit about the use of eminent domain. Commenter also notes that this project is the first to contemplate using Section 1222, so there is no precedent to rely upon. To prevent costly and lengthy litigation which can monopolize the resources of Southwestern, careful and deliberate legal analysis should be done to determine if the authority to condemn land exists in Section 1222, and if this Project will meet the “public use” requirement set out in the Fifth Amendment of the Constitution.
- Commenter notes that the Clean Line has not received approval from the state of Arkansas to site, construct or operate a transmission-only facility. In fact, the Project was outright denied by the Arkansas Public Service Commission. Accordingly, the Applicant has no legal authority to site a transmission line in Arkansas, and DOE has no adequate basis to participate with the Applicant in designing, developing, constructing, operating, maintaining, or owning the Project—i.e., there is no purpose and need for the Draft EIS.

Response:

DOE would only be involved if the Department decides to prepare a Participation Agreement after reviewing Clean Line’s application. If DOE decides to participate, a Participation Agreement between Clean Line and DOE would define under what conditions DOE would participate with Clean Line and, if applicable, would include any stipulations or requirements that resulted from this environmental review under NEPA. The details of DOE’s non-NEPA review process of Clean Line’s application are provided in the previous comment response.

As identified in Section 2.1.3 of the Final EIS, should DOE decide to participate, any property interests in land needed for the Project would be acquired through a negotiated sale or eminent domain proceedings by which the landowners would be compensated for their property interests. According to Clean Line’s expressed intent, its first step would be for Clean Line to offer compensation to landowners in exchange for easements or other property interests needed for the Project. If Clean Line is unable to acquire the necessary property interests from a landowner through a negotiated agreement, DOE may choose to acquire those property interests through a negotiated agreement for compensation. If a negotiated agreement is not possible, DOE may in appropriate circumstances exercise the federal government’s eminent domain authority to acquire the interests. Eminent domain, therefore, would only be used by the federal government and only in instances where negotiated agreements were not successful.

At this point in the process, DOE cannot estimate how much land acquisition in each state may require the use of eminent domain. As stated above, eminent domain would only be used where negotiated agreements were not successful.

With regard to the comment relative to Cherokee lands, DOE's Section 106 consultation process, which requires government-to-government consultation with Tribes and Nations, was formally initiated by DOE in 2012, and the preparation of a Programmatic Agreement for the Project is nearing completion. The Cherokee Nation is a consulting party in the Section 106 consultation process for the Project. Many other Tribes and Nations are participating as Consulting Parties to the Section 106 consultation process and preparation of the Programmatic Agreement (the draft Programmatic Agreement is included in Appendix P of the Final EIS), and have been engaged in it since its initiation; many others have joined along the way. Multiple face-to-face government-to-government consultation meetings and conference calls have been held by DOE since 2012.

- Several commenters support the Project and the granting of necessary regulatory approvals for the project to move forward.

Response:

These comments are noted.

- Several commenters encourage DOE to not participate with Clean Line under Section 1222.

Response:

These comments are noted.

- Commenter believes there was a conspiracy involved in enacting Section 1222.

Response:

Section 1222 was enacted by Congress as part of the EPAct and signed into law by President George W. Bush on August 8, 2005.

4A Financial Viability

The following comments were received relative to financial viability:

- Commenters do not believe the project is financially viable.
 - Commenter notes that other electric companies feel that this project is a waste of \$2 billion in taxpayer money. They feel they can gather, transport, and trade the electricity to other electric companies anywhere in the United States. Commenter notes that the U.S. Senate voted down an amendment not to extend the tax credit for wind energy, which amounts to \$2.8 billion stopped.
- From what the commenter understands, this transmission line is going to be 700 miles long, and each mile some of the electricity is lost. In other words, this doesn't make financial sense.
- Commenter notes that Clean Line has received conditional negotiated rate authority for the project but has also indicated it is not in a position to make an irrevocable commitment not to seek cost allocation from ratepayers.
- Commenter notes that, if the prices for this electricity are not competitive, no utility will buy the product, making the line completely useless.
 - Commenters do not believe Clean Line is capable of financing the project.
 - Commenter notes concern about bankruptcy or the dissolution of Clean Line when construction of line is 50% complete.
 - Commenter notes that the “Vice President of Stakeholder Relations” stated that HVDC option is not as cost-effective or reliable as other generation options.

Response:

The Project would not be funded by taxpayer dollars; it would be funded entirely by Clean Line. An additional and parallel process was used to review Clean Line’s application against the Section 1222 criteria as well as factors included in DOE’s 2010 Request for Proposals. This process began when DOE made the application available for public review through a notice in the Federal Register (80 FR 23520, April 28, 2015). DOE performed its Section 1222 due diligence on factors other than the potential environmental impacts, including technical and economic feasibility, and whether the project is in the public interest. DOE will consider information from this due diligence review, information included in the Final EIS, and comments received in response to the April 28, 2015, Federal Register notice when making its determination of whether to participate in the Applicant Proposed Project.

- Commenter states that wind energy with today's technology cannot live without taxpayer handouts. This includes the \$2 billion transmission line.

Response:

The evaluation of wind energy without subsidies is not within the scope of the EIS.

- Commenter wants to know what happens if the for-profit company is unable to remain in business and pay the debt for the bills. Will customers of SWPA be required to absorb costs

associated with efforts to carry out the provisions of Section 1222 as currently directed in providing ROW and other property for this for-profit company? If so, will customers of SWPA be forced to pay for such or will the customers be held harmless for such expenditure?

Response:

In parallel with the NEPA process, DOE evaluated the financial viability of the Applicant. This financial review began when DOE made the application available for public review through a notice in the Federal Register (80 FR 23520, April 28, 2015), and evaluated the section in Clean Line’s application that describes risk mitigation. Specifically, Clean Line’s application provides “...financial statements, insurance, and risk-mitigating elements to ensure that DOE and Southwestern will be held harmless from liabilities related to the Project and that such costs and liabilities will be the responsibility of Clean Line and others, as applicable.”

- Commenter notes that there are proven, effective and fair rules for determination and implementation of necessary power grid improvements and additions. The proposed “merchant” framework is neither fair nor honest to the parties involved; and raises questions for which the answers destroy the feasibility of the project.

Response:

An additional and parallel process was used to review Clean Line’s application against the Section 1222 criteria as well as factors included in DOE’s 2010 Request for Proposals. This process began when DOE made the application available for public review through a notice in the Federal Register (80 FR 23520, April 28, 2015). DOE performed its Section 1222 due diligence on factors other than the potential environmental impacts, including technical and economic feasibility, and whether the Project is in the public interest. DOE will consider information from this due diligence review, information included in the Final EIS, and comments received in response to the Federal Register notice when making its determination of whether to participate in the Applicant Proposed Project. The EIS does not evaluate the efficacy or fairness of the existing legislation.

- Commenter notes concern that Clean Line has not provided the Department of Energy or the citizens of the U.S. with a financial statement.

Response:

Evaluating the Project against the statutory criteria identified in Section 1222 of the EPCA is not the purpose of the EIS. These criteria include the financial viability of the Applicant. Clean Line provided financial statements to DOE as part of its application. An additional and parallel process was used to review Clean Line’s application against the Section 1222 criteria as well as factors included in DOE’s 2010 Request for Proposals. This process began when DOE made the application available for public review through a notice in the Federal Register (80 FR 23520, April 28, 2015). DOE performed its Section 1222 due diligence on factors other than the potential environmental impacts, including technical and economic feasibility, and whether the Project is in the public interest. DOE will consider information from this due diligence review, information included in the Final EIS, and

comments received in response to the Federal Register notice when making its determination of whether to participate in the Applicant Proposed Project.

- Commenter notes that, as a non-profit cooperative, they depend on low cost federal hydropower to keep rates low for its members. Commenter is Southwestern's largest preference customer purchasing approximately 26 percent of Southwestern's firm capacity, and as such has a direct and substantial interest with regards to costs incurred by Southwestern as a result of participation in the Project under Section 1222. Commenter states that under no circumstance should any costs associated with Southwestern's involvement in the project be born or subsidized by Southwestern customers. Further, it is contemplated that Southwestern will own at least half of the project and as such, Southwestern could be exposed to third party claims for injury to persons or property during construction, additional claims resulting from defective equipment or faulty engineering and finally claims against loss of revenue under any Power Purchase Agreement that Clean Line may enter into. Commenter states that Southwestern and its customers should be guaranteed insulation from any financial harm due to such claims. Commenter feels Clean Line should own complete responsibility for all NERC compliance requirements and any fines or other mitigation measures which may be assessed to the project. Clean Line should be responsible for all costs, including costs of additional staff if needed, so as not to interfere with service to Southwestern's current preference customers.

Response:

Evaluating the Project against the statutory criteria identified in Section 1222 of the EPC Act is not the purpose of the EIS. An additional and parallel process was used to review Clean Line's application against the Section 1222 criteria as well as factors included in DOE's 2010 Request for Proposals. This process began when DOE made the application available for public review through a notice in the Federal Register (80 FR 23520, April 28, 2015). DOE performed its Section 1222 due diligence on factors other than the potential environmental impacts, including technical and economic feasibility, and whether the Project is in the public interest. DOE will consider information from this due diligence review, information included in the Final EIS, and comments received in response to the Federal Register notice when making its determination of whether to participate in the Applicant Proposed Project. The EIS does not commit DOE/Southwestern to any level or type of participation. The details of Southwestern's participation will be presented in a Participation Agreement if DOE decides to participate.

- In the event DOE and SWPA may permissibly exercise eminent domain authority in connection with the Project, the costs of doing so can be expected to be substantial if the transmission line is routed through the Fayetteville Shale play. The interests of both surface and numerous oil and gas and other mineral holders will need to be negotiated or litigated. As a result, the length and complexity of condemnation proceedings will be multiplied. Moreover, the cost of condemning those interests will be far higher than if the line were routed through an area that does not contain a high concentration of valuable oil and gas and other mineral development.

Response:

As addressed in Section 2.1.3 of the Final EIS, any property interests in land needed for the Project would be acquired through a negotiated sale or eminent domain proceedings by which the landowners would be compensated for their property interests. These property interests would include oil and gas interests and other mineral development for the land needed for the easement. According to Clean Line's expressed intent, its first step would be for Clean Line to offer compensation to landowners in exchange for easements or other property interests needed for the Project. If Clean Line is unable to acquire the necessary property interests from a landowner through a negotiated agreement, DOE may choose to acquire those property interests through a negotiated agreement for compensation. If a negotiated agreement is not possible, DOE may in appropriate circumstances exercise the federal government's eminent domain authority to acquire the interests. Eminent domain, therefore, would only be used by the federal government and only in instances where negotiated agreements were not successful.

- Commenter notes that a foremost concern of the Southwestern Power Resources Association (SPRA) is that none of the costs or risks associated with the construction or implementation of the Project is passed to Southwestern or its customers. Commenter notes this project is outside the scope and ordinary course of business of Southwestern as authorized under Section 5 of the Flood Control Act of 1944, which is the marketing of federal hydropower. Commenter feels that Southwestern's customers should not have to pay for these costs. SPRA has identified several areas of potential risks or liabilities for this project. Commenter feels that the Department of Energy and Clean Line must provide a plan to insulate both Southwestern and the customers against risks and liabilities, and this plan should clearly identify how all of these and any other costs will not be passed to Southwestern or its customers before any decision can be reached about whether to proceed with this project under Section 1222. Commenter notes that, if it is determined that the authority exists to condemn land for this project, Clean Line and the Department of Energy must ensure that the customers of Southwestern and/or the taxpayers do not finance this acquisition. Clean Line must be required to reimburse Southwestern/Department of Justice for both the time spent acquiring this land, as well as for any payments that the government is ordered or required to pay as compensation for land rights. Commenter notes that, if the Secretary of Energy approves the Project and land is acquired, there are new areas of risk and/or liability which must be addressed. First is the issue of third party claims for injury to persons or property. If during development or construction activities, or during the operation or maintenance of the project, the activities of Clean Line or its contractors results in injury to either persons or property, Southwestern or its customers cannot be liable for any resulting claims. Additionally, if there is a third party claim for injury for any reason associated with the Project such as defective structures, faulty engineering, breach of contract for either facilities or power supply, or for any other reason, the customers of Southwestern cannot finance these legal proceedings or awards. Commenter notes that a clear plan needs to be in place to ensure that Clean Line pays for all legal expenses associated with any other activity of the Project, including property disputes. Further, Commenter notes that Clean Line needs to pay for property taxes and any other taxes associated with this project, even though Southwestern is expected to own large portions of it. Commenter also states that, if the project is not completed for any reasons once construction has begun, Southwestern and its customers

cannot be required to complete the Project and/or provide service under the contracts. This is particularly in the case of bankruptcy. Southwestern does not want to be left owning a noncontiguous transmission line from which it does not obtain any benefits. Commenter also states that any costs, including the ongoing costs of staff time and the hiring of additional employees, must be paid by Clean Line.

Response:

The financial viability of the Project was evaluated in an additional and parallel process, which began when the Section 1222 application was made available for public review through a notice in the Federal Register (80 FR 23520, April 28, 2015). Additionally, this financial review evaluated the section in Clean Line's application that describes risk mitigation. Specifically, the application provides "...financial statements, insurance, and risk-mitigating elements to ensure that DOE and Southwestern will be held harmless from liabilities related to the Project and that such costs and liabilities will be the responsibility of Clean Line and others, as applicable."

- Commenter notes concern that the most disturbing aspect of this process and the way it ignores the input of the community is that the state of Oklahoma will bear the brunt of tax subsidies helping to finance the wind generation in the Oklahoma panhandle. Yet that clean energy will not go to Oklahomans: it will be delivered to customers several states away, such as in Tennessee. If the state of Oklahoma can be expected to help pay for the power generation involved here, the process should involve more than lip service to Oklahomans' input on the route of any related transmission lines.

Response:

The routing of the HVDC line Applicant Proposed Route and DOE alternative routes has benefited from public interaction with Clean Line prior to and during the NEPA process. DOE has been engaged with the people of Oklahoma since the identification of the network of potential routes during the NEPA scoping process, which began in December 2012. Input from the public has resulted in modification or deletion of particular routes and inclusion of others not previously considered. The evaluation of wind energy subsidies is not within the scope of the EIS.

- Commenters do not believe that wind energy is economically feasible.

Response:

The evaluation of the feasibility of wind energy is not within the scope of the EIS.

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4B Technical Viability

The following comments were received relative to the technical feasibility:

- Commenter discusses the technical feasibility of the project. Commenter notes that 3,500MW is proposed to Tennessee. 1,425 wind turbines to produce 3,500MW. Commenter notes 96,250 acres are needed to produce that power. This is more than what is currently produced in Oklahoma and yet the Department of Energy is considering partnering with Clean Line to build wind turbine energy.

Response:

DOE is not considering partnering with Clean Line to build wind energy. DOE is considering partnering with Clean Line on its application under Section 1222 to build an HVDC transmission line to transmit power (likely from wind energy that could be built) to load centers in the Mid-South and Southeast. Studies have been conducted to evaluate the availability and viability of wind energy resources within approximately 40 miles of the proposed Oklahoma converter station. These studies and responses to Clean Line's Request for Interest (issued in July 2013) identified that there was potential and interest for more than four times the planned amount of wind energy within the area.

- Commenter notes that it is recommended that the Final EIS include discussion about the grid reliability implications of the proposed action.

Response:

DOE evaluated the technical viability, including grid reliability, of Clean Line's proposed Project in an additional and parallel process, which began with making the Section 1222 application available for public review (80 FR 23520, April 28, 2015). DOE will consider comments received in response to this notice, along with information included in the Final EIS, in making its determination of whether to participate in the Applicant Proposed Project. Clean Line's application states "The Project will comply with applicable reliability standards adopted under Section 215 of the Federal Power Act. As such, the Project will meet the Section 1222(b) reliability criterion."

- Commenter notes that currently SPRA has seen no identification of who will operate and maintain this Project. This is an HVDC line, which is very different from the Alternating Current (AC) lines of much lower voltage that Southwestern currently owns, operates, and maintains. If Southwestern were to operate and maintain this line, substantial staff would have to be hired, and equipment would have to be purchased. Commenter notes that, if another company is used for operations and maintenance, they must meet all standards required by Southwestern to ensure compliance with all applicable laws, regulations, and those standards set forth by the North American Electric Reliability Corporation (NERC). Regardless of who operates and maintains this Project, Clean Line must be strictly liable for all NERC compliance and costs associated with compliance. This is including but not limited to registration, compliance for all NERC standards such as reporting and audits, and fines or mitigation measures which may be assessed as a penalty.

Response:

DOE evaluated the technical viability of Clean Line’s proposed Project in an additional and parallel process, which began with making the Section 1222 application available for public review (80 FR 23520, April 28, 2015). DOE will consider comments received in response to that Federal Register notice, along with information included in the Final EIS, in making its determination of whether to participate in the Applicant Proposed Project. In Clean Line’s application, they state, “The Project will comply with applicable reliability standards adopted under Section 215 of the Federal Power Act. As such, the Project will meet the Section 1222(b) reliability criterion.” In particular, Clean Line would be subject to reliability oversight under the Federal Power Act section 215(a)(4) when it begins operations. This provision allows NERC and its regional designee to monitor compliance with applicable reliability standards. Clean Line expects the applicable reliability functions to include those of a “Transmission Owner,” a “Transmission Operator,” and a “Transmission Service Provider.” Depending on the nature of its arrangements with a third party or parties to operate the Project, Clean Line and/or its counterparties will become certified by NERC and register on the NERC Compliance Registry for the applicable functions. Some or all of the Transmission Operator or Transmission Service Provider functions may be assigned to a third party.”

- Commenter wants to know who is buying the electricity being generated?

Response:

Clean Line has signed term sheets for Precedent Agreements with five transmission service customers. These agreements are commitments to purchase power once certain conditions have been met. The agreements are included in Clean Line’s application and will be considered in DOE’s evaluation of the Project under Section 1222.

- Commenter states that the project will use HVDC technology, which is the most efficient means of moving large amounts of energy over long distances; the controllability of HVDC helps integrate large amounts of variable generation while maintaining reliability of bulk electric transmission system.

Response:

The comment is noted and consistent with the statements in Clean Line’s Section 1222 application and in the Plains & Eastern EIS.

- Commenter believes that Clean Line is “cashing in” on DOE’s Section 1222 language before other green energy companies can come forward with more effective and safer approaches.

Response:

DOE evaluated Clean Line’s application under Section 1222 in an additional and parallel process, which began with making the application available for public review (80 FR 23520, April 28, 2015). Whether DOE opts to participate with Clean Line does not affect the opportunities for other entities to come forward with applications to partner with DOE under Section 1222.

- Commenter states Clean Line's proposal, in response to the RFP under Section 1222, is non-responsive.
 - It is based on speculation that wind generation facilities will be built and need the capacity that Clean Line Energy Partners' lines will provide.
 - Wind generation is unreliable which could compromise TVA's service reliability; variability of wind power would have to be sustained with existing generation capacity, so no existing generators could be decommissioned. Also, per 1222, a proposed project must be consistent with "[e]fficient and reliable operation on the transmission grid".
 - HVDC prevents reasonable methods to distribute from or provide backup reliability to this line; HVDC makes the line one-way (Guymon to Memphis) and does not provide any value or capacity in the reverse direction or improve efficiency of the transmission grid.
 - Long-distance, one-way transmission adds excessive costs and doesn't improve reliability/efficiency of the grid.

Response:

DOE evaluated the technical viability of Clean Line's proposed Project in an additional and parallel process, which it began when it made the Section 1222 application available for public review (80 FR 23520, April 28, 2015). DOE will consider comments received in response to this notice, along with information included in the Final EIS, in making its determination of whether to participate in the Applicant Proposed Project.

- Commenter states that Section 1222 calls for new technology and that underground power lines is the new technology that makes so many problems go away.

Response:

The alternative of undergrounding all or part of the HVDC line was considered but eliminated from further consideration in the EIS. Additional explanation has been added to Section 2.4.4.2 of the Final EIS.

- Commenters question the technical feasibility for a variety of reasons:
 - Commenter questions technical feasibility of project saying the following: Let me quote from Jane Summerson in November 2010. "But I know with every renewable energy project we bring in place, the first question is how are they going to feed into the grid? You have to build a transmission line 60 miles then maybe this energy isn't going to be worth it. It won't be cost effective for 30 years. Nobody is going to invest in that." Has technology advanced that far that soon?
 - The technical viability of the Project, considering engineering, electrical, and geographic factors; and are not wise due to frequency of tornadoes, average of 58 per year for the last 10 years in Oklahoma alone. HVDC for 720 miles is not wise or prudent or secure or reliable! 3500MW going offline every time there is damage to the line at any point along 720 miles.
 - Commenters note that the use of long distance overhead transmission lines is outdated and inefficient. Too much energy is lost to convert AC to DC and back. There is a loss of energy over the distance traveled.

Response:

DOE evaluated the technical viability of Clean Line’s proposed Project in an additional and parallel process, which began with making the Section 1222 application available for public review (80 FR 23520, April 28, 2015). DOE will consider comments received in response to the April 28, 2015, notice, along with information included in the Final EIS, in making its determination of whether to participate in the Applicant Proposed Project.

- Commenters do not believe that wind is reliable and notes that no wind farms have been built yet to supply the line with wind energy.

Response:

Wind energy is identified as an intermittent energy source, meaning that it is not a firm, baseload source. Wind resources in the Oklahoma Panhandle have been studied by DOE’s National Renewable Energy Laboratory and these studies have been incorporated in Clean Line’s Wind Generation Technical Report (Clean Line 2014). The commenter is correct that no wind farms have yet been built to provide energy specifically for the Plains & Eastern transmission line. The Wind Generation Technical Report indicates that there are resources and interest available to develop more than four times the capacity of the proposed HVDC transmission line.

4C Public Good

The following comments were received relative to public good:

- Commenters believe that the project is not for the public good.
 - Commenter states this is only the financial backers' interests. This does not benefit Arkansans in the long run. It may supply a couple of temporary jobs, but certainly not in the long haul. It does more destruction than it would ever benefit the environment or the landscape of Arkansas.
 - Commenter feels that giving a private company land is not for the public good.
 - Commenter states the benefits are not for the community, they are for the eastern seaboard.
 - Commenter notes that unanimous decisions by elected state, county, and other organizations who are concerned with the public good have repeatedly withheld approval for the project.
 - Commenter feels that no evidence has been shown that the project supports the public good, only wealthy investors.
 - Commenter notes that eminent domain was intended to only be used in circumstances that significantly benefit the public good. Plains and Eastern has not been shown to support public good.
 - Commenter asks how this project can be in the best interest of the public when this proposed project is proposing to take in over 17,000 acres of private land holdings across three states for a project a government agency (TVA) just released a report saying the additional power is not needed. How does the Department of Energy (DOE) explain this to the America public? Under 1222 there is no way that this project can be considered a bona fide need and for the better good.
 - Commenter states the project does not benefit the nation or the true concept of green energy.
 - Commenter feels the arbitrary taking of land, even with compensation for which there will be no continuing benefit to the land owners is wrong.
 - Commenter notes that, despite Plains and Eastern's heavy investment in public affairs, nine counties, five cities, and the Cherokee Nation have passed resolutions opposing this project. This is because the bad outweighs the good for the citizens they represent.

Response:

One of the criteria for selection that DOE established in its Section 1222 Request for Proposals was that any proposed project be in the public interest. DOE evaluated Clean Line's application in an additional and parallel process against those criteria. This process began when DOE made the application available for public review through a notice in the Federal Register (80 FR 23520, April 28, 2015). DOE will consider comments received in response to this notice, along with information included in the Final EIS, in making its determination of whether to participate in the Applicant Proposed Project.

- Commenter asks DOE to research the actual need of the project and not the manufactured need. The facts will prove that DOE will not be acting in the best interests of the citizens of this country by participating in long distance transmission of wind energy.

Response:

DOE evaluated the technical feasibility and market conditions of the Applicant Proposed Project (including the need for the Project) in an additional and parallel process, which began when DOE made the Section 1222 application available for public review through a notice in the Federal Register (80 FR 23520, April 28, 2015). Clean Line has signed term sheets for Precedent Agreements with five transmission service customers. These agreements are commitments to purchase power once certain conditions are met. The agreements are included in Clean Line's application and will be considered in DOE's evaluation of the Applicant Proposed Project under Section 1222.

- Commenter notes that most reasonable people view eminent domain as rarely necessary for public projects in the overwhelming public good, where almost everyone benefits, and there are a few holdouts (things like interstates and bridges). Commenter feels it is ludicrous that anyone can compare this private investment which benefits so few, to an interstate which we can all travel on. Commenter also notes that neighbors in western Arkansas and eastern Oklahoma will not get cheaper electric bills, but will have ugly towers.

Response:

Any property interests in land needed for the Project would be acquired through a negotiated sale or eminent domain proceedings by which the landowners would be compensated for their property interests. According to Clean Line's expressed intent, its first step would be for Clean Line to offer compensation to landowners in exchange for easements or other property interests needed for the Project. If Clean Line is unable to acquire the necessary property interests from a landowner through a negotiated agreement, DOE may choose to acquire those property interests through a negotiated agreement for compensation. If a negotiated agreement is not possible, DOE may in appropriate circumstances exercise the federal government's eminent domain authority to acquire the interests. Eminent domain, therefore, would only be used by the federal government and only in instances where negotiated agreements were not successful.

- Commenter states that, "if this project is so good for Oklahoma, then our state and our state alone should decide on the merits. Our Federal government, specifically, the DOE, does not have this power."

Response:

Pursuant to Section 1222 of the EPCA, the Secretary of Energy, acting through the Southwestern or Western, has the authority to design, develop, construct, operate, own, or participate with other entities in designing, developing, constructing, operating, maintaining, or owning two types of projects: (1) electric power transmission facilities and related facilities needed to upgrade existing transmission facilities owned by Southwestern or Western, or (2) new electric power transmission facilities and related facilities located within any state in which Southwestern or Western operates.

- Commenter states that Clean Line has only involved DOE in order to gain use of eminent domain, with none of the promised benefits (i.e., Arkansas converter station) to be required if eminent domain is granted.

Response:

Clean Line submitted a proposal in response to DOE's Request for Proposals. DOE is considering partnering with Clean Line under Section 1222 of the EAct. Eminent domain would only be used by the federal government and only in instances where negotiated agreements were not successful. DOE would identify all decisions of whether and how to participate with Clean Line and any Project elements (e.g., the Arkansas converter station) to include in the Project if DOE did choose to participate.

- Commenters support regulatory approval to move project forward. Commenter states the project is for public good, will facilitate new investments, increase economic development, and provide thousands of jobs, and improving transmission capacity, and improving system reliability.

Response:

There was an additional and parallel process to review Clean Line's application against the criteria in Section 1222 of the EAct. This process began when the Section 1222 application was made available for public review through a notice in the Federal Register (80 FR 23520, April 28, 2015). DOE will consider comments received in response to this notice, along with information included in the Final EIS, in making its determination of whether to participate in the Applicant Proposed Project.

- Commenter feels that the public is ill equipped to respond to the legal and technical ramifications of the Clean Line project. The Department of Energy should fund a legal and technical team to represent the public and their concerns. Commenter feels that Clean Line Partners and the Department of Energy together advance agendas of profit and politics at the expense of anyone else.

Response:

There was an additional and parallel process to review Clean Line's application against the criteria in Section 1222 of the EAct. This process includes the evaluation of the technical and economic viability of the Project by independent contractors hired by DOE. The due diligence evaluation also includes input from an independent outside counsel. These independent evaluations, coupled with the independent environmental review of the Project in the Final EIS, represent the interests of the public and provide DOE with un-biased information upon which DOE can rely to make a decision.

- Commenter states that the project will solve the problem of providing transmission infrastructure to connect renewable resources to distant load centers, and will serve the public interest by stimulating economic development, creating new jobs, enhancing energy security, expanding inter-regional transmission capacity, and improving system reliability. In addition, project is privately financed and doesn't require federal subsidies.

Response:

There was an additional and parallel process to review Clean Line's application against the criteria in Section 1222 of the EAct. This process began when the Section 1222 application was made available for public review through a notice in the Federal Register (80 FR 23520,

April 28, 2015). DOE will consider comments received in response to this notice, along with information included in the Final EIS, in making its determination of whether to participate in the Applicant Proposed Project.

- Commenter asks if the demonstrated actions of Clean Line as they relate to the public and local governments reflect the integrity of the Department of Energy and the federal government.

Response:

DOE is not clear as to which specific actions the commenter is referring. DOE operates within regulatory requirements and actions associated with public participation activities related to this EIS have been governed by NEPA. Clean Line participated in that process at DOE's request to provide technical information relative to its proposal. DOE is aware of, but has not been involved with, Clean Line's other public outreach efforts outside the NEPA process.

- Commenter believes it will be a violation of the public trust if Clean Line, a private company, is given eminent domain status to get easements for this project. Commenter states she has not seen any information in this project that proves this project is in the best interest of the residents of Cleburne County or the residents of Arkansas.

Response:

Any property interests in land needed for the Project would be acquired through a negotiated sale or eminent domain proceedings by which the landowners would be compensated for their property interests. According to Clean Line's expressed intent, its first step would be for Clean Line to offer compensation to landowners in exchange for easements or other property interests needed for the Project. If Clean Line is unable to acquire the necessary property interests from a landowner through a negotiated agreement, DOE may choose to acquire those property interests through a negotiated agreement for compensation. If a negotiated agreement is not possible, DOE may in appropriate circumstances exercise the federal government's eminent domain authority to acquire the interests. Eminent domain, therefore, would only be used by the federal government and only in instances where negotiated agreements were not successful.

There was an additional and parallel process to review Clean Line's application against the criteria in Section 1222 of the EAct, including whether the Project is in the public interest. This process began when the Section 1222 application was made available for public review through a notice in the Federal Register (80 FR 23520, April 28, 2015). DOE will consider comments received in response to this notice, along with information included in the Final EIS, in making its determination of whether to participate in the Applicant Proposed Project.

- Commenter would like to see the determination of the analyses, and the studies done on the Project under every criterion set forth in Section 1222. In particular, the commenter asks that the Department of Energy carefully study whether the project is in the public interest and the technical and financial viability of the project.

Response:

An additional and parallel process was used to review Clean Line’s application against the Section 1222 criteria as well as factors included in DOE’s 2010 Request for Proposals. This process began when DOE made the application available for public review through a notice in the Federal Register (80 FR 23520, April 28, 2015). DOE performed its Section 1222 due diligence on factors other than the potential environmental impacts, including technical and economic feasibility, and whether the Project is in the public interest. DOE will consider information from this due diligence review, information included in the Final EIS, and comments received in response to the Federal Register notice when making its determination of whether to participate in the Applicant Proposed Project.

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5. Section 106

The following comments were received concerning Section 106 consultations:

- Commenter states that the Chisholm and Great Western Feasibility Study has been released in draft form and notes that the Oklahoma State Historic Preservation Office (SHPO) has raised this trail as an issue with the Project.

Response:

On February 9, 2015, the Oklahoma SHPO provided input on the Chisholm and Great Western Feasibility Study to DOE via email so that the Chisholm and Great Western Trails could be taken into consideration by DOE. In addition, DOE has been consulting with the NPS, which prepared the Feasibility Study; the Oklahoma, Arkansas, Tennessee, and Texas SHPOs; and certain Indian Tribes or Nations, including THPOs, to identify historic properties such as the Chisholm and Great Western Trails, that may be located within the Area of Potential Effects (APE) (as defined in the draft Programmatic Agreement).

- The Oklahoma SHPO has evaluated an historic farm complex in Bison, Oklahoma, for NRHP eligibility and determined it eligible under Criteria C and A. A portion of the Chisholm Trail crosses the property and includes ruts from wagon trails that assisted the cattle drives.

Response:

This information was provided to DOE by the Oklahoma SHPO via email on February 9, 2015. As noted above, the information is being taken into consideration by DOE as routes are being refined.

- Commenter encourages DOE to work with Bureau of Indian Affairs on the [National] Historic Preservation Act (NHPA) and notes that the Cherokee, Choctaw, and Chickasaw Nations, and Trail of Tears Association are opposed to the Project.

Response:

The Section 106 consultation process was initiated by DOE in 2012, and the preparation of a Programmatic Agreement for the Project is nearing completion. DOE intends to execute the Programmatic Agreement prior to issuance of the ROD or otherwise comply with procedures set forth in 36 CFR Part 800. The BIA has been engaged in the Section 106 consultation process since its initiation. In an email dated August 24, 2015, the BIA, Eastern Oklahoma Region, indicated that it would participate as a Signatory to the Programmatic Agreement. The Tribes and Nations noted in the comment have been engaged as Consulting Parties to the Section 106 consultation process and government-to-government consultation, involved in preparation of the Programmatic Agreement (a draft Programmatic Agreement is included in Appendix P of the Final EIS), and have provided information on areas of traditional religious and cultural importance that may be affected by the Applicant's proposed route.

When the Programmatic Agreement is complete, all of the consulting parties will decide at that point whether to sign the Programmatic Agreement as a Signatory, Invited Signatory, or Concurring Party, as appropriate.

DOE has also invited the Trail of Tears Association to participate as a consulting party to the Section 106 process and to date the Association has not notified DOE that the Trail of Tears Association wishes to consult. The Applicant and the NPS (as Consulting Parties to the Section 106 process) have reached out to the Trail of Tears Association to request information regarding specific areas of concern within the Project study corridor. The Trail of Tears Association and the Arkansas Chapter of the Trail of Tears Association have provided comments to DOE on the Draft EIS.

- Commenter states that the Draft EIS, particularly Section 3.9, describes DOE's intent to prepare a Programmatic Agreement pursuant to Section 106 of the NHPA to establish protocols for further identification and treatment of cultural and historic resources within the Project APE. Commenter requests that in the Final EIS DOE update the discussion of Programmatic Agreement to reflect the then-current status of negotiation.

Response:

Section 3.9 has been updated in the Final EIS to reflect the current status of the Programmatic Agreement. Appendix P of the Final EIS contains the draft Programmatic Agreement.

- USACE notes that in the Draft EIS USACE is listed as a consulting agency in the Section 106 process. USACE states that USACE will not participate as a signatory on the Section 106 Programmatic Agreement, as their process complies with 33 CFR Appendix C, rather than Section 106 guidelines.

Response:

Comment noted. DOE received a letter from USACE dated June 2, 2015, confirming that USACE would not be a Signatory to the Programmatic Agreement but would continue to participate in the government-to-government consultation with Indian Tribes or Nations consulting on this undertaking.

- Commenter requests that full archaeological surveys be done to modern standards, completed well in advance of the start of the Project, and allow enough time to excavate and evaluate significance prior to site disturbance.

Response:

The Programmatic Agreement under development in the Section 106 consultation will include a process for establishing timelines and procedures for archaeological work conducted in accordance with the Programmatic Agreement. The draft Programmatic Agreement is included in Appendix P of the Final EIS. Identification and evaluation studies and treatment measures required under the terms of the Programmatic Agreement will be carried out by or under the direct supervision of professionals who meet, at a minimum, the Secretary of the Interior's Historic Preservation Professional Qualification Standards for

Archaeology, History, or Architectural History, 36 CFR Part 61, Appendix A, as appropriate, as well as the relevant SHPO requirements. Oklahoma, Arkansas, and Texas require that the Principal Investigator for historic properties review meet or exceed the Secretary of the Interior's standards in the appropriate field of review. Whether a Tribal monitor is qualified to perform monitoring activities under this Programmatic Agreement would be determined by the Tribe or Nation invited to participate in monitoring activities under the Programmatic Agreement.

- The National Park Service requests to be a consulting party for all phases of the Project, including NEPA and NHPA Section 106 consultations.

Response:

Comment noted. The NPS will continue to be a Consulting Party to the Section 106 process and a cooperating agency in the NEPA process.

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6 Easements and Property Rights/Value

The following comments were received relative to easements and property rights/value:

- Several commenters are concerned about the negative impacts the project will have on property values. Commenters' concerns include:
 - The project does not provide long term benefit and would permanently reduce property value, deface the land, and restrict the use of private properties
 - The project would diminish the land value and ruin citizen's life and retirement dreams.
 - Project will rob landowners of any current and future equity on their property.
 - No amount of money can compensate landowners for this blight on their land.
 - The project will destroy dream homes.
 - Farm income would be drastically reduced.
 - The project will damage value of expensive farmland including lost yield damages to both landlord and tenants.
 - Homes will be devalued at a minimum loss of 40 percent.
 - The project will segment landowners' property creating a loss in property value.
 - Compensation being offered is not fair.

Response:

Potential impacts on the value of adjacent properties are discussed in Section 3.13.6.2.5 of the Final EIS. The easement acquisition process for the Project is described in Section 2.1.3 of the Final EIS. Prior to construction, the Applicant or DOE, if it elects to participate in the Project, would acquire property interests from owners of land along the path of the Project. Any property interests in land needed for the Project would be acquired through a negotiated sale or eminent domain proceedings, with affected landowners compensated for their property interests. The terms and conditions of these agreements would be negotiated with the affected property owners.

Compensation for landowners is described in the Applicant's April 20, 2015, comment letter to DOE regarding the Draft EIS and is addressed in Section 2.1.3 of the Final EIS. The letter describes a ROW compensation package that fully compensates the landowner for Clean Line's use of the property; the adoption and implementation of a plan to ensure that acquisition of property interests initiated by the Applicant would be performed in accordance with the Uniform Act; and the adoption and implementation of a Code of Conduct for interaction and negotiation with landowners by the Applicant, its representatives, and agents. Uncompensated financial losses to landowners are not expected to occur as a result of the Project. No farmers and rural landowners are expected to be displaced as a result of the Project. Additional information about farmers and rural landowners has been added to Section 3.13.4.3 of the Final EIS.

Impacts to agricultural lands are disclosed and addressed in Section 3.2 of the Final EIS. In an effort to reduce impacts to landowners, the Applicant would make reasonable efforts, consistent with design criteria, to accommodate requests from individual landowners to adjust the siting of the 1,000-foot-wide corridor and micrositing of transmission structures on properties. The Applicant would not displace or prohibit livestock from grazing in pastures overlapped by the ROW during construction and

operations and maintenance of the Project, unless otherwise desired by the landowner. Livestock can continue to use the ROW during the construction and operations and maintenance phases of the Project; however, livestock may be temporarily blocked from grazing within or accessing the ROW in discrete locations during times that the ROW is restricted during construction for safety reasons.

EPMs that address compensation include AG-6: Clean Line will work with landowners to develop compensation for lost crop value caused by construction and/or maintenance. More detailed information on the ROW acquisition process is provided in the Right-of-Way Acquisition Plan for the Project included in the public comments on the Draft EIS submitted by Clean Line (2015). In addition, Clean Line would work with landowners to minimize the placement of structures in locations that would interfere with the operation of irrigation systems (AG-1). In areas where irrigation systems would be disrupted and could not be avoided, the affected area could be measured and affected parties compensated for any associated reduction in productivity (see Appendix J of the Final EIS). More detailed information on the ROW acquisition process is provided in the Applicant-developed Right-of-Way Acquisition Plan for the Project included in the public comments on the Draft EIS submitted by Clean Line (2015).

- Commenter notes that the visual effects of the Clean Line towers will reduce the value of the property. Commenter expects that the construction of this line in proximity to their property will reduce the value of their property. Commenters are also concerned that Project easements would make the future sale of property difficult due to the visual effects. Commenter states they will be living with the line's presence and will be offered nothing to compensate for their losses. Research has shown that the expected reduction in value for urban properties in proximity to a line of this size is 10–15 percent. For a property valued in the \$400,000 to \$500,000 range that would be an expected loss of \$40,000-\$75,000.

Response:

Socioeconomic impacts (including impacts to property values) are discussed in Section 3.13.6.2.5 of the Final EIS. Visual impacts are anticipated as a result of the construction and operations and maintenance of the Project. Visual impacts will vary depending on factors such as location, topography, vegetation, other existing features in the landscape, and distance a viewer is from the Project. EPMs applicable to minimizing impacts on visual resources are included in Section 3.18.6.1.1 of the Final EIS. Included in the EPMs applicable to visual resources are GE-3 and LU-5, which address minimizing vegetation cleared within the Project ROW and working with individual landowners to accommodate requests to adjust the siting of the ROW on their properties, respectively.

The review of existing studies presented in this section does not provide support for the commenter's conclusion that the expected reduction in value for urban properties in proximity to the Project is 10 to 15 percent. The results of the studies discussed in Section 3.13.6.2.5 suggest that proximity to electric transmission lines can have negative effects on residential property values, with average impacts ranging from less than 1 percent to about 10 percent. The findings of these studies also suggest that this impact decreases with distance and tends to decline over time. As discussed in the Final EIS, some short-term adverse

impacts on residential property values (and marketability) might occur on an individual basis as a result of the Project, but these impacts would be highly variable, individualized, and difficult to predict. Unique Project characteristics that need to be taken into consideration when assessing the potential effects of transmission line structures on residential property values include the type and height of the structures, the distance and view from the potentially affected property, intervening topography and vegetation, and the property market and type of landscape involved.

Compensation for landowners is described in the Applicant's April 20, 2015, comment letter to DOE regarding the Draft EIS. Compensation would include a ROW compensation package that fully compensates the landowner for Clean Line's use of the property; the adoption and implementation of a plan to ensure that acquisition of property interests initiated by the Applicant would be performed in accordance with the Uniform Act; and the adoption and implementation of a Code of Conduct for interaction and negotiation with landowners by the Applicant, its representatives, and agents.

- Several commenters note that any attempt to sell their property in the future would be difficult because of the transmission line's effects in association with corona noise and possible health issues.

Response:

Compensation for landowners is described in the Applicant's April 20, 2015, comment letter to DOE regarding the Draft EIS. Compensation would include a ROW compensation package that fully compensates the landowner for Clean Line's use of the property; the adoption and implementation of a plan to ensure that acquisition of property interests initiated by the Applicant would be performed in accordance with the Uniform Act; and the adoption and implementation of a Code of Conduct for interaction and negotiation with landowners by the Applicant, its representatives, and agents. Potential impacts to property values are discussed in Section 3.13.6.2.5 of the Final EIS. As noted in this section, potential negative effects on property values tend to be related to the visual impact of transmission line facilities, rather than concerns regarding potential EMF-related health effects (Delaney and Timmons 1992). Potential health effects associated with HVDC and AC transmission lines are addressed in Section 3.4.11.2.3.2 and 3.4.11.2.1.2.2.7, respectively, of the Final EIS. Potential impacts from corona noise are addressed in Section 3.4 and 3.11 of the Final EIS.

- Commenter notes that the Draft EIS states that property values beyond the ROW (adjacent properties) would be negligibly impacted. Commenter disagrees with this conclusion. Properties that are in proximity to the line (but not directly affected by the right-of-way) will not receive any compensation because the line does not come on their property; however these landowners will still experience impacts from the project such as loss in property value, visual impacts, and impacts from corona noise. Compensation must also be made for landowners outside of the ROW.
 - One commenter states that to do a reasonable and fair cost analysis, other currently hidden costs need to be included. For example, the cost to property owners that reach far beyond the ROW has been ignored.

- Commenters state that the impacts of corona noise on property values needs to be examined, not just for property within the ROW. The true extent of financial impact borne by landowners must take into account how 55 dBA corona noise may degrade or destroy property values 1,000 to 2,000 feet on either side of the transmission line. The intrusive noise levels generated from line voltage that is five to ten times greater than typical will propagate across unprecedented distances making affected homes impossible to sell and building sites useless. No compensation is provided to landowners impacted by corona noise.
- Commenters state that visual impacts on property values needs to be considered, not just for property within the ROW. Towers that are two to four times taller than typical will have an unprecedented four to sixteen times visual impact on property values. This will permanently mar irreplaceable scenic land and degrade property values to the extent that the towers can be seen.
- Commenter asks to uncover and present the true costs borne by property owners who will be negatively impacted by corona noise and visual pollution.

Response:

Potential impacts on property values, including property values outside the 200-foot-wide representative ROW, are discussed in Section 3.13.6.2.5 of the Final EIS. As discussed in the Final EIS, some short-term adverse impacts on residential property values (and marketability) might occur on an individual basis as a result of the Project, but these impacts would be highly variable, individualized, and difficult to predict. Unique Project characteristics that need to be taken into consideration when assessing the potential effects of transmission line structures on residential property values include the type and height of the structures, the distance and view from the potentially affected property, intervening topography and vegetation, and the property market and type of landscape involved.

Potential impacts from corona noise are addressed in Section 3.4 and 3.11 of the Final EIS. The visual assessment that is provided in Section 3.18 of the Final EIS does not address impacts on property values but does address impacts at KOPs outside the 200-foot-wide representative ROW. Impacts to property values including visual impacts on property values are discussed in Section 3.13.6.2.5 of the Final EIS. Although visual impacts are anticipated as a result of the construction and operations and maintenance of the Project, such impacts will vary depending on factors such as location, topography, vegetation, other existing features in the landscape, and distance a viewer is from the Project. EPMs applicable to minimizing impacts on visual resources are included in Section 3.18.6.1.1 of the Final EIS. Included in the EPMs applicable to visual resources are GE-3 and LU-5, which address minimizing vegetation cleared within the Project ROW and working with individual landowners to accommodate requests to adjust the siting of the ROW on their properties, respectively.

- Several commenters note that they already have easements on their property. Landowner's property values are impacted each time utility companies cross their properties. Commenters feel they have done their part to help deliver power to future customers and ask how much more they are expected to give.

Response:

Utility corridors were followed in some cases, as described in the routing development process, to avoid impacts to previously undisturbed areas. Unfortunately, while this common siting practice minimizes impacts to undisturbed environmental resources, it can lead to additional impacts to properties already affected by existing utility corridors as the commenter indicates. The purpose of the EIS is to disclose those impacts to the public and provide sufficient information to support an informed decision by DOE. EPMs including LU-5, which involves micrositing, would be used in coordination with landowners to minimize potential negative effects to the extent practicable.

Compensation for landowners is described in the Applicant's April 20, 2015, comment letter to DOE regarding the Draft EIS and in Section 2.1.3 of the Final EIS. Compensation would include a ROW compensation package that fully compensates the landowner for the Applicant's use of the property; the adoption and implementation of a plan to ensure that acquisition of property interests initiated by the Applicant would be performed in accordance with the Uniform Act; and the adoption and implementation of a Code of Conduct for interaction and negotiation with landowners by the Applicant, its representatives, and agents.

- Several commenters are opposed to use the use of eminent domain by a private company to obtain private property. Commenters believe there is no precedence of the federal government using its authority to acquire private land for a private corporation.

Response:

As discussed in Section 2.1.3 of the Final EIS, if a negotiated agreement is not possible, DOE may in appropriate circumstances exercise the federal government's eminent domain authority to acquire the interests. Consistent with the Constitution of the United States and other applicable law, the landowner would be paid just compensation for the real estate interest. Real estate acquisition by federal entities, such as DOE, is governed by the Uniform Act (Public Law 91-646) (42 USC 4601 et seq.). DOE must also comply with 49 CFR Part 24, Subpart B, Real Property Acquisition, the government-wide regulation that implements Public Law 91-646.

Compensation for landowners and easement acquisition is described in the Applicant's April 20, 2015, comment letter to DOE regarding the Draft EIS and in Section 2.1.3 of the Final EIS. In its letter, the Applicant stresses that they would use reasonable, good faith efforts to acquire all of the necessary ROW for the Project in Oklahoma, Arkansas, and Tennessee through voluntary negotiations. Thus, while the Applicant believes that the possibility of eminent domain for the acquisition of property interests is appropriate for the Project, such use would only be a very last resort. Moreover, in all instances, the Applicant is committed to working with landowners to avoid and minimize impacts of the Project to their properties.

An easement is a right to use another's land for a specified purpose. The property owner retains fee title to the property. Importantly, under an easement, the landowner continues to have the right to use the property for any purpose consistent with the terms of the easement. For example, in agricultural areas, the landowner retains the ability to continue typical

agricultural production on the entirety of the easement except for the footprint of the structures. Transmission structures are anticipated to occupy less than 1 percent of the total transmission line ROW. Likewise, grazing of animals, hunting, and recreation all can occur within the transmission line ROW. While structures (such as homes, silos, sheds or barns) would not be permitted within a transmission line ROW, most other activities would be permitted so long as these activities do not interfere with the safe and reliable operation of the transmission line. At this time, the Applicant does not anticipate that any residences or persons would be relocated as a result of the Project. Further, in the few instances where agricultural or other structures would need to be relocated or replaced, the Applicant would work with or compensate those landowners. Prior to commencing construction, the Applicant would attempt to voluntarily negotiate with landowners to obtain all necessary property interests for the Project. The compensation package the Applicant has offered in its voluntary acquisition efforts for ROW easements to date reflects input from many individual landowners and landowner organizations and presents landowners with compensation not typically offered by most utilities. The three major components of the ROW easement compensation package are (1) a payment to the landowner for the transmission line easement, (2) a payment for each transmission line structure on the landowner's property, and (3) additional payments for damages or other specific issues that may arise.

The Applicant is proposing to pay 100 percent of fair market value of the fee value of the land within the easement area as determined by independent appraisals or market studies under the requirements of the Uniform Act. Structure compensation would be calculated based on the type of structure selected by the Applicant and the number of structures to be located on the landowner's property. The Applicant would offer the landowner, at his or her option, either a one-time payment or a recurring annual payment for each structure on the landowner's property. If the landowner elects annual payments, the Applicant would make the annual structure payment so long as structures are located on the property. The payment amount for the annual structure payments would increase by 2 percent per year after the first year. The third component of the compensation structure pays the landowner for any damages, taking into account specific issues related to the parcel. Damage payments would be intended to make the landowner whole for any losses that result from either construction or operation of the Project, such as crop damages (including reductions in yield), removal of commercially marketable timber, need for field repair, temporary (during construction) or permanent impacts to center pivot irrigation systems that would reduce the effective area of the irrigation equipment or require new equipment, or reductions in yield as a result of interference with aerial spraying or other land-specific issues. The Applicant's obligation to pay for such damages would not be subject to either a cap or a time limit. The Applicant would undertake its acquisition of property interests (in any form) in a manner meeting the requirements of the Uniform Act. As DOE notes in Section 2.1.3, the Uniform Act applies to real estate acquisitions by federal entities, such as DOE and Southwestern. To ensure consistent application of ROW acquisition, Clean Line would follow the guidelines of the Uniform Act. To this end, Attachment 3 of Clean Line's comments on the Draft EIS (included in Chapter 2 of the CRD) includes a copy of the Applicant's Right-of-Way Acquisition Plan Under the Uniform Act for the Plains & Eastern Clean Line Transmission Line Project (ROW Acquisition Plan), which outlines in greater detail Clean Line's procedures related to the Uniform Act. The ROW Acquisition Plan primarily addresses the acquisition of

easements, because the overwhelming majority of property interests acquired with respect to the Project will be transmission line easements.

The Applicant will employ a similar process and procedure for any other type of property interest if applicable. The Applicant also has a Code of Conduct for its negotiations with landowners. A copy of this Code of Conduct is included as Attachment 4 of Clean Line's comments on the Draft EIS (included in Chapter 2 of the CRD) and would apply to the activities carried out by the Applicant as well as its agents and representatives. The intent of this Code of Conduct is to establish and maintain a tone of respectful and open dialogue. The Code of Conduct requires (among other things) that all communications with landowners and other persons made by ROW agents and subcontractor employees representing Clean Line be made in good faith, respectful and reflective of fair dealing, and respectful of the privacy rights of property owners.

There remains the possibility that the Applicant would be unable to finalize an agreement for the acquisition of necessary property interests due to (i) title issues; (ii) inability to locate certain parties despite reasonable diligence to do so; (iii) inability of a public or government entity to legally enter into a voluntary easement conveyance; or (iv) exhaustion of all reasonable negotiations. The Applicant has proposed that, if such events occur, it would turn over responsibility for acquisition of property interests relating to such parcel to Southwestern, which then would initiate its own voluntary negotiations with the landowner. The transfer of negotiations to Southwestern does not mean that eminent domain would be exercised, only that the responsibility to negotiate or otherwise acquire necessary property interest would then be held by Southwestern. Further efforts by Southwestern to acquire the property interests would be consistent with the Uniform Act as well as all other policies and procedures that Southwestern has in place for its acquisition of easements or other property interests.

- Commenter questions if eminent domain is granted if the settlement agreement made between the Southern Great Plains Property Right Coalition would still be valid.

Response:

Clean Line discussed the agreement in its comment letter on the Draft EIS dated April 20, 2015. Clean Line would abide by the procedures and requirements contained in the agreement. However, it is noted that DOE is not a party to the agreement and is not bound by it. Therefore, the possibility that eminent domain could be employed is not eliminated by the agreement. According to the agreement, when negotiating easements with landowners in Oklahoma, Clean Line would:

1. *Provide landowners with a copy of the Private Rights Settlement Agreement and the Oklahoma Corporation Commission's final order on PUD No. 201000075.*
2. *Offer landowners a reasonable easement agreement, with at least two compensation options: (i) one that provides for a one-time, up-front payment, followed by annual payments once the line is in service and (ii) one that provides for a single payment.*

3. *At the landowner's election, submit the issue of compensation to be determined by binding arbitration if a landowner and Clean Line are able to reach agreement on the form of easement but are not able to reach agreement on the amount of compensation.*
- The question that was brought up was once they get a right-of-way, what happens after if anything is torn down and they leave the right-of-way? Always before the rights-of-way are never released and they hang with the property forever. Can this be written into the contract procedure, whatever they write, that should they ever tear the equipment down, the right-of-way reverts back to the owner and clears the abstract?

Response:

An easement is a right to use another's land for a specified purpose. The property owner retains fee title to the property. Importantly, under an easement, the landowner continues to have the right to use the property for any purpose consistent with the terms of the easement. For example, in agricultural areas, the landowner retains the ability to continue typical agricultural production on the entirety of the easement except for the footprint of the structures. Transmission structures are anticipated to occupy less than 1 percent of the total transmission line ROW. Likewise, grazing of animals, hunting and recreation all can occur within the transmission line ROW. While structures (such as homes, silos, sheds or barns) would not be permitted within a transmission line ROW, most other activities would be permitted so long as these activities do not interfere with the safe and reliable operation of the transmission line.

The easement acquisition process for the Project is described in Section 2.1.3 of the Final EIS. According to the Applicant's expressed intent, its first step in acquiring property interests would be for the Applicant to offer compensation to landowners in exchange for easements or other property interests needed for the Project. This process would involve negotiation of terms, including the terms related to the resolution of easements when the Project is decommissioned. Decommissioning of the Project is described in Section 2.1.6 of the Final EIS. Decommissioning could occur at the end of the service life of the Project if the facilities were no longer required. However, a transmission system lifetime can exceed 80 years with proper maintenance. At the end of the service life of the Project, assuming that the facilities were not upgraded or otherwise kept in service, conductors, insulators, and structures could be dismantled and removed. Access roads that have a sole purpose of providing maintenance crews access to the transmission lines could be decommissioned following removal of the structures and lines or the access roads could be decommissioned with the transmission lines in service if it was determined that they would no longer be necessary. The Applicant would consult with landowners to assess whether access roads may be serving a purpose for landowners, at which point in time the Applicant may elect to leave the access roads in place. A Decommissioning Plan would be developed prior to decommissioning and would follow applicable governing requirements at that time.

- Commenters believe that this project violates their private property rights. Commenters note that they will vigilantly defend and protect property rights from infringement.

Response:

Prior to commencing construction, the Applicant would attempt to voluntarily negotiate with landowners to obtain all necessary property interests for the Project. The compensation package the Applicant has offered in its voluntary acquisition efforts for ROW easements to date reflects input from many individual landowners and landowner organizations and presents landowners with compensation not typically offered by most utilities. The three major components of the ROW easement compensation package are (1) a payment to the landowner for the transmission line easement, (2) a payment for each transmission line structure on the landowner's property, and (3) additional payments for damages or other specific issues that may arise.

The Applicant is proposing to pay 100 percent of fair market value of the fee value of the land within the easement area as determined by independent appraisals or market studies under the requirements of the Uniform Act. Structure compensation would be calculated based on the type of structure selected by the Applicant and the number of structures to be located on the landowner's property. The Applicant would offer the landowner, at his or her option, either a one-time payment or a recurring annual payment for each structure on the landowner's property. If the landowner elects annual payments, the Applicant would make the annual structure payment so long as structures are located on the property. The payment amount for the annual structure payments would increase by 2 percent per year after the first year. The third component of the compensation structure pays the landowner for any damages, taking into account specific issues related to the parcel. Damage payments would be intended to make the landowner whole for any losses that result from either construction or operations and maintenance of the Project. The Applicant's obligation to pay for such damages would not be subject to either a cap or a time limit.

The Applicant would undertake its acquisition of property interests (in any form) in a manner meeting the requirements of the Uniform Act. As DOE notes in Section 2.1.3 of the Final EIS, the Uniform Act applies to real estate acquisitions by federal entities, such as DOE and Southwestern. To ensure consistent application of ROW acquisition, Clean Line would follow the guidelines of the Uniform Act. To this end, Attachment 3 of Clean Line's comments on the Draft EIS (included in Chapter 2 of the CRD) includes a copy of the Applicant's ROW Acquisition Plan, which outlines in greater detail Clean Line's procedures related to the Uniform Act. The ROW Acquisition Plan primarily addresses the acquisition of easements, because the overwhelming majority of property interests acquired with respect to the Project will be transmission line easements.

Additionally, the Applicant will employ a similar process and procedure for any other type of property interest, if applicable. The Applicant also has a Code of Conduct for its negotiations with landowners. A copy of this Code of Conduct is included as Attachment 4 of Clean Line's comments on the Draft EIS (included in Chapter 2 of the CRD) and would apply to the activities carried out by the Applicant as well as its agents and representatives. The intent of this Code of Conduct is to establish and maintain a tone of respectful and open dialogue. The Code of Conduct requires (among other things) that all communications with landowners and other persons made by ROW agents and subcontractor employees representing Clean

Line be made in good faith, respectful and reflective of fair dealing, and respectful of the privacy rights of property owners.

There remains the possibility that the Applicant would be unable to finalize an agreement for the acquisition of necessary property interests due to (i) title issues; (ii) inability to locate certain parties despite reasonable diligence to do so; (iii) inability of a public or government entity to legally enter into a voluntary easement conveyance; or (iv) exhaustion of all reasonable negotiations. The Applicant has proposed that, if such events occur, it would turn over responsibility for acquisition of property interests relating to such parcel to Southwestern, which then would initiate its own voluntary negotiations with the landowner. The transfer of negotiations to Southwestern does not mean that eminent domain would be exercised, only that the responsibility to negotiate or otherwise acquire necessary property interest would then be held by Southwestern. Further efforts by Southwestern to acquire the property interests would be consistent with the Uniform Act as well as all other policies and procedures that Southwestern has in place for its acquisition of easements or other property interests.

- Commenter questions the use of research in Seattle as the reference for depreciation of property values. The project is proposed in rural America where land is investment. Seattle is an urban environment. This is not applicable to rural property values in Arkansas.

Response:

Property values are discussed in Section 3.13.6.2.5 of the Final EIS. This section provides a review of the existing peer-reviewed and/or published literature that addresses the potential impacts of transmission lines on property value. The existing literature covers a range of locations, including the Seattle Metropolitan Area, (Cowger et al. 1996; Bottemiller et al. 2000) as well as more rural areas, including recent studies conducted in Wisconsin and Montana (Jackson 2010, Chalmers 2012). This discussion has been updated in the Final EIS to include the findings of a study conducted in rural Montana (Chalmers 2012). The results of the studies discussed in Section 3.13.6.2.5 suggest that proximity to electric transmission lines can have negative effects on residential property values, with average impacts ranging from less than 1 percent to about 10 percent. The findings of these studies also suggest that this impact decreases with distance and tends to decrease over time. As discussed in the Final EIS, some short-term adverse impacts on residential property values (and marketability) might occur on an individual basis as a result of the Project, but these impacts would be highly variable, individualized, and difficult to predict. Unique Project characteristics that need to be taken into consideration when assessing the potential effects of transmission line structures on residential property values include the type and height of the structures, the distance and view from the potentially affected property, intervening topography and vegetation, and the property market and type of landscape involved.

With respect to agricultural lands, it should be noted that the studies discussed in Section 3.13.6.2.5 of the Final EIS address potential impacts in terms of market price. Potential impacts to agricultural operations are addressed in Section 3.2 of the Final EIS. Annual costs to agricultural operations are assessed in Section 3.13.6.2.3 of the Final EIS, with

additional detail provided in the Arkansas Delta Agricultural Economic Impact Analysis included as Appendix J of the Final EIS.

- Commenter notes that Clean Line entered into a private rights settlement agreement with the Southern Great Plains Property Rights Coalition and the Coalition of Oklahoma Surface and Mineral Owners, a copy of which is included. As shown on its face, this agreement inures to the benefit of my client as well as all other Oklahoma landowners from whom Clean Line seeks to acquire property for its project. By the agreement Clean Line is obligated to offer alternative forms of compensation (one being annual payments), and at the landowner's request, to take the issue of reasonable compensation under its proposed easement to binding arbitration, all in lieu of condemnation proceedings. Paragraph 4(a) of the agreement obligates Clean Line to provide each landowner from whom it seeks property with a copy of the agreement, and Part 1 of the agreement gives the district courts of the county where the land lies jurisdiction and venue to adjudicate any claim of breach of the agreement. This agreement and the rights therein granted to the landowners along Clean Line's project are significant to these landowners but are virtually unknown to most of them. That is why Clean Line was obligated by the agreement to publish it to these people. To date, Clean Line has failed to do so, and in my view has already breached the agreement thereby granting each district court along the line the jurisdiction to enforce it. The breach cannot be undone by simply providing owners with a copy of the agreement at the last minute as is apparently planned by Clean Line. The damage is largely done, as is well understood by Clean Line.

Response:

Comment noted. Clean Line's comment letter on the Draft EIS dated April 20, 2015, discloses detailed information regarding easement acquisition and compensation process that would be required for the Project. This information is also described and referenced in Section 2.1.3 of the Final EIS.

- AAEA believes that Plains and Clean Line will pay its fair share of property and other land-use taxes throughout the life of the project and we are proud to encourage the Department of Energy to approve this project.

Response:

Comment noted.

- Commenter notes concern about Region 5, Link 1, as this proposed line will cut their parcel of land in two. Commenter also notes the 200-foot-wide right-of-way would take half of their land, which was intended to be their retirement home. Commenter is concerned about the drop in property value of the newly built home, and feels it may make the land worthless, with a potential drop in value of 30–40 percent.

Response:

Property values are discussed in Section 3.13.6.2.5 of the Final EIS. As stated: "The effect that a transmission line may have on property value is a damage-related issue that would be part of the negotiation between the Applicant and the affected landowner during the easement acquisition process."

Compensation for landowners and easement acquisition is described in the Applicant's April 20, 2015, comment letter to DOE regarding the Draft EIS and in Section 2.1.3 of the Final EIS. In its letter, the Applicant stresses that they would use reasonable, good faith efforts to acquire all of the necessary ROW for the Project in Oklahoma, Arkansas, and Tennessee through voluntary negotiations.

- Commenter submits a letter from the Office of the Cleburne County Judge, Jerry Holmes, in Cleburne County, Arkansas advising DOE/Clean Line of the passing of Resolution No. 2015-005 which opposes the Eastern Clean Line Transmission Project as a Public Utility in Arkansas.

Response:

Comment noted. A portion of the Region 5 Applicant Proposed Route is present along the southern boundary of Cleburne County, Arkansas. The route is described and evaluated in the EIS.

- Commenter notes that the Arkansas State Legislature has unanimously passed HB1592. This bill gives greater latitude to the Arkansas Public Service Commission to grant or deny a Certificate of Public Convenience and Necessity and also allows the PSC to grant only portions of the application. So, in spite of the daily efforts of Clean Line lobbyist Kim Randle and her cohorts at Clean Line to woo our legislators, the Clean Line shuffle and side-step just didn't work. Too many differing stories have been told to our legislators and to the people of Arkansas. Not one of the legislators they have courted bought into their half-truths and lies. Seems like a bunch of Clean Line investors' money has been wasted trying to fool our legislators. The truth has a way of coming out and clearly it has. The opposition to this project mounts daily. We certainly hope the DOE is taking note of these important events. If so, they will choose to take no action on such a poorly presented project.

Response:

Comment noted.

- Commenter notes that the Assuring Private Property Rights Over Vast Access to Land has now been introduced and referred to the Senate Energy & Natural Resources Committee for a vote on whether to send it for a full senate vote. In addition Arkansas Senate Bill 757 has been sent to the House. It is a bill aimed at protecting private property owners' rights. Arkansas House Bill 1592 passed overwhelmingly and has been sent to the Senate. It is a Public Service Commission bill.

Response:

Comment noted.

- Commenter asks who will pay the \$100 million or more of uncompensated property damage that may occur. For example, according to the commenter, corona noise pollution has the ability to completely destroy the value of a home because no buyer will make an offer once he hears a constant hissing and crackling noise from the overhead wires.

Response:

Potential impacts on property values are discussed in Section 3.13.6.2.5 of the Final EIS. Potential impacts from corona noise are addressed in Section 3.4 and 3.11. Compensation for landowners and easement acquisition is described in the Applicant's April 20, 2015, comment letter to DOE regarding the Draft EIS and in Section 2.1.3 of the Final EIS. In its letter, the Applicant stresses that they would use reasonable, good faith efforts to acquire all of the necessary ROWs for the Project in Oklahoma, Arkansas, and Tennessee through voluntary negotiations. Thus, while the Applicant believes that the possibility of eminent domain for the acquisition of property interests is appropriate for the Project, such use would only be a very last resort. Moreover, in all instances, the Applicant is committed to working with landowners to avoid and minimize impacts of the Project to their properties.

- Commenter notes that one of the major investors in the privately owned for-profit company Plains and Eastern Clean Line is National Grid. National grid is a European-owned company. Does DOE think it is a good idea for a privately-owned foreign company to have the right to take property away from American people?

Response:

It is noted that there are many investors in the Applicant Proposed Project. It is also noted that easements do not equate to property ownership. An easement is a right to use another's land for a specified purpose. The property owner retains fee title to the property. Importantly, under an easement, the landowner continues to have the right to use the property for any purpose consistent with the terms of the easement. Easements and property rights are discussed in Section 2.1.3 of the Final EIS.

- Commenters express concern that their property will be patrolled or surveyed by strangers. This interference would impact the landowners' enjoyment and use of their property.

Response:

Inspection and maintenance of the transmission line and associated facilities are necessary for the operations and maintenance of the Project as described in Section 2.1.5 of the Final EIS. Permitted uses in the ROW are discussed in Section 2.1.5.1 of the Final EIS. Such activities would be limited to the easement and are not expected to be required more than a few times a year unless specific maintenance is required. In addition, as described in the Applicant's April 20, 2015, comment letter to DOE regarding the Draft EIS and in Section 2.1.3 of the Final EIS, the Applicant is committed to working with landowners to avoid and minimize impacts of the Project to their properties.

An easement is a right to use another's land for a specified purpose. The property owner retains fee title to the property. Importantly, under an easement, the landowner continues to have the right to use the property for any purpose consistent with the terms of the easement. For example, in agricultural areas, the landowner retains the ability to continue typical agricultural production on the entirety of the easement except for the footprint of the structures. Transmission structures are anticipated to occupy less than 1 percent of the total transmission line ROW. Likewise, grazing of animals, hunting and recreation all can occur within the transmission line ROW.

One component of the compensation structure pays the landowner for any damages, taking into account specific issues related to the parcel. Damage payments would be intended to make the landowner whole for any losses that result from either construction or operation of the Project, such as crop damages (including reductions in yield), removal of commercially marketable timber, need for field repair, temporary (during construction) or permanent impacts to center pivot irrigation systems that would reduce the effective area of the irrigation equipment or require new equipment, or reductions in yield as a result of interference with aerial spraying or other land-specific issues. The Applicant's obligation to pay for such damages would not be subject to either a cap or a time limit.

- Commenters are concerned that Clean Line does not know about the special circumstances or important attributes on their property.

Response:

As described in the Applicant's April 20, 2015, comment letter to DOE regarding the Draft EIS and in Section 2.1.3 of the Final EIS, the Applicant is committed to working with landowners to avoid and minimize impacts of the Project to their properties. Under an easement agreement, the landowner continues to have the right to use the property for any purpose consistent with the terms of the easement. For example, in agricultural areas, the landowner retains the ability to continue typical agricultural production on the entirety of the easement except for the footprint of the structures. Transmission structures are anticipated to occupy less than 1 percent of the total transmission line ROW. Likewise, grazing of animals, hunting, and recreation all can occur within the transmission line ROW.

One component of the compensation structure pays the landowner for any damages, taking into account specific issues related to the parcel. Damage payments would be intended to make the landowner whole for any losses that result from either construction or operation of the Project, such as crop damages (including reductions in yield), removal of commercially marketable timber, need for field repair, temporary (during construction) or permanent impacts to center pivot irrigation systems that would reduce the effective area of the irrigation equipment or require new equipment, or reductions in yield as a result of interference with aerial spraying or other land-specific issues. The Applicant's obligation to pay for such damages would not be subject to either a cap or a time limit.

- Participants should strive towards maximizing voluntary landowner participation. As stated in a letter from Daniel Poneman, Deputy Secretary of Energy, to Michael Skelly, president of Clean Line Energy Partners, LLC, "[b]efore the Department would commit to participate in the Project...it would need assurance that...Clean Line will agree that eminent domain authority would be used only as a last resort after negotiations in good faith have concluded with all affected landowners...." The Fifth Amendment to the Constitution states "[n]o person shall be...deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation." As part of the Project construction process, Participants must ensure landowners are provided "just compensation" in keeping with Constitutional protections. Clean Line Energy Partners has already developed an employee "Code of Conduct" in order to facilitate positive landowner relationships.

Response:

As described in the Applicant's April 20, 2015, comment letter to DOE regarding the Draft EIS and in Section 2.1.3 of the Final EIS, the Applicant is committed to working with landowners to avoid and minimize impacts of the Project to their properties. Eminent domain would only be used as a last resort after negotiations in good faith have been concluded. It is also noted that there are specific requirements for third party negotiations before such a situation is deemed necessary. Prior to commencing construction, the Applicant would attempt to voluntarily negotiate with landowners to obtain all necessary property interests for the Project. The compensation package the Applicant has offered in its voluntary acquisition efforts for ROW easements to date reflects input from many individual landowners and landowner organizations and presents landowners with compensation not typically offered by most utilities. The three major components of the ROW easement compensation package are (1) a payment to the landowner for the transmission line easement, (2) a payment for each transmission line structure on the landowner's property, and (3) additional payments for damages or other specific issues that may arise.

The Applicant is proposing to pay 100 percent of fair market value of the fee value of the land within the easement area as determined by independent appraisals or market studies under the requirements of the Uniform Act. Structure compensation would be calculated based on the type of structure selected by the Applicant and the number of structures to be located on the landowner's property. The Applicant would offer the landowner, at his or her option, either a one-time payment or a recurring annual payment for each structure on the landowner's property. If the landowner elects annual payments, the Applicant would make the annual structure payment so long as structures are located on the property. The payment amount for the annual structure payments would increase by 2 percent per year after the first year. The third component of the compensation structure pays the landowner for any damages, taking into account specific issues related to the parcel. Damage payments would be intended to make the landowner whole for any losses that result from either construction or operation of the Project, such as crop damages (including reductions in yield), removal of commercially marketable timber, need for field repair, temporary (during construction) or permanent impacts to center pivot irrigation systems that would reduce the effective area of the irrigation equipment or require new equipment, or reductions in yield as a result of interference with aerial spraying or other land-specific issues. The Applicant's obligation to pay for such damages would not be subject to either a cap or a time limit.

- Commenter asks, what happens to the easement acquired for the Project? Could someone purchase it in a private sale and do something totally different than what the land was acquired for?

Response:

An easement is a right to use another's land for a specified purpose. The property owner retains fee title to the property. Importantly, under an easement, the landowner continues to have the right to use the property for any purpose consistent with the terms of the easement. If the landowner were to sell the property, the easement and associated terms of the easement would be transferred to the new owner.

- Commenter states that a group was formed called the Southern Great Plains Property Rights Coalition that started a petition that was signed by 3,000 people asking that their property be respected.

Response:

Comment noted.

- Commenters state that the project will impact their ability to pass on their property/land to future generation as the project will diminish the property value.

Response:

The Applicant would compensate all landowners for easements on their properties. Easement agreements would remain valid should the property be transferred to other parties. Easements do not prevent the transfer of property, but would remain in effect with such a transfer. Prior to commencing construction, the Applicant would attempt to voluntarily negotiate with landowners to obtain all necessary property interests for the Project. The compensation package the Applicant has offered in its voluntary acquisition efforts for ROW easements to date reflects input from many individual landowners and landowner organizations and presents landowners with compensation not typically offered by most utilities. The three major components of the ROW easement compensation package are (1) a payment to the landowner for the transmission line easement, (2) a payment for each transmission line structure on the landowner's property, and (3) additional payments for damages or other specific issues that may arise.

The Applicant is proposing to pay 100 percent of fair market value of the fee value of the land within the easement area as determined by independent appraisals or market studies under the requirements of the Uniform Act. Structure compensation would be calculated based on the type of structure selected by the Applicant and the number of structures to be located on the landowner's property. The Applicant would offer the landowner, at his or her option, either a one-time payment or a recurring annual payment for each structure on the landowner's property. If the landowner elects annual payments, the Applicant would make the annual structure payment so long as structures are located on the property. The payment amount for the annual structure payments would increase by 2 percent per year after the first year. The third component of the compensation structure pays the landowner for any damages, taking into account specific issues related to the parcel. Damage payments would be intended to make the landowner whole for any losses that result from either construction or operation of the Project. The Applicant's obligation to pay for such damages would not be subject to either a cap or a time limit.

- Commenters state that land in rural areas is the basis of livelihoods and the local economy. For many, land represents life savings and retirement. The Draft EIS does not consider the impacts on landowners livelihood that is represented by a one-time market value payment for property.

Response:

As described in the Applicant's April 20, 2015, comment letter to DOE regarding the Draft EIS and in Section 2.1.3 of the Final EIS, the Applicant is committed to working with landowners to avoid and minimize impacts of the Project to their properties. Moreover, the Applicant is committed to treating all landowners fairly and consistently. The Applicant would meet these goals through several steps, including proposing a compensation package that fully compensates the landowner for the Applicant's use of the property; adopting and implementing a plan to ensure that acquisition of property interests initiated by the Applicant would be performed in accordance with the Uniform Act; and adopting and implementing a Code of Conduct for interaction and negotiation with landowners by the Applicant, its representatives, and agents.

Prior to commencing construction, the Applicant would attempt to voluntarily negotiate with landowners to obtain all necessary property interests for the Project. The compensation package the Applicant has offered in its voluntary acquisition efforts for ROW easements to date reflects input from many individual landowners and landowner organizations and presents landowners with compensation not typically offered by most utilities. The three major components of the ROW easement compensation package are (1) a payment to the landowner for the transmission line easement, (2) a payment for each transmission line structure on the landowner's property, and (3) additional payments for damages or other specific issues that may arise. The Applicant would offer the landowner, at his or her option, either a one-time payment or a recurring annual payment for each structure on the landowner's property. If the landowner elects annual payments, the Applicant would make the annual structure payment so long as structures are located on the property. The payment amount for the annual structure payments would increase by 2 percent per year after the first year.

- Commenter notes that the project will cause real estate loss along the transmission line and surrounding areas.

Response:

The Project requires permanent easements for operation. The impacts to land use and the acreage required for the Project are described in Section 3.10 of the Final EIS.

- Commenter states that the Region 7 APR Link 5 would pass behind the Armour Woods Subdivision. Commenter are the developers of this residential subdivision, and own a number of lots on Armour Cove as well as undeveloped acreage on the opposite side of Armour Road. Homes built on these lots have sold in excess of 300K, and commenter feels the current APR will significantly degrade the beauty and value of these properties.

Response:

The ROW for the Region 7 Applicant Proposed Route would be located to avoid these residential areas and associated visual impacts to the extent feasible. Visual impacts are discussed and addressed in Section 3.18 of the Final EIS and property values are addressed in Section 3.13.6.2.5 of the Final EIS.

- Commenter states that the project will impact where he can purchase land in Arkansas.

Response:

Comment noted.

- A commenter believes that landowners will receive fair compensation.

Response:

Comment noted.

- Commenter wants to know if there is an impact study on agricultural land that shows the estimated loss or increase of land value for areas crossed and near the project.

Response:

A number of studies associated with the impacts of transmission lines to property values have been reviewed as discussed in Section 3.13.6.2.5 of the Final EIS:

A review of studies of the impacts on agricultural land found that overhead transmission lines have the potential to reduce the sales price and the effect can vary widely, ranging from no effect to a decrease of 20 percent or more depending on the productivity of the land and the amount of disruption to farm operations (Kroll and Priestly 1992). More recently, Jackson (2010) assessed the impact of transmission lines on rural land used for agricultural or recreational purposes in Wisconsin. Using multivariate statistical analysis, Jackson found that prices for properties sold with a transmission line easement were 1.1 percent to 2.4 percent less than otherwise comparable properties sold at least 0.25 mile from a transmission line. These differences were not statistically significant (Jackson 2010).

- Commenter states that low income landowners along the line will not be offered fair market value, as there is no competition for purchase of the land.

Response:

As described in the Applicant's April 20, 2015, comment letter to DOE regarding the Draft EIS and in Section 2.1.3 of the Final EIS, the Applicant is committed to treating all landowners fairly and consistently. The Applicant would meet these goals through several steps as follows: proposing a compensation package that fully compensates the landowner for the Applicant's use of the property; adopting and implementing a plan to ensure that acquisition of property interests initiated by the Applicant would be performed in accordance with the Uniform Act; and adopting and implementing a Code of Conduct for interaction and negotiation with landowners by the Applicant, its representatives, and agents.

- Commenters note that several resolutions have been passed by the Cherokee Nation and county boards against Clean Line's Plains and Eastern project. Commenters also encourage DOE to work with the Bureau of Indian Affairs to take into consideration that the Cherokee Nation, Choctaw Nation and the Trail of Tears Association and the Intertribal Council have passed resolutions or have pending resolutions against this project.

Response:

The Section 106 consultation process was initiated by DOE in 2012 and the preparation of a Programmatic Agreement for the Project is nearing completion. The BIA has been engaged in the Section 106 consultation process since its initiation. In an email dated August 24, 2015, the BIA, Eastern Oklahoma Region, indicated that it would participate as a Signatory to the Programmatic Agreement. The Tribes and Nations noted in the comment including the Cherokee Nation have been engaged as consulting parties to the Section 106 consultation process and government-to-government consultation, involved in preparation of the draft Programmatic Agreement (Appendix P of the Final EIS).

DOE has also invited the Trail of Tears Association to participate as a Consulting Party to the Section 106 process and to date the Association has not notified DOE that the Trail of Tears Association wishes to consult. The Applicant and the NPS (as Consulting Parties to the Section 106 process) have reached out to the Trail of Tears Association to request information regarding specific areas of concern within the Project study corridor.

- Commenter states that Clean Line Energy Partners, LLC should not be allowed to impose their poorly planned transmission projects anywhere. Commenter notes that one of Clean Line's investors is National Grid. That said under oath at the Illinois Commerce Commission Hearings, Dec. 2013 that they, National Grid, has an option to buy any Clean Line Energy Partners projects EVEN PRE CONSTRUCTION of a line. National Grid is based out of the UK and had pledged 40 million toward the 8.6 billion dollars' worth of Clean Line Energy Partners infrastructure projects. Exposing Clean Line Energy Partners as a shell company that hides behind layers of LLC's and the fact they are poised to sell once they get easements should make a strong case for distancing association with Clean Line Energy Partners. You can verify this information through ICC docket 12-0560 or check out www.BlockRICL.com for a link to the ICC testimony.

Response:

Project investors are disclosed in Section 3.5 of Clean Line's Section 1222 Part 2 Application available at: <http://www.energy.gov/oe/downloads/plains-eastern-clean-line-transmission-line-part-2-application>.

- Commenter notes that simultaneously, the EPA seeks to control every puddle of our farm and rangeland through WOTUS, (Waters of the United States, rule 370), supposedly to better 'protect', manage or control the same? These actions are inconsistent at best; sinister and criminal at worst. This foreshadows a government that seeks to control landowner's assets in order to seize and redistribute to select chosen special interests, which is in direct violation of the US Constitution. This situation also effectively illustrates that private landowners are the best custodians of their own lands.

Response:

The new Clean Water Rule, Definition of "Waters of the United States," 40 CFR 230.3, was signed by EPA and USACE in May 2015. The new rule has clarified what does and what does not constitute a "water of the United States." The new rule specifically does not add any new requirements for agriculture, interfere with or change private property rights, seek

to regulate most ditches, or change policy on irrigation or water transfers. The new Clean Water Rule also does not cover erosional features such as gullies, rills, and non-wetland swales, nor does it cover groundwater, shallow subsurface flows, and tile drains.

- Commenter notes that DOE states that the Corporation would "make reasonable efforts" to comply with landowner requests to locate the line close to existing boundaries, roads, etc. How will potential disputes of this nature be settled? Similarly, agricultural activities will be disrupted during construction; the DOE states that the Corporation will "work with landowners" to repair damage and develop compensation for lost value. How will compensation be decided upon and to what standards will damage be repaired? The Draft EIS states, for example, that barns may have to be removed. Would a new structure be built by the Corporation to replace a barn? How would the Corporation work with the landowner to determine specifics of the replacement barn? How long would the Corporation propose to deprive a landowner of a barn before it built a replacement barn? Would the landowner or the Corporation be responsible for moving, and storing elsewhere, the items that were housed in the original barn?

Response:

As described in the Applicant's April 20, 2015, comment letter to DOE regarding the Draft EIS and in Section 2.1.3 of the Final EIS, the Applicant is committed to working with landowners to avoid and minimize impacts of the Project to their properties. An easement is a right to use another's land for a specified purpose. The property owner retains fee title to the property. Importantly, under an easement, the landowner continues to have the right to use the property for any purpose consistent with the terms of the easement. For example, in agricultural areas, the landowner retains the ability to continue typical agricultural production on the entirety of the easement except for the footprint of the structures. Transmission structures are anticipated to occupy less than 1 percent of the total transmission line ROW. Likewise, grazing of animals, hunting and recreation all can occur within the transmission line ROW. While structures (such as homes, silos, sheds or barns) would not be permitted within a transmission line ROW, most other activities would be permitted so long as these activities do not interfere with the safe and reliable operation of the transmission line. At this time, the Applicant does not anticipate that any residences or persons would be relocated as a result of the Project. Further, in the few instances where agricultural or other structures would need to be relocated or replaced, the Applicant would work with or compensate those landowners.

Prior to commencing construction, the Applicant would attempt to voluntarily negotiate with landowners to obtain all necessary property interests for the Project. The compensation package the Applicant has offered in its voluntary acquisition efforts for ROW easements to date reflects input from many individual landowners and landowner organizations and presents landowners with compensation not typically offered by most utilities. The three major components of the ROW easement compensation package are (1) a payment to the landowner for the transmission line easement, (2) a payment for each transmission line structure on the landowner's property, and (3) additional payments for damages or other specific issues that may arise.

The Applicant is proposing to pay 100 percent of fair market value of the fee value of the land within the easement area as determined by independent appraisals or market studies under the requirements of the Uniform Act. Structure compensation would be calculated based on the type of structure selected by the Applicant and the number of structures to be located on the landowner's property. The Applicant would offer the landowner, at his or her option, either a one-time payment or a recurring annual payment for each structure on the landowner's property. If the landowner elects annual payments, the Applicant would make the annual structure payment so long as structures are located on the property. The payment amount for the annual structure payments would increase by 2 percent per year after the first year. The third component of the compensation structure pays the landowner for any damages, taking into account specific issues related to the parcel. Damage payments would be intended to make the landowner whole for any losses that result from either construction or operation of the Project, such as crop damages (including reductions in yield), removal of commercially marketable timber, need for field repair, temporary (during construction) or permanent impacts to center pivot irrigation systems that would reduce the effective area of the irrigation equipment or require new equipment, or reductions in yield as a result of interference with aerial spraying or other land-specific issues. The Applicant's obligation to pay for such damages would not be subject to either a cap or a time limit.

- Commenter notes that Section 3.2.6.2.3.1.4 - Region 4 describes some of the potential impacts to the proposed right-of-way in Region 4 from construction of the high voltage line/towers, where almost 1,500 acres of pasture/hay land, and lesser amounts of grassland/herbaceous land and cropland, would be disturbed. Either five or six existing agricultural structures are in the route's path in Region 4 (the text states first that there are five structures, then that there are two in each of links 6, 7, and 9). Outside the permanent right-of-way, many additional acres of pasture/hay would also be unavailable to the landowners during Project construction. Who will be the arbiter of compensation for lost resources and use of resources? Will such factors as time of year be taken into consideration? For example, if construction is ongoing during hay production season, hay crops will be lost. Will compensation be provided? How will fair value be determined? Hay crops provide food for livestock during the winter. If hay crops are unable to be harvested, then purchasing sufficient hay, of quality comparable to that produced by the landowner, will be necessary to ensure livestock survive the winter months. The Draft EIS does not state whether the Corporation will be responsible for these (and other types of) losses.

Response:

Four agricultural structures are present in the Region 4 Applicant Proposed Route; one in Link 6, one in Link 7, and two in Link 9 (see Section 3.2.6.2.3.1.4). All appropriate corrections have been made in the Final EIS. As described in the Applicant's April 20, 2015, comment letter to DOE regarding the Draft EIS and in Section 2.1.3 of the Final EIS, the Applicant is proposing to pay 100 percent of fair market value of the fee value of the land within the easement area as determined by independent appraisals or market studies under the requirements of the Uniform Act. Structure compensation would be calculated based on the type of structure selected by the Applicant and the number of structures to be located on the landowner's property. The Applicant would offer the landowner, at his or her option, either a one-time payment or a recurring annual payment for each structure on the

landowner's property. If the landowner elects annual payments, the Applicant would make the annual structure payment so long as structures are located on the property. The payment amount for the annual structure payments would increase by 2 percent per year after the first year. The third component of the compensation structure pays the landowner for any damages, taking into account specific issues related to the parcel. Damage payments would be intended to make the landowner whole for any losses that result from either construction or operation of the Project, such as crop damages (including reductions in yield), removal of commercially marketable timber, need for field repair, temporary (during construction) or permanent impacts to center pivot irrigation systems that would reduce the effective area of the irrigation equipment or require new equipment, or reductions in yield as a result of interference with aerial spraying or other land-specific issues. The Applicant's obligation to pay for such damages would not be subject to either a cap or a time limit.

- Commenter notes that the DOE believes that building the high voltage line/towers will damage property directly along the route and proposes that the Corporation will pay property owners the difference in value before their property was damaged and after their property was damaged ("damage-related issue" is the term used by the DOE). If landowners do not wish to participate, will that affect their negotiating power with the Corporation?

Response:

As described in the Applicant's April 20, 2015, comment letter to DOE regarding the Draft EIS and in Section 2.1.3 of the Final EIS, the Applicant is proposing to pay 100 percent of fair market value of the fee value of the land within the easement area as determined by independent appraisals or market studies under the requirements of the Uniform Act. Structure compensation would be calculated based on the type of structure selected by the Applicant and the number of structures to be located on the landowner's property. The Applicant would offer the landowner, at his or her option, either a one-time payment or a recurring annual payment for each structure on the landowner's property. If the landowner elects annual payments, the Applicant would make the annual structure payment so long as structures are located on the property. The payment amount for the annual structure payments would increase by 2 percent per year after the first year. The third component of the compensation structure pays the landowner for any damages, taking into account specific issues related to the parcel. Damage payments would be intended to make the landowner whole for any losses that result from either construction or operation of the Project, such as crop damages (including reductions in yield), removal of commercially marketable timber, need for field repair, temporary (during construction) or permanent impacts to center pivot irrigation systems that would reduce the effective area of the irrigation equipment or require new equipment, or reductions in yield as a result of interference with aerial spraying or other land-specific issues. The Applicant's obligation to pay for such damages would not be subject to either a cap or a time limit.

- The DOE does not believe that damage from the project will translate to lower property values for areas surrounding the high voltage line/towers. However, it admits that most research has been done on residential property, not agricultural lands. The DOE cited two studies (Kroll and Priestly, 1992; Jackson, 2010). The former study reportedly found a decrease of over 20 percent for agricultural land; the latter reportedly found no difference in

a regression analysis conducted in Wisconsin (although it should be noted that the criteria for selection of control properties, statistical methods, and amount of effect explained by the considered variables other than transmission lines were not described in detail by the author). For additional reading on property value, the Public Service Commission of Wisconsin's Environmental Impacts of Transmission Lines and an analysis by Kielisch (Valuation Guidelines for Properties with Electric Transmission Lines) may be useful. The latter analysis described, among others, a study that found devaluation of up to -36 percent on rural property in Indiana affected by high voltage transmission lines with both monopole and lattice towers. The DOE has not demonstrated by an evidence-based review of available data that area property values will be unaffected or only slightly decreased by the proposed high voltage line/towers. Is the Corporation prepared to remunerate not only those landowners whose property will be used for placement of the high voltage line/towers, but also adjacent property owners whose property values decrease?

Response:

The Kroll and Priestley (1992) report cited in the Final EIS is a literature review. Based on a review of studies of the impacts on agricultural land, the authors found that overhead transmission lines have the potential to reduce the sales price and the effect can vary widely, ranging from no effect to a decrease of 20 percent or more depending on the productivity of the land and the amount of disruption to farm operations. One of the authors of this study commented in a report prepared for Clean Line (Priestley 2015) that the 20 percent decrease was the finding of a single appraiser study that Kroll and Priestley considered an outlier and not consistent with the findings of other research on the effects of transmission lines on agricultural properties. This clarification has been added to the Final EIS. Additional information from a study that specifically addresses potential impacts to rural property values (Chalmers 2012) has been added to the Final EIS.

The overview of property value studies presented in Section 3.13.6.2.5 of the Final EIS focuses on studies that have been peer-reviewed and/or published in professional and academic journals. As indicated by the literature review presented in Kielisch (2015), there are many other empirical studies that have been conducted by real estate appraisers and others, often using limited sales data and relying on the professional judgment of the author. As discussed in the Final EIS, some short-term adverse impacts on residential property values (and marketability) might occur on an individual basis as a result of the Project, but these impacts would be highly variable, individualized, and difficult to predict. Unique Project characteristics that need to be taken into consideration when assessing the potential effects of transmission line structures on residential property values include the type and height of the structures, the distance and view from the potentially affected property, intervening topography and vegetation, and the property market and type of landscape involved.

With respect to agricultural lands, it should be noted that the studies discussed in Section 3.13.6.2.5 of the Final EIS address potential impacts in terms of market price. Potential impacts to agricultural operations are addressed in Section 3.2 of the Final EIS. Annual costs to agricultural operations are assessed in Section 3.13.6.2.3 of the Final EIS, with

additional detail provided in the Arkansas Delta Agricultural Economic Impact Analysis included as Appendix J of the Final EIS.

- Commenter notes that the routing of the line will require a tower with guy lines approximately 300 yards from my house. How deep will the footings need to be? The terrain of the land will likely require dynamite blasting because of the solid rock. This process could very likely damage the foundation of my home.

Response:

As stated in Section 2.1.2.2.2 of the Final EIS, the Applicant anticipates using guyed structures only in open grass or shrub terrain. Guyed structures are not anticipated in the vicinity of residences. The Applicant would work with landowners to microsite all Project features and avoid impacting property amenities to the extent possible. As discussed in Section 3.6.1.6.1.1 of the Final EIS, during construction, blasting may be necessary in areas of shallow bedrock. Softer sedimentary rocks can generally be removed without blasting, but if blasting is required as determined by a geotechnical study (to be completed as part of the engineering design), a Blasting Plan would be developed. In addition, due to the limited area that would be required to fix the guy line wire, it is likely that other construction methods—which would not require blasting—could be used.

- Commenter asks if there is a signed end-user agreement. If so, with who?

Response:

It is assumed that the commenter is referring to power purchase agreements. There have not been any power purchase agreements to date. However, Section 2.2 of the Final EIS describes the transmission interconnection and facilities studies that have been completed to date and are ongoing. The studies must be concluded prior to a power purchase agreement. TVA has provided Clean Line with a letter of interest. This letter of interest is included in Clean Line's Section 1222 Application—Part 2, submitted January 2015 (<http://www.energy.gov/sites/prod/files/2015/04/f22/CleanLinePt2-Appendix-2-C.pdf>; Appendix 2-C). The letter states:

TVA supports the advancement of the Plains & Eastern Clean Line as a potential option for the future needs of the region and encourages the appropriate authorities to provide the regulatory and other government review needed to move the project forward. The implementation of the project could provide TVA with the potential to directly access low-cost wind generation from the Oklahoma Panhandle region to serve its customers.

- Commenter notes that the Draft EIS falsely assumes that there is no permanent financial loss that will occur a few feet beyond the ROW as a result of corona noise and visual pollution. The Applicant has elected to use EPA noise level standards that are limited to health and safety concerns rather than recognize that the financial impact ranges far beyond the ROW. Applicant Chooses to Ignore Financial Impact on Affected Property Owners: "Although the US EPA limit is a guideline, Clean Line [wrongly] used this limit to evaluate impacts [financial and other] from operations and maintenance by comparing the Project operation noise levels estimated for the noise-sensitive receptors to the [daytime] limit of 55 dBA." p. 12.

Response:

The sound criteria used to analyze potential noise impacts associated with the Project were the EPA environmental noise guidelines. In 1974, the EPA published a landmark document entitled “Information on Levels of Environmental Noise Requisite to Protect the Public Health and Welfare with an Adequate Margin of Safety.” This publication remains the authoritative study based on a large sampling of community reaction to noise. These guidelines have been demonstrated to be adequately protective of human health and safety. For outdoor residential areas, the recommended EPA guideline is an L_{dn} of 55 dBA (equivalent to an L_{eq} (1-hour) of 48.6 dBA assuming continuous 24-hour operation). The 55 L_{dn} guideline is not prescribed by the EPA as a daytime limit, but as a limit that may be applied during both daytime and nighttime hours.

Results of the noise impact assessment presented in the Draft EIS did not consider potential effects to property values. To determine expected received sound levels from the Project transmission line at further distances, the Applicant completed additional analysis using a methodology consistent with that used for the Draft EIS. This analysis was independently reviewed and verified by DOE. Sound levels from the HVDC transmission line were calculated for fair (worst case) and foul weather conditions at various distances from the line out to 2,000 feet for the highest altitude (3,000 feet) and lowest altitude (200 feet) assuming flat open terrain. Results of these additional calculations show that, at a distance of 2,000 feet sound levels would attenuate to 25 dBA under fair weather and 19 dBA under foul weather assuming an altitude of 3,000 feet and 22 dBA under fair weather and 16 under foul weather assuming an altitude of 200 feet. This additional information has been incorporated into Sections 3.11.6.2 and 3.11.6.2.3.2 of the Final EIS. In addition, considering the conservative measures incorporated into the analysis, received sound levels at NSAs would expect to be lower than those reported on average. It is possible that transmission line noise may be audible at distances of 2,000 feet or more from the Project but at a very low level. The EPA noise guidelines, and other criteria used to evaluate noise impacts in the Final EIS, do not require inaudibility of a sound source and it is an unrealistic expectation that is not applied to other industrial, commercial, or agricultural activities.

In the Final EIS, impacts to visual resources are addressed in Section 3.18; impacts to property values are addressed in Section 3.13.

- Commenter states that no buyer of a home or home site will want their home to be within any audible level of electrical hissing and crackling emanating from a nearby transmission line. This is particularly problematic in rural areas where ambient or background noise may be a very low 20 to 30 dBA providing little ability to mask irritating corona noise as far as 1,000 feet or more away. The inability to sell a home due to this kind of noise pollution can be financially devastating for adjacent homeowners as well as for those whose property is under the ROW. As a case in point, two-thirds of the value of my home and the 29 acres it sits on is tied to the house. It is prized for its beautiful view and quiet setting. The devastating nature of corona noise pollution, not to mention visual pollution, from the transmission line will remove most of the value of the home and degrade the value of the surrounding acreage. The combined loss may be as much as 85 percent. This is no small amount and it is not a unique

circumstance. I continue to hear other property owners stating that they will be similarly affected.

Response:

Potential impacts from corona noise are addressed in Section 3.4 and 3.11.

As described in the Applicant's April 20, 2015, comment letter to DOE regarding the Draft EIS and in Section 2.1.3 of the Final EIS, the Applicant is committed to working with landowners to avoid and minimize impacts of the Project to their properties. Prior to commencing construction, the Applicant would attempt to voluntarily negotiate with landowners to obtain all necessary property interests for the Project. The compensation package the Applicant has offered in its voluntary acquisition efforts for ROW easements to date reflects input from many individual landowners and landowner organizations and presents landowners with compensation not typically offered by most utilities. The three major components of the ROW easement compensation package are (1) a payment to the landowner for the transmission line easement, (2) a payment for each transmission line structure on the landowner's property, and (3) additional payments for damages or other specific issues that may arise.

The Applicant is proposing to pay 100 percent of fair market value of the fee value of the land within the easement area as determined by independent appraisals or market studies under the requirements of the Uniform Act. Structure compensation would be calculated based on the type of structure selected by the Applicant and the number of structures to be located on the landowner's property. The Applicant would offer the landowner, at his or her option, either a one-time payment or a recurring annual payment for each structure on the landowner's property. If the landowner elects annual payments, the Applicant would make the annual structure payment so long as structures are located on the property. The payment amount for the annual structure payments would increase by 2 percent per year after the first year. The third component of the compensation structure pays the landowner for any damages, taking into account specific issues related to the parcel. The Applicant's obligation to pay for such damages would not be subject to either a cap or a time limit.

- Clean Line provides specific comments to the Draft EIS on property interests and property acquisition:
 - As an initial matter, the Draft EIS states, without further differentiation, that property interests in land for the Project would be acquired through negotiated sale or eminent domain. See Section 2.1.3, p. 2-14, ln 11-12. Clean Line wishes to stress that it would use reasonable, good faith efforts to acquire all of the necessary right-of-way (ROW) for the Project in Oklahoma, Arkansas and Tennessee through voluntary negotiations. Thus, while Clean Line believes that the possibility of eminent domain for the acquisition of property interests is appropriate for the Project, such use would only be a very last resort. Moreover, in all instances, Clean Line is committed to working with landowners to avoid and minimize impacts of the Project to their properties.
 - A byproduct of conversations between Clean Line and landowners has been the execution of a handful of ROW easements in specific circumstances. In Tennessee, Clean Line has negotiated and signed voluntary ROW easement agreements with the owners of most of

the parcels along the Tennessee portion of the Applicant Proposed Route. Any easement acquisition efforts to date are voluntary and "at-risk," meaning that Clean Line understands that the final location of the ROW easements necessary for the Project are subject to change based on the outcome of the NEPA review, other federal reviews and consultations, landowner input, field surveys, engineering reviews and other factors. Following DOE's Record of Decision (ROD), Clean Line would use reasonable, good faith efforts to acquire voluntarily all of the necessary ROW for the Project in Oklahoma, Arkansas and Tennessee.

- In discussing the land acquisition process, the Draft EIS states, again without differentiation, that property interests acquired for the Project could take the form of temporary or long-term easements or fee estates. See Section 2.1.3, p. 2-14, ln 9. The Final EIS should clarify that the vast majority of property interests acquired would be ROW easements. Clean Line anticipates that all of the transmission line ROW (e.g., HVDC transmission lines, AC interconnection, and AC collection lines) and new permanent access roads would be held as long-term easements. Temporary access roads, temporary access easements, and construction areas (e.g., tensioning and pulling sites, lay down and storage areas) would be held as temporary easements or by short-term lease agreements. The property interests for converter stations and fiber optic regeneration sites would likely be fee simple acquisition.

Response:

These comments are noted.

- An easement is a right to use another's land for a specified purpose. The property owner retains fee title to the property. Importantly, under an easement, the landowner continues to have the right to use the property for any purpose consistent with the terms of the easement. Thus, for example, in agricultural areas, the landowner retains the ability to continue typical agricultural production on the entirety of the easement except for the footprint of the structures. Transmission structures are anticipated to occupy less than 1 percent of the total transmission line ROW. Likewise, grazing of animals, hunting and recreation all can occur within the transmission line ROW. While structures (such as homes, silos, sheds or barns) would not be permitted within a transmission line ROW, most other activities would be permitted as long as these activities do not interfere with the safe and reliable operation of the transmission line. At this time, Clean Line does not anticipate that any residences or persons would be relocated as a result of the Project. Further, in the few instances where agricultural or other structures would need to be relocated or replaced, Clean Line would work with or compensate those landowners.

The terms of the easement would detail the limited and specific uses granted by the landowner to Clean Line under the easement and also recognize the uses of the property that the landowner would retain. In return, Clean Line would compensate the landowner for such limited and specific use of the land. Clean Line would be responsible for the equipment and facilities it constructs and operates in the easement, including payment of taxes on the facilities, such as ad valorem property taxes on personal property.

Clean Line understands that every landowner has specific interests and concerns relating to his or her land. Clean Line is focused on voluntary easement acquisition and is committed to conducting easement negotiations in a manner that is respectful of the private property rights of landowners. Moreover, Clean Line is committed to treating all landowners fairly and consistently. Clean Line would meet these goals through several steps, including:

1. Proposing a compensation package that fully compensates the landowner for Clean Line's use of the property;
2. Adopting and implementing a plan to ensure that acquisition of property interests initiated by Clean Line would be performed in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act); and
3. Adopting and implementing a Code of Conduct for interaction and negotiation with landowners by Clean Line, its representatives, and agents.

Prior to commencing construction, Clean Line would attempt to voluntarily negotiate with landowners to obtain all necessary property interests for the Project. The compensation package Clean Line has offered in its voluntary acquisition efforts for ROW easements to date reflects input from many individual landowners and landowner organizations and presents landowners with compensation not typically offered by most utilities. The three major components of the ROW easement compensation package are: (1) a payment to the landowner for the transmission line easement, (2) a payment for each transmission line structure on the landowner's property, and (3) additional payments for damages or other specific issues that may arise.

Clean Line is proposing to pay 100 percent of fair market value of the fee value of the land within the easement area as determined by independent appraisals or market studies under the requirements of the Uniform Act. Structure compensation would be calculated based on the type of structure selected by Clean Line and the number of structures to be located on the landowner's property. Clean Line would offer the landowner, at his or her option, either a one-time payment or a recurring annual payment for each structure on the landowner's property. If the landowner elects annual payments, Clean Line would make the annual structure payment as long as structures are located on the property. The payment amount for the annual structure payments would increase by two percent (2%) per year after the first year.

The third component of the compensation structure pays the landowner for any damages, taking into account specific issues related to the parcel. Damage payments would be intended to make the landowner whole for any losses that result from either construction or operation of the Project, such as crop damages (including reductions in yield), removal of commercially marketable timber, need for field repair, temporary (during construction) or permanent impacts to center pivot irrigation systems that would reduce the effective area of the irrigation equipment or require new equipment, reductions in yield as a result of interference with aerial spraying and other land-specific issues. Clean Line's obligation to pay for such damages would not be subject to either a cap or a time limit.

Clean Line would undertake its acquisition of property interests (in any form) in a manner meeting the requirements of the Uniform Act. As DOE notes in Section 2.1.3, the Uniform

Act applies to real estate acquisitions by federal entities, such as DOE and Southwestern. See Section 2.1.3, p. 2-14, ln 19-20. To ensure consistent application of ROW acquisition, Clean Line would follow the guidelines of the Uniform Act. To this end, Attachment 3 includes a copy of Clean Line's "Right-of-Way Acquisition Plan Under the Uniform Act for the Plains & Eastern Clean Line Transmission Line Project" (ROW Acquisition Plan), which outlines in greater detail Clean Line's procedures related to the Uniform Act. The ROW Acquisition Plan primarily addresses the acquisition of easements, as the overwhelming majority of property interests acquired with respect to the Project will be transmission line easements. However, Clean Line will employ a similar process and procedure for any other type of property interest, if applicable.

Clean Line also has a Code of Conduct for its negotiations with landowners. A copy of this Code of Conduct is included as Attachment 4 and would apply to the activities carried out by Clean Line, as well as its agents and representatives. The intent of this Code of Conduct is to establish and maintain a tone of respectful and open dialogue. The Code of Conduct requires (among other things) that all communications with landowners and other persons made by ROW agents and subcontractor employees representing Clean Line be made in good faith, respectful and reflective of fair dealing, and respectful of the privacy rights of property owners.

There remains the possibility that Clean Line would be unable to finalize an agreement for the acquisition of necessary property interests due to (i) title issues; (ii) inability to locate certain parties despite reasonable diligence to do so; (iii) inability of a public or government entity to legally enter into a voluntary easement conveyance; or (iv) exhaustion of all reasonable negotiations. Clean Line has proposed that, if such events occur, it would turn over responsibility for acquisition of property interests relating to such parcel to Southwestern, which then would initiate its own voluntary negotiations with the landowner. The transfer of negotiations to Southwestern does not mean that eminent domain would be exercised, only that the responsibility to negotiate or otherwise acquire necessary property interest would then be held by Southwestern. It is Clean Line's understanding that such further efforts to acquire the property interests would be consistent with the Uniform Act as well as all other policies and procedures that Southwestern has in place for its acquisition of easements or other property interests. Again, Clean Line wishes to reiterate that while there is a possibility that the exercise of eminent domain may be necessary for the acquisition of property interests, such use would only be a very last resort. In all cases, landowners are always entitled to just compensation and due process.

In January 2011, as part of a settlement with the Southern Great Plains Property Rights Coalition (SGPPRC) and the Coalition of Oklahoma Surface and Mineral Owners (COSMO), Plains and Eastern Clean Line Oklahoma LLC executed and filed a Private Rights Settlement Agreement in Oklahoma (the "Private Rights Settlement Agreement"). These groups had intervened in opposition to Clean Line's application filed June 2010 with the Oklahoma Corporation Commission (Cause PUD No. 201000075). Clean Line intends to comply with all of the obligations to which it committed in the Private Rights Settlement Agreement. Accordingly, in addition to the procedures explained in Section II.B.I above, when negotiating easements with landowners in Oklahoma, Clean Line would:

1. Provide landowners with a copy of the Private Rights Settlement Agreement and the Oklahoma Corporation Commission's final order on PUD No. 201000075.
2. Offer landowners a reasonable easement agreement, with at least two compensation options: (i) one that provides for a one-time, up-front payment, followed by annual payments once the line is in service and (ii) one that provides for a single payment.
3. At the landowner's election, submit the issue of compensation to be determined by binding arbitration if a landowner and Clean Line are able to reach agreement on the form of easement but are not able to reach agreement on the amount of compensation.
4. Acknowledge and agree that the mineral estate is the dominant estate under Oklahoma law and that its public utility status does not diminish the rights of mineral owners.

Section 2.3 of the Draft EIS summarizes the process used by Clean Line to identify the proposed locations for each Project facility, particularly the HVDC transmission line. As an initial matter, Clean Line respectfully requests that DOE clearly state within the Final EIS that, as part of the final route selection for the HVDC transmission line, the AC interconnections and the AC collection system, Clean Line will continue to implement EPM LU-5, which provides that Clean Line will work with affected landowners to minimize the impact of the siting of the ROW on their property. This will include micrositing to avoid residences.

Response:

Comment noted. The Final EIS has either provided or referred to these clarifications and information regarding easement acquisition in Section 2.1.3.

- Page 3.13-52, Section 3.13.6.2.5, Line 11-12: The Draft EIS states that "[i]n theory, the value of each easement should be equal to the difference in value of the affected property before and after the acquisition and construction of the facilities." This formula fails to account for the exponential increase in potential liability to landowners, and particularly agricultural landowners, within the ROW's path. There is a stark difference between the Applicant's payment for the difference in fair market value for agricultural land and its siting, constructing and operating a multi-billion dollar industrial project. DOE should evaluate and document the potential burden of increased landowner liability due to the siting of an industrial project on agricultural land. Page 3.13-53, Section 3.13.6.2.6, Lines 8-14: The Draft EIS evaluation of economic impact to agricultural property values cites primarily to one study conducted on rural lands in Wisconsin. In Jackson, Poinsett, Cross and Mississippi counties, the cultivation of rice remains a key commodity. As discussed above, rice cultivation is uniquely impacted by the Project because of the necessity for aerial application and flood irrigation. Furthermore, the heavy emphasis on rice production and the location along and among key Central Flyway staging areas for migratory waterfowl has created unique recreational value to property in the above referenced counties. Accordingly, DOE's review should better account for the impact to the property value of lands with unique agricultural operation and recreation attributes.

Response:

Impacts to agricultural lands are disclosed and addressed in Section 3.2 of the Final EIS; impacts to wildlife—including migratory birds—are disclosed and addressed in Section 3.20

of the Final EIS. In an effort to reduce impacts to landowners, the Applicant would make reasonable efforts, consistent with design criteria, to accommodate requests from individual landowners to adjust the siting of the route within the 1,000-foot-wide corridor and through micrositing of transmission structures on properties. Micrositing would take crop areas, recreation, aerial spraying, and other issues of concern into consideration

An easement is a right to use another's land for a specified purpose. The property owner retains fee title to the property. Importantly, under an easement, the landowner continues to have the right to use the property for any purpose consistent with the terms of the easement. Transmission structures are anticipated to occupy less than 1 percent of the total transmission line ROW. Likewise, grazing of animals, hunting, and recreation all can occur within the transmission line ROW. Prior to commencing construction, the Applicant would attempt to voluntarily negotiate with landowners to obtain all necessary property interests for the Project. The compensation package the Applicant has offered in its voluntary acquisition efforts for ROW easements to date reflects input from many individual landowners and landowner organizations and presents landowners with compensation not typically offered by most utilities. The three major components of the ROW easement compensation package are (1) a payment to the landowner for the transmission line easement, (2) a payment for each transmission line structure on the landowner's property, and (3) additional payments for damages or other specific issues that may arise.

EPMs that address compensation include AG-6: Clean Line will work with landowners to develop compensation for lost crop value caused by construction and/or maintenance. More detailed information on the ROW acquisition process is provided in the Right-of-Way Acquisition Plan for the Project included in the public comments on the Draft EIS submitted by Clean Line (2015). In addition, Clean Line would work with landowners to minimize the placement of structures in locations that would interfere with the operation of irrigation systems (AG-1). In areas where irrigation systems would be disrupted and could not be avoided, the affected area could be measured and affected parties compensated for any associated reduction in productivity (see Appendix J to the Final EIS). More detailed information on the ROW acquisition process is provided in the Applicant-developed Right-of-Way Acquisition Plan for the Project included in the public comments on the Draft EIS submitted by Clean Line (2015).

The Applicant is proposing to pay 100 percent of fair market value of the fee value of the land within the easement area as determined by independent appraisals or market studies under the requirements of the Uniform Act. Structure compensation would be calculated based on the type of structure selected by the Applicant and the number of structures to be located on the landowner's property. The Applicant would offer the landowner, at his or her option, either a one-time payment or a recurring annual payment for each structure on the landowner's property. If the landowner elects annual payments, the Applicant would make the annual structure payment so long as structures are located on the property. The payment amount for the annual structure payments would increase by 2 percent per year after the first year. The third component of the compensation structure pays the landowner for any damages, taking into account specific issues related to the parcel. Damage payments would be intended to make the landowner whole for any losses that result from either construction

or operation of the Project, such as crop damages (including reductions in yield), removal of commercially marketable timber, need for field repair, temporary (during construction) or permanent impacts to center pivot irrigation systems that would reduce the effective area of the irrigation equipment or require new equipment, or reductions in yield as a result of interference with aerial spraying and other land-specific issues. The Applicant's obligation to pay for such damages would not be subject to either a cap or a time limit.

- Commenter notes that a recent briefing paper prepared on behalf of Clean Line found that: i) transmission lines do not have a significant effect on the sales prices of nearby properties, including single-family homes; ii) transmission lines have little to no impact (decreases of 0 percent to 2.44 percent) on the value of rural and agricultural land; and (iii) where transmission lines were found to have small impacts to property values, the decreases in value diminish with distance, time, and for agricultural property, with the placement of the structures in a manner than reduces impacts to farming operations. The commenter requests that the DOE consider this briefing paper and the references provided during preparation of the Final EIS.

Response:

This briefing paper identifies a number of studies that found that transmission lines do not have a significant effect on the sales prices of nearby properties, including single-family homes, as noted in the above comment, but also noted that other studies, including some paired-sales studies and many studies that rely on multiple regression analysis, found that transmission lines have negative effects on residential property values, generally ranging from 2 percent to 10 percent (Priestley 2015). This finding is consistent with the discussion of property values presented in the Draft EIS, which notes that existing studies found that proximity to electric transmission lines can have negative effects on residential property values, with average impacts ranging from less than 1 percent to about 10 percent.

The findings related to rural and agricultural land cited in the above comment are mainly based on two recent studies: Jackson (2010) and Chalmers (2012). As discussed in the Draft EIS, Jackson (2010) assessed the impact of transmission lines on rural land used for agricultural or recreational purposes in Wisconsin. Using multivariate statistical analysis, Jackson found that prices for properties sold with a transmission line easement were 1.1 percent to 2.4 percent less than otherwise comparable properties sold at least 0.25 mile from a transmission line. These differences were not statistically significant (Jackson 2010). This study is the source of the 2.44 percent cited in the above comment. Additional information from the Chalmers 2012 study has been added to Section 3.13.6.2.5 of the Final EIS.

The cited briefing paper (Priestley 2015) also notes that the following statement in the Draft EIS should be clarified: "A review of studies of the impacts on agricultural land found that overhead transmission lines have the potential to reduce the sales price and the effect can vary widely, ranging from no effect to a decrease of 20 percent or more depending on the productivity of the land and the amount of disruption to farm operations (Kroll and Priestley 1992)." According to Priestley (2015), the 20 percent decrease was the finding of a single appraiser study that Kroll and Priestley considered an outlier and not consistent with the

findings of other research on the effects of transmission lines on agricultural properties. This clarification has been added to Section 3.13.6.2.5 of the Final EIS.

The third finding in the above comment, that impacts to property values, where they do occur, tend to decrease with distance and time, is also consistent with the discussion of property values presented in the Final EIS (see Section 3.13.6.2.5). Although the statement in the comment that the placement of structures affects the potential for potential impacts on agricultural property values does not appear to be part of the findings of Priestley (2015), it is consistent with Chalmers (2012) and other findings reported in the Final EIS (see Section 3.13.6.2.3 and Appendix J). As noted above, additional information from the Chalmers 2012 study has been added to Section 3.13.6.2.5 of the Final EIS.

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7 No Action Alternative

The following comments were received relative to the No Action Alternative:

- Several commenters urged DOE to select the No Action Alternative, for reasons including
 - lack of information about the impacts of the project,
 - speculative nature of the project and related construction of wind farms,
 - lack of generator facilities,
 - potential for increased utility rates,
 - and lack of consideration of other alternatives.

Response:

Comments are noted. DOE is conducting an extensive review of potential impacts associated with the Project. The Draft EIS analyzed potential impacts of the Project associated with 19 environmental and socioeconomic issues of concern identified through a DOE-conducted scoping process. As described in Section 2.5.1 of the Draft EIS, Oklahoma's Panhandle region contains an excellent wind resource, and the Applicant has determined that electrical interconnection facilities adequate to support a new converter station are present in this region. An analysis of the wind resource in Oklahoma's Panhandle region by the National Renewable Energy Laboratory showed that large areas of wind resources with average annual wind speeds greater than 8 meters/second are prevalent in that part of the state. The Section 1222 Application—Parts 1 and 2 (<http://www.energy.gov/oe/services/electricity-policy-coordination-and-implementation/transmission-planning/section-1222-0>), provides an in-depth analysis of design, market, and policy factors supporting the development of wind energy generation in the vicinity of the Project. For reasons described in the Section 1222 Application, it is reasonably foreseeable that wind farms and generation facilities would be developed in the vicinity of the Project and such facilities are analyzed as connected actions in the Draft EIS. The Section 1222 Application addresses utility rates. Alternatives were developed through an extensive DOE-managed scoping process prior to development of the Draft EIS.

- Commenters stated that the No Action Alternative is not sufficiently analyzed in the Draft EIS. Some state that under the No Action Alternative, DOE's assumption that the transmission line will not be built has consequences that are not neutral, including continued emissions of GHGs, elevated levels of CO₂, continued water consumption, no associated reduction in CO₂ emissions in the Southeast and other health and environmental harms from fossil fuel generation. Other commenters state that the construction of the line could lead to transmission of coal or gas-generated electricity, which could lead to an increase in GHGs, coal consumption, and related pollution. These impacts should be described fully in order to understand the impacts of the No Action Alternative.

Response:

Section 3.3.6.9 of the Draft EIS discussed the potential impacts from the No Action Alternative on air quality and climate change and states that no emissions reduction associated with the displacement of fossil-fueled power generation by the wind generation associated with the Project would occur. Wind energy generation facilities that would

interconnect to the Project are considered connected actions to the Project, and Section 3.3.6.8.1.2 of the Draft EIS provided an estimate of the displaced emissions of certain air pollutants, including CO₂, that may displace existing power sources with wind energy.

As described in depth in Clean Line’s Section 1222 Application to DOE—Parts 1 and 2 (<http://www.energy.gov/oe/services/electricity-policy-coordination-and-implementation/transmission-planning/section-1222-0>), the Project was designed to serve primarily renewable energy resources. This goal is reinforced by policy and market conditions described in the Section 1222 Application. For the reasons described in the Section 1222 Application, it is reasonably foreseeable that the majority of power transferred on the HVDC transmission line would originate from wind resources. Development of future wind farms in the vicinity of the HVDC transmission line route is included as a connected action and analyzed appropriately in the Draft EIS. The same design, market, and policy factors make it unlikely that non-renewable resources would be connected to the HVDC transmission line; such projects, therefore, are not reasonably foreseeable, and impacts such as increases in GHGs, coal consumption, and associated pollution were not analyzed in the Draft EIS.

- Commenter opposes the Draft EIS’s No Action Alternative and states that DOE should act on its authority to overcome jurisdictional and other barriers to new transmission development. The commenter further states that the modest environmental costs of the Project indicated that DOE should reject the No Action Alternative.

Response:

The commenter’s opposition to the No Action Alternative is noted. Discussion and analysis of the No Action Alternative is required by the CEQ regulations (40 CFR 1502.14). DOE will make a decision to participate on the Applicant Proposed Project based on criteria set forth in Section 1222 of the EPO Act of 2005, and in doing so is required to disclose environmental impacts through the NEPA process.

8 Routing

The following comments were received relative to Routing:

- Commenter states that Clean Line partners should take the concerns of communities seriously and work with landowners and others to identify an acceptable route that minimizes the impacts as much as possible.

Response:

Comment noted.

- Commenter asks how the project route was chosen?

Response:

Section 2.3 and Appendix G of the EIS describe the route development process in detail.

- Commenter asks, who has the final say on the line route?

Response:

DOE refers the commenter to Section 1.2 and 1.5 of the Final EIS, which describe DOE's role in preparing and signing the ROD for the EIS. The ROD is the formal agency decision document for the EIS process. DOE's ROD would announce and explain DOE's decision pursuant to Section 1222 of the EAct of 2005 on whether and under what conditions it would participate in the Project. The ROD will also describe any conditions, such as mitigation commitments, that would need to be met. DOE may issue a ROD no sooner than 30 days after EPA publishes the Notice of Availability for the EIS in the Federal Register.

- Commenter notes the proposed route would dissect the City of Mulberry right through the location of a new city park.

Response:

DOE asked the Applicant to confirm the location of this park with respect to the Applicant Proposed Project. The park is located approximately 1,400 feet east of the representative ROW centerline of the Applicant Proposed Route and therefore is unlikely to be affected by the Applicant Proposed Project.

- Commenter objects to the route chosen through Cleburne County near the town of Quitman, Arkansas. The route chosen cuts through the City Limits of Quitman, Arkansas, near the Quitman School's football field and wraps around the city limits to the east crossing highway 124. This will cause a severe hardship on future growth in the City of Quitman.

Response:

DOE asked the Applicant to confirm the location of this football field with respect to the Applicant Proposed Project. The field is located approximately 2,185 feet north of the representative ROW for the Applicant Proposed Project and therefore is unlikely to be impacted by it.

- Commenter appreciates Clean Line's efforts to follow existing transmission lines on the proposed route and acknowledges that, through Eastern Oklahoma, the impact of the proposed route appears to mainly be on previously disturbed and/or cleared lands.

Response:

Comment noted.

- Commenter asks why DOE doesn't go across the Ozark National Forest instead of going through 1,000 private landowners in Crawford County, Arkansas. Other commenters suggest crossing federal lands or putting the line along Interstate 40.

Response:

DOE evaluated potential routes through lands managed by the USFS as documented in Appendix G of the Final EIS. This routing process resulted in the identification of HVDC Alternative Route 4-B through the Ozark National Forest. Potential impacts associated with HVDC Alternative Route 4-B are disclosed in Chapter 3. The portion of HVDC Alternative Route 4-B that would intersect the Ozark National Forest in Crawford County, Arkansas, is still considered non-preferred in the Final EIS as explained in Section 2.14.1.5. DOE would still be able to select other portions of HVDC Alternative Route 4-B as segments of the HVDC transmission line route if used in concert with other HVDC alternative routes in Region 4. For example, the western segment of HVDC Alternative Route-4B could be used with 4-A, or the eastern portion of HVDC Alternative Route 4-B could be used with either 4-A or 4-D.

The Applicant Proposed Route parallels Interstate-40 to the extent practicable as described in Appendix G.

- Commenter asserts that if the federal government approves a project they should be required to place the project on federal land they own rather than privately owned land where available. Conway County is 21 sections across the top and 8 of those are owned by the federal government several sections are owned by Deltic Timber and Green Bay Packaging. These sections are basically vacant, no schools, structures or farms close by. Seems like this would be a better path for the line if it has to go through with less land owners. In the Northeastern part of the county there's a community but North of this community in Van Buren County there is more forestry land.

Response:

DOE evaluated potential routes through lands managed by the USFS as documented in Section 2.3 and Appendix G of the Final EIS. This routing process resulted in the identification of HVDC Alternative Route 4-B through the Ozark National Forest. Potential impacts associated with HVDC Alternative Route 4-B are described in each resource section in Chapter 3. The portion of HVDC Alternative Route 4-B that would intersect the Ozark National Forest in Crawford County, Arkansas, is still considered non-preferred in the Final EIS as explained in Section 2.14.1.5. DOE would still be able to select other portions of HVDC Alternative Route 4-B as segments of the HVDC transmission line route if used in concert with other HVDC alternative routes in Region 4. For example, the western segment

of HVDC Alternative Route-4B could be used with 4-A, or the eastern portion of HVDC Alternative Route 4-B could be used with either 4-A or 4-D.

- Commenter asserts that Clean Line should cross federal lands wherever possible to minimize disruption and financial upheaval of the lives of private citizens. The land taken by the right of way could be leased by the government. The rate established could be based on a fixed dollar amount, on the quantity or value of kilowatt- hours transported, or on a combination of these. So what are the benefits? The lease income generated could be returned to the affected government agency to be used for maintaining and creating new recreational areas. The small amount of timber removed in the narrow right of way could be sold and used in a like manner. The right of way and access roads created during construction would have value as fire breaks and could provide additional access for campers and others. Agencies such as the U.S. Forest Service would be better able to provide oversight of environmental issues such as the spraying of chemical herbicides than private landowners would be. And, the cost to establish and transport clean wind energy would be lower because leasing the land from the government reduces upfront capital investment thereby enhancing Clean Line's financial model. We should expect the government to welcome construction on public lands because after all, the EIS does describe (and Clean Line advertises) just how clean the project is. Furthermore, this proposal creates three winners: the public, private industry, and the federal government. Let me ask this question: What is the difference between private and public forested areas as it pertains to the preservation of wildlife and other natural resources? After all, much of the private land currently in the path of Clean Line is a virtual extension of forested government land. My land has owls and bats that are likely one or more of four endangered species. Drainage from my land affects streams and a nearby lake. In conclusion, we must understand that we can't have it both ways. Either: Clean Line is as clean as claimed in the EIS and suitable for crossing forested land both private and government owned or it's too dirty to place on federal land and therefore too dirty for similar private lands. Arguably, private property should have more protection than public lands simply due to the added human toll.

Response:

DOE evaluated potential routes through lands managed by the USFS as documented in Appendix G of the Final EIS. This routing process resulted in the identification of HVDC Alternative Route 4-B through the Ozark National Forest. Potential impacts associated with HVDC Alternative Route 4-B are described in each resource section in Chapter 3. DOE describes the reasons that Alternative 4-B was considered a non-preferred alternative in Section 2.14.1.5 of the Final EIS. DOE did not further evaluate the leasing arrangements suggested by the commenter because HVDC Alternative 4-B was considered non-preferred and the other alternatives do not cross federal land.

- Clean Line states that during 2014 Clean Line representatives actively contacted individual landowners with property in the representative ROW. In the course of contacting landowners, some landowners presented new routing information and/or made specific requests for route variations. The Route Variations Report prepared by Clean Line includes several variation requests not included in the public comments on the Draft EIS to date.

Response:

DOE evaluated all potential route variations proposed in public comments on the Draft EIS, including those provided by the Applicant. Route variations that were determined to be technically feasible and reasonable are included in the Final EIS as described in Chapter 2 and analyzed throughout Chapter 3.

- Clean Line notes, section 2.3 of the Draft EIS summarizes the process used by Clean Line to identify the proposed locations for each Project facility. While the summary of the process is accurate, the existing discussion might be interpreted to imply that public (government owned) lands were avoided due to the nature of their ownership. However, Clean Line's siting criteria focused on avoiding environmentally sensitive areas without respect to its ownership status. In preparing the Final EIS, Clean Line suggests that DOE further clarify its discussion of Clean Line's siting criteria on this matter. Clean Line went through an extensive iterative process to identify and refine the proposed locations for the Project facilities, as well as several alternatives for the HVDC transmission line route. In conducting this process, Clean Line attempted to avoid sensitive environmental resources irrespective of who owned the underlying lands. Clean Line's General Siting Guidelines were intended to minimize conflicts with existing resources, developed areas, and existing incompatible infrastructure; to maximize opportunities or paralleling existing compatible infrastructure; and to take into consideration land use and other factors affecting route development and identification. The full list of siting criteria used by Clean Line in identifying the Application Proposed Route are included as Appendix A to DOE's Route Development Process (Draft EIS Appendix F). Overall, the purpose of these criteria was to minimize impacts of the Project on environmental resources without reference to land ownership. Of course, Clean Line did not ignore land ownership. Rather, land ownership was considered where it correlated with the presence of environmental resources. For example, Clean Line sought to avoid certain lands because they included public recreation areas and/or historic resources or are specifically managed for wildlife protection. Often public recreation areas, historic sites and parks are publicly owned. Thus, for example, Clean Line avoided designated Wildlife Management Area (WMAs) and National Forest lands because they typically contain important wildlife and habitat resources. Similarly, Clean Line sought to avoid crossing tribal trust lands and allotments to avoid impacts to sensitive cultural resources. Clean Line also attempted to parallel existing roadways and utility corridors, which cross both public and private lands, to reduce the impact of its Project on the natural environment, visual resources, and wildlife habitat.

Response:

A statement of clarification has been added to Section 2.3 of the Final EIS regarding siting criteria and avoiding environmentally sensitive areas without respect to ownership status.

- Commenter asserts, the list of alternatives does not contain what would appear to be an obvious alternative: Availability of existing rights of way in which the transmission line could be placed. The proposed transmission line could be incorporated into existing or planned rights-of-way for natural gas or oil pipelines generally following the same route, with considerable economic savings and what appears to be far less environmental impact. There are several such existing or planned rights-of-way of natural gas or oil pipelines

following the same general route proposed by Clean Lines. For example, the northern route alternative for the transmission line as it enters Cleburne County (Section 5) involves cutting a virgin right-of-way through farmland, pasture and timberland, with involvement of structures. On the other hand, the southern route alternative could follow or utilize (at least in part) an existing right-of-way for a pipeline without the involvement of land and structure that is not already affected. The Draft EIS should have evaluated an alternative that includes such rights-of-way.

Response:

Appendix G of the Final EIS describes the route development process in detail. Many siting factors were evaluated, including length following existing utility corridors. The routes evaluated in the Final EIS include multiple segments where the Project would parallel other utilities or roadways. An end-to-end alternative that would follow other utility easements was considered, but was found not to be technically feasible.

- Commenter encourages the consideration of a route that would limit the number of Frog Bayou crossings. Commenter also states that, where feasible, the transmission line should share existing utility corridors and be routed to avoid natural habitats to the extent possible.

Response:

A route variation was developed by the applicant and analyzed by DOE in the Final EIS to avoid this Wildlife Management Area. This route variation is described in Appendix M and a map of the route variation is shown in Exhibit 1 of Appendix M. A small portion of Frog Bayou would still be crossed by the Applicant Proposed Route. Moving the Applicant Proposed Route away from Frog Bayou in this area would result in other impacts to agricultural land and residences. The Applicant would implement micrositing and other design measures such as structure placement and aerial spanning in the area of Frog Bayou to avoid or minimize impacts. For this location, resource concerns can be addressed by micrositing within the 1,000-foot-wide corridor and implementing EPM LU-5.

- The Arkansas Dept. of Parks & Tourism: -Is opposed to any stream crossing that compromises the integrity of sport-or game fish habitat. -States in every case and in all route proposals, this project should avoid all areas that harbor sensitive, unique, or other valuable flora and/or fauna. The Dept. cannot condone any route through or near Frog Bayou Wildlife Management Area, St. Francis Sunken Lands Wildlife Management Area, the Singer Forest Natural Area, or the Cache River National Wildlife Refuge. If crossing any of these areas is unavoidable, the Dept. strongly recommends appropriate mitigation strategies, including, but not limited to an Avian Protection Plan and Transmission Vegetation Management Plan. - Currently the various proposed routes will cross several areas considered Arkansas and/or National Scenic Byways including: Boston Mountains Scenic Loop (AR 4-A); Pig Trail Scenic Byway (APR Region 4 Link 7); AR Scenic 7 Byway (APR Region 5 Link 1/AR 5-A); Crowley's Ridge Parkway National Scenic Byway (APR Region 6/Region 6, AR 6-C); and Great River Road National Scenic Byway (APR Region 7 Link 1/Region 7 AR 7-A). -Proposed routes crossing byways will also disturb the surrounding areas accessed by Arkansas tourists from these roads such as Cadron Creek (APR Region 5/Region 5 AR 5-E), as well as Mulberry River and Big Piney (APR Region 4 and APR Region 4 Link 9).

Response:

The Final EIS addresses potential impacts to fish and aquatic resources in Section 3.14.2.7 and 3.20.2.7, including analysis associated with sedimentation of aquatic resources. Section 3.20.2.7.1 lists EPMs that would be implemented to avoid or minimize impacts to fish and aquatic resources. Detailed EPMs for both construction and ROW maintenance would be in place prior to construction, specifically designed to ensure slope stability, prevent excessive soil erosion, prevent other hazardous runoff to waters, retain low-growing near-stream vegetation, and reduce sedimentation in streams (see Appendix F for a complete list of EPMs). In addition, state permits will need to be obtained prior to construction that will require that Project actions not violate state water quality standards and further aid in the protection of aquatic resources, including food resources and spawning and rearing habitat. Furthermore, Clean Line would develop a SWPPP that would control sedimentation, erosion, and runoff and would be consistent with the state and federal regulations. Specifically regarding increased sediment load from vegetation clearing, Clean Line has committed to maintaining a streamside management zone of 50 feet on both sides of streams and waterbodies where removal of low-growing vegetation would be minimized (EPM W-3; see Sections 2.1.7 and 3.20.2.7.1 and Appendix F of the EIS), which would aid in protection of the stream environment and reduce the likelihood of excessive sediment loads reaching the streambed. Pursuant to NERC Reliability Standard FAC-003, Clean Line would develop a TVMP, which would address how vegetation is to be managed in the ROW. The TVMP may require additional analysis under NEPA depending on whether and under what conditions DOE decides to participate in the Project. As previously described, EPMs for both construction and ROW maintenance would be in place prior to construction and for which the Applicant would seek approval through the state and federal permitting process. The approval process would ensure actions with the potential to impact water and aquatic resources would be avoided or minimized.

The Applicant has committed to developing an Avian Protection Plan (APP) that is consistent with Avian Power Line Interaction Committee (APLIC) guidelines. This plan would be developed in conjunction with guidance from the USFWS as well as other applicable agencies.

DOE acknowledges crossings of Arkansas or National Scenic Byways by the Applicant Proposed Route or HVDC alternative routes. Potential visual impacts are discussed in 3.18.6.2 and 3.18.6.3. The Applicant has developed a comprehensive list of EPMs that would minimize or avoid potential adverse impacts to visual resources. A complete list of EPMs for the Project is provided in Appendix F.

- Commenter asserts, Clean Line should be required to follow the highway system as should all other such utilities.

Response:

Comment noted. Appendix G of the Final EIS describes the route development process in detail. Many siting factors were evaluated, included length following existing roads. The routes evaluated in the Final EIS include multiple segments where the Project would parallel roadways.

- Commenter states, Region 4 AR 4-A, bisects (lengthwise) my family's 80-acre farm. I am not sure what process was used to select this route, but clearly property lines and/or existing infrastructure and roads were not taken into consideration. It appears that the route was chosen by taking a straight line from Point A to Point B. The alignment should have at least been routed adjacent and parallel to the road instead of straight across the middle of the property.

Response:

Section 2.3 and Appendix G of the Final EIS describe the route development process in detail. DOE also requested that the Applicant evaluate any potentially new information provided in this comment with respect to routing. The Applicant responded that they evaluated this information during Project siting and believe that the concern presented in this comment would be addressed through micrositing within the 1,000-foot-wide corridor.

- Commenter notes, the Burlington/Northern Railroad abandoned thousands of miles of railway through the area within the past 5 years leaving an east to west easement. Why can't the transmission lines follow that easement? This would result in less land disturbance.

Response:

Section 2.3 and Appendix G of the Final EIS describe the route development process in detail. DOE asked the Applicant to evaluate the technical feasibility of using abandoned railways. The Applicant evaluated abandoned railways in the Oklahoma Panhandle region as potential siting opportunities for the HVDC route and AC collection system during the route identification process (For example, see Proposed Alternative Route 1-A presented in Tier IV Routing Study in Appendix G of the EIS.).

- Commenter asks why the route cannot follow the same route as the transmission lines (owned by Xcel and OEG) (Perryton, Texas).

Response:

Section 2.3 and Appendix G of the Final EIS describe the route development process in detail. AC Collection System Routes SE-3 and E-2 are near Perryton, Texas. The AC collection system follows existing transmission lines to the extent practicable. However, the location of AC transmission lines within these possible routes would be driven by the locations of wind farms that may be constructed in the future to connect to the Project.

- Commenter asserts that the size of Banks Co., the quality of the land, the type agricultural operation, and the substantial investment renders the proposed route that would cross it to be unreasonable in its impact to a modern row crop farming operation. We respectfully request this proposal be re-routed to a position which avoids contact with Banks Co. property. This is not meant to be an expression of disapproval of you or the fine job you and Allen Gordon have done for your client. Rather, my family and I conclude that a proposal to purchase an easement right of Banks Co. is not something that we are interested in pursuing or accepting. I would be happy to discuss with you my views of a different route to show you what I believe would be productive and cost effective for Clean Line Energy.

Response:

DOE requested that the Applicant evaluate any potentially new information provided in this comment with respect to routing. The Applicant responded that they evaluated the information during Project siting and believe that the concern presented in this comment would be addressed through micrositing within the 1,000-foot-wide corridor.

- Commenter asserts that many dwellings occur along the Region 5 HVDC AR-5B routes. Why consider a route where so many people live?

Response:

Comment noted. Section 2.3 and Appendix G of the Final EIS describe the route development process in detail. Many factors were considering during the routing process, including distances of the routes to residences. A comparison of impacts to residences is provided in Section 3.10.6 of the Final EIS.

- Commenter asserts that during the February 18, 2015 DOE Meeting in Ft. Smith, Clean Line maps for the proposed route reflected the terrain and homes were highlighted by a small tan symbol. My home was NOT shown on their maps but instead only the "land" was shown. My house was shown on the EIS maps. This requires immediate attention for redirecting the route.

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. The Applicant confirmed and DOE verified that data regarding structures on this parcel were correct in the EIS analysis. The Applicant anticipates that the concern presented in this comment could be addressed through micrositing within the 1,000-foot-wide corridor.

- Commenter asserts, within the area penetrated by the proposed line [Section L, Region 6, APR Links 4, 5, and 6] the primary cropping sequence includes rice production. As supported by Draft EIS referenced information accurate aerial application is absolutely necessary for normal rice production. The proposed routing exasperates [sic] matters by [1] not following existing recognized ownership boundaries (a stated objective of the DOE) and [2] paralleling an existing transmission line. This has a compounding and therefore potential devastating effect. [1] The proposed routing adversely assigns the line away from DOE suggested placement on landowner boundaries. It meanders through western Poinsett County, Arkansas, slicing through fields, dividing them into unmanageable smaller segments, potentially limiting them from any rice production. [2] Also, along many areas the proposed links parallel an existing transmission line that transverses at an angle through the countryside. Working around the existing angling line has been managed with careful aerial and ground operations around its ROW. However, placing a monstrous new transmission line paralleling the existing one will create hazards in working among two ROWs that will effectively eliminate rice production for many fields. This, a truly devastating effect of the field environment and economy!

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. The Applicant confirmed and DOE verified that data regarding infrastructure, property boundaries, and agricultural land use were correct in the EIS analysis. Potential impacts to agricultural uses are disclosed in Section 3.2 of the Final EIS. The Applicant anticipates that concerns presented in this comment could be addressed through micrositing within the 1,000-foot-wide corridor. Agricultural EPM AG-5 would require that Clean Line work with landowners and/or tenants to consider potential impacts to current aerial spraying or application (i.e., crop dusting) of herbicides, fungicides, pesticides, and fertilizers within or near the transmission ROW. Clean Line will avoid or minimize impacts to aerial spraying practices when routing and siting the transmission line and related infrastructure.

- Commenter states that the Cherokee Nation has passed a resolution in opposition to the transmission line primarily because the route will run over the top of the Trail of Tears.

Response:

DOE is aware of the position of the Council of the Cherokee Nation (Enactment # R-003-15) and has provided the Council with a letter in response (Jane Summerson, NEPA DOE/EIS-0486 Document Manager, to the Council of the Cherokee Nation, March 17, 2015). The Cherokee Nation is a consulting party in the Section 106 consultation process for the Project. DOE also recognizes that the Council is expressing the concerns of the people it represents along the Project route regarding the Project's potential environmental impacts. In addition, as discussed in Sections 3.9, Historic and Cultural Resources, and 3.18, Visual Resources, of the Final EIS, DOE has analyzed potential Project impacts to the Trail of Tears National Historic Trail (NHT) at various points in Oklahoma and Arkansas. Current information indicates that Applicant Proposed Route 4 Link 1 will cross the Trail of Tears alignment delineated by the NPS once within the jurisdictional area of the Council, near Gore, Sequoyah County, Oklahoma. In this area, the Trail of Tears is paralleled by the Cherokee Hills Byway/Oklahoma Highway 100. Available information does not indicate the presence of any identified specific, significant historic features associated with the trail, such as archeological sites, relict landscape features, or buildings or structures within the representative 200-foot-wide ROW where the Project would cross the trail.

- Commenter asserts that maps being used in the analysis are old and outdated and indicates that their home is not on maps used, however a proposed route passes through their home. In addition, commenter states that the locations of schools are not shown accurately.

Response:

DOE asked the Applicant to evaluate potentially new information provided in public comments, including locations of homes, schools, and other structures. Updates to home and school locations have been incorporated in the Final EIS. Impacts to structures would be avoided and/or minimized by micrositing within the 1,000-foot-wide corridor and through the implementation of EPM LU-5. Section 3.10.6 discusses potential impacts to any structures in the representative ROW of the Applicant Proposed Route or DOE HVDC alternative routes. In the very rare case that a structure must be removed, the Applicant would compensate the landowner. Such compensation is described in Clean Line's comment

letter (April 20, 2015). The letter describes a ROW compensation package that compensates the landowner for Clean Line's use of the property; the adoption and implementation of a plan to ensure that acquisition of property interests initiated by the Applicant would be performed in accordance with the Uniform Act; and the adoption and implementation of a Code of Conduct for interaction and negotiation with landowners by the Applicant, its representatives and agents.

- Commenter feels that Clean Line has taken great steps to work to find some of the better possible avenues for this line if it goes through properties, but it does have to go somewhere. Commenter appreciates the way they have gone about to choose the routes. Commenter feels that they have tried to pick some of the least offensive routes possible to go through the communities and rural areas.

Response:

Comment noted.

- Commenter states that they are landowners at T13N 1117E 529 SW in Muskogee County, Oklahoma. They strongly urge DOE to use an alternate route to cross Oklahoma with additional power lines.

Response:

Comment noted. Section 2.3 and Appendix G of the Final EIS describe the route development process in detail. Many potential routes and factors were considered during the route development process. Through the use of micrositing and application of EPM LU-5, DOE believes individual property owner impacts can be minimized to the extent practicable.

- Commenters state that several areas were not labeled/described correctly along the project routes. "-State Lands: Frog Bayou WMA, Ozark Lake WMA, Cherokee WMA, Rainey WMA, Piney Creek WMA, Woody Hollow State Park". Listing all of these as state lands is erroneous. At least one is private land administered for hunting as a state WMA and another is federal land administered for hunting as a state WMA. Segment M - Mississippi Delta, Tipton County and Shelby County (Tennessee): "- Federal Lands: Lower Hachie NWR, ..." should be Lower Hatchie.

Response:

Table 3.10-2 has been revised to indicate which lands are owned by the state and which ones are privately owned or federally owned but managed by the state. The spelling of "Lower Hatchie NWR" has been checked throughout the Final EIS.

- Commenter asserts that there should be no future design changes outside the 1 mile corridor because the routes inside the 1 mile corridor were subject to incomplete scoping. No future design changes should be made outside the 1000-foot-wide corridor because they have not been analyzed for environmental impacts. If the route is modified as a result of comments on the Draft EIS that is outside the 1000-foot-wide corridor analyzed, then the project needs to be disclosed to all impacted landowners by individual letter and reanalyzed, rescoped and put out for additional comment.

Response:

The NEPA process allows lead agencies to evaluate public or cooperating agency comments that result in changes to the alternatives evaluated in the Draft EIS. In the case of the Plains & Eastern EIS, the affected environment and potential impacts of all changes to the evaluated alternatives outside the 1,000-foot-wide corridor are fully disclosed in the Final EIS. Landowners affected by route variations outside the 1,000-foot-wide corridor that were made in response to public comments on the Draft EIS were notified by mail and the route variations posted to the Plains & Eastern EIS website prior to issuance of the Final EIS.

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8A Applicant Proposed Route

The following comments were received relative to Applicant Proposed Route:

- Commenter states that the City of Fort Smith strongly opposes the proposed routes near the Lee Creek Reservoir (including the Lee Creek Variation).

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. The Applicant determined that new information was presented by the landowner that could be addressed through the development of a route variation. A route variation (Region 4, Link 3, Variation 3) has been developed to avoid and minimize impacts in the vicinity of Lee Creek Reservoir and with associated species habitat. The route variation is described in Chapter 2 and evaluated as appropriate in Chapter 3 of the Final EIS.

- Commenter states, we would like an alternate route to be found for the proposed line due to the potential impact (environmental/operational) to sections 13, 24, and 25 of T20N-R10W due to the North to South direction. 1). The soil type in this area is historically very sandy, very loose, and highly prone to wind erosion. Creating a 3 mile long North-South corridor through mostly undisturbed, natural, and preserved land will likely create significant and perpetual wind erosion problems here during the frequent days that high winds prevail in said directions. 2). Sections 24 and 25 are very remote, secluded properties with an abundance of natural habitat and wildlife. Increasing the traffic through this area diminishes the privacy, security, and quality of life for the long time landowners along with the adverse effect the increased traffic itself has on the land, especially those places where there's never been any traffic previously. The route should be located along property that is much more easily accessible along previously existing roads for the benefit of all parties and the environment. 3). A route change is desired also due to the water table in this area and the routes proximity to the Cimarron River. Every tower stanchion built could affect the groundwater here that varies from 5 feet deep to 30 feet deep, contingent on location. 4). Finally, sections 24 and 25 are large tracts of undivided land. It is unrealistic to make or expect the landowner, or their livestock, stay away from or stop using portions of the land during certain times that work on "the line" is needed. This creates a potential problem for some landowners that may not have other options or other solutions. Thus, a different, preferred route would cross accessible land that is only used seasonally instead of large tracts of ranch land that are used continuously.

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. The Applicant and DOE reviewed the area of concern and confirmed that the Applicant Proposed Route is parallel to existing public and private roads and/or adjacent to parcel boundaries to the greatest extent practicable in this area. Concerns regarding agricultural use of property are addressed in Section 3.2 of the Final EIS and in landowner negotiation and compensation issues provided in the Applicant's April 20, 2015, comment letter to DOE regarding the Draft EIS (page 2-839 of the CRD).

- Commenter asserts that neither the Applicant Proposed Route nor the DOE Alternatives can be sited anywhere in Regions 5, 6 and 7 without directly impacting those resources. In fact,

the only sufficient method to avoid aerial spraying and agricultural operations is to move the line outside of the resource area (Jackson, Poinsett, Cross and Mississippi counties).

Response:

Section 2.3 and Appendix G of the Final EIS describe the route development process in detail. Many of the concerns presented in this comment can be addressed through micrositing within the 1,000-foot-wide corridor. In addition, as documented in the Applicant's April 20, 2015, comment letter to DOE regarding the Draft EIS, as part of the easement acquisition process, the Applicant would work with landowners and tenants to develop a compensation structure that includes payment to the landowner for the transmission line easement; payment for each transmission line structure on the landowner property; and additional payments for damages to property such as disruptions to slope, drainage features, irrigation systems, and reduction in crop yield. This compensation structure would be developed in accordance with the Applicant's Agriculture Impact Mitigation Policy provided in Appendix J of the Final EIS. Additionally, the Applicant would work with landowners and/or their representatives develop a site plan (EPM AG-7) for each cropland farm on which construction or maintenance is to be performed. The site plan would include a description of preconstruction land elevations as well as the planned post-construction conditions. The site plan would be approved by the Applicant and landowner and/or tenant prior to construction and following completion of construction, a final inspection would be completed by the landowner and the Applicant. Additional details regarding the development of a site plan and the Applicant's Agricultural Mitigation Policy are provided in Appendix J of the Final EIS. Other EPMs that would protect farmland include AG-1, AG-2, AG-3, AG-4 and AG-5.

- Commenter, SWNA-A and DGC support the development of renewable energy sources and do not oppose transmission infrastructure to foster renewable development, but the Plains and Eastern Project should not be routed through the Fayetteville Shale.

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. Ongoing and extensive oil and gas infrastructure development within the Fayetteville shale region is documented and discussed in Section 3.6 of the Final EIS. The Applicant was also contacted directly by the commenter who provided additional information regarding oil and gas facilities in proximity to the Applicant Proposed Route. Based on DOE's analysis of this information, it is concluded that potential impacts to oil and gas production infrastructure can be avoided by micrositing within the 1,000-foot-wide corridor and through implementing EPM LU-5.

- Commenter Clean Line submits Route Variations Report for the Plains and Eastern Clean Line. The report provides potential variations to the Applicant Proposed Route (APR) to address siting considerations and input received during landowner coordination. Since submitting its Tier IV Routing Report to DOE in November 2013, including the APR for the high-voltage direct current (HVDC) transmission line, Clean Line has continued technical evaluations of the 1000' wide APR corridor and the representative right-of-way (ROW) for the HVDC transmission line. Based on input received, Clean Line presents 13 potential

variations to the APR identified and analyzed in the Draft EIS. Clean Line includes maps that depict the location of the APR as presented in the Draft EIS, the location of the variation, and the locations of existing infrastructure, constraints, or other relevant information. Clean Line requests that DOE consider these route variations as part of preparing the Final EIS.

Region 2, Link 2, Variation 2: This route variation is located in Major County, Oklahoma. This variation would include 7 parcels that are all currently crossed by the APR. Based on conversations with these landowners, Clean Line identified a variation south of the APR and closer to the quarter section line where the variation would parallel parcel boundaries. This variation would address concerns raised by these landowners about the APR's potential interference with agricultural operations and would also increase the distance from an existing home.

Region 3, Links 1 & 2, Variation 1: This route variation is located in Payne County, Oklahoma. This variation is prompted by two new residential subdivisions along the APR. To avoid the new homes associated with these residential areas Clean Line identified a route variation south of the APR that would increase the distance from nearby houses and parallel adjacent parcels' boundaries. This variation would continue east along property boundaries and north of the subdivision in S14-T18N-R2E before crossing U.S. Highway 177 (also known as S. Perkins Rd.) on the eastern end of the variation. The variation would address concerns raised by landowners and reduce the number of residential parcels crossed.

Region 3, Link 4, Variation 1: This route variation is located in Lincoln County, Oklahoma. Field reconnaissance conducted by Clean Line revealed the APR's alignment across parts of an operational quarry located on several parcels under common ownership in S21-T17N-R5E. After obtaining input from the landowner, Clean Line identified a variation west of the APR that angles towards the southeast before re-joining the APR and following boundaries of eastern adjacent parcels. This variation would address Clean Line's and the landowner's concerns about impacts to quarry operations.

Region 3, Link 5, Variation 2: This route variation is located in Muskogee County, Oklahoma. Clean Line identified a home in the NW $\frac{1}{4}$ of S14-T14N-R17E that had not been detected during route development or subsequently analyzed in the Draft EIS. In addition, a neighboring landowner conveyed to Clean Line a desire to host as much right-of-way on their land as possible. This variation, located north and east of the APR, accommodates this landowner's request and avoids the newly identified home. The resulting variation would also reduce the number of landowners affected and the total number of homes in proximity to the route.

Region 4, Link 3, Variation 1: This route variation is located in Sequoyah County, Oklahoma. A landowner in S23-T12N-R24E contacted Clean Line to share concerns about potential impacts to their property. Clean Line also acquired new information that identified a cemetery near the APR in this area. Based on consultation with the landowner, Clean Line identified a route variation north of the APR that would parallel parcel boundaries, increase the distance from the landowner's home, while avoiding the newly identified cemetery. This variation would also decrease the total number of homes in proximity to the route.

Region 4, Link 6, Variation 1: This route variation is located in Crawford County, Arkansas. A landowner in this area notified Clean Line of a new home planned for construction in the SW ¼ of S32-T10N-R31W, as well as two newly constructed homes located directly adjacent to the APR. Clean Line identified a route variation to the south parallel to parcel boundaries. The route variation avoids the proposed site for this home and increases the distance from the two newly constructed homes in the area.

Region 4, Link 6, Variation 2: This route variation is located in Crawford County, Arkansas. A landowner in this area notified Clean Line that the APR would cross the northwestern corner of a parcel subject to a Natural Resources Conservation Service (NRCS) Wetlands Reserve Program (WRP) easement in the NE ¼ of S12-T9N- R30W. Clean Line evaluated this new information and identified a variation to the northwest that would avoid crossing the parcel subject to the WRP easement.

Region 4, Link 9, Variation 1: This route variation is located in Pope County, Arkansas. During field reconnaissance, Clean Line identified engineering constraints regarding the representative ROW's alignment over two bridges on Arkansas Highway 164 that span Big Piney Creek. Clean Line also identified potential constraints regarding the terrain's aspect and slope at the southern crossing of an existing SWPA transmission line. In addition, a landowner in S24-T10N-R21W contacted Clean Line to share concerns about a house located within the APR's representative right-of-way. This house was not previously detected during route development or subsequently analyzed in the Draft EIS. The landowner also commented that the APR's location could impact an 11-acre campground located inland from the north bank of Big Piney Creek and immediately west of Arkansas Highway 164 and the existing SWPA transmission line. Clean Line identified a route variation east of the APR and existing SWPA transmission line. This variation would avoid the home identified by the landowner, move the line away from the campground, and eliminate potential engineering challenges associated with both Arkansas Highway 164 bridges. The variation would maintain a parallel alignment to the existing SWPA transmission line, while also resolving engineering constraints associated with the terrain and southern crossing of this line in S36-T10N-R21W.

Region 5, Links 2 & 3, Variation 1: This route variation is located in Pope County, Arkansas. Clean Line identified a home within the APR's representative ROW that had not been previously detected during route development or subsequently analyzed in the Draft EIS. In addition, a neighboring landowner suggested moving the APR onto their property. After consulting with each landowner and obtaining feedback, Clean Line identified a route variation west and south of the APR. This variation would increase the distance from the newly identified home and reduce the number of landowners affected.

Region 5, Link 7, Variation 1: This route variation is located in White County, Arkansas. An owner of multiple parcels in S18-T9N- R6W contacted Clean Line to share concerns about a house constructed in 2013 and 2014 that is located within the APR's representative ROW. This house, located approximately 200 feet from an existing 500kV transmission line, was not previously detected during route development or subsequently analyzed in the Draft EIS. After consulting with the landowner and a neighbor to the south, Clean Line identified a

route variation south of the APR that would parallel an adjacent parcel's boundaries, as well as an existing pipeline easement, before turning north to reconnect with the APR. This variation would increase the distance from the landowner's house.

Region 7, Link 1, Variation 1: This route variation is located in Mississippi County, Arkansas. Clean Line was contacted about the APR's diagonal path through a parcel in S23-T10N-R8E. Specifically, concern was raised that the route would interfere with crop irrigation or efficient aerial application of active agricultural fields. Clean Line identified a route variation that would follow parcel boundaries through the area, addressing concerns about potential impediments to agricultural operations on this parcel.

Region 7, Link 1, Variation 2: This variation is located in Mississippi County, Arkansas. A landowner in S19-T10N-R10E contacted Clean Line to provide information about agricultural operations on their parcel. Specifically, the landowner expressed concerns that the APR could interfere with the paths of several center pivot irrigation systems, alter terrain of precision-leveled fields, and result in inefficient aerial application of these fields. The landowner suggested other areas where the APR might be located that would pose fewer constraints on the landowner's agricultural operations. Clean Line also obtained new information from landowners in S20-T10N-R10E and S21-T10N-R10E that presented additional routing opportunities for developing a route variation in this area. A house identified in the Draft EIS on an eastern adjacent parcel near the Mississippi River is no longer present due to flooding. Using input from the landowners and new information obtained about the abandoned house, Clean Line identified a route variation south of the APR that would avoid bisecting adjacent parcels, interfering with current agricultural operations, and impeding the paths of center pivot irrigation systems, all while more closely following parcel boundaries.

Region 7, Link 5, Variation 1: This route variation, located in Shelby County, Tennessee, is part of the Proposed Right-of-Way approved by the TRA. Clean Line developed this route variation based on landowner feedback and based on new information, including the location of a proposed home site and planned residential area that was not identified during route development. The variation would avoid the proposed home site and addresses landowner concerns about the planned residential area.

Response:

DOE has reviewed the route variations proposed by the Applicant. DOE has determined the route variations are responsive to public comments and have therefore incorporated them into the Final EIS. Route variations that Clean Line has proposed, along with 10 other route variations as a result of public comments, are described in Chapter 2 and evaluated as appropriate throughout Chapter 3.

- The Arkansas Dept. of Parks & Tourism is concerned about APR Region 4 and Region 4 Link 9 which span the Mulberry River and the Big Piney Creek, both of which are listed as Extraordinary Resource Waters and Wild and Scenic Rivers. An alternate route is strongly recommended that avoids crossing either waterway at any point. In addition, the Little Red

River, a world-class Arkansas trout fishery that will be adversely affected by the APR Region 5 Link 7.

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. The Applicant and DOE reviewed the comment and reviewed the river crossings described in the letter. While it is not technically feasible or reasonable to avoid all crossings of navigable streams in Arkansas, routes that minimized the number and lengths of crossings of waterbodies and reservoirs, including designated waters, were identified during the route development process (see Appendix H of DOE Alternatives Development Report 2013). Regarding the Mulberry River, the Applicant Proposed Route is parallel to Interstate-40. Regarding the crossing of Big Piney Creek, Region 4, Link 9, Variation 1, would avoid the river access point referenced in the comment and is parallel to an existing transmission line. This variation is discussed in the Final EIS. Regarding the crossing the Little Red River, the crossing of the Applicant Proposed Route is adjacent to and parallel to an existing 500kV transmission line. There is no technically feasible or reasonable alternative that would avoid crossing the Little Red River.

- Commenter has expressed concern to Clean Line Energy about the proposed ROW for the Plains & Eastern Transmission line that include commenter's home and shop. The address is 170 Gordon Rd. Judsonia, Arkansas, 72081.

Response:

The locations of structures have been evaluated in the Final EIS (see Section 3.10). Impacts to structures would be avoided and/or minimized by micrositing within the 1,000-foot-wide corridor and through implementing EPM LU-5. In the very rare case that a structure must be removed, the Applicant would compensate the landowner. Such compensation is described in the Applicant's April 20, 2015, comment letter to DOE regarding the Draft EIS. The letter describes a ROW compensation package that fully compensates the landowner for Clean Line's use of the property; the adoption and implementation of a plan to ensure that acquisition of property interests initiated by the Clean Line would be performed in accordance with the Uniform Act; and the adoption and implementation of a Code of Conduct for interaction and negotiation with landowners by the Applicant, its representatives and agents.

- Commenter has concerns about the location of the proposed route, as it crosses their property, which is a commercial enterprise. Commenter notes they are particularly concerned about the area where their property lies: Sections 17, 18, 19, and 20 in Township: 12 North, Range 23 East.

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. The Applicant determined that the landowner presented new information that could be addressed through the development of a route variation. A route variation (Region 4, Link 3, Variation 2) has been developed to avoid impacts to the commercial amenities and is described and evaluated in the Final EIS.

- Commenter wants to go on record stating that the proposed route on Sheet 22, Section 13 goes directly over a wind turbine (proposed E.ON wind farm) located on his property.

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. The Applicant was aware of the location of the proposed E.ON wind farm described in the comment. FAA 7460-1 filings (available publicly) were used to verify the location of the proposed wind farm. The Applicant anticipates that the proposed wind farm infrastructure can be avoided by micrositing within the 1,000-foot-wide corridor and through implementing EPM LU-5.

- Commenter notes that this project transverses the fastest growing section of Tipton County, which has seen phenomenal residential growth over the last 30 years. This 200-foot-wide swath cuts through the very heart of the residential growth area of the county.

Response:

Comment noted. Section 2.3 and Appendix G of the Final EIS describe the route development process in detail. The route development process included consideration of local land use designations. It is noted that the Applicant Proposed Route 200-foot-wide representative ROW traverses an area that is 66 percent cropland in Tipton County and that it is located between the cities of Millington and Munford, Tennessee. It is acknowledged that this is an area of rapid growth, and is also noted that areas of rapid growth would benefit from the Project as described in the EIS in Section 3.13, Socioeconomics.

- Commenter opposes Region 5 APR Link 5, stating that it crosses over or adjacent to two homes worth \$1.5M, which will destroy their value. Route also crosses over a Wi-Fi tower, gas drilling pad with 9 producing wells, and an energy company's GPS tower. Commenter states this is all in a one mile stretch west of Letona, Arkansas.

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. The Applicant was aware of the location of homes and natural gas infrastructure described in the comment. However, this comment presents new information related to the location of a 400-foot-tall Wi-Fi tower in proximity to the Applicant Proposed Route. Available aerial imagery as well as databases maintained by the FAA and FERC were reviewed to determine the location of the tower, but these sources did not reveal the location of the referenced Wi-Fi tower. Field review will be conducted during micrositing of the Project to identify the location of the tower. Impacts to both the natural gas infrastructure and Wi-Fi tower would be addressed through micrositing within the 1,000-foot-wide corridor and implementing EPM LU-5.

Property values are discussed in Section 3.13.6.2.5 of the Final EIS.

- Several commenters are against the proposed route because it crosses their property or is in proximity to their property. One commenter owns land in the Buck Point Subdivision north of Dover, Arkansas, and near the beginning of Region 5, Link 1. The commenter stated that,

“We began building our dream home on this land in September 2014. Approximately half way through our build, we found out in the Draft EIS that the proposed line cut our small parcel of land in two. The two hundred foot ROW would take half our land from us. The line would be located over what we had intended to be our retirement home.” Another commenter states the Applicant Proposed Route will destroy his homestead, located on Sections 35 and 36, Township 9 North, Range 13 West, Van Buren County, Arkansas.

Response:

DOE asked the Applicant to evaluate potentially new information provided in these comments.

The Applicant identified a technically feasible route variation south of the Applicant Proposed Route in Region 5, Link 1. This route variation (Region 5, Link 1, Variation 2) would avoid the home site referenced in the Buck Point Subdivision. In addition, this route variation would be consistent with routing criteria, maximize the distance from a greater number of residences in this area, minimize the total number of parcels crossed, reduce the acreage of floodplain within the representative ROW, and reduce the number of floodplains crossed. The route variation is included in the Final EIS.

With regards to the homestead, located on Sections 35 and 36, Township 9 North, Range 13 West, Van Buren County, Arkansas, the Applicant determined that this comment presents new information and confirmed the presence of the structure. Potential micrositing options within the Applicant Proposed Route were considered that would address the landowner’s concerns. While exploring micrositing options, the Applicant discovered new information regarding conservation easements approximately 2 to 3 miles east of the homestead site. These conservation easements are part of a streambank mitigation site along Cadron Creek. As a result of this new information, the Applicant developed a route variation (Region 5, Links 3 and 4, Variation 2) north of the Applicant Proposed Route that more closely parallels parcel boundaries. This variation would avoid the homestead site referenced in the landowner’s comment and also avoid and/or minimize impacts to streambank resources. The route variation is included in the Final EIS.

- Commenter expresses objection to Plains & Eastern Clean Line proposed transmission line project where it is tentatively planned to traverse northwest and central Oklahoma. I am a Trustee for the Norma Dean Fuksa Trust, the owning entity of land described as SE/Q S25-20N-7W in Garfield County, Oklahoma; and am the designated and recorded future heir to the property. After having reviewed the proposed route through southern Garfield County, Oklahoma, it is obvious that this proposed project would have a seriously negative effect on our family's land, private property usage, and significant historic artifacts (Chisholm Train, Centennial Farms, the “Marrying Tree”) in the area.

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. The location of the Chisholm Trail is noted and considered in Section 3.9 of the Final EIS. The NPS delineation of the Chisholm Trail National Historic Trail represents the best available information at this time. The "Marrying Tree" was identified as being located

approximately 0.5 mile south of the Applicant Proposed Route and would not be impacted by the Project. Impacts to other property amenities would be addressed through micrositing within the 1,000-foot-wide corridor and implementing EPM LU-5.

As discussed in Section 3.9, Historic and Cultural Resources, and Section 3.18, Visual Resources, of the Final EIS, the Project Applicant Proposed Route and various alternatives cross and/or pass close to the alignments of various historic travel routes, transportation corridors, trails, and roads, including the Chisholm Trail. The locations of these features have been documented and established to varying degrees of geographic precision and historical meaningfulness. Based upon the best available information, DOE believes that at no location of intersection or in close proximity between the Project and these various historical corridors are there currently identified, specific, significant associated historic features, such as archeological sites, relict landscape features, or buildings or structures that could be impacted or adversely affected by the Project. As part of a phased process of environmental impact assessment and to meet its obligations under Section 106 of the NHPA, DOE is developing a Programmatic Agreement with SHPOs, certain Indian Tribes or Nations that attach religious and cultural significance to historic properties that may be affected by the undertaking, THPOs, other federal agencies, and others. This Programmatic Agreement, in accordance with the regulations that implement Section 106 of the NHPA (36 CFR Part 800), provide a framework for the identification and evaluation of eligibility for the National Register of Historic Places of historic resources, assessment of potential Project effects to historic properties, and adoption of strategies to resolve potential effects. The draft Programmatic Agreement is included in Appendix P of the Final EIS.

Centennial Farms is an honorary designation related to family ownership tenure and does not necessarily indicate the presence of historic buildings, landscapes, or other elements that are listed on or eligible for listing on the federal NRHP or the Oklahoma Landmarks Inventory.

- Commenter notes concern regarding the proposed route from APR Link 2 to Link 4 in Region 4, as this is a well-populated area compared to the alternate route(s) in the proposal.

Response:

Comment noted.

- Commenter notes that their parent's property will only be grazed by the proposed line, but their property will be ravaged. Commenter does not understand why such a populated area was chosen (Drumright, Oklahoma). In one mile, from highway 16 to their property, there are 8 residences that this line will zigzag around. According to the map, this line will go in their front yard and directly over their pond.

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. This comment presents new information regarding two homes in proximity to the Applicant Proposed Route 1,000-foot-wide corridor. The locations of these homes have been added to the information regarding structures in Figures 1.0-1 and 1.0-2 in Appendix A of the Final

EIS. These concerns regarding structures and the pond can be addressed by micrositing within the 1,000-foot-wide corridor and implementing EPM LU-5.

- Commenter states that the current route across Section 19 (Woodward Co, Oklahoma) crosses 20-40 acres of cultivated land with natural springs; states that this path is not a good idea.

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. Following a review of the Applicant Proposed Route in relation to this property, it was determined that the landowner's concerns could be addressed through the development of a route variation. Additional information was also collected regarding a structure to avoid and regarding high potential for cultural resources in the vicinity of the Applicant Proposed Route. In response, the Applicant determined that a route variation was technically feasible in this area (Region 2, Link 1, Variation 1). The route variation is presented and evaluated in the Final EIS.

- Commenters express concern about proximity of the proposed route to their home (separation of only 200 to 400 feet).

Response:

The locations of structures have been evaluated in the Final EIS (see Figures 1.0-1 and 1.0-2 in Appendix A). Impacts to structures would be avoided and/or minimized by micrositing within the 1,000-foot-wide corridor and through implementing EPM LU-5. Compensation for landowners is described in the Applicant's April 20, 2015, comment letter to DOE regarding the Draft EIS. The letter describes a ROW compensation package that fully compensates the landowner for Clean Line's use of the property; the adoption and implementation of a plan to ensure that acquisition of property interests initiated by the Applicant would be performed in accordance with the Uniform Act; and the adoption and implementation of a Code of Conduct for interaction and negotiation with landowners by the Applicant, its representatives and agents.

- Commenter states that they own the east half of the Northeast one-fourth of Section 32, Township 20 North, Range 9 West, IM, Major County, Oklahoma, containing 80 acres more or less. Commenter notes they are planning to build their retirement and family home on this site. The location is within 150 feet of the north boundary of the property. Commenter opposes proposed route crossing their property.

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. The concern regarding the future home site can be addressed by micrositing within the 1,000-foot-wide corridor and implementing EPM LU-5.

- Commenter notes the proposed line will go directly over their house and 40 acres in Hagarville, Arkansas, and directly behind their neighbor. Commenter feels this shows total

disregard and/or consideration for anyone. Commenter wants to know if they are supposed to tear the home down so they can run a line.

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. The Applicant has reviewed the commenter's concern and confirmed the presence of the referenced structure adjacent to (but not within) the representative ROW of the Applicant Proposed Route. This structure is a hunting cabin rather than a residence, and it is now documented in Section 3.10.6.2.3.1.4 of the Final EIS. The Applicant has determined that the structure can be avoided by micrositing within the 1,000-foot-wide corridor and implementing EPM LU-5.

- Commenter expresses concern that the proposed route Region 5 APR Link 1, NW of Dover, Arkansas, routes through Walnut Valley Estates Phase 1, which contains approximately 130 acres divided into 20 lots. Additionally, this link affects the new addition of 110 acres recently purchase (Walnut Valley Estates Phase 2) which expands the covenant subdivision by an additional 20 lots. A map is attached to the comment letter.

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. The Applicant reviewed the "Bill of Assurances and Declaration of Restrictions Walnut Valley Estates Phase 1" as recorded in Pope County, Arkansas (dated 12-08-2004). The utility restrictions therein do not appear to apply to high voltage transmission. The recent purchase of 110 acres to expand the subdivision and the location of platted tracts or home sites could not be confirmed using available county records. The Applicant would work with the subdivision to microsite the Project within the 1,000-foot-wide corridor and would also implement EPM LU-5 as appropriate.

In addition, compensation for landowners is described in the Applicant's April 20, 2015, comment letter to DOE regarding the Draft EIS. The letter describes a ROW compensation package that fully compensates the landowner for Clean Line's use of the property; the adoption and implementation of a plan to ensure that acquisition of property interests initiated by the Applicant would be performed in accordance with the Uniform Act; and the adoption and implementation of a Code of Conduct for interaction and negotiation with landowners by the Applicant, its representatives and agents.

- Commenter in Sequoyah County is against the Applicant Proposed Route which would do excessive damage to their family property. Commenter favors the Wyatt Dobbs proposed re-route.

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. The landowner presented new information that the Applicant determined could be addressed through the development of a route variation. The route variation (Region 4, Link 3, Variation 2) would avoid adverse impacts to an airstrip and other property amenities. The route variation is described and evaluated in the Final EIS.

- The Paradise River Resort Property Owners Association (PRRPOA) is a homeowners association consisting of 33 landowners in north White County, Arkansas. Paradise River Resort is a unique scenic development and gated residential community situated on 663 acres along the Little Red River. On January 24, 2015 the members of the Association adopted a unanimous resolution opposing any proposed Plains and Eastern Clean Line transmission line routed through Association properties (Region 5 APR Link 7).

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. The Applicant confirmed that the data regarding homes within this general area are correct and current as evaluated in the Draft EIS. The Applicant would work with the Paradise River Resort Property Owners Association to microsite the Project within the 1,000-foot-wide corridor and would also implement EPM LU-5 as appropriate.

In addition, compensation for landowners is described in the Applicant's April 20, 2015, comment letter to DOE regarding the Draft EIS. The letter describes a ROW compensation package that fully compensates the landowner for Clean Line's use of the property; the adoption and implementation of a plan to ensure that acquisition of property interests initiated by the Applicant would be performed in accordance with the Uniform Act; and the adoption and implementation of a Code of Conduct for interaction and negotiation with landowners by the Applicant, its representatives and agents.

8B DOE Alternative Route

The following comments were received relative to DOE Alternative Route:

- Commenter recommends moving the project as far north as possible. Although the commenter understands that maintaining the integrity of the National Forest is important, the commenter believes that placing the line along the southern border of the Forest would be a possible solution for all involved and would maintain or have the least amount of impact on the drinking water reservoir.

Response:

The area of concern in regards to the Project is located near Lee Creek Reservoir. DOE asked the Applicant to evaluate potentially new information provided in this comment. The Applicant determined that new information was presented by the landowner that could be addressed through the development of a route variation. A route variation (Region 4, Link 3, Variation 3) has been developed to avoid and minimize impacts to the species habitat of concern and also includes a 0.05-mile decrease of USGS National Hydrography Database flowlines within the representative ROW. The route variation is described in Chapter 2 and evaluated in Chapter 3 of the Final EIS.

- Commenter notes, all routes proposed for Clean Line will create adverse impacts to the Cache-Lower White River Important Bird Area (IBA), an area designated as globally significant. Classification as a globally significant site is the highest priority designation for an IBA, signifying that the Cache-Lower White River area is a site worthy of strong protection. Further validating the high value of this area is its additional designation as a Wetland of International Importance. The bird species that make this area an IBA are among the birds that are susceptible to collisions with transmission lines. This is the most important wintering area for Mallards in North America; hundreds of thousands occupy the area's bottomland hardwood forests. A large number of Wood Ducks nest and winter all along the rivers in this IBA. Thousands of southbound Mississippi Kites and Red-tailed, Red-shouldered, and Broad-winged Hawks migrate through the region and breed in the area. Bald Eagles winter and breed there as well. Because of its very large, contiguous stand of bottomland hardwood forest, this IBA is one of the few prime locations in the Mississippi Alluvial Valley capable of supporting self-sustaining populations of forest interior breeding birds that are sensitive to habitat fragmentation, including: Acadian Flycatcher, Wood Thrush, Prothonotary Warbler, Hooded Warbler, Swainson's Warbler, and Cerulean Warbler. If the transmission line is to cross the Cache River within the IBA, Audubon prefers the crossing associated with AR 6-B, which parallels Highway 14. We prefer that manmade structures and habitat disturbances be aggregated rather than dispersed. Avoid fragmenting the corridor of riverine habitat between Highway 14 and County Rd. 30 by erecting an additional hazard to bird movement where none exists.

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. The Audubon IBAs are described in the Technical Reports provided to DOE; and these were cited as a source in the Draft EIS (NAS 2013). In addition, the most current IBA data available (<http://netapp.audubon.org/IBA/State/US-AR>) was reviewed and the locational

data were confirmed to be correct as documented in the Final EIS. The Applicant Proposed Route crosses the IBA and Cache River at one of two narrow points, and avoids a wider portion of the IBA found along Highway 14 near Amagon that is crossed by AR 6-B. While technically feasible and reasonable, AR 6-B intersects more wetlands and floodplains associated with multiple channels of the Cache River at this location. Both direct and indirect impacts to wildlife species and their habitats (including waterfowl, eagles, and osprey) are addressed in Sections 3.14 and 3.20 of the EIS. EPMs that would protect migratory birds include FVW-1, FVW-4, and FVW-5.

- Commenter notes the Applicant Proposed Route corridor crosses the corner of Singer Forest Natural Area. The Arkansas Game and Fish Commission holds fee title and co-manages this natural area as part of St. Francis Sunken Lands WMA, which is an IBA for bottomland hardwood forest species such as Swainson's Warbler, Wood Thrush, and Mississippi Kite. For this portion of the route, Audubon prefers AR 6-C or 6-D, which avoid this tract all together. Alternatively, the Applicant Proposed Route could jog north across the Oak Donnick Floodway a mile or two to the west of Singer Forest, so that Singer Forest is avoided.

Response:

The boundaries of St. Francis Sunken Lands are correct and current as provided in the Final EIS. The avoidance of the St. Francis Sunken Lands is technically feasible and reasonable. For this location, resource concerns can be addressed by micrositing within the 1,000-foot-wide corridor and implementing EPM LU-5.

- Commenter states they are a law firm that was retained by Reaper Farms, Inc. with regard to certain alternative routes proposed by the Plains and Eastern EIS Clean Line Project. Commenter notes the project has proposed certain alternative routes that go through the client's operations. Commenter notes their client objects to the alternative routes located in Region 5 (Draft EIS Figure 1.0-1: Topographic Map Index Region 5 as AR 5-B, 5-E, and 5-F). The concerned routes are also referenced in Section 2.4.3 of the Draft EIS, Table 2.4-1 as impacting White County, Arkansas.

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. The property is confirmed to potentially be crossed by HVDC Alternative Routes 5-A, 5-B, 5-E, and 5-F. Impacts to agricultural and other operations would be avoided or minimized by micrositing within the 1,000-foot-wide corridor and through the implementation of EPM LU-5. Agricultural EPMs would also be employed as appropriate. The comment regarding a preference for not selecting these alternatives is noted.

- Commenter states many of the Paradise River Resort Property Owners Association (PRRPOA) members currently have building plans for residences which will no doubt be put on hold or canceled entirely if this transmission line is routed through our community. We ask that if the project is approved, an alternative route be utilized (AR 5-C).

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. The Applicant confirmed data regarding homes within this general area is correct and current as evaluated in the Draft EIS. However, the locations of planned home sites could not be confirmed. The Applicant would work with the Paradise River Resort Property Owners Association to microsite the Project within the 1,000-foot-wide corridor and would also implement EPM LU-5 as appropriate. The comment regarding the alternative preference is noted.

In addition, compensation for landowners is described in Clean Line's comment letter (April 20, 2015). The letter describes an ROW compensation package that fully compensates the landowner for Clean Line's use of the property; the adoption and implementation of a plan to ensure that acquisition of property interests initiated by the Applicant would be performed in accordance with the Uniform Act; and the adoption and implementation of a Code of Conduct for interaction and negotiation with landowners by the Applicant, its representatives and agents.

- Commenter notes that they own approximately 1.5 miles of land along the proposed alternative route for the line through Conway County (AR 5-B - eastern portion). Commenter has concerns about the location of this alternative route in relation to their property and wildlife conservation—specifically an eagle use area.

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. The eagle use area could not be verified using aerial photography and element of occurrence data as sources. The area would be further evaluated prior to the final design phase of the Project with regard to the presence of eagle habitat. If such habitat is present, this concern would be addressed by micrositing within the 1,000-foot-wide corridor. Both direct and indirect impacts to wildlife species and their habitats (including waterfowl, eagles, and osprey) are addressed in Sections 3.14 and 3.20 of the Final EIS.

- Commenter suggests the most northern route in section 4 has got to be the least populated. There is only one town (Marble City) even close to this alternative route (Route AR-4B).

Response:

Comment noted.

- Commenter requests that Clean Line utilize HVDC Alternative Route AR 2-A.

Response:

Comment noted.

- Commenter notes that on Page 2-35, Section 2.4.3.2.6, Lines 32-34, the Draft EIS states that DOE and Applicant selected alternative routes outside the Network of Potential Routes in order to "follow an existing electrical transmission line south of Amagon, Arkansas, and to avoid private airfields, aerial spraying, and agricultural operations in Poinsett County."

Commenter agrees that every effort should be made to avoid aerial spraying and agricultural operations. However, Commenter asserts that neither the Applicant Proposed Route nor the DOE Alternatives can be sited anywhere in Regions 5, 6 and 7 without directly impacting those resources. In fact, the only sufficient method to avoid aerial spraying and agricultural operations is to move the line outside of the resource area (Jackson, Poinsett, Cross, and Mississippi counties).

Response:

Section 2.3 and Appendix G of the Final EIS describe the route development process in detail. Many siting factors were evaluated. The routes evaluated in the Final EIS include multiple segments where the Project would parallel other utilities, roadways, or parcel boundaries. Many of the concerns presented in this comment can be addressed through micrositing within the 1,000-foot-wide corridor. In addition, as documented in the Applicant's April 20, 2015, comment letter to DOE regarding the Draft EIS, as part of the easement acquisition process, the Applicant would work with landowners and tenants to develop a compensation structure that includes payment to the landowner for the transmission line easement; payment for each transmission line structure on the landowner property; and additional payments for damages to property such as disruptions to slope, drainage features, irrigation systems, and reduction in crop yield. This compensation structure would be developed in accordance with the Applicant's Agriculture Impact Mitigation Policy provided in Appendix J of the Final EIS. Additionally, the Applicant would work with landowners and/or their representatives to develop a site plan (EPM AG-7) for each cropland farm on which construction or maintenance is to be performed. The site plan would include a description of preconstruction land elevations as well as the planned post-construction conditions. The site plan would be approved by the Applicant and landowner and/or tenant prior to construction, and following completion of construction, a final inspection would be completed by the landowner and the Applicant. Additional details regarding the development of a site plan and the Applicant's Agricultural Mitigation Policy are provided in Appendix J of the Final EIS. EPMs that would protect farmland include AG-1, AG-2, AG-3, AG-4, and AG-5.

- Commenter states that the size and importance of the Fayetteville Shale play, and the density of natural gas operations in the region, require the DOE to consider and recommend as the "preferred alternative" a route outside of the play that would have significantly fewer impacts to shale development and, consequently, local, regional, and state economies.

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. Ongoing and extensive oil and gas infrastructure development within the Fayetteville shale play is documented and discussed in Section 3.6 of the Final EIS. The Applicant was also contacted directly by the commenter who provided additional information regarding oil and gas facilities in proximity to the Project. Based on additional evaluation of this information, it is concluded that potential impacts to oil and gas production infrastructure can be avoided by micrositing within the 1,000-foot-wide corridor and through the implementation of EPM LU-5.

- Clean Line requests that DOE retain the eastern portions of Alternative 4-B as an alternative to be fully evaluated and analyzed in the Final EIS. In Section 2.14 of the Draft EIS, DOE states that it has "determined that HVDC Alternative Route 4-B is not a preferred alternative." Section 2.14, p. 2-91, ln 34. In explaining this determination, DOE cites concerns by the U.S. Forest Service as amongst the main reasons for dispreferring this route, particularly that it would cross "lands designated as High Scenic Integrity Objectives" and would "undermine the use for which the National Forest Land was originally acquired (i.e., conservation of natural resources)." Section 2.14, p. 2-92, ln 3-4, 7-8. These concerns do not apply, however, to the portion of Alternative Route 4-B generally east of Interstate Highway 540. As a result, we suggest that DOE continue to consider the eastern portion of Alternative Route 4-B to provide an alternative to the Applicant Proposed Route in the eastern portion of Region 4, north of Mulberry and Ozark, Arkansas. Section 2.14 of the Draft EIS explains that DOE has not yet identified its preferred alternative, and that DOE "will identify its preference for whether to participate with Clean Line and its preferred alternatives for each project element (including route alternatives) in the Final EIS." Section 2.14, p. 2-91, ln 21-27. As part of its deliberations, "DOE will consider all alternatives analyzed in the Draft EIS and take into consideration the comparison of potential impacts for each resource area coupled with input received during the public comment period on the Draft EIS." Section 2.14, p. 2-91, ln 24-26. The Draft EIS contains substantial information regarding the potential environmental impacts of all components of the Applicant Proposed Project and the DOE Alternatives. In preparing the Final EIS, we encourage DOE to fully document its comparison of alternatives and how that comparison informs its decision. This will assist both the DOE in reaching a decision, and readers in understanding its decision.

Response:

Comment noted.

- The U.S. Fish and Wildlife Service (FWS) recommends Clean Line utilize Alternative Route 6-D (Appendix A Figures Chapter 1 Figure 1.0-2 Aerial Regions 6-7) in order to avoid constructing and maintaining a permanent ROW directly adjacent to the Stringer Forest Natural Area.

Response:

Comment noted.

- Commenter states they strongly oppose the proposed project, especially the Alternative Route AR 5-B. Commenter notes the proposed alternative route will come through the community of St. Vincent, Arkansas and the north and east side of their property.

Response:

Comment noted. Potential impacts to the community of St. Vincent can be minimized or avoided by micrositing within the 1,000-foot-wide corridor and through the implementation of EPM LU-5.

- Commenter states they do not understand why Clean Line is not partnering with the U.S. Forest Service to provide energy to the southeastern states. Commenter feels it would

simplify the process to work with the U.S. Forest Service, which for the most part would involve federal lands located from the Oklahoma line to Van Buren County. Most private landowners are not willing to lease or donate their lands after living, farming, and improving several generations. Some have relocated because of the variety of scenic beauty. Commenter asks to consider moving the easement north to the southern U.S. Forest Service boundary. Commenter feels private owners would probably support this change.

Response:

Comment noted. DOE evaluated potential routes through lands managed by the USFS as documented in Appendix G of the Final EIS. This routing process resulted in the identification of HVDC Alternative Route 4-B through the Ozark National Forest. Potential impacts associated with HVDC Alternative Route 4-B are disclosed in Chapter 3.

8C AC Collector

The following comment was received relative to the AC Collector:

- Commenter notes that the Draft EIS identifies 13 different possible routes for these AC collection lines, of which only a half dozen will be built. The decision about which lines will be built is to be made at a later time. We urge DOE to study the AC collection area in more detail, and provide information about which portions of this area contain the highest-value lesser prairie chicken habitat. Sierra Club has compared the maps of the AC Collection Area (see Draft EIS Summary at Figure S-2a), with maps produced by the University of Kansas as part of the Southern Great Plains Crucial Habitat Assessment Tool (SGP CHAT). While it appears that the connected wind development zone will avoid “focal areas” identified in this tool as being of the highest habitat value for this species, DOE should undertake GIS analysis of how the wind development zones correspond to the other habitat categories identified in this tool.

Because many of the future wind turbine developments may not undergo federal NEPA review, it is important for DOE to discuss the impact of these developments as part of this EIS. Should DOE identify areas with especially valuable lesser prairie chicken habitat, we recommend that AC collection lines that would serve those areas should be eliminated from consideration, or that restrictions be placed on development of those areas.

Response:

Figure 3.14-1a in Appendix A illustrates the WDZs and AC collection routes in relation to the four levels of habitat identified in the SGP CHAT and leks and not just the “focal habitat.” DOE, Clean Line, and USFWS also are consulting under Section 7 of the ESA in a separate but parallel process to the NEPA review on the potential impact of the Project, including the AC collection lines, on federally listed species. This process will identify specific protective measures and mitigation measures to protect the LEPC and other listed species. Information from the Section 7 consultation and NEPA review would be used to inform the selection of AC collection routes. In addition, although future wind developments may not undergo federal NEPA review because they may be private developments, any wind development project that may adversely affect the LEPC or other federally listed species must consult with the USFWS under either Sections 10 or 7 of the ESA. Even though a project would not necessarily undergo a federal NEPA review, the same level of review and implementation of protection measures would occur for any federally listed species. Impacts to LEPC, therefore, would be given due diligence.

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8D Routing Preference

The following comments were received relative to Routing Preference:

- Commenter encourages the final route to avoid and minimize impacts to property owners, sensitive environmental resources, and other land uses, stating that this can be done through the use of existing rights-of-way and access roads.

Response:

Appendix G of the EIS describes the route development process in detail. Many siting factors were evaluated, including length following existing utility corridors. The routes evaluated in the EIS include multiple segments where the Project would parallel other utilities or roadways.

- Audubon believes this larger landscape that includes Frog Bayou WMA may qualify as an IBA. For these reasons, we prefer the alternative routes north of the river valley area. If the APR is selected, then Audubon requests that the Applicant installs multiple types of collision deterrent devices and actively monitors this span for avian collisions.

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. The boundaries of Frog Bayou WMA are correct and current as provided in the EIS. The Applicant would implement micrositing and other design measures such as structure placement and aerial spanning in the area of Frog Bayou to avoid or minimize impacts. For this location, resource concerns can be addressed by micrositing within the 1,000-foot-wide corridor and implementing EPM LU-5.

It is outside the scope of DOE's authority to designate areas as IBAs. The Applicant has committed to developing an APP that is consistent with the APLIC guidelines. This plan would be developed in conjunction with guidance from the USFWS as well as other applicable agencies, and would contain measure to avoid and minimize potential impacts to avian species. This plan may include the use of flight diverters (e.g., collision deterrent devices) at certain locations (depending on what is agreed-to by the Applicant and the USFWS in the final APP).

- Commenter notes that a company, E.ON Climate and Renewables, which has developed a wind farm project on the property, has proposed an alternate route to Clean Line Energy Partners, which would avoid the wind farm project on the property. Commenter supports the E.ON proposed alternate route and asks for its consideration.

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. The Applicant was aware of the location of the proposed E.ON wind farm described in the comment. FAA 7460-1 filings (available publicly) were used to verify the location of the proposed wind farm. The Applicant anticipates that the proposed wind farm infrastructure can be avoided by micrositing within the 1,000-foot-wide corridor and through implementing EPM LU-5.

- Commenter proposes two potential alternate routes, which would still go against their property, but would not cause as much damage as the original proposed route. The new proposed routes would track Highway 224 at the south end of the farm (Jackson County, Arkansas). On the eastern side, the preferred route would continue east through CRP lands. The alternate would go up the east side of the farm to the proposed route along two possible routes.

Response:

Upon further evaluation, by DOE, the commenter's proposed potential alternate routes were not included as a route variation in the Final EIS. While they would have similar impacts to irrigated agricultural land, both proposed route variations would be closer to residences than the original Applicant Proposed Route. One of these route variations also would be located in more areas of potential occurrence of the Indiana bat than the original Applicant Proposed Route. The other route variation would have potential greater impacts to wetlands compared with the original Applicant Proposed Route.

- Several commenters note they would prefer that the line not cross their property.

Response:

Comments noted.

- Commenter notes, the HVDC Applicant Proposed Route is approximately 225 feet north of Green Bay Packaging's south property line. We are requesting that this route abut our southern property line. This will insure that we do not have any gaps in our property between where the proposed line bisects our property and our property line. For example, if the right of way required for this line is 200 feet wide, we are requesting that the center line of the route be 100 feet north of our south property line. If the gaps are not eliminated, this portion of our property will in essence be rendered useless to our timber management regime. The HVDC Applicant Proposed Route on this tract of Green Bay Packaging's property is very intrusive. This section of the line bisects through a portion of our property that is utilized for timber production. Since we cannot grow our "crop" under the line, we are asking that the DOE consider an alternate route that would lessen the effect on our limited productive properties. In the attached map, we have outlined the proposed route in green and two separate alternative routes in blue and yellow. We would prefer the blue route because it follows our property lines and reduces the amount of productive land that we lose to this project. The yellow route would be our second option for the same reasons as outlined above. Also, if the green route is the final approved route, we ask that whenever possible the route abut our property lines without leave portions of property between the right of way and our boundary line.

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. The Applicant reviewed the landowner concerns and developed a route variation (Region 5, Link 2, Variation 2). The route variation is described and evaluated in the Final EIS.

- Commenter notes, if the Clean Line project does come to fruition, Commenter would entreat Applicant not deviate from the proposed route (APR) as proposed line passes through Sequoyah Co., Oklahoma, as the corresponding alternate route to the North would pass through higher quality, often unfragmented stands of oak hickory forest home to a host of wildlife including many endangered species and species of special concern.

Response:

Comment noted.

- The Arkansas Dept. of Parks & Tourism prefers the current Applicant Proposed Route in the vicinity of the Mulberry River, and the alternate crossing at Big Piney Creek (Region 4, AR 4-E) to avoid a major point of public access currently jeopardized by the APR. However, these crossings are preferred under duress and only in lieu of routes that avoid the Mulberry River and Big Piney Creek. Regardless of the final routes, the Arkansas Dept. of Parks & Tourism strongly recommends at all water crossings the maintenance of a riparian buffer within the project's ROW to reduce sediment runoff and preserve the aesthetic value and biological integrity of affected waterways.

Response:

Comment noted. EPMs to protect waterways and riparian areas are listed in Appendix F (Project Description) and in Sections 3.15, 3.17, and 3.19 of the Final EIS.

- The Arkansas Department of Parks & Tourism strongly recommends an alternate route to Region 5 APR Link 7 which will impact the Little Red River. In the event the river is spanned by the project, it is recommended that there be maintenance of a riparian buffer at all water crossings with the potential to disturb viable habitat for any species, native or stocked, of sport or game fish.

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. Table 3.15-21 has been updated to identify the Little Red River as an Arkansas Trout Water. Riparian zones at river and stream crossings would be spanned wherever feasible. Such language has been added to Section 3.19 of the Final EIS. For this location, resource concerns, including riparian areas and fish habitat, can be addressed by micrositing within the 1,000-foot-wide corridor and implementing EPM LU-5.

As described in EIS Section 3.15.6.1, the Project would involve the potential risk of contamination to surface water, including disturbed soil being eroded and carried away in stormwater runoff. However, as stated in the Final EIS, the potential for surface water contamination would primarily be present during construction and would be minor and similar to that from any typical construction project. In the case of the Project, its size (greater than 1 acre of land disturbance) triggers regulatory requirements for practices intended to further reduce the potential for adverse impacts. As described in Section 3.15.6.1.1, the Applicant would be required to obtain a Clean Water Act NPDES stormwater construction permit and develop a SWPPP; both the permit and the plan would require actions to minimize the potential for contaminants to be released that could impact surface

water. The Applicant has also committed to developing SPCCP to minimize the potential for accidental discharge of oil (including fuel, hydraulic fluids, etc.). If a discharge should occur, practices identified in the SWPPP and SPCCP would minimize the potential for contaminants to leave the site or reach surface water.

A surface water EPM (W-3) identified in Section 3.15.6.1.5, as well as other sections of the EIS, is the Applicant's commitment to establish streamside management zones within 50 feet of both sides of intermittent and perennial streams and along margins of bodies of open water where removal of low-lying vegetation would be minimized. A complete list of protective measures for all resources that would be followed by the Applicant is presented in Appendix F of the EIS. These measures include a general commitment to minimize clearing of vegetation within the ROW, consistent with a TVMP developed and implemented according to NERC Standard FAC-003, and applicable federal, state, and local regulations. The TVMP may require additional analysis under NEPA depending on whether and under what conditions DOE decides to participate in the Project.

- The Arkansas Dept. of Parks & Tourism proposes alternate routes that avoid disturbing areas recognized by the state and citizens as having intrinsic value by virtue of their relatively undisturbed status. These areas include landscapes traversed by Arkansas and/or National Scenic Byways.

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. The data in the Final EIS regarding designated Scenic Byways is correct and current. Designated scenic byways are addressed in Sections 3.16 and 3.12 of the Final EIS. The comment regarding avoidance of these designated roadways is noted. While crossing of all Arkansas or National Scenic Byways cannot be avoided, these were a siting criterion considered during the routing process. Appendix G of the EIS describes the route development process in detail including the criterion for avoidance of designated scenic byways to the extent practicable.

- The U.S. Fish and Wildlife Service (USFWS) recommends shifting the approximate 1.4 mile section of the Applicant Proposed Route (APR) that crosses Interstate 40 to the east of Frog Bayou (Appendix A Figures Chapter 1 Figure 1.0-2 Aerial Region 4.pdf). By doing this, Clean Line would avoid crossing Frog Bayou twice and having to remove additional forested and wetland habitat. The APR should also avoid the following public and/or federally funded properties: Frog Bayou Wildlife Management Area (WMA) National Conservation Easements, and Cherokee WMA. Commenter recommends avoiding these areas or asks that DOE provide a detailed explanation why a federally-backed private project would permit cutting a right-of-way through public lands.

Response:

The Applicant would employ strategic structure placement and aerial spanning in the area of Frog Bayou to minimize impacts. For this location and Cherokee WMA, resource concerns can be addressed by micrositing within the 1,000-foot-wide corridor and implementing EPM

LU-5. Public lands, including WMAs, in the vicinity of the Project are discussed in Section 3.10, including the evaluation of potential impacts.

- Commenter states: “As you currently propose, the line crosses land we own, some of it cropland (fields in which crops are planted and harvested). Ours is a “no-till” operation. This cropland has been in continuous no-till for over 15 years-which means the soil has not been disturbed by plowing, etc. in those years. Any disturbance of the soil would be disastrous in regard to the progress we have made in improving the soil through using no-till techniques. Our proposal still keeps the line on land we own but used for pasture rather than cropland, thus would lessen the line's negative impact on the use of the land. This particular cropland is being considered for irrigation and the clean line would greatly interfere or prevent operating a pivot irrigation system. Farming and ranching is our only livelihood and source of income. The nuisance factor of having the line crossing our fields is very high. Placing the line in the pasture areas as we propose is much less intrusive. As originally proposed, the line comes much too close to the residence of Carl Williams, who is a partner in the operation of Willcrest Farms. This would certainly detract their views and devalue their property and possibly effect their safety. Our proposal for the line would be less of a problem in these regards. By making the change we suggested to the half mile line, the value of frontage property would not be devalued as much as the original proposed route. The proposed line jogs north further along to the east. Our proposal simply makes that jog a bit to the west of that proposed line so the adjustment in distance, use of materials & cost for you would remain approximately the same. We have attended the meetings you have sponsored in our area and have visited with the representatives of the Plains and Eastern Clean Line Project and are certain you will seriously consider our proposal. We believe our proposal makes sense and lessens the negative impact the line would have in this area now and in the future.”

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. The Applicant determined the feasibility of, and then developed a route variation (Region 3, Link 1, Variation 2) to address the landowner's concerns. The route variation is described and evaluated in the Final EIS.

- Commenter asks that if the proposed route does come through this property, that the placement be as close to the St. Francis River bank as possible to have the least amount of impact on crop production (Region 6, Link 7, Ritter Agribusiness).

Response:

Micrositing within the 1,000-foot-wide corridor would be used as appropriate to minimize impact on crop production.

- Commenter suggests that a possible route south of Shamrock, Oklahoma, the Lee Creek Variation, may be the best route, as fewer homeowners will be affected.

Response:

Comment noted.

- Commenter submits a proposed reroute of the line. Commenter suggests the reroute to avoid certain areas of the property. Commenter also prefers that the route run straight along the property line rather than diagonal across the property. SW 26-17-8, Creek County, Oklahoma.

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. The Applicant reviewed the location of the Project in this area and determined that the landowner's concerns could be addressed through the development of a route variation. The route variation (Region 3, Link 4, Variation 2) avoids a structure and other property amenities. This route variation is described and evaluated in the Final EIS.

- Commenter supports a proposed alternative route (Wyatt Dobbs proposed reroute) as it provides a more remote passage and would move the line away from residences on the commenters' properties.

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. The landowner presented new information that the Applicant determined could be addressed through the development of a route variation. The route variation (Region 4, Link 3, Variation 2) would avoid adverse impacts to an airstrip and other property amenities. The route variation is described and evaluated in the Final EIS.

- Commenter states that “if the project is approved over my opposition, I request that the applicant PROPOSED route for the Clean Line project in Garfield County, Oklahoma be approved as the final route for this project. This route has been studied and shown by the EIS to be the most environmentally friendly and efficient route for this project. My family owns property on the Region 1 HVDC Alternative Route: AR 1-A in Garfield county. If this route is chosen it will cause potential ecological damage, unfavorable environmental impact and an undue hardship on our family. Trees will have to be torn out which could lead to water erosion in a low lying area of our farm. East of this low lying area but along the alternative route is where we are planning to build a new homestead including a house, barn and out buildings. This project would have to be abandoned if the alternative route for this project is approved and the line constructed.”

Response:

The alternative preference is noted. DOE asked the Applicant to evaluate potentially new information provided in this comment. A review of the property location indicates that Region 1 HVDC Alternative Route 1-A is not located in Garfield County, Oklahoma, but is located within the area of Region 2 HVDC Alternative Route 2-B according to County tax records. The referenced structures are accurately represented in existing data presented in the EIS. The Applicant anticipates that landowner concerns can be minimized or avoided by micrositing within the 1,000-foot-wide corridor and through implementing EPM LU-5.

- Commenter suggests that the line be moved to 1/2 mile south of their home in Fairview, Oklahoma. It will make construction and maintenance of the line much easier for Clean Line

as the line will no longer be routed down the neighbor's spring-fed canyon, but across more cleared pastureland. Commenter feels it would be more considerate to route this line through a less populated area. Land to the north of Fairview and even Enid is much less populated and consists of much open farmland.

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. Based on a review of the property location, the Applicant found that there was not a technically feasible or reasonable route that would address the landowner's concerns. It is anticipated that the landowner concerns can be addressed by micrositing within the 1,000-foot-wide corridor and implementing EPM LU-5.

- Commenter states, whenever there is a government project, they move from point A to point B without too much variation. Clean Line should also be required to have a route that affects the public the least. In addition, Clean Line could use existing right of ways; when I asked about this, however, the Clean Line representative told me that they couldn't run along other lines. After doing research on the internet, I found that this statement was false. Not only do they take the best pieces of land, they also cut diagonally through the property without any regard for property lines, leaving useless strips of land for which they do not pay. Road ways are not followed, which means the "right of way" will have to be even wider so they can build their maintenance roads.

Response:

Appendix G of the Final EIS describes the route development process in detail. Many siting factors were evaluated using the siting criteria listed in Table 1 of Appendix G. The routes evaluated in the Final EIS include multiple segments where the Project would parallel other utilities, roadways, or parcel boundaries.

- Commenter requests that line be built north of an existing transmission line, as it crosses her land. This change in location would lessen impact to her property and make it easier to sell (N 135 Road, Okmulgee County, Oklahoma).

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. The landowner request was reviewed and the suggested route was found to result in two crossings of the same transmission line. Multiple crossings of a transmission line is inconsistent with the Tier IV Technical Guidelines, as described in the Alternatives Development Report (DOE 2013), regarding crossing existing transmission lines, and therefore the requested route change was not implemented.

- Commenter objects to the proposed route on west side of I-55 in Section 23. The proposed route cuts diagonally across two fields that have been leveled and put to grade, making aerial application that is essential to rice and soybean farming impossible. Commenter requests that the proposed route continue due west after crossing I-55 and turn due south at ditch #2 and then turn west at junction of Co Rd 1212 as proposed (Region 7 Link 1).

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. The Applicant developed a variation (Region 7, Link 1, Variation 1) to address the landowner's concerns that follows parcel boundaries, which is consistent with the Tier IV Technical Guidelines described in the Alternatives Development Report (DOE 2013). The route variation is described and evaluated in the Final EIS.

- Commenter notes changes they request be made to the proposed line. These are included in an attached map (Fewel Trust, Muscogee County, Oklahoma).

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. The Applicant developed a variation to address the landowner's concerns and in relation to other landowner concerns in this area of the Project. The route variation (Region 3, Link 5, Variation 2) is described and evaluated in the Final EIS.

- Commenter does not want the lines running through Yolo Ranch.

Response:

It is anticipated that landowner concerns can be addressed by micrositing within the 1,000-foot-wide corridor and implementing EPM LU-5.

In addition, compensation for landowners is described in Clean Line's April 20, 2015, comment letter to DOE regarding the Draft EIS. The letter describes an ROW compensation package that fully compensates the landowner for Clean Line's use of the property; the adoption and implementation of a plan to ensure that acquisition of property interests initiated by the Applicant would be performed in accordance with the Uniform Act; and the adoption and implementation of a Code of Conduct for interaction and negotiation with landowners by the Applicant, its representatives and agents.

- Commenter suggests changing routing through Section 19 (Woodward Co, Oklahoma) by going 60 degrees east from the NW corner to a point 100 yards west of the east side of Section 19 then south to Highway 50-B. Commenter states this route will go through pastured land, with minimal clearing required. Commenter has attached drawings of the proposed route.

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. The Applicant reviewed the location of the property and determined that the landowner's concerns could be addressed through the development of a route variation (Region 2, Link 1, Variation 1). The route variation is described and evaluated in the Final EIS.

- Commenter states, I am in support of the Applicant Proposed Route. If concerns over the proximity of Millington Regional Jetport to this route are pervasive, I recommend Alternative Route 7-D as the best alternative. It is a shorter route than AR-7C, and the fact that it follows existing linear infrastructure for 1.75 miles is another factor in favor of this

route. My interest in this project began when one of the initial proposed routes would have crossed my residential property in Atoka, Tennessee. I am pleased to see that further study has identified routes that more effectively mitigate impact to local residents from this proposed project. However, I will be watching and will vigorously oppose any potential route that unnecessarily encroaches on Atoka, Tennessee, property owners as I believe the existing proposed routes are adequate to address routing through this area.

Response:

Comment noted.

- Commenter states, we own NW 1/4 Sec 14-twp 18N-R2W, Logan County. By moving the line north you will miss the northeast corner of our property.

Response:

DOE asked the Applicant to evaluate potentially new information provided in this comment. The landowner concern would be addressed by implementing EPM LU-5 and by micrositing within the 1,000-foot-wide corridor.

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9 Converter Stations

The following comments were received relative to converter stations:

- Commenter suggests that DOE consider the specific locations in the analysis of the two converter stations in Oklahoma and Tennessee in the Final EIS.

Response:

Comment noted. Specific locations of the converter stations in Oklahoma and Tennessee have been described in Chapter 2 and analyzed in each resource section in Chapter 3 in the Final EIS.

- The Arkansas Wildlife Federation finds the converter stations to be in the public interest.

Response:

Comment noted.

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9A Oklahoma Converter Station

The following comments were received relative to the Oklahoma converter station:

- Commenter expresses concern about the impacts associated with wind farm development near the Oklahoma Converter Station.

Response:

Comment noted.

- Commenter states that the area near Perryton, Texas is ideal for the development of wind energy and that the proposed Plains & Eastern Project is imperative to making wind development possible.

Response:

Comment noted.

- Commenter would like to know about the security required at the location sites in Oklahoma.

Response:

The converter stations would be secured with fencing and entry gates during the operations and maintenance phase of the Project. The converter stations would also require staff for the routine operation of the facilities.

- Commenter notes that the Project will involve the construction of a converter station in Arkansas, so utilities in that state could have access to the renewable energy. Commenter feels Oklahoma should also have a converter station somewhere in central Oklahoma to be provided with the same opportunity.

Response:

As described in Section 2.3.2.1 of the Final EIS, a converter station has been proposed in Texas County, Oklahoma. Existing utilities in the state of Oklahoma currently have access to renewable energy and may use existing transmission capacity or build new capacity if necessary to meet the needs of customers in central Oklahoma.

- Commenter feels that the 40-mile radius surrounding the Oklahoma Converter Station for evaluation of connected actions is not reasonable and that development would likely take place beyond this area.

Response:

The rationale for the 40-mile radius area of evaluation was provided in Section 2.1.2.3 of the Final EIS. The Applicant based the 40-mile radius on preliminary studies of engineering constraints and wind resource data, industry knowledge, and economic feasibility. As stated in Section 2.5.1 of the EIS, it is reasonably foreseeable that future wind farms would be located in a 40-mile radius to the Project's Oklahoma converter station and in areas with high wind resource potential and suitable land use(s). DOE reviewed the Wind Generation Technical Report (Clean Line 2014b), which identified 12 WDZs within the 40-mile radius

based on available wind resources and existing land uses. Table 2.5-1 in the EIS presents the size and potential maximum generation capacity for each WDZ analyzed in this EIS for potential wind energy generation. Section 2.5.1 of the EIS also discusses the high quality of the wind resource in the Oklahoma Panhandle.

- Clean Line notes that since originally proposing the “converter station siting areas,” Clean Line has secured options to purchase specific properties sufficient to support converter stations in two proposed locations, of which one is in Oklahoma. In Texas County, Oklahoma, Clean Line obtained the exclusive rights to purchase up to 60 acres for a converter station, together with rights to place a transmission line easement across 627 acres. Clean Line anticipates that the 60-acre converter station site would be located within the SE ¼, Section 18, T1N, R16. Clean Line suggests that DOE consider this specific location in the analysis of the converter station in the Final EIS.

Response:

The Final EIS provides the specific site location for the Oklahoma converter station (see description in Chapter 2). The specific site is evaluated as appropriate by resource in Chapter 3.

9B Tennessee Converter Station

The following comments were received relative to the Tennessee Converter Station:

- Clean Line notes that since originally proposing the “converter station siting areas,” Clean Line has secured options to purchase specific properties sufficient to support converter stations in two proposed locations, of which one is associated with the Tennessee converter station. In Shelby County, Tennessee, Clean Line obtained the exclusive rights to purchase approximately 220 acres on two parcels adjacent to the north and east of the TVA Shelby Substation. By siting the Tennessee converter station immediately adjacent to the TVA Shelby Substation, Clean Line eliminates the need for the 500kV AC interconnection facilities between the Tennessee converter station and the Shelby Substation referenced in the Draft EIS. Clean Line suggests that DOE consider this specific location in the analysis of the converter station in the Final EIS.

Response:

The Final EIS provides the specific site location for the Tennessee converter station (see description in Chapter 2). The specific site is evaluated as appropriate by resource in Chapter 3. It is noted in Chapter 2 of the Final EIS that there is no longer a need for the 500kV AC interconnection facilities between the Tennessee converter station and the Shelby Substation.

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9C Arkansas Converter Station

The following comments were received relative to the Arkansas converter station:

- Sierra Club supports the alternative in which an additional converter station would be built in Arkansas to allow for the delivery of electricity to the grid in that state. Like the southeast, Arkansas utilities currently use a very low level of renewable energy despite their proximity to high wind-producing areas. Allowing for the delivery of wind energy to Arkansas would allow those customers some economic and environmental benefit from the transmission line. The Draft EIS indicates that no final location for the Arkansas substation has yet been determined, although two very general locations have been proposed in Pope and Conway counties. According the Draft EIS, both of these locations would require clearing approximately 50 acres of deciduous and evergreen forest and could impact either the Cherokee or Rainey Wildlife Management Areas. The Draft EIS does not provide any information on how these two alternative locations were selected or whether an already disturbed site would be available as an alternative. In acknowledging that—final locations for the converter station have not been determined, the Draft EIS contains statements such as: “It is assumed that the Cherokee and Rainey WMAs would be avoided and the Arkansas AC interconnection is not anticipated to impact recreation resources.” These kinds of assumptions are not sufficient disclosure for an environmental impact statement. We understand that the project proponent added the Arkansas converter alternative relatively recently in the process and may not have had adequate time to study the options at the time the Draft EIS was being produced. Therefore, we urge DOE and the project proponent to release supplemental information once more specific converter station sites are identified, and to seek out an already-disturbed landscape for that station. It would also help to ensure full utilization of the line. While the proposed converter station would have a capacity of only 500MW, this is still an improvement over an alternative that would not provide for any delivery of electricity to Arkansas.

Response:

Since the publication of the Draft EIS, the size of the converter station siting area and facility size have been reduced. These changes have been incorporated throughout the Final EIS. Although a specific location for the converter station was not evaluated in the Final EIS, it is expected that significant resources would be avoided and other impacts—including impacts to trees—would be minimized during the final siting and design phase of the converter station.

- Audubon appreciates the DOE adding an Arkansas converter station to the Draft EIS as a project alternative. It is our understanding that the Applicant also supports the inclusion of this alternative. For Audubon the inclusion of an Arkansas converter station that delivers a minimum of 500MW to the Arkansas power grid is a necessity to support the project. As the Arkansas landscape will be completely bisected by the proposed transmission project, for us it is imperative that this state reap at least a part of the benefit of the clean energy being delivered to market. As the delivery of clean energy is a key offset for some of the environmental impacts associated with the construction and maintenance of the transmission corridor, it is a matter of basic fairness that Arkansas benefits from a share of this resource.

The DOE should require the inclusion of the Arkansas converter station in order to permit this project.

Response:

Comment noted.

- Commenters support the Arkansas Converter Station Alternative. Specifically, a commenter notes that under Section 1222, DOE could and should require implementation of the Arkansas Converter Station. By implementing the Arkansas Converter Station, Arkansas regulators who could not find a legal basis for approving the project would have much more to work with in terms of finding that legal authorization. The converter station would allow the Project to serve Arkansas customers and Arkansas regulators would no longer be hampered by the fact that they formerly "could not grant public utility status to [the Project] based on its present lack of plans to serve customers within the state."

Response:

Comment noted.

- Commenter notes that if the project is built, a converter station should be located in Arkansas in order to provide benefit to Arkansans. Under no circumstance should Clean Line be allowed to "fly over" Arkansas, using valuable and limited right-of-way, while providing no benefits to the state.

Response:

Comment noted.

- Commenter feels that the addition of the Arkansas Converter Station was an afterthought after Clean Line received much opposition to not include a converter station in Arkansas.

Response:

Comment noted.

- Commenter notes that the cost to build the Arkansas Converter Station is not included in the Draft EIS. This is a serious omission. The Arkansas Converter Station would require 2 converters, 1 DC/AC to deliver AC power to Arkansas and another AC/DC to continue the flow Eastward. The commenter feels that the Arkansas Converter Station is an attempt to get APSC approval, and is not an engineering solution.

Response:

Cost is not a considered factor for evaluation of environmental impacts and was not, therefore, addressed in the EIS. However, Project cost information is provided in Appendix 6 of Clean Line's Part 2 Section 1222 Application that is publically available at <http://www.energy.gov/oe/downloads/plains-eastern-clean-line-transmission-line-part-2-application>.

- Commenters are opposed to the Arkansas Converter Station because there is no benefit to the state and it is not needed or wanted.

Response:

Comment noted.

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10 Alternatives Considered But Eliminated

The following comments were received relative to the alternatives considered but eliminated from further consideration:

- Commenters stated that the transmission line should be placed underground, with some referencing existing projects and research supporting the use of underground HVDC technology (specifically ABB, Inc. and the Institute of Electrical and Electronics Engineers).

Response:

Section 2.4.4.2 of the Final EIS explains why DOE concluded that undergrounding all or a portion of the Project is not a reasonable alternative. Undergrounding all or part of the Project is not technically feasible given the capacity and voltage requirements of the Project.

As explained in Section 2.4.4.2, underground electric transmission cable technology is not commercially available at the very high voltage and capacity levels planned for the Project. ABB, Inc. is a cable manufacturer that has recently announced a ± 525 kV-rated cable, but this cable has not been installed in a commercial application and is thus unproven from a technical and economic perspective. Currently utilized ABB HVDC cable operates below ± 400 kV. The Northern Pass Project is a proposed 187-mile transmission line project from Quebec to New Hampshire. Northern Pass has proposed that approximately 153 miles of the transmission would be a ± 300 kV HVDC transmission line, including a total of approximately 60 miles of underground transmission. One of the alternatives evaluated for the Northern Pass Project included undergrounding the full length of the line, albeit at only 1,000MW. The short undergrounding distances, lower capacity, and lower voltages proposed for the Northern Pass Project render the application of similar technology inapplicable to the Project. In summary, ABB options are not consistent with the Project, which proposes a ± 600 kV HVDC transmission line.

- Commenters also stated that according to the Institute of Electrical and Electronics Engineers, burying HVDC is a potential idea.

Response:

DOE assumes this comment is based on an article by the Institute of Electrical and Electronics Engineers that was published in Power & Energy Magazine: “The ABCs of HVDC Transmission Technology,” dated March/April 2007, Vol. 5 No. 2. This article argues that in cases where undergrounding a high voltage AC line may not be technically feasible due to distance, a DC cable may be used. However, the article is not relevant to the possibility of undergrounding the Project because it does not address the voltage or capacity limitations of current, commercially available DC technology. Nothing in this article argues that there is a commercially available cable system capable of transmitting between 3,500MW and 4,000MW of capacity over long distance at a voltage of ± 600 kV, or that such a deployment would be technically feasible. Because such technology is not available, the costs for implementing underground HVDC technology of the voltage and capacity proposed for the Project are unknown.

- Other commenters stated the line should be buried on federal lands or beside existing corridors such as interstate highways, utility corridors, or rail lines, where the taking of private land is not required.

Response:

Section 2.4.4.2 of the Final EIS explains why DOE concluded that undergrounding all or a portion of the Project is not a reasonable alternative, regardless of where the cables would be located, because underground electric transmission cable technology is not commercially available at the very high voltage and capacity levels planned for the Project.

- A commenter suggested that the dams in Tennessee should be used to provide more power. Other commenters stated that the lines should be built in Massachusetts, since the power will be going to the eastern U.S.

Response:

DOE's purpose and need is to implement Section 1222 of the EPCA and, to that end, DOE needs to decide whether and under what conditions it would participate in the Applicant Proposed Project. This EIS, therefore, considers the Applicant Proposed Project and the range of reasonable alternatives that are variations to that project. Alternatives that involve wholly different sources of energy or electricity delivery methods from what the Applicant proposed are outside the scope of the purpose and need.

The Applicant Proposed Project is described in Section 2.1 of the Final EIS to include “an overhead ± 600 kV HVDC electric transmission system and associated facilities with the capacity to deliver approximately 3,500MW primarily from renewable energy generation facilities in the Oklahoma and Texas Panhandle regions to load-serving entities in the Mid-South and Southeast United States via an interconnection with TVA in Tennessee.” The power source for the Project would be primarily wind power, located in high-quality wind resource areas in the Oklahoma and Texas Panhandle regions, and Project facilities were specifically sited to serve this wind resource. Analysis of using hydropower to provide energy is therefore outside the scope of the Project and DOE's analysis.

The Applicant's Section 1222 Application, submitted July 2010, (<http://www.energy.gov/sites/prod/files/Plains%20%26%20Eastern%20Clean%20Line%20Transmission%20Project%20Application.pdf>), identifies the target customers for the power as those in the Southeast, defined on page 1 as Arkansas, Tennessee, Mississippi, Alabama, Georgia, Kentucky, Florida, Virginia, South Carolina, and North Carolina. This geographic area does not include Massachusetts or other northeastern states. Analysis of transmission line construction in this area is therefore outside the scope of the Project and DOE's analysis.

- A commenter questions why the project doesn't tie into existing lines in the area. Landowners already have transmission lines on their property; it does not seem reasonable to take their land twice.

Response:

Section 2.2 of the Final EIS discusses the transmission system planning processes and the potential interconnection of the Project with the existing electric grid in Oklahoma, Arkansas, and Tennessee.

Section 2.3.1 of the EIS and Appendix G of the EIS explain how the HVDC route was identified. The route selection process considered and utilized guidelines and criteria consistent with transmission line siting principles used by federal entities such as the Rural Utilities Service, Western, and BPA. These principles included identification of opportunity areas including existing linear corridors, and maximizing opportunities for paralleling existing compatible infrastructure. Details regarding the route development process for the HVDC transmission lines between these points are described in the DOE Alternatives Development Report (<http://www.plainsandeasterneis.com/draft-eis/category/20-reference-cd.html>) which is provided in Appendix G of this EIS.

- Commenters state that the Draft EIS indicates there are no viable alternatives for the Project, but those dismissed were done so by vague and inaccurate conclusions.

Response:

40 CFR 1502.14 requires the agency to explore and objectively evaluate reasonable alternatives in an EIS and briefly discuss the reasons for them having been eliminated. In compliance with this requirement, DOE has provided a discussion of reasonable alternatives in Section 2.4 of the Final EIS, which include the No Action Alternative, HVDC route alternatives by region, and construction of an Arkansas Converter Station. Discussion of alternatives that were considered but eliminated from detailed analysis is provided in Section 2.4.4 of the Final EIS.

- Commenters stated that distributed generation and solar (including rooftop) power are better options.

Response:

Local generation and distribution (distributed generation) were considered but eliminated from further analysis because this alternative does not meet DOE's purpose and need, which is to implement Section 1222(b) regarding new or upgraded transmission projects (see Section 2.4.4.3 of the Final EIS). DOE needs to decide whether and under what conditions it would participate in the Applicant Proposed Project. This EIS, therefore, considers the Applicant Proposed Project and the range of reasonable alternatives that are variations to that project. Alternatives that involve wholly different sources of energy or electricity delivery methods from what the Applicant proposed are outside the scope of the purpose and need.

The Applicant Proposed Project is described in Section 2.1 of the Final EIS to include "an overhead ± 600 kV HVDC electric transmission system and associated facilities with the capacity to deliver approximately 3,500MW primarily from renewable energy generation facilities in the Oklahoma and Texas Panhandle regions to load-serving entities in the Mid-South and Southeast United States via an interconnection with TVA in Tennessee." The

power source for the Project would be primarily wind power, located in high-quality wind resource areas in the Oklahoma and Texas Panhandle regions, and Project facilities were specifically sited to serve this wind resource. Analysis of other strategies for generating energy, including solar energy, are therefore outside the scope of the purpose and need for DOE action.

11 Other Alternatives

- Commenters state that other alternatives to the Proposed Action should have been considered, not just alternatives within the Action. Alternatives suggested include: 1) use Alternating Current instead of Direct Current to enable use of and back-up balancing of the irregular wind power all along the path or the power line, which would allow the line to perform as part of the Grid. 2) Establish the proposed power line only as far as the nearest significant element of the existing Grid branch and then improve the existing Grid with new elements where required and improve the existing Grid to higher capacity, voltage, etc. for the existing segments along the route, utilizing existing routes and rights-of-way; 3. Distribute the generated power to closer population centers (Oklahoma City, Tulsa, Dallas/Fort Worth, San Antonio, Houston, Denver, Kansas City, etc.) for use rather than halfway across the country. Excess generating capacity now serving those metro areas could be shifted on the Grid to needs further away. Commenter states that it should be DOE's mission to plan for and execute enhancements to the Grid.

Response:

DOE's purpose and need is to implement Section 1222 of the EPAct and, to that end, DOE needs to decide whether and under what conditions it would participate in the Applicant Proposed Project. This EIS, therefore, considers the Applicant Proposed Project and the range of reasonable alternatives that are variations to that Project. Alternatives that involve use of alternating current, investigation of improvements to existing infrastructure, and distribution to the population centers listed are outside the scope of the DOE's purpose and need.

- Commenters suggested DOE consider alternative sources of energy production, including solar energy, natural gas, wireless transmission of electricity, cleaning up coal and natural gas power plants, construction of nuclear plants, transfer of existing nuclear power to Memphis, and energy captured by drinking water flowing through pipes and creating hydropower, instead of the Applicant Proposed Project. Others suggested DOE consider a mix of wind, coal, natural gas, and oil to ensure sustainability and availability of electricity instead of the Applicant Proposed Project. Some commenters stated that federal subsidies or tax incentives for wind power should be halted.

Response:

The subject of this EIS is DOE's consideration of a response to its Request for Proposals under Section 1222 of the EPAct for new or upgraded transmission projects (see Section 2.4.4.3 of the EIS). DOE's purpose and need is to implement Section 1222 of the EPAct and, to that end, DOE needs to decide whether and under what conditions it would participate in the Applicant Proposed Project. This EIS, therefore, considers the Applicant Proposed Project and the range of reasonable alternatives that are variations to that Project.

DOE has programs supporting a wide range of energy technologies, including those mentioned in the comments. Participation by DOE in the Applicant Proposed Project would not foreclose the development of any energy technology. The EIS analyzes the potential development of wind energy in the Oklahoma Panhandle region because the Applicant's proposal, including proposed siting of Project facilities, is based on access to this wind

resource. However, the proposed transmission line would not be reserved exclusively to transmit wind-generated electricity. It could be used to transmit electricity generated by any technology.

This EIS does not analyze alternatives that are wholly different from the scope of DOE's Request for Proposals and the Applicant's Proposed Project. Further, wireless transmission of electricity is not analyzed as a reasonable alternative because it is not a proven technology for electricity transmission over long distances (see <http://energy.gov/oe/information-center/educational-resources/electricity-101#q5>). Reliability of the wind resource is discussed in Section 2.5.1 of the Final EIS.

- Commenters suggested alternatives to the routing proposed in the Draft EIS, including constructing the line on federal lands, such as the Ozark National Forest or on the USACE properties contiguous to the McClellan-Kerr Navigation System; following existing ROWs such as railroad lines and interstates, specifically I-40; and avoiding old growth forests, family farms, and agricultural lands. Some commenters described benefits of locating the project on federal land, including lease income, timber sales, access roads for campers, fire breaks, and control over use of herbicides and other chemical applications.

Response:

Section 2.4.3.2 of the Final EIS presents the alternative HVDC routes that were evaluated for each region. Some of these alternative routes follow existing ROWs or section lines. As described in Section 2.4.2.4 of the Final EIS, the Applicant Proposed Route follows Interstate-40 and other ROWs or linear features, such as existing transmission line or pipeline ROWs, to the extent practicable. The Applicant Proposed Route is shown on Figure 2.1-17d in Appendix A. In EPM LU-5, Clean Line states that, if it intends and has the ability to site a ROW for the Applicant Proposed Project on a landowner's land, it will make reasonable efforts to adjust the siting of ROW to avoid impacts as much as is practicable on all properties.

Early in the planning process, Clean Line reviewed potential routes in proximity to USACE properties contiguous to the McClellan-Kerr Navigation System (i.e., the Arkansas River and associated reservoirs). The development of potential routes within the McClellan-Kerr Navigation System was not feasible based on the general and technical routing guidelines. The route evaluation process is documented in the Alternatives Development Report, which is summarized in Appendix G of the Final EIS.

Some routes investigated were considered but eliminated from consideration through the course of the routing process. Routes that were considered and eliminated, and rationales for their elimination, are provided in the DOE Alternatives Development Report, and excerpts from that report are provided in Appendix G of the Final EIS. An alternative was included in the Draft and Final EIS that crossed the Ozark National Forest. Section 2.14.1.5 of the Final EIS explains why HVDC Alternative Route 4-B, which would cross the Ozark National Forest in Crawford County, Arkansas, is not part of the preferred alternative. DOE acknowledges that some commenters have provided potential benefits of locating the Project on federal land. However, in the routing effort, certain types of federal lands were

considered sensitivities based on environmental and resource characteristics as described in Appendix G. Reasons include potential adverse impacts to sensitive resources including scenic areas, timber production areas, special status species, and wildlife habitat (including old growth forest).

- Commenter suggests that an experiment he will work on can move the bugs out of the National Forest in about a one mile area strip to allow the power lines to be placed through the National Forest without any environmental problems.

Response:

Comment is noted. Section 2.14.1.5 of the Final EIS explains why HVDC Alternative Route 4-B, which would cross the Ozark National Forest in Crawford County, Arkansas, is not part of the preferred alternative. Reasons include potential adverse impacts to sensitive resources including scenic areas, timber production areas, special status species, and wildlife habitat (including old growth forest).

- Commenters requested the route be changed to reflect the “Wyatt Dobbs” route that was submitted by several individuals.

Response:

The “Wyatt Dobbs” reroute was proposed as an alternative in Sequoyah County, Oklahoma, to address potential impacts to the Lazy D Bar Cabins and Resort, agricultural operations, operation of an airstrip, and Deer Management Assistance Lands managed under the Department of Wildlife Conservation. This route variation (Region 4, Link 3, Variation 2) is described in Section 2.4.2.4 and potential impacts from this route variation are analyzed in each resource section in Chapter 3

- Commenters question why Clean Line can’t contract with existing companies to upgrade their transmission lines to carry the electricity that would be produced by the Project. Specific examples identified include the line from Webbers Falls through Sequoyah County.

Response:

DOE’s purpose and need is to implement Section 1222 of the EAct and, to that end, DOE needs to decide whether and under what conditions it would participate in the Applicant Proposed Project. This EIS, therefore, considers the Applicant Proposed Project and the range of reasonable alternatives that are variations to that project. Alternatives that involve different electricity delivery methods, such as upgrading existing transmission lines, from what the Applicant proposed are outside the scope of the purpose and need. Investigation of improvements to existing infrastructure is outside the scope of the EIS and does not meet the criteria in the DOE-issued Request for Proposals under Section 1222 of the EAct.

- Commenters suggest constructing offshore wind farms on the east coast, closer to where the power is needed.

Response:

DOE's purpose and need is to implement Section 1222 of the EAct and, to that end, DOE needs to decide whether and under what conditions it would participate in the Applicant Proposed Project. This EIS, therefore, considers the Applicant Proposed Project and the range of reasonable alternatives that are variations to that Project. Alternatives that involve wholly different sources of energy or electricity delivery methods from what the Applicant proposed are outside the scope of the purpose and need. Investigation of the feasibility of using offshore wind power to provide power to the east coast is outside the scope of the EIS and does not meet the DOE-issued Request for Proposals under Section 1222 of the EAct.

- Commenters state that DOE should look into wind mills and solar panels for private residences; others suggest focusing on localized generation.

Response:

DOE assumes commenter is referring to the concept of “distributed generation” as defined in Section 2.4.4.3 of the Draft EIS. This alternative was considered but eliminated from further analysis for reasons described in Section 2.4.4.3 of the Final EIS. This EIS does not analyze alternatives that are wholly different from the scope of DOE's Request for Proposals and the Applicant's Proposed Project.

- Commenters question why other cities were not considered as alternatives to Memphis, some mention Tulsa, Oklahoma City, Kansas City, Denver, and Dallas-Fort Worth.

Response:

DOE's purpose and need is to implement Section 1222 of the EAct and, to that end, DOE needs to decide whether and under what conditions it would participate in the Applicant Proposed Project. This EIS, therefore, considers the Applicant Proposed Project and the range of reasonable alternatives that are variations to that Project. Alternatives that involve different electricity delivery points from what the Applicant proposed are outside the scope of the purpose and need.

- Commenters state that the power produced should be kept in Oklahoma. Others stated that it should go to Arkansas, as the line will cross the state.

Response:

DOE's purpose and need is to implement Section 1222 of the EAct and, to that end, DOE needs to decide whether and under what conditions it would participate in the Applicant Proposed Project. This EIS, therefore, considers the Applicant Proposed Project and the range of reasonable alternatives that are variations to that Project. Alternatives that involve different electricity delivery points from what the Applicant proposed are outside the scope of the purpose and need. As explained in Section 2.1.2.2 of the Final EIS, power will typically flow on the HVDC line in an eastward direction. In rare conditions, system operators in each of the three states could utilize the Project to help stabilize the regional electric grids by changing the direction of power flow, which means that power could be injected from the Project to the western SPP in Oklahoma. Additional details are provided in Section 2.1.2.1.2 of the Final EIS. Also as described in 2.4.3.1, DOE has included in the Final EIS analysis the

addition of an Arkansas Converter station to provide power to Arkansas. Clean Line supports the development of the Arkansas converter station.

- Commenters state that the project should be located in Malvern or Van Buren, or other communities that were listed as receiving the greatest economic benefit.

Response:

Section 2.3 of the Final EIS describes the process used to identify proposed location for the Project components and alternative routes. Detailed information about the route selection process is provided in the DOE Alternatives Development Report (available at: <http://www.plainsandeasterneis.com/draft-eis/category/20-reference-cd.html>). Routes were not determined based on potential economic benefit to communities, but were determined using a specific set of opportunities criteria where the transmission line could parallel existing linear infrastructure such as roads and transmission lines, while avoiding sensitive land uses.

- Commenters requested alternatives be considered for specific sections of the proposed route, including:
 - The pasture to the north of property on the Northwest Quarter (NW/4) of Section 28, Township 2 North, Range 27 East of the Cimarron Meridian, Beaver County, Oklahoma, would be the optimal place for the proposed route. The commenter requests that the proposed route be moved slightly to the north across the half-section line where it would have much less of an impact than it would by going north of the property.

Response:

DOE has reviewed the suggested route change and anticipates the concerns can be addressed by micrositing within the 1,000-foot-wide corridor and implementing EPM LU-5, which states that Clean Line will make reasonable efforts, consistent with design criteria, to accommodate requests from landowners to adjust the siting of the ROW on their properties.

- The proposed route in Section 28-25-23 in Harper County passes between a home and a barn. Commenter does not want the route over her home.

Response:

DOE anticipates the commenter's concerns can be addressed through micrositing within the 1,000-foot-wide corridor and the implementation of EPM LU-5.

- E-ON has proposed an alternate route to Clean Line Energy Partners, which would avoid the wind farm project on the property. Commenter is in favor of this proposed alternate route and would like for it to be considered.

Response:

DOE has not received a comment from E-ON; however, the Applicant would work with E-ON to microsite the transmission line according to EPM LU-5 so that impacts to the wind farm project are minimized.

12 Connected Actions

The following comments were received relative to connected actions:

- A commenter referenced the discussion in Appendix F, Sections 2.2.6–2.2.7, regarding the use of fiber optic cable to facilitate communication between converter stations. Commenter expressed concern about the limited explanation of activities associated with the site, construction, and operation of regeneration sites to amplify data signal, and questioned what ‘other communication purposes’ might include. Commenter also states that the Draft EIS should better evaluate the potential impacts caused by the inclusion of electric distribution lines to provide power to Applicant's regeneration sites. Commenter posed the following questions: Will these lines be sited within the proposed HVDC right-of-way or adjacent to the proposed right-of-way? What are the combined, or cumulative, impacts of the additional distribution lines? What entity will own, possess and maintain the new distribution line ROWs? How will the ROWs for the distribution lines be acquired?

Response:

The potential impacts associated with land-disturbing activities from the fiber optic regeneration sites were estimated using typical sizes for fiber optic regeneration sites and typical distances between fiber optic regeneration as described in Section 2.2.7 of Appendix F and in Section 2.1.4.1.5 of the EIS. Estimated facility dimensions and land requirements for fiber optic regeneration sites are provided in Chapter 2 of the EIS, Table 2.1-4. Table 2.1-8 in Chapter 2 of the EIS provides the estimated length of access roads associated with the HVDC transmission lines including those associated with fiber optic regeneration sites. Table 2.1-8 in Chapter 2 of the EIS provides the estimated length of access roads associated with the AC Transmission Lines including those associated with fiber optic regeneration sites. Therefore, estimated impacts of fiber optic regeneration sites have been accounted for in the overall calculation of potential impacts to affected lands in each region. The assumptions used in the determination of potential land disturbance for the HVDC routes included all of the ancillary facilities, whether they were inside or outside the representative ROW. As stated in Section 2.2.7 of Appendix F:

...an existing electric distribution line near the fiber optic regeneration site typically supplies power. If required, the local service provider will extend power lines to serve the regeneration site; these distribution lines will likely be placed on single wood poles, or they may be buried. The voltage of the power supply line is typically 34.5kV or lower. The location and routing of the existing distribution lines to the new sites will be determined during the final design process.

The environmental impacts of providing typical electrical power to these facilities would be typical of establishing electrical service to any other small commercial facility, and would be expected to include minor ground and soil disturbance associated with installation of single-pole overhead distribution lines or buried distribution lines (see Appendix F, Section 2.2.7). As stated in Section 2.2.7 of Appendix F, the location and routing of the distribution line extensions to the fiber optic regeneration sites would be determined during the final design process. The local service provider would own or operate the electrical lines providing power to the regeneration sites. If required, ROWs for the distribution lines would be obtained by the local service provider.

- Commenter suggested that the description of the TVA Interconnection System Impact Study (SIS) in Section 2.5.2 be updated to be consistent with the discussion of direct assignment and network upgrades in Section 2.2.1.3. As drafted, the description of the TVA Interconnection SIS in Section 2.5.2 discusses, in general terms, upgrades to existing infrastructure and the potential construction of a 500kV line. More specificity regarding the particular actions and under what conditions they would occur is warranted. Specifically, the description of the Interconnection SIS findings in Section 2.5.2 should: Clarify that the Interconnection SIS identified direct assignment facilities as necessary to facilitate the physical interconnection at the Shelby Substation. The direct assignment facilities include new bays, breakers, switches, line relays and interchange meters that would be installed within the Shelby Substation before the physical interconnection of the Project. Clarify that the network upgrades identified in the SIS include a set of approximately 30 network upgrades including upratings, reconductoring, and terminal upgrades on 27 existing 161kV system elements and 3 existing 500kV system elements. Network upgrades also include potential construction of a new 500kV transmission line, approximately 37 miles long, in Western Tennessee, the timing and specific location of which TVA has not yet determined. Clarify that, while the direct assignment facilities must be completed and operational to facilitate the physical interconnection, those upgrades which are not direct assignment may be constructed after physical interconnection, energization, and operation of the Project. Further, in preparing the Final EIS, we suggest that DOE confirm that the connected action discussion included in each resource section of Chapter 3 clearly captures both the direct assignment facilities and network upgrades identified in Section 2.2.1.3 and Section 2.5.2, as well as clarifies the impacts of the TVA upgrades at all Project phases (construction, operations and maintenance, and decommissioning).

Response:

DOE updated Sections 2.2.1.3 and 2.5.2 in the Final EIS to clarify its discussion of direct assignment facilities versus network upgrades. Language in each resource section in Chapter 3 was updated to clarify potential impacts from direct assignment facilities versus those from network upgrades.

- A commenter states that the EIS is inadequate because it dismisses and avoids important Transmission Planning issues. The EIS does not address the relationship between the economic need for the Project, and the costs of- the Project are not part of the MISO planning studies The EIS does not provide the System Impact Studies, Feasibility Studies, or other required interconnection studies for review to determine what system upgrades may be required and the extent of environmental impacts of those system upgrades, or whether or not the subject transmission project could even be interconnected to the grid. These studies must be included in the Final EIS. The EIS does not provide copies of executed transmission interconnection agreements, and the TVA interconnection facilities study is not expected to be completed for another year. No decision about impacts of this project can be analyzed, much less made, without this information. The EIS notes that TVA's Interconnection estimates that completion of all upgrades would take 8 years to complete after TVA completes the Facilities Study. Section 2.5.2, p. 2-40 n 2-41. Yet in the same paragraph, the EIS states that there would be few, if any, environmental impacts. Furthermore, "TVA would likely evaluate potential impacts associated with construction and operations and

maintenance of a new 500kV AC transmission line under a separate NEPA review...” This is passing the buck for significant phased and connected actions, literally interconnected project, and is not acceptable under NEPA. The EIS is inadequate because it does not address the admitted 350 miles of transmission upgrades likely necessary.

Response:

DOE prepared the Final EIS with the best available information, consistent with 40 CFR 1502.22. The system impact studies, feasibility studies, and other required interconnection studies are required by FERC through a separate regulatory process. The system impact studies, feasibility studies, and other required interconnection studies are currently in process and are protected by confidentiality and non-disclosure agreements because of Critical Energy Infrastructure Information. As such, these studies could not be published with the Final EIS.

NEPA is intended to ensure that environmental factors are considered at an early stage in the planning process, typically prior to the execution of interconnection agreements. The EIS analyzes connected actions that could result from the execution of transmission interconnection agreements. If additional connected actions were identified through the execution of the interconnection agreements, they would be analyzed in accordance with NEPA.

In addition to the transmission lines and related facilities analyzed as part of the Project, the EIS also analyzes facility additions and upgrades to existing third-party transmission systems that would be required to enable the Project to transmit power. The additions and upgrades in Oklahoma and Tennessee are evaluated as connected actions in the EIS. As described in Section 2.5.2, upgrades to existing TVA infrastructure are expected to result in few, if any, environmental impacts because they would be made to existing infrastructure on already disturbed land and in existing ROWs. Regarding the TVA 500kV AC transmission line noted in Section 2.5.2, the Final EIS has been revised to generically describe the impacts of its construction and operation. TVA would conduct its own environmental analysis and NEPA review once more specific information is available for this potential infrastructure.

- A commenter recommended that the Final EIS include a description of the planned assessment of environmental and related impacts resulting from future project actions and connected actions (i.e., tiered review or supplemental EIS and timing of decisions pertaining to proposed actions).

Response:

Future assessment of environmental and related impacts from future connected actions will be governed by federal, state, and local laws, regulations, and guidance and will be conducted at the appropriate time relative to the projects' proposals.

- Commenter expressed concerns that City of Comanche, Oklahoma, has contract with Southwestern Power Administration for hydroelectric-generated power, and that the potential condemnation of private property could create a negative impression of the agency.

Response:

The commenter's concerns are noted. As described in Section 2.1.3, ROW or property rights for the Project would be acquired through compensation agreements or negotiated agreements wherever possible. If a negotiated agreement is not possible, DOE may in appropriate circumstances exercise the federal government's eminent domain authority to acquire the interests. Consistent with the Constitution of the United States and other applicable law, the landowner would be paid just compensation for the real estate interest. Real estate acquisition by federal entities, such as DOE, is governed by the Uniform Act (Public Law 91-646) (42 USC 4601 et seq.). DOE must also comply with 49 CFR Part 24, Subpart B, "Real Property Acquisition," the government-wide regulation that implements Public Law 91-646.

The Applicant has expressed through comments on the Draft EIS a willingness to use reasonable, good faith efforts to acquire all of the necessary ROW through voluntary negotiations. Furthermore, Clean Line has expressed a commitment to working with landowners to avoid and minimize impacts of the Project to their properties and has already engaged in outreach with landowners along the Applicant's Proposed Route. DOE would only exercise eminent domain as a last resort if at all.

- Commenters expressed concerns about potential impacts of the Project on reliability and upgrades to the existing grid. Commenters also asked that DOE guarantee that the project would not have any impact on Southwestern Power Administration's level of service or costs to current customers.

Response:

As stated in Clean Line's Section 1222 Application to DOE—Part 1, submitted in July 2010 (<http://www.energy.gov/oe/services/electricity-policy-coordination-and-implementation/transmission-planning/section-1222-0>), page 16, Clean Line intends to cooperate fully with DOE and Southwestern to minimize any potential adverse impacts to Southwestern's customers from a cost or reliability perspective. Furthermore, in Clean Line's Section 1222 Application update, submitted in August 2011 (<http://www.energy.gov/sites/prod/files/2015/04/f22/Clean%20Line%20Part%202%20Application%20-%20Final%203-6%20version.pdf>), page 14, Clean Line expresses its intention to pay the costs of all parties to ensure there is no impact on taxpayers or Southwestern customer rates. Section 5 "Risk Mitigation" of Clean Line's Section 1222 Application—Part 2, submitted in January 2015 (<http://www.energy.gov/sites/prod/files/2015/04/f22/Clean%20Line%20Part%202%20Application%20-%20Final%203-6%20version.pdf>), describes in detail the steps Clean Line has taken or will take to minimize any risk onto Southwestern, Southwestern's Customers, and the DOE. Section 2.1.5.2 of the Final EIS discusses reliability.

- Commenters stated that the wind farms required for the project would have beneficial economic impacts in the areas where they would be built. Others stated that Oklahoma and Arkansas would benefit from economic development associated with the manufacture of wind turbines and transmission components.

Response:

Potential economic benefits associated with the wind farms are discussed in detail in Section 3.13.6.8.1 of the Final EIS. Potential economic benefits associated with the manufacture of wind turbines and transmission components are not discussed in the Final EIS because sourcing for these products are unknown at this time.

- Commenters stated that there are currently no wind farms identified that will generate the electricity for the Project. The lack of this information means that impacts cannot be properly analyzed.

Response:

As described in depth in Clean Line's Section 1222 Application to DOE—Parts 1 and 2 (<http://www.energy.gov/oe/services/electricity-policy-coordination-and-implementation/transmission-planning/section-1222-0>), the Project was designed to serve primarily renewable energy resources. This goal is reinforced by policy and market conditions described in the Section 1222 Application, which also identifies interest from wind developers in the Project. For the reasons described in the Section 1222 Application, it is reasonably foreseeable that the majority of power transferred on the HVDC transmission line will originate from future wind farms. Development of future wind farms in the vicinity of the HVDC transmission line route is included as a connected action and analyzed appropriately in the Final EIS in as described in Section 2.5.1. The same design, market, and policy factors that make development of wind energy reasonably foreseeable in the vicinity of the HVDC transmission line make it unlikely that non-renewable resources would be connected to the HVDC transmission line. Such non-renewable projects, and wind projects in other locations away from the proposed HVDC transmission line, are not reasonably foreseeable and are not considered connected actions to the Project.

- Commenters stated that the 40-mile radius used in the EIS for connected actions is inadequate; analysis does not consider 1,500 square miles in Kansas.

Response:

As described in Section 2.5.1 of the Final EIS, it is reasonably foreseeable that future wind farms would be located in a reasonable proximity (assumed to be a 40-mile radius) to the Project's Oklahoma converter station and in areas with high wind resource potential and suitable land use(s). Wind power facilities that would interconnect with the Project are anticipated to be located in parts of the Oklahoma Panhandle and Texas Panhandle within an approximate 40-mile radius of the Oklahoma converter station. As identified in Section 2.1.2.3, the Applicant based the 40-mile radius assumption on preliminary studies of engineering constraints and wind resource data, industry knowledge, and economic feasibility. References to the studies are provided in the Wind Generation Technical Report that is provided on the Reference CD with the Final EIS. The Project could serve wind development outside the 40-mile radius, but such development is not considered reasonably foreseeable for the purpose of the analysis in the Final EIS.

- Commenters questioned the number of turbines/wind farms that would be required to generate a capacity of 3,500MW. Others indicated that wind will not provide a reliable and

stable source of generation, which will result in a need for electricity from other sources, such as coal and natural gas.

Response:

Wind energy generation within 40 miles of the proposed Oklahoma converter station is analyzed in the EIS as a connected action. As stated in Section 2.5.1 of the EIS, it is reasonably foreseeable that future wind farms would be located in a reasonable proximity (40-mile radius) to the Project's Oklahoma converter station and in areas with high wind resource potential and suitable land use(s). DOE reviewed the Wind Generation Technical Report (Clean Line 2014b), which identified 12 WDZs within the 40-mile radius based on available wind resources and existing land uses. Table 5-1 in the EIS presents the size and potential maximum generation capacity for each WDZ analyzed in this EIS for potential wind energy generation. Section 2.5.1 of the EIS also discusses the high quality of the wind resource in the Oklahoma Panhandle.

- Commenters stated that Plains and Eastern does not have any power purchase agreements in place. Others stated that there is no commitment from TVA to purchase power from Clean Line, and that TVA's recent integrated resource plan doesn't show any plans or need for purchase of power in the near future.

Response:

The fact that no power purchase agreements (PPAs) are signed does not preclude this Project from NEPA review, and the Applicant is moving forward with the Section 1222 Application process and the NEPA process at its own risk. Clean Line's Section 1222 Application—Part 2, submitted in January 2015 (<http://www.energy.gov/sites/prod/files/2015/04/f22/Clean%20Line%20Part%202%20Application%20-%20Final%203-6%20version.pdf>; page 10-3), describes ongoing reliability and interconnection studies that will be submitted to DOE after they have been completed. These include an Interconnection Agreement with Xcel Energy and SPP, an Interconnection Agreement with Entergy Arkansas and MISO, and an Interconnection Agreement with TVA.

DOE assumes the commenter is referring to the TVA's Draft 2015 IRP, which can be found at <http://www.tva.com/environment/reports/irp/>. The Draft IRP includes four options for acquiring wind energy, one of which is an HVDC option where wind energy is transmitted to TVA by an HVDC line. In the accompanying EIS for the Draft IRP (<http://www.tva.com/environment/reports/irp/pdf/TVA-Draft-irp-EIS.pdf>), the HVDC option for transporting wind energy is identified as "similar" to the proposed Clean Line Plains and Eastern HVDC Project (Chapter 5, page 149). The Target Power Supply mix identified in the Final IRP and accompanying Final EIS, and selected in the IRP ROD, includes the addition of 500–1,750MW of wind capacity by 2033, primarily after 2023. This addition, including the source of the wind energy, is dependent on pricing, performance, and integration costs. Given the variability of wind expansion in the IRP scenarios, TVA will evaluate accelerating wind expansion into the first 10 years of the plan if operational characteristics and pricing result in lower-cost options.

TVA has provided Clean Line with a letter of interest. This letter of interest is included in Clean Line's Section 1222 Application—Part 2, submitted in January 2015 (<http://www.energy.gov/sites/prod/files/2015/04/f22/Clean%20Line%20Part%202%20Application%20-%20Final%203-6%20version.pdf>), Appendix 2-C. The letter states:

TVA supports the advancement of the Plains & Eastern Clean Line as a potential option for the future needs of the region and encourages the appropriate authorities to provide the regulatory and other government review needed to move the project forward. The implementation of the project could provide TVA with the potential to directly access low-cost wind energy generation from the Oklahoma Panhandle region to serve its customers.

On June 2, 2014, TVA made a public statement that it had already met its renewable energy goals. The June 2014 TVA statement addressed enrollment in the TVA Renewable Standard Offer program. Under this program, described at <http://www.tva.com/renewablestandardoffer/index.htm>, TVA purchases renewable energy generated by new small to mid-size (50kW to 20MW) renewable generating facilities located within the TVA service area at a set price. TVA sets an annual limit on the available capacity for new facilities enrolling in the program. The June 2014 TVA statement announced that TVA had met the 2014 enrollment limit of 100MW. As stated in its 2015 IRP (<http://www.tva.com/environment/reports/irp/>), TVA will continue to add renewable generating capacity through 2033.

- Commenter stated that the connected action will not provide electricity to TVA's customers at a competitive rate.

Response:

TVA serves customers in almost all parts of Tennessee, southwestern Kentucky, northeastern Mississippi, northern Alabama, and limited areas of northern Georgia, western North Carolina, and southwestern Virginia (http://www.tva.com/power/pdf/tva_distributor_map.pdf). The Applicant's Section 1222 Application, submitted in July 2010 (<http://www.energy.gov/sites/prod/files/Plains%20%26%20Eastern%20Clean%20Line%20Transmission%20Project%20Application.pdf>), discusses cost competitiveness for customers in the Southeast (defined on page 1 as Arkansas, Tennessee, Mississippi, Alabama, Georgia, Kentucky, Florida, Virginia, South Carolina, and North Carolina) in Section II.c. This geographic area does include TVA customers. Cost competitiveness for customers in the Southeast is further discussed in the Applicant's Section 1222 Application—Part 2, submitted in January 2015 (<http://www.energy.gov/sites/prod/files/2015/04/f22/Clean%20Line%20Part%202%20Application%20-%20Final%203-6%20version.pdf>) (see page 2-1, 2-8, 2-9, and 3-2).

- Commenters supported the use of local generation and distribution as the best way to use wind resources. Others stated that wind can be added to the grid near the source and wind energy can be developed near the load centers.

Response:

Section 2.4.4.3 of the Draft EIS describes why local generation and distribution were not considered as an alternative for the Project. DOE's purpose and need is to implement Section 1222 of the EPAct and, to that end, DOE needs to decide whether and under what conditions it would participate in the Applicant Proposed Project. This EIS, therefore, considers the Applicant Proposed Project and the range of reasonable alternatives that are variations to that Project. Alternatives that involve wholly different sources of energy or electricity delivery methods from what the Applicant proposed are outside the scope of the purpose and need.

- Commenters stated that the Project would have connected actions that include: expansion of the interregional transmission capacity; reductions in pollution and water use; improvement in the reliability of the overall grid system.

Response:

Reductions in pollution and water use, and improvement in reliability of the overall grid system are not considered “connected actions” in and of themselves. Rather, they can be considered potential impacts of connected actions. As defined in Section 2.5 of the Final EIS, connected actions are those that are “closely related” to the proposal. Actions are considered connected if they automatically trigger other actions that may require environmental impact statements, cannot or will not proceed unless other actions have been taken previously or simultaneously, or are interdependent parts of a larger action and depend on the larger action for their justification (40 CFR 1508.25). Reductions in air pollution potentially resulting from wind farm construction (which is considered a connected action) is discussed in Section 3.3.6.8 in the Draft EIS. Water use potentially resulting from wind farm construction is discussed in Section 3.7.6.8 of the Draft EIS. Improvement in the reliability of the overall grid system is discussed in detail in Clean Line's Section 1222 Application to DOE—Parts 1 and 2 (<http://www.energy.gov/oe/services/electricity-policy-coordination-and-implementation/transmission-planning/section-1222-0>). Expansion of interregional transmission capacity would occur as a result of the Project and related substation and transmission upgrades, which are considered “connected actions” and are discussed in Section 2.5.2, is discussed in detail in Clean Line's Section 1222 Application to DOE—Parts 1 and 2 (<http://www.energy.gov/oe/services/electricity-policy-coordination-and-implementation/transmission-planning/section-1222-0>).

- Commenters stated that technology is constantly changing and windmills will soon be obsolete. Others stated that wind power is not as clean as advertised.

Response:

Commenters' opinions regarding wind power are noted. The full range of impacts from wind energy generation, including beneficial impacts, are discussed in Sections 2.8.2–2.8.20, the connected action sections for each of the 19 resource areas analyzed in the EIS.

13 Agricultural Resources

The Draft EIS received many comments regarding agricultural resources, which, when analyzed, expressed concern about several common issues. Responses to these common issues were developed to avoid redundancy in responding to comments. These common issues are summarized below:

1. **Location of project features in relation to agricultural operations:** The location of irrigation systems and other information was reviewed by DOE and the Applicant after the public scoping meetings. In many cases, impacts to agricultural operations can be minimized through the implementation of EPMs LU-5 and AG-1. In an effort to reduce impacts to landowners, the Applicant would make reasonable efforts, consistent with design criteria, to accommodate requests from individual landowners to adjust the siting of the transmission line and associated structures within the 1,000-foot-wide corridor. These adjustments may include consideration of routes along or parallel to existing divisions of land (e.g., agricultural fields and parcel boundaries) and existing compatible linear infrastructure (e.g., roads, transmission lines, and oil and gas pipelines), with the intent of reducing the impact of the ROW on private properties (LU-5). Land occupied by AC collection system and HVDC pole structures, permanent access roads, and converter stations would constitute long-term impacts and agricultural uses would no longer be feasible due to the presence of Project facilities. Impacts resulting from construction and maintenance and operations of the Project are described in Section 3.2.6.2. The Applicant would employ EPMs as described in Sections 3.2.6.1 and 3.2.6.7 to minimize impacts associated with the Project.
2. **Center pivot irrigation systems:** Temporary and long-term impacts associated with center-pivot irrigation systems would occur. Deployment of construction equipment, use of tensioning and pulling sites, and placement of structure work areas could prevent movement of irrigation systems, which could lead to diminished crop production. During operations and maintenance, the presence of permanent Project components could prevent portions of fields from being irrigated.
3. **Placement of transmission structures:** Temporary and long-term impacts to agricultural lands are described in Section 3.2.6.2 of the Final EIS. The placement of transmission line structures in agricultural fields would impact farming operations by increasing the amount of time spent maneuvering equipment around structures in a field and would result in damage or destruction of crops that are growing within or around the structure footprint at the time of construction. Such a situation could in turn lead to increased crop production costs.
4. **Aerial spraying:** Temporary and long-term impacts to aerial spraying operations would occur. Although pilots can make modifications to their flight patterns to account for the presence of transmission lines within agricultural fields, these modifications can lead to increases in the costs of aerial application and can reduce yields and/or increase the probability of chemical drift due to impacts to accuracy. The presence of transmission lines in agricultural fields also poses a safety risk to pilots. As stated in EPM AG-5, the Applicant would work with landowners and/or tenants to consider potential impacts to current aerial spraying or application (i.e., aerial crop spraying) of herbicides, fungicides, pesticides, and fertilizers within or near the transmission ROW.

5. **Flood irrigation systems:** Construction of access roads, temporary work areas, and other graded areas could temporarily disrupt the slope and flow patterns of water on flood-irrigated fields. Following completion of construction, the Applicant would return all slopes to preconstruction conditions as part of final reclamation so that flood irrigation can be resumed in areas that may have been previously impacted or disrupted. The presence of transmission line structures in fields would not prohibit the flow of flood water, because water can flow around structure foundations. In furrow-irrigated fields structures may, however, obstruct continuous furrows (when beds are formed, a continuous furrow is created from the top of the field to the bottom) and farmers may be required to do additional work in rows where furrows do not align with equipment. Maneuvering equipment around structures in these areas could interrupt field operations and require more time to till the field.

In some cases, landowners or tenants would need to work around transmission structures when surveying and constructing new levees. In areas downhill from the water source, this may result in diminished crop production. Additionally, the presence of transmission line structures could increase pumping time needed to flood areas affected by the structures or areas adjacent to the structures. Specific impacts would be dependent on the location of the transmission line structures.

Impacts to associated contour flood irrigation systems are not anticipated. As noted in EPM AG-6, direct impact on crop production can be calculated and growers can be compensated for losses, if any. Losses or damage from construction depend on the type of water management system, structure placement, and season. By definition and design, water flow within contour flood irrigation systems would not be obstructed because irrigation water would typically flow unimpeded around each structure.

6. **Allowed Uses within the ROW:** The continued use of the ROW for routine agricultural practices such as livestock grazing, cultivating crops, grading and contouring, placement of fences, and installation of irrigation lines is permitted so long as activities within the ROW allow for maintenance of minimum clearance requirements as determined by the NESC and so long as no equipment, pipes, or other materials affect the transmission line structures. Once a route has been established, the Applicant would review the route for non-standard activities that may require adjustments to minimum clearances.

During construction, the use of the ROW for agricultural activities may be directly affected (see Section 3.2.6.2.3.1) and landowners or tenants may be restricted from accessing the ROW for a short period of time. An example schedule that describes the typical construction sequence that can occur on agricultural property is provided as Table 3.2-10 in Section 3.2.6.2. The sequence describes periods during which access may be restricted for safety reasons.

During operations and maintenance, the extent to which these activities can continue to take place would be outlined in easement agreements and would be determined in cooperation with landowners based on site-specific conditions. For example, limitations on uses within the ROW could include the following:

- A prohibition on placing a building or structure within the ROW.
- Restrictions on timber or the height of orchard trees within the ROW.
- Restrictions on grading and land re-contouring within the ROW that would change the ground surface elevation within the ROW such that required electrical clearances are no longer maintained.
- Restrictions and/or required coordination for the construction of future allowed facilities such as fences and/or irrigation lines within the ROW.
- Restricted access for safety considerations during performance where maintenance activities are being performed.

Restrictions on land use within the ROW would be determined based on site-specific conditions and/or in coordination with landowners. These are not blanket limitations or restrictions that would apply to every parcel potentially impacted by the Project. The continued use of the ROW for routine agricultural practices such as grading and contouring and construction of ditches is permitted and is compatible with the reliability of HVDC and AC facilities and would not be restricted. Limitations on land uses would be described in the easement agreement; these limitations could be modified in the easement based on site-specific conditions and/or coordination with landowners.

7. **Easement acquisition process and development of site plan:** Landowners or tenants may experience temporary or permanent impacts resulting from placement of Project features on agricultural land. As part of the easement acquisition process, the Applicant would work with landowners and tenants to develop compensation that would include payment to the landowner for the transmission line easement, payment for each transmission line structure on the landowner property, and additional payments for damages to property and reduction in crop yield. Compensation would be developed in accordance with practices identified in Section 2.1.3 of the Final EIS and the Applicant's Agriculture Impact Mitigation Policy provided in Appendix J of the Final EIS. Additionally, the Applicant would work with landowners and/or their representatives to develop a site plan (EPM AG-7) for each cropland farm on which construction or maintenance is to be performed. The site plan would include a description of preconstruction land elevations as well as the planned post-construction conditions. The site plan would be approved by the Applicant and landowner and/or tenant prior to construction, and following completion of construction, a final inspection would be completed by the landowner and the Applicant. Additional details regarding the development of a site plan and the Applicant's Agricultural Mitigation Policy are provided in Appendix J of the Final EIS.
8. **Livestock management:** The Applicant would not displace or prohibit livestock from grazing in pastures overlapped by the ROW during the construction and operations and maintenance phases of the Project unless otherwise desired by the landowner. Except while access to the ROW is temporarily restricted during construction, operations, and maintenance for safety reasons, livestock would not be displaced or prohibited from grazing in pastures overlapped by the ROW during construction, unless otherwise desired by the landowner. Construction activities during which restrictions to the ROW may occur are identified in the construction sequence and timeline provided in Table 3.2-10 in Section 3.2.6.2 of the Final EIS. The sequence describes periods during which access may be restricted for safety

reasons. Additionally, Clean Line would utilize EPM GE-8 to ensure that livestock is maintained in the appropriate landowner-designated location during the construction and operations and maintenance phases of the Project.

If a landowner or tenant chooses to relocate their livestock during construction, the Applicant would, as part of the easement acquisition process, work with the affected individual to develop compensation that includes payment to the landowner for the transmission line easement, payment for each transmission line structure on the landowner property, and additional payments for relocation, loss, or harm to livestock.

9. **Impacts to prime farmland:** Tables 3.6.2-19, 3.6.2-21, and 3.6.2-23 and Sections 3.6.2.6.2.1.1.1 and Section 3.6.2.6.3.1.1 document potential impacts to designated farmland, which includes impacts to prime farmland. It is important to note that much of the acreage impacts would be temporary during construction and that fewer acres would be permanently affected. Farming could continue within the ROW and in areas surrounding transmission line structures. It is acknowledged that areas of the Project mapped as designated farmland may be irreversibly converted by the Project. DOE has consulted with the state NRCS offices in Oklahoma, Arkansas, and Tennessee concerning impacts to farmland protected under the FPPA and has received a determination from the agencies that the transmission lines do not irreversibly convert farmland (Sagona 2014; Adams 2014). Further, this determination has been seconded by the NRCS National Leader for the FPPA. This determination, however, does not apply to the converter stations, the construction of which would potentially convert farmland and would require a Form AD-1006 be submitted for evaluation. The locations of access roads needed for the Project have not yet been determined; however, the Applicant would avoid placement of permanent access roads through farmland. Once the exact locations of Project components have been determined, a farmland conversion assessment would be completed by the NRCS for any remaining components for which the NRCS has not yet issued a determination. DOE is currently consulting with the NRCS to determine potential impacts to prime farmland associated with the converter stations.

The Applicant would use existing access roads, improve some private roads where necessary, and build new roads where required to access facilities. Existing roads would be used to the extent practicable and access roads between structures in active agricultural fields would be located along fence lines or field lines where practicable to minimize impacts. The location of access roads needed for the Project has not yet been determined; however, the Applicant would avoid placement of permanent access roads through farmland. The road types, definitions, and typical access road dimensions are identified in Table 2.1-7 in Section 2.1.2.4 of the Final EIS. Table 2.1-8 in Section 2.1.2.4 identifies the estimated length of each type of access road that would be required for Project components. Once the exact locations of Project converter stations and access roads have been determined, a farmland conversion assessment would be completed by the NRCS for any remaining components for which NRCS has not yet issued a determination.

Once the exact locations of Project converter stations and access roads have been determined, a farmland conversion assessment would be completed by the NRCS for any remaining components for which the NRCS has not yet issued a determination. The purpose of this

assessment is to inform the sponsoring agency, in this case DOE, of the potential impact the Project would have on the local agricultural economy if the land is converted to a non-farm use. EPMs that would protect farmland include AG-1, AG-2, AG-3, and AG-4.

The following comments were received relative to agricultural resources:

- Commenter notes concern about the impact of the proposed transmission line on landowners in proximity to the route, and especially farmers and ranchers. Commenter notes that the EIS presents information that confirms the impact would be significant, yet it seems to downplay the significance. For example, the following statement is found under the "General Agriculture" subheading in Section 3.2.6.2, "Impacts to agriculture during operations and maintenance of the Project are expected to be minimal in most areas because the majority of the representative ROW could be used for grazing and cultivated crops, if it is already being used as agricultural land, once construction has been completed."

Commenter feels this statement is misleading because it equates "impacts to agriculture" with impacts confined to the right-of-way. Statements under subsequent subheadings provide farmers and ranchers whose land is located within or in proximity to the ROW real cause for concern:

- Crop production, center-pivot irrigation, flood irrigation, aerial crop spraying. For crop production, tractors, combines, and other mechanized equipment would be required to maneuver around structures. Structures and conductors could limit the aerial application of fertilizer, herbicide, and pesticide and could result in a diminished harvest. Crop production that involves mechanical irrigation, automated farming methods, or farming equipment with large spans (up to 100 feet) could also be adversely affected by the placement of overhead conductors and support structures.
- For center-pivot irrigation, the representative 200-foot-wide ROW for the Applicant Proposed Route or HVDC alternative routes would cross agricultural fields that are irrigated by center pivots. Agricultural operations in these areas could be limited in the long term depending on the location of the transmission structures. Project components could prevent portions of fields from being irrigated by blocking the movement of the irrigation system.
- For flood irrigation, during operations of the Project, transmission structures and surrounding graded areas and regions that have flood-irrigated or precision-graded fields could disrupt the flow of water on flood-irrigated fields or precision-graded fields in the long term. This disruption could have a long-term impact by diminishing crop production in localized areas downhill from the water source.
- For aerial crop spraying, once construction has been completed, aerial crop spraying planes could fly at a higher altitude to avoid transmission lines and structures. A common method to maneuver around obstacles in fields is to "trim" the edge of a field by flying perpendicular to the direction the field was flown. Another approach is to stop spraying as the obstacle is approached, turn at 360 degrees, fly over the obstacle, then drop back down and continue spraying. Applicators can fly beneath the lines or wires in cases where transmission lines and other wires are positioned high enough. It may be possible to spray over the top of the obstruction in situations where the transmission lines or wires are low.

However, this could result in less precise application of fertilizer, herbicide, and pesticide, and these treatments could spill into adjacent fields. Additionally, impacts associated with aerial application could extend beyond the representative ROW as a result of needing to fly over transmission lines.

Response:

The location of Project features in relation to irrigation systems and other agricultural operations was reviewed by DOE and the Applicant as described in Common Issue 1.

Temporary and long-term impacts as they relate to the placement of transmission line structures in agricultural fields is described in Section 3.2.6.2 of the Final EIS and in Common Issue 3.

Temporary and long-term impacts would be associated with center-pivot irrigation systems as described in Common Issue 2.

Construction of access roads, temporary work areas, and other graded areas could temporarily disrupt the slope and flow patterns of water on flood-irrigated fields as described in Common Issue 5.

Temporary and long-term impacts related to aerial spraying operations would be as described in Common Issue 4.

Landowners or tenants may experience temporary or permanent impacts resulting from placement of Project features on agricultural land. Information with regard to the easement acquisition process, compensation for damages, and development of a site-specific plan for each cropland farm on which construction or maintenance is to be performed is provided in Common Issue 7.

- Commenter notes that agriculture is the predominant land use in the Region of Influence (ROI), defined as the 1000-foot-wide proposed transmission corridor and thousands of additional acres for converter stations, interconnection transmission lines and connection to wind farms yet to be sites (Section 3.2.4). Table 3.6.2-21 shows 8321 acres of designated farmland in the 200-foot-wide ROW alone as proposed by Clean Line. In five of the seven geographic regions designated by DOE for purposes of analysis, most of the acreage is in farms (Table 3.13-9). Regions 1 and 2 are dominated by grasslands and croplands (95 and 94 percent farm acreage, respectively). Grasslands, deciduous forest, and pasture/hay lands dominate Region 3 (78 percent farm acreage). Regions 4 and 5 are predominantly pasture/hay lands and deciduous forest (38 and 47 percent farm acreage, respectively). Regions 6 and 7 are dominated by croplands (71 and 53 percent, respectively). (Section S.6.1.17).

Response:

Comment noted.

- Commenter notes that there is evidence of potentially significant impacts to agriculture not only within but in proximity to siting areas. Long-term impacts from the project include the potential loss of productivity for disturbed soils, commitments of soils (including soils designated prime farmlands) to a utility use (primarily for access roads, converter stations, and transmission line pole structures), clearing, grading, excavation, and other construction activities could increase soil erosion. Construction vehicles and equipment could cause soil compaction, particularly in soils with characteristics inherently susceptible to compaction. Commenter urges the Department of Energy to revise the Final EIS by more clearly stating the project's major implications for agriculture beyond the acreage on which the physical plant would be located.

Response:

It is assumed that the commenter is referring to impacts to agriculture potentially occurring outside the siting areas and beyond the physical footprint associated with the Project. The majority of impacts to agricultural operations would occur within the ROW, but impacts could extend to areas outside the ROW, such as those resulting from placement and use of access roads that could extend outside the siting areas. The Final EIS adequately addresses impacts beyond the representative ROW in the discussions related to soil disturbance, loss of designated farmland, erosion, and compaction (see Section 3.6.2.6.1.1) because these impact discussions apply beyond the ROW boundary. Temporary impacts to agricultural soils outside the siting areas would be similar to those identified in Section 3.6.2.6.1.1 of the Final EIS. Permanent impacts to agriculture outside the siting areas are not anticipated because all disturbed areas would be returned to preconstruction conditions and no permanent facilities beyond those described in Section 2.1.2 would be constructed.

Section 3.6.2.6.1.1 discusses and acknowledges impacts to soils from the Project including soil disturbance, loss of designated farmland, erosion, and compaction. Section 3.6.2.6 documents acreage impacts to soils with high compaction potential and impacts to soils with high wind and water erosion potential for the Project. EPM GE-27 specifically addresses soil compaction concerns. EPMs that would be implemented to avoid and minimize soil erosion include GE-3, GE-6, GE-9, GE-11, GE-22, GE-30, AG-2, and GEO-1. A SWPP) would be created for the Project that would be consistent with federal and state regulations and would describe the practices, measures, and monitoring programs to control sedimentation, erosion, and runoff from disturbed areas. A Restoration Plan would be created and implemented following construction. The plan would include restoration measures that would minimize erosion.

- Commenter notes their client, Reaper Farms, is located in White County, Arkansas and is headquartered at 601 Reaper Road, Searcy, Arkansas. Commenter notes this is a family-owned and operated farm that includes an extensive variety of crops and livestock. Commenter notes a proposed alternative route runs through the heart of the client's agricultural operations. Commenter notes their client feels the alternative route would substantially disturb and adversely impact the agricultural activities in a variety of ways (disruption of slope and flow patterns of water on flood-irrigated fields; disruption of center-pivot irrigation systems; displacement of livestock; reduction in crop yield; interference with aerial applications of fertilizer, insecticide, and/or herbicides; restriction on the placement of

new fences, irrigation lines, and/or other necessary improvements to the infrastructure of the business; and prohibitions on changes to grading and land contours that are required in an agricultural setting).

Response:

The DOE acknowledges the commenter's preference that the following routes in Region 5 not be selected for construction: HVDC Alternative Routes 5-A, 5-B, 5-E, and 5-F.

The location Project features in relation to irrigation systems and other agricultural operations was reviewed by DOE and the Applicant as described in Common Issue 1.

Temporary and long-term impacts to agricultural lands are described in Section 3.2.6.2 of the Final EIS. Construction of access roads, temporary work areas, and other graded areas could temporarily disrupt the slope and flow patterns of water on flood-irrigated fields as described in Common Issue 5.

Temporary and long-term impacts would be associated with center-pivot irrigation systems as described in Common Issue 2.

The Applicant would not displace or prohibit livestock from grazing in pastures overlapped by the ROW during the construction and operations and maintenance phases of the Project as described in Common Issue 8.

Temporary and long-term impacts related to aerial spraying operations would be as described in Common Issue 4.

Landowners and tenants would not be prohibited from constructing new fences or other agricultural improvements within the ROW as described In Common Issue 6.

Landowners or tenants may experience temporary or permanent impacts resulting from placement of Project features on agricultural land. Information with regard to the easement acquisition process, compensation for damages, and development of a site-specific plan for each cropland farm on which construction or maintenance is to be performed is provided in Common Issue 7.

- Commenter states they know lots of farmers that this project would personally affect. Commenter notes that, not only would farmers have to relocate their livestock during construction, but the expenses would be up to the landowner.

Response:

The Applicant would not displace or prohibit livestock from grazing in pastures as described in Common Issue 8.

- Page 3.2-8, Section 3.2.6, Lines 16-18: DOE notes that other sections of the analysis discuss "existing transmission lines." However, that analysis does not address the combined impact to agricultural operations. Throughout portions of Region 5, 6 and 7, the Project is projected to parallel existing transmission infrastructure. Placing the Project parallel to existing

transmission infrastructure will directly and indirectly impact agricultural land and agricultural operations in significant ways. It will multiply impacts to cultivation, irrigation, aerial application and harvesting operations. It will increase annual operation costs and reduce annual yields. It will remove land from production and it will alter crop rotations and operations. The Draft EIS must analyze these impacts.

Response:

Section 3.10 of the Final EIS identifies the length of existing transmission line paralleled by the Project. As stated in Section 2.3.1 of the Final EIS, the Clean Line Routing Team considered and utilized guidelines and criteria consistent with transmission line siting principles used by federal entities such as the Rural Utilities Service, Western, and BPA. These principles included identification of existing linear corridors as opportunity areas. The DOE independently reviewed and verified the process used by Clean Line to identify the proposed location for each of the Applicant Proposed Project components.

The presence of multiple transmission lines in a given agricultural field were not analyzed on a farm-by-farm basis because the impacts are dependent on where an existing line is located and where the new line is proposed. Section 3.2.6.2 adequately addresses direct and indirect impacts to agricultural activities within and in proximity to the representative ROW. These impacts are similar to those that would occur in areas where there is more than one transmission line located in an agricultural field.

The physical footprint of transmission structures would displace cultivated crops; however, the presence of the transmission line would not have an impact on crop rotations and a landowner would not be prevented from growing a crop that has been previously planted on a given parcel of land.

Temporary and long-term impacts to agricultural lands as they relate to placement of transmission line structures in agricultural fields is described in Section 3.2.6.2 of the Final EIS and in Common Issue 3.

Temporary and long-term impacts would be associated with center-pivot irrigation systems as described in Common Issue 2.

Construction of access roads, temporary work areas, and other graded areas could temporarily disrupt the slope and flow patterns of water on flood-irrigated fields as described in Common Issue 5.

Temporary and long-term impacts related to aerial spraying operations would be as described in Common Issue 4.

Landowners or tenants may experience temporary or permanent impacts resulting from placement of Project features on agricultural land. Information with regard to the easement acquisition process, compensation for damages, and development of a site-specific plan for each cropland farm on which construction or maintenance is to be performed is provided in Common Issue 7.

- Page 3.2-19, Section 3.2.6.2.3.1, Lines 32-33: The Draft EIS discusses direct impacts to croplands caused by the removal of "irrigation systems." However, the DOE must define "irrigation systems" such that impacted farmers can ascertain the impact to their respective production operations. Does it include irrigation pipelines? Will trenching for fiber optic cable force the removal of pipelines and/or preclude future pipelines? Will constructing the pads for the towers force removal of pipelines? The sensitivity to and demands of water availability and application require an intricate and interconnected irrigation system, whereby impacting one pipeline may impact the irrigation of more acres outside the ROW than inside the ROW.

Response:

The Project has the potential to result in localized impacts to aboveground irrigation systems and underground irrigation pipelines. Site-specific questions such as these would be addressed with the landowners and/or tenants as part of the easement acquisition process as described in Common Issue 7.

- Page 3.2-21, Section 3.2.6.2.3.2, Lines 21-24: The Draft EIS states that "changing and grading land contours" would be prohibited within the ROW during the operations and maintenance period. Effective crop cultivation requires the periodic grading of fields to ensure proper irrigation and drainage. The prohibition on such activities will cause long-term damage to productivity. DOE must better explain the scope of the prohibition on "changing and grading land contours."

Response:

The continued use of the ROW for routine agricultural practices such as grading and contouring and construction of ditches are permitted and are compatible with the reliability of HVDC and AC facilities and would not be restricted. Limitations on land uses would be described in the easement agreement; these limitations could be modified in the easement based on site-specific conditions and/or coordination with landowners. This clarification has been made in Section 3.2.6.2 of the Final EIS.

- Page 3.2-21, Section 3.2.6.2.3.2, Line 27: DOE concludes that "[p]ole structures may interfere with farming equipment and aerial crop spraying, which may reduce crop yields." However, the impacts will also include increased input costs from overlapping applications of seed and chemical. DOE's review and analysis must better document the perpetual burden on agricultural operations, in both time and money. The Draft EIS does not sufficiently review, analyze or explain the impacts to contour irrigated and precision-level irrigated fields. The construction and permanent placement of Project infrastructure will disturb flood and furrow water management systems (both application and drainage) in Jackson, Poinsett, Cross and Mississippi counties. Additionally, many acres are now precision leveled (often to zero grade) and, therefore, remain particularly susceptible to disturbance. DOE should analyze the Project's potential impact on flood and furrow irrigation within both contour and precision-leveled irrigated fields. This should include operational constraints, operational adjustments, increased operating costs and reduced yields.

Response:

Potential economic impacts to agriculture and agricultural operations are addressed in Section 3.13 of the Final EIS. Additional detail on potential economic impacts to agricultural land use in the Arkansas Delta is provided in Appendix J to the EIS.

Construction of access roads, temporary work areas, and other graded areas could temporarily disrupt the slope and flow patterns of water on flood-irrigated fields as described in Common Issue 5. Potential annual impacts to agricultural water management systems, aerial application (crop dusting), crop production logistics, and crop insurance and commodity programs are considered in the Arkansas Delta Agricultural Economic Impact Study commissioned by the Applicant. This study is included as Appendix J to the EIS and the findings are summarized in Section 3.13 of the Final EIS.

Section 4.4.4 of Appendix J of the Final EIS (the Arkansas Delta Agricultural Economic Impact Study) discusses potential impacts to agricultural water management systems. Section 4.4.4.1 of Appendix J discusses the cumulative operating costs, cumulative production costs, and monetary damages that construction and decommissioning could impose on farmers, Section 4.4.4.2 discusses periodic impacts of the Project associated with operations, maintenance, and repair of the transmission line, and Section 4.4.4.3 discusses permanent impacts associated with transmission line structures. It should be noted that the socioeconomic analysis provided in Appendix J is limited to Regions 6 and 7 of the ROI. Section 3.13.6.2.3.2 of the Final EIS discusses socioeconomic impacts to agricultural operations associated with the construction and operations and maintenance phases for all regions of the ROI.

Landowners or tenants may experience temporary or permanent impacts resulting from placement of Project features on agricultural land. Information with regard to the easement acquisition process, compensation for damages, and development of a site-specific plan for each cropland farm on which construction or maintenance is to be performed is provided in Common Issue 7.

- Section 3.2—"Agricultural Resources" relies, in part, on a significant background document titled the *Arkansas Delta Agricultural Impact Study* (Appendix J of the Draft EIS). The following comments address concerns with that study's analysis and also indicate areas where the Draft EIS should be improved with additional review, analysis and documentation:
 - Page 10, Section 2.1.2.8: The Electrical Environmental Assessment of the Plains and Eastern Transmission Line Project should be independently verified to guarantee no impacts to precision agriculture equipment.

Response:

DOE has reviewed and independently verified all technical reports provided as attachments to the Final EIS are accurate as written.

- Pages 10-11, Section 2.1.2.9: The Clean Line Agricultural Impact Mitigation Policy needs to be independently reviewed to ensure that protection measures are appropriate, verifiable and enforceable.

Response:

The Clean Line Agricultural Impact Mitigation Policy is one of the attachments that is provided as part of Appendix J of the Final EIS. DOE has reviewed and independently verified all appendices provided as attachments to the Final EIS.

- Page 11, Section 2.1.3.1: The general assumptions for land taken out of production completely fail to account for areas where the Project is co-located with existing transmission line infrastructure. Further, the assumption fails to account for reduced operational capability resulting from the combination of co-located facilities.

Response:

Clean Line reviewed the comment and confirmed that the general assumptions identified in the study appropriately focus on the technical requirements of the Project and the associated direct or indirect impacts. The descriptions of the construction, operations and maintenance, and decommissioning phases in Chapter 2 of the Final EIS provide more detail regarding assumptions related to the Project.

- Pages 13-14, Section 2.1.3.4: The study does not clearly identify whether it considered the increased operational costs and reduced yields caused by the Project and occurring outside the ROW (e.g. inability to irrigate lands outside ROW; increased costs with double applications of seed and chemical).

Response:

Sections 4.4.1.4 and 4.4.4.3 of Appendix J (Arkansas Delta Agricultural Economic Impact Study) qualitatively discuss indirect impacts outside the ROW, including operational considerations. Section 3.2.6 of the Final EIS provides further discussion on potential impacts outside the ROW.

- Page 37: “West of Ridge (Western Lowlands)” fails to identify rice as a major crop grown in the area.

Response:

The commenter is correct in that rice is not specifically mentioned as a primary crop in the “West of the Ridge (Western Lowlands)” discussion on page 37. Rice is recognized, however, as a primary crop in this region in other sections throughout the study. For example, see page 23: “In the Western Lowlands counties, rice is the second most commonly planted crop while the acreage of corn, cotton, wheat, and grain sorghum are variable.”

- Page 40: Commenter believes that environmental mitigation measures and project policies need to be independently reviewed to ensure they are appropriate, verifiable and enforceable. Where appropriate, the measures and policies need to be more specific and less discretionary.

Response:

DOE has reviewed and independently reviewed all mitigation measures and Project policies provided in the Final EIS, the Final EIS appendices, and the technical reports provided as attachments to the Final EIS are verifiable and enforceable. As described in Section 2.7 of the Final EIS, BMPs were included for resources that DOE felt were necessary to avoid adverse impacts. Should DOE decide to participate in the Project, more specific mitigation requirements would be developed prior to construction.

- Page 40: Commenter supports the development of Site Plans for each cropland farm on which construction and/or maintenance is to be performed. Commenter would add that any Site Plan should be incorporated within the appropriate easement or ROW agreement to ensure enforceability.

Response:

Site plans are discussed on Page 40 and in Appendix J (Section 4.2). Clean Line incorporated site plans into a new EPM, EPM AG-7, which states, "Clean Line will work with landowners and/or their representatives in the development of a site plan for each cropland farm on which construction or maintenance is to be performed."

- Page 42, Section 4.3.2: See previous comment. Where appropriate, effort should be made to allow individual landowners to perform (with compensation) the vegetation and other maintenance operations within the ROW. "

Response:

Clean Line would not restrict landowners from safely performing vegetation maintenance activities within the ROW; however, Clean Line is solely responsible for maintaining safe and reliable operating conditions through the development and implementation of a TVMP pursuant to NERC Standard FAC-003. Clean Line may be willing to contract with individual landowners to complete this work to the extent they meet appropriate qualification.

- Page 42, Section 4.3.2.1: The analysis needs to more clearly define what types of land leveling are permitted and/or prohibited within the ROW. "

Response:

The continued use of the ROW for routine agricultural practices such as grading and contouring and construction of ditches are permitted and are compatible with the reliability of HVDC and AC facilities and would not be restricted. Limitations on land uses would be described in the easement agreement; these limitations could be modified in the easement based on site-specific conditions and/or coordination with landowners.

- Page 43, Section 4.3.2.2: The Transmission Line Maintenance program should require that ground inspections take place when irrigated crops are not present. Furthermore, prior to aerial inspections the Applicant should provide adequate notification to landowners with livestock so that precautions can be taken to remove the livestock from

the ROW during the inspection. Finally, what type of notice to and impact to aerial application operations are anticipated during the Applicant's aerial inspections?

Response:

The Applicant would not displace or prohibit livestock from grazing in pastures overlapped by the ROW during the construction and operations and maintenance phases of the Project as described in Common Issue 8.

Clean Line is not aware, and the commenter does not identify, any potential adverse impacts to livestock or aerial application operations from routine aerial inspections of the Project. Clean Line anticipates that any aerial inspections would be subject to FAA regulations regarding flight activities in the vicinity of other aircraft.

Furthermore, Clean Line expects routine ground inspections would occur when irrigated crops are not present; however, if crop damage occurs Clean Line will work with landowners to develop compensation for lost crop value caused by construction and/or maintenance (see page 40 of Appendix J).

- Pages 48-49, Section 4.4.1.4: Continuous middles are not possible with the Project's permanent transmission structures, as there is no practical way to reconnect furrows below the structure. Accordingly, areas below the structures will become and remain non-irrigated. Furthermore, the areas above the permanent transmission structure cannot drain. The inability to adequately drain those areas will flood crops planted in those areas. Accordingly, the areas above the structures will also become and remain non-irrigated.

Response:

The Arkansas Delta Agricultural Economic Impact Study discusses the potential impacts to continuous middle farming practices as well as appropriate measures to avoid or minimize impacts (see section 4.4.1.4 of Appendix J of the Final EIS).

- Page 50, Section 4.4.2.3: Commenter agrees with the stated impacts to aerial application and agricultural operations, particularly areas of rice production. However, the study and the Draft EIS should be revised to address the combined impacts when the Project is sited adjacent to existing transmission lines and transmission line infrastructure. The study and Draft EIS should also address the Project's impacts on those areas where transmission line infrastructure will transect fields at an angle rather than along field boundaries. Pages 59-61, Sections 4.4.4.3.1 and 4.4.4.3.2: The discussion of impacts to both agricultural water management systems and aerial application fails to consider the impacts from siting the Project next to existing transmission infrastructure. The combination of two lines would certainly multiply the impacts in both operational costs and reduced yields.

Response:

Section 3.10 of the Final EIS identifies the length of transmission line paralleled by the Project. As stated in Section 2.3.1 of the Final EIS, the Clean Line Routing Team considered and utilized guidelines and criteria consistent with transmission line siting principles used by federal entities such as the Rural Utilities Service, Western, and BPA.

These principles included identification of existing linear corridors as opportunity areas. The DOE independently reviewed and verified the process used by the team to identify the proposed location for each of the Applicant Proposed Project components. The cumulative effects of the Project, in combination with other past, present, and reasonably foreseeable future projects, on agricultural resources are discussed in Chapter 4, Section 4.3.2. The discussion of potential cumulative impacts does not attempt to describe the impacts for every action for each region, because of the wide range of affected environments in Regions 1–7 and the large number of present and reasonably foreseeable future actions identified in Section 4.2. Rather, the evaluation and discussion follows DOE's graded approach by focusing on those projects within each region that would have the highest potential for significant impacts to the specific resource area.

- Page 53, Section 4.4.4.1.1: The assessment of economic impacts in both the study and the Draft EIS underestimates the potential impacts beyond the ROW. Acres outside the ROW that fall victim to reduced water or reduced weed management will face substantial yield loss. These costs need to be better explained so impacted landowners and the larger public can better understand the economic costs attributable to the Project's construction.

Response:

Potential direct and indirect economic impacts are considered in the Arkansas Agricultural Economic Impact Study (Appendix J of the Final EIS). Section 4.4.4.1.2 of the study (pages 58–59) characterizes the direct impacts to lands within the ROW. Sections 4.4.4.3.1 and 4.4.4.3.2 (pages 59–61) provide discussion on annual impacts to agricultural water management systems and aerial spray applications, including examples of costs associated with each.

- Pages 58-59, Section 4.4.4.1.2: See above. Access roads may also dramatically impact acres beyond the immediate area of the ROW. "

Response:

Comment noted. EPM LU-5 states that Clean Line will coordinate with landowners to site access roads and temporary work areas to avoid and/or minimize impacts to existing operations and structures.

- Pages 59-60, Section 4.4.4.3.1: The analysis of annual impacts to agricultural water management systems must include contour flood irrigation systems, as most of the rice production operations in Jackson, Poinsett, Cross and Mississippi counties utilize this method.

Response:

Impacts to contour flood irrigation systems associated with rice production are not anticipated. As noted in Section 4.4.1.1 of Appendix J, General Impacts, direct impact on crop production can be calculated and growers can be compensated for losses if any. Losses or damage from construction depend on the type of water management system, structure placement, and season. By definition and design, water flow within contour

flood irrigation systems would not be obstructed because irrigation water would typically flow unimpeded around each structure.

- Commenter questions if Table 3.2-6 is correct. This table is the "ROI Profile of Agriculture-Region 5."

Response:

Corrections have been made to Table 3.2-6 in Section 3.2.5.5 of the Final EIS.

- Productive farmland may not be able to be used agriculturally because of the presence of transmission towers, access roads for maintenance, and converter station. The line's route proposal should be reconsidered to avoid prime agricultural land and reduce this significant environmental impact. Commenter notes concern that the line could negatively impact agricultural land uses.

Response:

The continued use of the ROW for routine agricultural practices such as livestock grazing, cultivating crops, grading and contouring, placement of fences, and installation of irrigation lines is permitted so long as activities within the ROW allow for maintenance of minimum clearance requirements as determined by the NESC and so long as no equipment, pipes, or other materials affect the transmission line structures. During construction and operations and maintenance, the use of the ROW for agricultural activities may be directly affected (see Section 3.2.6.2.3.1), and landowners or tenants may be restricted from accessing the ROW for a short period of time as described in Common Issue 6.

In an effort to reduce impacts to landowners, the Applicant would make reasonable efforts, consistent with design criteria, to accommodate requests from individual landowners to adjust the siting of the ROW on their properties. These adjustments may include consideration of routes along or parallel to existing divisions of land (e.g., agricultural fields and parcel boundaries) and existing compatible linear infrastructure (e.g., roads, transmission lines, and oil and gas pipelines), with the intent of reducing the impact of the ROW on private properties (LU-5). Land physically occupied by AC collection system and HVDC pole structures, access roads, and converter stations would constitute long-term impacts and agricultural uses would no longer be feasible due to the presence of Project facilities. Impacts resulting from the construction and operations and maintenance phases of the Project are described in section 3.2.6.2. The Applicant would employ EPMs as described in 3.2.6.1 and 3.2.6.7 to minimize impacts to minimize impacts associated with the Project.

Temporary and long-term impacts to designated farmland, including impacts to prime farmland, would be as described in Common Issue 9.

- Commenter notes concern that the line that would lie within the 1,000-ft wide corridor in Region 6-Link 7 could have a considerable impact on approximately 400 acres that lies on the banks of the St. Francis River. Commenter has calculated that this project would impact 13 fields totaling 668 acres. Of the 668 acres in the identified fields, 272 acres fall in the 1,000 ft. corridor. The placement of the line along these field boundaries could render at least

3 of these field unable to grow rice depending on the placement of the line inside the corridor. Profitability for both the land owner and the farmer would be impacted. The lines would not allow for the efficient use of aerial applications of fertilizer and chemical both of which are critical in the production of rice in this area. Commenter asks that if the proposed route does come through this property that the placement be as close to the St. Francis River bank as possible to have the least amount of impact on crop production.

Response:

The location of agricultural operations and other information was reviewed by DOE and the Applicant after the public scoping meetings. DOE recognizes that the specific placement of the transmission line may cause reduced yield, an associated reduction in profitability, and may impact the efficient use of aerial applications of fertilizer or chemical. In many cases, impacts to agricultural operations can be minimized through the implementation of EPM LU-5 and AG-1. The location of Project features in relation to other agricultural operations is further described in Common Issue 1.

Section 4.4.4.1 of Appendix J of the Final EIS discusses the cumulative operating costs, cumulative production costs, and monetary damages that construction and decommissioning could impose on farmers, Section 4.4.4.2 discusses periodic impacts of the Project associated with operations, maintenance, and repair of the transmission line, and Section 4.4.4.3 discusses permanent impacts associated with transmission line structures. It should be noted that the socioeconomic analysis provided in Appendix J is limited to Regions 6 and 7 of the ROI. Section 3.13.6.2.3.2 of the Final EIS discusses socioeconomic impacts to agricultural operations associated with construction, operations, and maintenance for all regions of the ROI.

Landowners or tenants may experience temporary or permanent impacts resulting from placement of Project features on agricultural land. Information with regard to the easement acquisition process, compensation for damages, and development of a site-specific plan for each cropland farm on which construction or maintenance is to be performed is provided in Common Issue 7.

- The Applicant proposes to construct five to seven pole buildings, 28 feet x 28 feet, every mile, and to build access roads. No information is available on the access roads, because the Corporation has not decided where it would locate them. Based on this information, it is not clear how the DOE concluded that "Operation and maintenance impacts would not irreversibly convert prime farmland to non-agricultural uses in the representative ROW (right-of-way)." The DOE did not cite studies or give examples of the existing high voltage lines/towers that run along prime farmland and demonstrate that the land was able to be used as it was before the lines were built. I suspect no such information exists.

Response:

Temporary and long-term impacts to designated farmland, including impacts to prime farmland, would be as described in Common Issue 9.

- Commenter is opposed to the Plains & Eastern Project for the following reason: The DOE states on page 3.2-13 that "Herbicide spraying for weed control along the transmission line representative ROW could affect organic farmers if fields of organic crops are sprayed inadvertently." Although this statement appears under the heading "Aerial Crop Spraying" it appears to apply to the Corporation spraying herbicides along the high voltage line/towers route during maintenance and operation. It is unclear whether the Corporation proposes to use aerial spraying all along the right-of-way, or whether the Corporation proposes to apply defoliant with personal or vehicle-mounted devices. It is noted that the DOE recognizes that organic fields could be impacted by spraying chemical herbicides along the right-of-way. However, the DOE did not state whether it recognizes that landowners, even those who may not be organic farmers, may object to such chemical use on their lands. I suspect that no provision exists to communicate to landowners the specific chemicals used, the spraying schedule, the method of spraying, the application rate, and any potential human/animal health effects of exposure. It is unclear whether landowners have recourse if they do not wish such chemical application on their land. If labeling for the specific chemicals used prohibits use around livestock (and/or other animals or humans), I question whether provisions would be made for their protection.

Response:

There may be some confusion between the use of herbicides by agricultural aerial spraying operations and potential use of herbicides by the Applicant. Aerial application of various chemicals (commonly referred to as crop-dusting) on agricultural fields is a routine operation in many areas where the transmission system may be located. However, the Applicant may also selectively apply herbicides during necessary clearing and grading for construction and during ongoing corridor maintenance to minimize the regrowth of certain trees and woody species. The statement made on page 3.2-13 of the Draft EIS about potential impacts to organic farmers from inadvertent herbicide spraying on crops was made in error and has been deleted from the Final EIS. Proper application of herbicides would minimize impacts outside locations of intended use. There is no plan by the Applicant to routinely apply herbicides on an extensive and wide-scale basis in the transmission corridor. In situations where herbicides would be applied, only persons who are certified and licensed would perform this work and only chemicals certified for safe use would be applied. In no situation is it expected that herbicides would be applied for corridor vegetation control using aerial application methods. EPM GE-5 states that any herbicide used during construction and operations and maintenance would be applied according to label instructions and any federal, state, and local regulations. In addition, a TVMP would also be prepared and would address situations where herbicide use is necessary. In situations where selective use of herbicides may impact agricultural lands, the Applicant would work with landowners to address issues. The TVMP may require additional analysis under NEPA depending on whether and under what conditions DOE decides to participate in the Project.

- Commenter states that the line would have negative impacts on agriculture in the Trumann, Arkansas, area as there is a lot of center pivot irrigation that would be disrupted by the transmission line's poles and impact ability to properly irrigate crops.

Response:

The location of Project features in relation to irrigation systems and other agricultural operations was reviewed by DOE and the Applicant as described in Common Issue 1.

Temporary and long-term impacts could be associated with center-pivot irrigation systems as described in Section 3.2.6.2 of the Final EIS and in Common Issue 2.

Landowners or tenants may experience temporary or permanent impacts resulting from placement of Project features on agricultural land. Information with regard to the easement acquisition process, compensation for damages, and development of a site-specific plan for each cropland farm on which construction or maintenance is to be performed is provided in Common Issue 7.

- Commenters are concerned about the negative impact the project would have on agricultural on their property. Some commenters were specifically concerned about growing sorghum and cooking molasses down, how the line may affect the number of bees in the area, destruction of Bermuda field, impacts on rye and hay fields for cattle, destruction of pivot systems, and trying to work their fields around proposed poles.

Response:

The continued use of the ROW for routine agricultural practices such as livestock grazing, cultivating crops, grading and contouring, placement of fences, and installation of irrigation lines is permitted so long as activities within the ROW allow for maintenance of minimum clearance requirements as determined by the NESC and so long as no equipment, pipes, or other materials affect the transmission line structures. During construction and operations and maintenance, the use of the ROW for agricultural activities may be directly affected (see Section 3.2.6.2.3.1), and landowners or tenants may be restricted from accessing the ROW for a short period of time as described in Common Issue 6.

Potential impacts to bees are addressed in Section 3.4 of the Final EIS.

As described in Section 3.2.6.2 of the Final EIS, the placement of transmission line structures in agricultural fields would impact farming operations by increasing the amount of time spent in a field and may result in damage to crops because large farming equipment would need to be maneuvered around structures and could in turn lead to increased crop production costs.

Temporary and long-term impacts could be associated with center-pivot irrigation systems as described in Section 3.2.6.2 of the Final EIS and in Common Issue 2.

Landowners or tenants may experience temporary or permanent impacts resulting from placement of Project features on agricultural land. Information with regard to the easement acquisition process, compensation for damages, and development of a site-specific plan for each cropland farm on which construction or maintenance is to be performed is provided in Common Issue 7.

- Commenter states that because much of the agricultural land used by the project can be returned to production, project would have a smaller footprint than other power generation projects. Also notes that the one-time use of 5,916 acres is a very small portion of rural land development.

Response:

Comment noted. It is unclear where the number 5,916 acres appears, but the Final EIS has been revised to incorporate updated Project information. Section 3.10.6.2 and 3.10.6.3 of the Final EIS includes additional details on how estimated acreages of impact were calculated.

- Environmental protection measures (EPMs) that address agricultural impacts are listed on pages 3.2 9-10 (a complete list of EPMs is found in Appendix B of Appendix F). The Corporation proposes a lengthy list of conditions it will meet (e.g., EPM GE-8 states that it will install, maintain, repair, replace, or restore ("as required by regulation, road authority, or as agreed to by landowner") access controls such as cattle guards, fences, and gates. The DOE did not state how this will be accomplished. In the above example, would regulation outrank road authority? Would either regulation or road authority outrank a landowner's wishes?

Response:

The EPM listed in the comment is general in nature as to be inclusive of all situations that may come up with landowners. The Applicant would work with landowners to site access roads and temporary work areas and to ensure that access to existing operations is maintained as needed (EPM LU-4 and LU-1). Landowners or tenants may experience temporary or permanent impacts resulting from placement of Project features on agricultural land. Information with regard to the easement acquisition process, compensation for damages, and development of a site-specific plan for each cropland farm on which construction or maintenance is to be performed is provided in Common Issue 7.

With regard to the commenter's question about road authority, the Applicant would work with landowners or land managers and the appropriate local and state entities to identify a solution that is acceptable to the landowner and the applicable permitting agency concerning installation, maintenance, repair, replacement, and restoration of access controls. In most cases, the road authority would not have jurisdiction over access controls installed on private land; however, the Applicant would coordinate with these authorities if access controls are installed within public road ROW and as required during the permitting process.

- Does the Corporation take responsibility for loss of agricultural products such as escaped livestock that can reasonably be expected to occur when the Corporation accesses pastures in the maintenance of the line (the DOE acknowledged on page 3.2-11 that livestock may escape or be killed during construction). Does the Corporation agree to remunerate owners for livestock that are killed? Does the Corporation take responsibility for accidents (i.e., motor vehicles that may hit escaped livestock on roadways; in such accidents, the animal is often killed and vehicle occupants may be injured). Does the Corporation take responsibility for removal and transport of livestock from their pasture to another location during

construction of the line? Does the Corporation take responsibility for the health of livestock in pastures adjacent to construction areas (e.g., blasting could potentially cause livestock to stampede)? This is but one example, taken from 19 agricultural EPMs.

Response:

Landowners or tenants may experience temporary or permanent impacts resulting from placement of Project features on agricultural land. Information with regard to the easement acquisition process, compensation for damages, and development of a site-specific plan for each cropland farm on which construction or maintenance is to be performed is provided in Common Issue 7.

The Applicant would not displace or prohibit livestock from grazing in pastures as described in Common Response 8.

- Also not stated is how disputes arising between landowners and the Corporation during construction and maintenance of the line would be resolved.

Response:

A written easement agreement will state the rights and obligations of both the Applicant and the landowner with regard to any easement on a landowner's parcel. The easement agreement will state the rights and obligations of each party and, once executed by both parties, will apply for the entire time the easement is in effect, i.e., during the construction and operational phases of the Project. The easement agreement will contain a clause governing resolution of a dispute. If the landowner believes that Clean Line is in default of any of its obligations, the landowner will provide notice to the Applicant. The Applicant will have an opportunity to cure such default within a specified period of time. Under the agreement, both parties agree to first attempt to settle disputes with one another by good faith negotiation, and if they cannot, then all remedies at law or in equity are available to either party to resolve the dispute.

With regard to maintenance of the transmission line, the easement agreement would contain specific information about accessing the Project ROW for Project maintenance activities and conducting repairs to lands or landowner improvements within the ROW or used to access the ROW. In most cases, landowners would be contacted prior to maintenance being conducted on their land; however, this may not be feasible in emergency situations.

- The DOE states on page 3.2-11 that "The acres of lands used for livestock and grazing that would be affected by the Project represent a small share of the total acres used for livestock area within the representative ROW [right-of-way] and would result in relatively small temporary and long-term reductions in the area available for grazing within the representative ROW." For Region 4, it is stated on page 3.2-3 that the majority of land use is for pasture/hay. So in this region, at least, the impact to livestock operations may not be relatively small.

Response:

Section 3.2.5.4 of the Final EIS provides a regional description of the ROI for Region 4 and Table 3.2-5 provides a summary of the agricultural land use profiles for the region. Livestock comprises the majority of the market value of agriculture products sold in the county. The commenter disagrees with the cited statement that the impact to livestock would be relatively small in Region 4. While DOE agrees that livestock production make up a large portion of the agricultural land use profile for the region, the acres of land used for livestock represent a small share of the total acres used for livestock within the representative ROW, regardless of the region that is being analyzed.

- This section describes the ongoing disturbance that would be produced by operating the high voltage line/towers. The DOE states on page 3.2-21 that "most of" the land in the right-of-way "could be" returned to its previous use. However, the Corporation would prohibit the following: the building of structures, changing the grading, and changing land contours; the Corporation would restrict the following: building fences and irrigation lines. The landowners will not be able to access their land during maintenance.

Response:

The continued use of the ROW for routine agricultural practices such as livestock grazing, cultivating crops, grading and contouring, placement of fences, and installation of irrigation lines is permitted so long as activities within the ROW allow for maintenance of minimum clearance requirements as determined by the NESC and so long as no equipment, pipes, or other materials affect the transmission line structures. During construction and operations and maintenance, the use of the ROW for agricultural activities may be directly affected (see Section 3.2.6.2.3.1), and landowners or tenants may be restricted from accessing the ROW for a short period of time as described in Common Issue 6.

Landowners or tenants may experience temporary or permanent impacts resulting from placement of Project features on agricultural land. Information with regard to the easement acquisition process, compensation for damages, and development of a site-specific plan for each cropland farm on which construction or maintenance is to be performed is provided in Common Issue 7.

- Commenter encourages DOE to not approve the proposed route because the Project would severely disrupt their open ground operations. Commenter states that they have a livestock operation, a farming operation with precision level [graded] ground and that where the alternative route crosses their farm it would disrupt the flow patterns of the water of their irrigation systems. Commenter states the [transmission] towers would be in the way of their furrow gates and that the alternative route would disrupt their center pivot operations through the farm.

Response:

The DOE notes the commenter's opposition to the alternative route.

The location of Project features in relation to irrigation systems and other agricultural operations was reviewed by DOE and the Applicant as described in Common Issue 1.

The continued use of the ROW for routine agricultural practices such as livestock grazing, cultivating crops, grading and contouring, placement of fences, and installation of irrigation lines is permitted so long as activities within the ROW allow for maintenance of minimum clearance requirements as determined by the NESC and so long as no equipment, pipes, or other materials affect the transmission line structures. During construction and operations and maintenance, the use of the ROW for agricultural activities may be directly affected (see Section 3.2.6.2.3.1), and landowners or tenants may be restricted from accessing the ROW for a short period of time as described in Common Issue 6.

- Land in this area is predominantly comprised of small 160 acre family farms. Many of the family farms in this area were acquired and homesteaded as part of the Oklahoma Cherokee Strip Land Run of 1893. In most cases, these farms are owned and have been continually operated by the same families for 100 years or more. Some of these farms have been recognized by the Oklahoma Historical Society with the official distinction as an Oklahoma Centennial Farm—an honorary designation. The heritage of these properties should not be compromised by the construction of a commercial for-profit endeavor. In the general area of southern Garfield County and for several miles on either side of U.S. Highway 81 (the proposed location for this power line), these farms are owned by members of the same family; descendants of the homesteading families of the early 1900s—of which I am one. All stand united in opposition to this project. These family farms sustain themselves by the production of agricultural products—primarily wheat and cattle. To effectively grow crops and raise livestock frequently requires the application of agrichemicals applied by aerial spraying. Power transmission lines and their support towers would create a hazard to these aircraft and create an enormous liability to the organization that installs and operates this proposed power transmission line. As these farms are relatively small—approximately 160 acres each—the ratio of land that could not have agrichemicals applied due to this power line is significant and would cause a permanent reduction to their production and usable acreage. How would affected land owners be compensated for not only the land within the proposed easement, but also the compromised or permanent loss of nearby productive land?

Response:

Comment noted. The Oklahoma Centennial Farm and Ranch Program and the Arkansas Century Farm Program are designed to promote and celebrate the agricultural heritage of their respective states. Both are based on 100 or more years of documented, continuing family tenancy and operation of farms or ranches, whose current size and value of agricultural production meets specific, state-determined criteria. These programs are honorary, voluntary, and do not afford legal protections. Information from the Oklahoma and Arkansas Century Farm programs, along with data from similar programs operated by Texas and Tennessee, has been added to Section 3.9 of the Final EIS. The criteria by which centennial or century farms are certified are different from those used to identify and list historic properties on the federal NRHP, the Oklahoma Landmarks Inventory, or the Arkansas Register of Historic Places. Listing of an agricultural operation as a centennial or century farm or ranch does not necessarily mean that it contains buildings, structures, districts, objects, or landscapes that meet the criteria of these historic registers. As described in Section 3.9 of the Final EIS, the listing of an agricultural operation as a centennial or century farm should serve to alert architectural historians to the potential presence of

historic buildings or other elements that may be NRHP or state register eligible resources when surveys for the Project are conducted, in accordance with the Programmatic Agreement. The draft Programmatic Agreement is included in Appendix P of the Final EIS.

Temporary and long-term impacts related to aerial spraying operations would be as described in Common Issue 4.

Landowners or tenants may experience temporary or permanent impacts resulting from placement of Project features on agricultural land. Information with regard to the easement acquisition process, compensation for damages, and development of a site-specific plan for each cropland farm on which construction or maintenance is to be performed is provided in Common Issue 7.

- Commenter feels the impacts would not only last during construction, but after construction as well. Commenter notes that section 3.2.6.2 paragraph 3 of the Final EIS states that "direct impacts to animal feeding operations, within the representative right-of-way would be minimal." Commenter feels this statement is inaccurate and without a basis in fact. The Final EIS fails to produce any scientific basis for its conclusion that impacts to animal feeding operations would be "minimal." Commenter notes concern that any upgrade that they would be required to make to commercially feed cattle on the property would be prevented by project restrictions. Commenter feels they would effectively be precluded from using locations for feeding operations in the future.

Response:

The continued use and/or expansion of animal feeding operations within the ROW would not be considered an incompatible land use within the ROW during construction or operations and maintenance of the Project, and restrictions on land use within the ROW would be determined based on site-specific conditions and/or coordination with landowners.

Limitations on land uses would be described in the easement agreement; these limitations could be modified in the easement based on site-specific conditions and/or coordination with landowners. In an effort to reduce impacts to landowners, the Applicant would make reasonable efforts, consistent with design criteria, to accommodate requests from individual landowners to adjust the siting of the transmission line and associated structures within the 1,000-foot-wide corridor.

- Commenter questions the proposal by the Corporation to work with landowners to minimize impacts to specialty crops. If the land is not currently used for specialty production, but could be in the future, would installation of the HV line/towers preclude future consideration for specialty use? If landowners wish to convert to specialty use after construction of the line/towers, would the Corporation work with landowners whose land is already in specialty production?

Response:

The operation of a transmission line in proximity to specialty agriculture does not reduce eligibility for organic farm certification. As stated in EPM AG-4, the Applicant would work

with landowners and/or tenants to identify specialty agricultural crops or lands (e.g., certified organic crops or products that require special practices, techniques, or standards) that require protection during construction, operation, or maintenance. The Applicant would avoid and/or minimize impacts that could jeopardize standards or certifications that support specialty croplands or farms. This commitment to working with landowners who grow specialty crops is further described in the Applicant's Agricultural Impact Mitigation Policy provided in Appendix J of the Final EIS.

Conversion of land to specialty agriculture would not be precluded following completion of construction of the transmission line as the presence of a transmission line does not reduce eligibility for organic farm certification. Limitations on land uses would be described in the easement agreement; these limitations could be modified in the easement based on site-specific conditions and/or coordination with landowners.

- Commenter questions whether the impacts of the project on rice farming have been considered in the Draft EIS.

Response:

Rice is identified as one of the major cultivated crops in Regions 4, 5, and 6 and the use of flood irrigation is needed for rice production. Impacts to flood irrigation are summarized in Section 3.2.6.2 and are further detailed in Appendix J of the Final EIS. It is acknowledged that impacts to flood-irrigated fields may result in diminished yields to rice crops in these regions.

As part of the easement acquisition process, the Applicant would work with landowners and tenants to develop compensation that includes payment to the landowner for the transmission line easement, payment for each transmission line structure on the landowner property, and additional payments for damages to property and reduction in crop yield. Compensation would be developed in accordance with practices identified in Section 2.1.3 of the Final EIS and the Applicant's Agriculture Impact Mitigation Policy provided in Appendix J of the Final EIS.

- Commenter notes concern the present proposed route could cause a problem for aerial application. Further, the presence of the towers could also cause aflatoxin issues in corn production. Commenter is referring to Region 5, Link 9 and Region 6, Link 1, Variation 3.

Response:

DOE requested the Applicant examine the technical feasibility of two route changes requested by a landowner in this area. Upon further analysis, it was determined that the route would not be adjusted. While the requested route adjustments would potentially reduce impacts to agricultural operations it was determined after further review that these adjustments would cause greater impacts to forested and non-forested wetlands and would be located in close proximity to one residence. DOE has thoroughly reviewed other route options in this area and due to the presence of other constraints, the Applicant Proposed Route has not been adjusted.

It is assumed that the commenter is concerned about aerial application and the potential that if pesticides are not properly applied to crops that aflatoxin issues in corn production could potentially occur. DOE acknowledges that there would be temporary and long-term impacts to aerial spraying operations as described in Common Issue 4.

- Commenter would prefer his requested route, as this would not affect access to livestock. Commenter is referring to Region 3, Link 5, Variation 2.

Response:

DOE requested the Applicant examine the technical feasibility of a route change requested by a landowner in this area. Upon further analysis, it was determined that the route could be moved to avoid an existing residence that was not identified as part of the initial routing process. The specific details associated with the route variation are described in Appendix M and summarized in Section 2.4.2.3 of the Final EIS.

- Commenter requests the proposed reroute so that there would be no interference with the location of the barn, cattle pens, and the house. Commenter is referring to Region 3, Link 4, Variation 2.

Response:

DOE requested the Applicant examine the technical feasibility of a route change requested by a landowner in this area. Upon further analysis, it was determined that the route could be moved to avoid a new home site that the landowner is planning on constructing and an existing barn and cattle pens. The specific details associated with the route variation are described in Appendix M and summarized in Section 2.4.2.3 of the Final EIS.

- Commenter notes concern that the present route would interfere with furrow irrigation. By stopping part of the irrigation process it would cause reduction yields and the lack of proper irrigation would cause aflatoxin in corn. Commenter is referring to Region 6, Link 2, Variation 1.

Response:

DOE requested the Applicant examine the technical feasibility of a route change requested by a landowner in this area. Upon further analysis, it was determined that the route could be moved to increase the distance between a home and the representative ROW and to avoid interference with a center pivot irrigation system on a neighboring parcel. The specific details associated with the route variation are described in Appendix M and summarized in Section 2.4.2.6 of the Final EIS.

- Commenter notes that there is a feedlot and a system of pens located on this property that are an integral part of the cattle operation. For example, this feedlot is used to hold calves after they have been weaned as well as other times when they need to hold calves before moving them to other pastures, and for feeding the bulls prior to either selling them or using them in the operation. Placing the proposed route over this location will dramatically interfere with the day-to-day operations. Commenter notes concern that there is no way that a transmission line could come over this feedlot without fences, trees, and structures having to be removed.

The result being that they would have to find another place to keep and feed calves and bulls during construction; however, after careful consideration, they have concluded there is no other place that would have the same functional benefits for these operations as the current location. Commenter feels the impacts will not only last during construction, but after construction as well. Commenter notes that section 3.2.6.2 paragraph 3 of the Draft EIS states that "direct impacts to animal feeding operations, within the representative right-of-way would be minimal." Commenter feels this statement is inaccurate and without a basis in fact. The Draft EIS fails to produce any scientific basis for its conclusion that impacts to animal feeding operations would be "minimal." Commenter notes concern that any upgrade that they would be required to make to commercially feed cattle on the property would be prevented by project restrictions. Commenter feels they would effectively be precluded from using locations for feeding operations in the future.

Response:

The Applicant is aware of the location of the agricultural facilities described in this comment and discussed the feeding operations taking place on this property with the landowner. The continued use and/or expansion of animal feeding operations within the ROW would not be considered an incompatible land use within the ROW during construction or operations and maintenance of the Project, and restrictions on land use within the ROW would be determined based on site-specific conditions and/or coordination with landowners. Limitations on land uses would be described in the easement agreement; these limitations could be modified in the easement based on site-specific conditions and/or coordination with landowners.

The location of Project features in relation to agricultural operations was reviewed by DOE and the Applicant as described in Common Issue 1.

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14 Air Quality and Climate Change

The following comments were received relative to Air Quality and Climate Change:

- The EPA has several comments and recommendations regarding air quality. The Draft EIS (Chapter 3, Section 3.3 and/or Appendix H) appears to be lacking detailed discussion of mitigation measures for construction-related and fugitive dust emissions. The EPA suggests the Final EIS provide the following information and statements as appropriate: (1) EPA acknowledges that as the project(s) are developed, analyzed and constructed, the potential environmental impacts will be addressed by the applicable permitting authorities (Arkansas DEQ and/or Oklahoma DEQ, DOE) and EPA Region 6 through the various permitting actions, approvals, and studies as required by law; (2) Any project involving prescribed burning should be done in accordance with all local, state, and federal requirements and consistent with applicable Smoke Management Guidelines for each state; (3) EPA asks that the following suggested mitigation measures be included to reduce impacts associated with emissions of fugitive dust, particulate matter, and other pollutants from any planned construction-related activities. The EPA recommends the following fugitive dust source controls: stabilize open storage piles and disturbed areas by covering and/or applying water or chemical/organic dust palliative where appropriate at active and inactive sites during workdays, weekends, holidays, and windy conditions; install wind fencing and phase grading operations where appropriate; operate water trucks for stabilization of surfaces under windy conditions; and prevent spillage when hauling material and operating non-earth-moving equipment; and limit speeds to 15 miles per hour. Limit speed of earth-moving equipment to 10 mph. The EPA recommends the following mobile and stationary source controls: plan construction scheduling to minimize vehicle trips; limit idling of heavy equipment to less than 5 minutes and verify through unscheduled inspections; and maintain and tune engines per manufacturer's specifications to perform at EPA certification levels, prevent tampering, and conduct unscheduled inspections to ensure these measures are followed.

Response:

(1) As the Project is developed, analyzed, and constructed, the potential environmental impacts will be addressed by the applicable permitting authorities and EPA Region 6 through the various permitting actions, approvals, and studies as required by law.

(2) In the event that any controlled burning activities will be performed as part of the Project activities, they will be performed in accordance with all local, state, and federal requirements and consistent with applicable Smoke Management Guidelines for each state. A brief discussion has been added to Section 3.3.1.2 of the Final EIS.

(3) Section 3.3.6.4, Best Management Practices, of the Final EIS has been updated to include the various fugitive dust source controls presented above. In addition, the specific mobile and stationary source controls specified in the comment above have been addressed in Section 3.3.6.4 of the Final EIS.

- The Draft EIS briefly acknowledges the air quality benefits that will result from operation of the Plains & Eastern Clean Line, but in our view, should give these benefits far more prominence in order to fully inform the public of the tradeoffs associated with this project.

The Draft EIS calculates that the avoided emissions associated with the project, each year, are up to 11,100 tons of NO_x, 33,000 tons of SO_x, 14 million tons CO_{2e}, and approximately 200 pounds of mercury. Putting these numbers in context, the Draft EIS notes that even 1 year of emissions reduction far exceeds the combined emissions increases associated with the construction of the Project and the wind farms. DOE also helpfully notes that the carbon emission reductions associated with the project, while small in one sense, are meaningful in light of the fact that the electric power generation sector is responsible for over 40 percent of the United States' carbon emissions. Moreover, this annual greenhouse gas emission reduction is equivalent to taking nearly 3 million cars off the road for 1 year. We urge DOE to go one step further and put these emission figures in perspective using the federal Social Cost of Carbon figures, which allow the agency to put these bare emission figures into terms that are more meaningful to the public and decision-makers. The benefits of stimulating the development of renewable energy go far beyond cut-and-dry figures about avoided greenhouse gas emissions and net public benefits. A revised Final EIS must include discussion of the many tangible impacts of climate disruption. These include increased severe weather events, increased smog formation, and intensified drought—a climatic change that many areas of the nation are already experiencing. Many of the ecosystems and wildlife in the area affected by the proposed Clean Line project are already stressed by drought, and the role of the renewable energy spurred by the project in alleviating those conditions should not be ignored, though it may be difficult to quantify. As the chief scientist at the Audubon Society has noted, climate change itself poses a larger threat to bird species than does renewable energy development. Both habitat preservation and reduced emissions of greenhouse gases are critical to maintaining healthy and diverse wildlife populations.

Response:

Comment noted. Regarding the use of EPA's Social Carbon Cost tool and figures, the tool provides monetized values, on a global level, of addressing climate change impacts and is intended for estimating the climate benefits of rulemakings and policy alternatives. The availability of this tool is recognized; however, as presented in a recent Order Denying Hearing issued to the Sierra Club by FERC regarding the Corpus Christi Liquefaction Project and Cheniere Corpus Christi Pipeline Project (FERC 2015), it has been determined that the Social Carbon Cost tool is not appropriate or informative to use for the Project for the same reasons presented on paragraph 51 in the Order Denying Hearing: (1) the EPA states that "no consensus exists on the appropriate [discount] rate to use for analyses spanning multiple generations" (EPA 2013) and consequently, significant variation in output can result; (2) the tool does not measure the actual incremental impacts of a project on the environment; and (3) there are no established criteria identifying the monetized values that are to be considered significant for NEPA purposes.

While the tool may be useful for rulemakings or comparing alternatives using cost/benefit analyses where the same discount rate is consistently applied, it is not appropriate for estimating a specific project's impacts or informing this analysis under NEPA.

With regard to including a discussion of the impacts associated with climate disruption, Section 4.3.3 of the Final EIS has been modified to include further discussions of climate change and was prepared in accordance with the recent CEQ Revised Draft Guidance for

Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in NEPA Reviews (CEQ 2014).

- Commenter states that if the six states in our Southeast region were viewed as a country, it would rank seventh in the world for its contribution to global warming. With its high concentration of coal-burning power plants, rapid growth and high rates of driving, the South is disproportionately contributing to climate change. And with our extensive, vulnerable coastline, we stand to suffer the effects of climate change disproportionately as well. Carbon dioxide emissions constitute the largest fraction of total greenhouse gas emissions in the U.S. Fossil-fuel fired power plants are the largest sources of these CO₂ emissions. Fossil-fuel fired power plants, like those heavily relied upon by Southeastern utilities, "are by far the largest emitters of GHGs, primarily in the form of CO₂, among stationary sources in the U.S." By displacing fossil-fuel generation in the Southeast, the Project would thus incrementally reduce the global CO₂ burden. Swift and decisive action to slash CO₂ emissions is imperative to mitigate severe ecological, sociological, and economic impacts from climate change. We therefore encourage DOE to take into account Clean Line's potential to reduce carbon emissions from Southeastern utilities when weighing its decision whether to move forward with the Project.

Response:

Comment noted.

- Commenter notes their Office of Energy Programs recommends that the Final EIS include discussion of potential reductions in air emissions that may indirectly result from the proposed project. Commenter also notes that the Final EIS should discuss the resiliency of the overall project to effects of climate change, such as extreme weather events and short- and long-term changes in local climates.

Response:

A discussion of the potential emissions reduction that may indirectly result from the Project was presented in Section 3.3.6.8.1.2 of the Final EIS.

Regarding the portion of the comment to include a discussion considering the resiliency of the overall Project to the effects of climate change, Section 3.8.5.2.1.4 of the Final EIS discusses the potential impacts associated with natural events and disasters on Project facilities and the measures being implemented to avoid or minimize those impacts. Additionally, further climate change discussions have been incorporated into Section 4.3.3 of the Final EIS. If the commenter is referring to the effects the Project has on climate change, those are discussed in Section 3.3.6 of the Final EIS.

- Commenter states DOE's analysis of emissions impacts in Section 3.3.6 could be improved by addressing the potential effects of vegetation clearing activities. Specifically, DOE should discuss the potential for construction of the HVDC transmission line to result in the clearing of forested areas and provide a qualitative assessment of how such activities will have impacts on carbon sequestration and storage. Clean Line has estimated that the amount of loss of CO₂ sinks was 24,069 metric tons of CO₂-e per year over the life of the Project. This

amount is more than offset by displaced CO₂-e (Draft EIS, Page 3.3-25 line 24). See Section 4.1.2 of Clean Line's Air Quality and Climate Change Technical Report (Dec 2013) for the methodology used and results of Clean Line's analysis. This comment also applies to Section 3.17 regarding Vegetation Communities. The delivered capacity of the Project and the estimate of energy delivered on an annual basis remain unchanged. (These assumptions are described in the Wind Generation Technical Report Section 12.3, "Air Quality and Climate Change Potential Impacts, Avoidance, and Minimization during the Operations and Maintenance Phase," pp. 232-233, dated March 2014 and supplemented in May 2014.) The updated model estimates displaced emission rates as follows: approximately 0.00027 tons NO_x/megawatt hour (MWh), 0.00055 tons SO_x/MWh, 0.667 tons CO₂/MWh, and 0.0000097 pounds mercury/MWh. Updated estimates for displaced emissions follow: NO_x 4,620 to 5,260 TPY; SO_x 9,330 to 10,610 TPY; CO₂ 11.3 to 12.8 million TPY; mercury 0.1 TPY (approximate). DOE should note that the difference low end of the emissions displacement range is the effect of wind energy delivered into the Shelby Substation, while the high end of the emissions displacement range includes wind energy delivered via the Arkansas Converter Station alternative.

Response:

The interaction between forests and climate is more complex than simple uptake of CO₂ during photosynthesis (a "carbon sink," as opposed to a "carbon source"); as identified by Intergovernmental Panel on Climate Change (IPCC) in its Fourth Assessment Report (AR4) (Barker et al. 2007):

The growing understanding of the complexity of the effects of land-surface change on the climate system shows the importance of considering the role of surface albedo, the fluxes of sensible and latent heat, evaporation and other factors in formulating policy for climate change mitigation in the forest sector. Complex modelling tools are needed to fully consider the climatic effect of changing land surface and to manage carbon stocks in the atmosphere, but are not yet available.

In the IPCC's Fifth Assessment Report (AR5), it was noted that (Smith et al. 2014):

For example, a decrease in tropical forests has a positive climate forcing through a decrease in evaporative cooling. . . An increase in coniferous-boreal forests compared to grass and snow provides a positive climate forcing through lowering albedo. . . There is currently low agreement on the net biophysical effect of land-use changes on the global mean temperature. . . Rising temperatures, drought, and fires may lead to forests becoming a weaker sink or a net carbon source before the end of the century. . .

In response to comments, the Final EIS, in Section 3.3.6.8.1.2, estimated the direct CO₂ changes associated with (a) accounting for the loss in net CO₂ uptake of the approximately 4,600 acres of removed trees (i.e., that associated with their growth) and (b) burning all of the removed trees as waste (worst-case scenario, compared to the wood being used for building, or displacing the combustion of other wood that would have been combusted anyway) for purposes of comparing this loss of CO₂ uptake to the CO₂ reductions that would be associated with the utilization of wind in the electricity generating system.

As documented by Smith et al. (2006), the rate at which a forest uptakes carbon is a function of the age of the forest. The majority of the uptake is by the trees themselves, although there

are also contributions from standing dead trees, down dead wood, and the forest floor, and very minor offsets for decreases in understory vegetation over time. Data presented in Appendix A of Smith et al. (2006), “Methods for Calculating Forest Ecosystem and Harvested Carbon with Standard Estimates for Forest Types of the United States,” for forests in the South Central United States—i.e., elm-ash-cottonwood, loblolly-shortleaf pine, oak-gum-cypress, oak-hickory, and oak-pine—show average net uptakes over 90 years averaging approximately 0.5–0.7 metric tonnes (MT) of carbon per acre per year (MT C/acre-yr), with loblolly pine being on the lower end of that range, and the other species being on the upper end of that range, although uptakes for older forests are somewhat lower (e.g., for 80-year old forests, the uptake rates are approximately 0.3 MT C/acre-yr for loblolly-shortleaf pine, 0.42 MT C/acre-yr for oak-pine, and 0.54–0.58 MT C/acre-yr for the other forest types). Of the 4,600 acres of trees removed for this Project, approximately 3,000 acres were identified as deciduous, 1,200 were evergreen (including but not necessarily limited to loblolly-shortleaf pine), and the remainder were “mixed forest.” Based on average uptake rates presented in Smith et al. (2006) of 0.4–0.6 MT C/acre-yr, the corresponding decrease in annual CO₂ uptake would be approximately 1.5–2.2 MT CO₂/acre-yr or approximately 7 to 10 thousand MT CO₂/yr. This uptake rate is insignificant compared to the reductions of 12 to 14 million MT CO₂/yr of electricity emissions that wind farms would produce as presented in Section 3.3.6.8.1.2 of the Final EIS.

If it were conservatively assumed that all of the harvested trees were to be burned as waste (i.e., rather than being burned in place of other wood that would otherwise normally be combusted, or be used for useful purposes), there would be CO₂ emissions associated with that as well. Carbon densities per acre are highly dependent on the forest age. However, if a density of 60 MT C/acre were conservatively chosen (corresponding to non-loblolly-pine forests averaging 80–90 years old, and the densities of the loblolly-pine forests, which have densities closer to 40–50 MT C/acre at that age), the corresponding CO₂ emissions from waste wood combustion would be approximately 1 million MT CO₂. While this is a substantial amount of CO₂, (a) the calculation of these emissions is conservative and (b) it is a one-time event (i.e., these CO₂ emissions would not be occurring annually).

Section 3.3.6.8.1.2 of the Final EIS has been modified to specifically explain the difference in the low end and high end of the emissions-displacement range.

- Commenter states that the EIS must address impact of increase of transmission capacity if varying levels of capacity are used by fossil fuel generated electricity.

Response:

The objective of the Project is to accommodate the actual and projected increase in demand for additional electric transmission capacity to deliver renewable energy from western SPP to load centers in the southeastern United States. Installation of HVDC transmission technology includes the ability for bi-directional power flow, or the flow of power in either direction through the converters. As presented in Section 2.1.2.2 of the Final EIS, power would flow from the wind farms (directly connected to the Oklahoma converter station via the AC collection system) in an eastward direction with power injection in Arkansas (under a DOE alternative) and Tennessee. Because of its unique characteristics as a DC

interconnection, system operators in each of the three states could utilize the Project to help stabilize the regional electric grids by changing the direction of power flow in sub-second intervals. In these rare conditions, power could be injected from the Project to the western SPP in Oklahoma. The power for injection into the Oklahoma grid could come from either of two sources: (1) power generated from the wind farms connected through the AC collection system, or (2) power from the Arkansas or Tennessee electrical grids temporarily flowing westward into Oklahoma. However, as presented in the Final EIS, the use of this increase transmission capacity is to help stabilize regional electrical grids, which in turn does not necessarily increase electrical production via the combustion of fossil fuels. Increased transmission capacity, therefore, has a negligible impact on the combustion on fossil fuels.

- Commenter states the project will help Obama reach his target of a 28 percent reduction in greenhouse gas emissions by the year 2025. This project will help the U.S. be a leader in the climate change movement. The benefits of this project overwhelmingly exceed any cost.

Response:

Comment noted.

- Commenter is concerned that the number of huge wind mills in Oklahoma could change weather patterns.

Response:

There has been some research performed assessing the potential impacts on weather patterns from wind turbines. A recent study conducted by France's Laboratory for Climate and Environmental Sciences (Vautard 2014) indicates that climate impacts from wind installations would be limited but could have the potential to alter regional climate. However, the study concluded that in a worst-case scenario, wind farm impacts will be far below normal variability in weather and repercussions for man-made climate change. Any impacts that may result from the wind farm would "remain much weaker than the natural climate interannual variability and changes expected from greenhouse gas emissions." Keith et al. (2004) found that large-scale "wind power has a negligible effect on global-mean surface temperature, and it would deliver enormous global benefits by reducing emissions of CO₂ and air pollutants." The wind farms may have a localized effect on surface temperatures in the vicinity of the wind farm. Zhou et al. (2013) and Henschen et al. (2011) indicate that the climate around large wind farms would experience slight surface temperature fluctuations (tenths of a degree) due to vertical mixing. Depending on the time of the day, air properties, wind direction, etc. surface temperatures may slightly increase or decrease. In fact, these slight surface temperatures can actually provide beneficial effects for agricultural land near the wind farms. For example, nocturnal warming of ambient air could protect crops from frost. Although the potential for slight climatic effects on a localized basis near the wind farm may occur, this effect appears to be negligible and the overall benefit from the reduction in GHG emissions far out-weighs any potential negative climatic effects.

- Commenter feels that Clean Line is not a solution for EPA Clean Power Plan (CPP) carbon dioxide reduction regulations. Power generated outside a state, like Arkansas, does not help Arkansas meet the EPA CPP.

Response:

Comment noted.

- Commenter questions the analysis of criteria pollutants and greenhouse gases, as there is no means to compare the estimated airborne concentration of carbon monoxide emissions in the work zone with the values given in Tables 3.3-18 and 3.3-20 of the Draft EIS. States that it is unclear if DOE assumes or has calculated the airborne CO concentrations to be below, equivalent, or higher than the standard of 9 ppm per 8/hr averaging time and 35 ppm over one hour. Commenter also requests that expected particle concentration and size be provided for the construction zone in cubic units of air. Also requests that the impacts on residents and others from construction-generated particulate matter be described, as particle concentrations above a certain level may require limited exposure for individuals with specific health conditions.

Response:

Air emission concentrations from construction activities were not modeled because of the extreme variability in all the factors that produce emissions during construction (i.e., distance from the sources [and the sources are almost constantly in motion—idling will be limited to less than 5 minutes and verified through unscheduled inspections], engine load [which changes], meteorology, and other factors) and the expected ephemeral nature of the very low concentrations that might occur. Nevertheless, carbon monoxide is much less of an issue now than it used to be; as of 2010, there were no more nonattainment areas (i.e., areas that did not attain either the 1-hour average concentration standard of 35 ppm—which corresponds to approximately 40,000 micrograms per cubic meter—or the 8-hour average concentration standard of 9 ppm, which corresponds to approximately 10,000 micrograms per cubic meter) anywhere in the United States. Emissions standards required for new “nonroad” diesel engines (i.e., the class used in construction equipment) were enacted starting in the late 1990s, and have become more stringent since then. For example, for engines larger than 175 horsepower (hp), the standards were 11.4 grams per kilowatt hour (g/kWh) initially but dropped to 3.5 g/kWh starting in model years 2001–2006. For particulate matter, most of the emissions associated with construction activity are those associated with “fugitive dust” generated by the disturbance of dirt in unpaved areas; these particles are predominantly relatively large—i.e., larger than the “fine” classification of and even larger than the classification of 0.01 mm in diameter (PM₁₀, for which the ambient air quality standard is 150 micrograms per cubic meter over a 24-hour period). These emissions are in turn a function of many factors, including the silt content and moisture content of the dirt. To minimize fugitive dust, watering equipment will be utilized (> 0.003 mm and even > 0.01 mm). Particulate concentrations in the air can be high in the construction zone during times when earth disturbance is occurring, but decrease rapidly with distance (more rapidly than predicted by air dispersion models). The NAAQS themselves are based on relatively long averaging times (24-hour average and annual average) that average short-term high concentrations, when an emissions activity is occurring nearby, with low concentrations when an emissions activity is dormant or further away. Most of the emissions from diesel exhaust will be “fine” particulate matter (0.0025 mm in diameter (PM_{2.5}, for which the ambient air quality standards are 12 micrograms per cubic meter on an annual average basis and 35 micrograms per cubic meter over a 24-hour period) and, like CO, have been

progressively controlled over time, to levels that are roughly an order of magnitude—10 times—less than the CO emissions standards. But in general the quantity of these emissions will be much smaller than the quantity of fugitive dust emissions.

- Commenter states Region 4 is the Arkansas River Valley Region and, according to Figures in Appendix A commences in eastern Oklahoma at Webbers Falls and ends in Arkansas north of Russellville. Table 3.3-5 in Section 3.3 of the Draft EIS lists ambient monitoring sites for the criteria pollutants. The only monitoring site in Arkansas that is listed is for lead, in Pulaski County (the location of the capital city Little Rock, which is not representative of Region 4; however missing is the means to compare the estimated airborne concentration of carbon monoxide emissions in the work zone with the values given in the tables. It is unclear if the DOE assumes (or has calculated) that 61.2 tons and 26.8 tons of carbon monoxide per 140 mile segment comports to an airborne carbon monoxide concentration that is below, equivalent to, or higher than the standard of 9 ppm per 8-hour averaging time and 35 ppm over one hour. Fugitive dust emissions for particulate matter are also given in units of tons per 140 mile segment. It would be useful to know the expected particle concentration (and size) in the construction zones in units of $\mu\text{g}/\text{m}^3$ and also useful to know how residents and other people in the area are expected to be impacted by particulate matter generated from the construction. If particle concentrations are above a certain level, some individuals (e.g., those with heart or lung disease, asthmatics) would need to limit their exposure (no level is given for lead at this station). An ozone monitoring station exists in Deer, Arkansas (located north of Region 4), for which data are available. Are data from this station relevant?

Response:

See the response to the previous comment. Fixed monitoring sites typically collect data that characterize the ambient air, but they are not designed to characterize exposures near sources of air pollution. In general, there is a greater potential for particulate matter concentrations to be of concern than for CO concentrations to be of concern. Since particulate matter concentrations tend to be higher on the construction site during earth disturbing activities, sensitive members of the population should avoid entering or being in close proximity to the construction work zone. Also as mentioned in the previous comment response, particulate concentrations in the air decrease rapidly with distance. Additionally, construction activities would be temporary and the contractors performing these activities would implement the EPMs listed in Section 3.3.6.1 of the Final EIS to minimize impacts to air quality. Therefore, potential impacts to any sensitive receptors that may be located near a construction site would be minimal.

- Commenter states that the transmission line will not take any coal plant off line and believes the amount of carbon reduction is greatly exaggerated.

Response:

Comment noted; however, as presented in Section 3.3.6.8.1.2 of the Final EIS, the Applicant utilized the most current commercially available simulation model (PROMOD Version 10.1; Ventyx 2014) to determine the best estimate of which power sources would be displaced and what the corresponding emissions reductions would be.

15 Electrical Environment

The following comments were received relative to electrical environment:

Human Health-Related Comments

- Commenters oppose the project because they believe that the transmission line is a potential health hazard. Commenters state there is evidence reported in numerous medical papers that living in an electromagnetic field generated from high voltage transmission lines can cause blood and neurological disorders, increase the risk of Lou Gehrig's disease and leukemia, Alzheimer's disease, sleeping disorders, breast cancer in men and women, reproductive problems and birth defects, depression, suicide, heart disease, neurodegenerative diseases and cancer. Commenters mention a list of published research papers compiled by Powerwatch group which identifies over 300 papers relating to EMF from power lines, with over 200 of these papers showing a link between this type of radiation and harmful biological effects. Commenters are therefore concerned about the health of family members, wildlife, and children that will be located near the proposed transmission line and are also concerned about the impacts from long-term exposure.
- Commenters note that the Department of Energy's report states that long term electrical impacts include electric and magnetic fields, that research available on health impacts of magnetic field exposure is not definitive (i.e. no conclusions can be drawn based on what is presently known), and proof that health issues will not be caused by the transmission lines needs to be established and/or mitigating actions proposed to prevent any health issues. However, a Commenter also states that all scientific bodies who have reviewed the safety of power lines concur that there is no compelling evidence of harm from living near power lines.

Response:

Health studies and concerns cited by commenters refer to AC field effect studies rather than DC field effects. The majority of the Project consists of a ±600kV HVDC overhead electric transmission line (approximately 720 miles in length) rather than the shorter segments of AC transmission line. A new section, 3.4.2.3, was added to the Final EIS that addresses the differences between AC and DC electric and magnetic fields.

For the proposed DC transmission line, research has been conducted in the United States and around the world to determine whether exposure to static DC electric and magnetic fields has human or animal health effects. Studies have shown no consistent evidence of adverse human or animal health effects for exposure to levels comparable to those encountered underneath DC transmission lines. Some DC electric field effects, such as hair sensation (the perception experienced by electrical stimulation of the hair on the arm or head) and spark discharges or micro-shocks (a person touches a grounded object and discharges built-up voltage) may be annoying or uncomfortable to experience. Section 3.4.11.2.3.2.6 in the Final EIS presents information on health studies associated with high-voltage DC transmission lines.

For the proposed AC transmission lines, research has been conducted in the United States and around the world to determine whether exposure to power-frequency AC electric and

magnetic fields has human or animal health effects. This research includes epidemiological studies, laboratory studies of animals and cell tissues, and multi-disciplinary reviews (or pooled analysis). Some studies have reported a statistical association between magnetic fields and health outcomes while other studies have not. The NIEHS report to the U.S. Congress, at the conclusion of its multi-year EMF Rapid Program, summarized its research by stating that the probability that extremely low frequency electric and magnetic field exposure is truly a health hazard is currently low, and that the weak epidemiological associations and lack of any laboratory support for these associations provide only marginal, scientific support that exposure to this agent is causing any degree of harm. The NIEHS stated that, for most health outcomes, there is no evidence that electric and magnetic fields exposures have adverse effects, but there is some evidence from epidemiology studies that exposure to power-frequency magnetic field is associated with an increased risk for childhood leukemia. (However, this association is difficult to interpret in the absence of reproducible laboratory evidence or a scientific explanation that links magnetic fields with childhood leukemia.) The general consensus among researchers and the medical and scientific communities is that there is insufficient evidence at this time to conclude whether magnetic fields are a cause of adverse health issues or not. Section 3.4.11.2.1.2.2.7 in the Final EIS presents information on health studies associated with high voltage AC transmission lines.

In the Final EIS, Section 3.4.11.2.1.2.2.7 was also expanded to include a discussion on the merits of using an individual scientific study versus multidisciplinary expert panel reviews of the overall available scientific literature. While individual scientific studies may provide support for a given hypothesis of potential health impacts, a thorough literature review is helpful in determining the scientific consensus, where one exists. Individual studies do not provide a comprehensive view of what is known in any field of science. When these studies are collectively evaluated scientifically, a balanced perspective is provided.

Multidisciplinary expert panels, acting on behalf of a number of national and international health and scientific agencies, and numerous health organizations have reviewed the available scientific literature regarding potential health effects of electric and magnetic fields and concluded that there are no known adverse health impacts from the electrical and magnetic fields associated with AC transmission lines. Using a systematic identification and review of the relevant literature for a specific exposure and potentially related health outcome, none of these agencies found reliable evidence of biologically harmful effects. These panels and organizations have also looked at power-frequency electric and magnetic fields and have concluded that the association between AC magnetic fields and adverse health effects is weak.

Research regarding potential health effects of electric and magnetic fields is continuing, although there are no conclusive findings and no compelling evidence of cause and effect or dose response that EMF is related to health issues.

- Commenters state that the EIS dismisses health impacts. However commenters own search of EMF-related research shows the opposite. A pamphlet the commenter received at the Muskogee meeting states that the panel classified power frequency EMF as a possible

carcinogen to humans based on fairly consistent statistical association between a doubling of risk of childhood leukemia and magnetic field exposure. Also, the information was outdated.

Response:

The pamphlet handed out to the commenter is the NIEHS EMF Questions and Answers booklet dated June 2002. Chapter 6 of the pamphlet discusses the results of national and international EMF reviews on research. In this section (page 54) entitled “World Health Organization International Agency for Research on Cancer,” the statement is made: “The panel classified power-frequency [AC] EMF as “possibly carcinogenic to humans” based on a fairly consistent statistical association between a doubling of risk of childhood leukemia and magnetic field exposure above 0.4 microtesla (0.4 uT, 4 milligauss or 4 mG)” which is what the commenter cites.

Based on an evaluation of the available 2001 data, the International Agency for Research on Cancer (IARC) working group did classify power-frequency magnetic fields as possibly carcinogenic to humans (Group 2B)(IARC 2002). For comparison, IARC also lists coffee and pickled vegetables as Group 2B carcinogens. This Group 2B classification is applicable only to the AC transmission line magnetic fields connecting the wind farms and other substations to converter stations (i.e. power-frequency EMF) and not to the Clean Line HVDC transmission line (which produces DC electric and magnetic fields). Power-frequency electric fields and static DC electric and magnetic fields are defined by IARC as not classifiable as to their carcinogenicity (Group 3). The Clean Line HVDC transmission line DC fields would be included in this Group 3 category.

Section 3.4.11.2.1.2.2.7 presents information on health studies associated with high voltage AC transmission lines, including childhood leukemia. Although the NIEHS pamphlet is dated (June 2002), the overall conclusions from more recent scientific research remain unchanged as possible but inconclusive for AC magnetic fields and childhood leukemia. For example, Section 3.4.11.2.1.2.2.7 was expanded in the Final EIS to include a 2015 multidisciplinary expert panel review of the overall available scientific literature by the Scientific Committee on Emerging and Newly Identified Health Risks, which is an agency of the European Commission. The committee’s 2015 report reaches a similar conclusion to its 2009 report: “Overall, existing studies do not provide convincing evidence for a causal relationship between [extremely low frequency magnetic field] exposure and self-reported symptoms.”

Section 3.4.11.2.3.2.6 in the Final EIS presents information on health studies associated with high-voltage DC transmission lines. DC magnetic fields have not been reported as associated with an increased risk in childhood leukemia.

- Commenter notes there have been published studies indicating childhood leukemia associated with these lines, particularly in children under 5. Studies include a 2012 study involving HVDC lines that refute the document’s claim of no negative impact. The study shows that exposure to EMFs cause’s childhood leukemia. Other childhood cancer cannot be ruled out.

Response:

The commenter's reference to a 2012 study appears to be related to AC fields rather than DC fields. Section 3.4.11.2.1.2.2.7 presents information on health studies associated with high voltage AC transmission lines, including childhood leukemia. In the Final EIS, Section 3.4.11.2.1.2.2.7 was also expanded to include a discussion on the merits of using an individual scientific study versus multidisciplinary expert panel reviews of the overall available scientific literature. While individual scientific studies may provide support for a given hypothesis of potential health impacts, a thorough literature review is helpful in determining the scientific consensus, where one exists. Individual studies do not provide a comprehensive view of what is known in any field of science. When these studies are collectively evaluated scientifically, a balanced perspective is provided. Multidisciplinary expert panels, acting on behalf of a number of national and international health and scientific agencies, and numerous health organizations have reviewed the available scientific literature regarding potential health effects of electric and magnetic fields and concluded that there are no known adverse health impacts from the electrical and magnetic fields associated with AC transmission lines. Using a systematic identification and review of the relevant literature for a specific exposure and potentially related health outcome, none of these agencies found reliable evidence of biologically harmful effects. These panels and organizations have also looked at power-frequency electric and magnetic fields and have concluded that the association between AC magnetic fields and adverse health effects is weak.

Section 3.4.11.2.3.2.6 in the Final EIS presents information on health studies associated with high-voltage DC transmission lines. DC magnetic fields have not been reported as associated with an increased risk in childhood leukemia.

- Commenters note that the EIS does not present an explanation of magnetic fields and questions the minimal effects claimed in this section. Commenters note concern that the high voltage transmission line emits magnetic fields which may have negative health effects. The EIS is inadequate because it does not present a balanced explanation of magnetic fields and recommended levels of avoidance via the Precautionary Principle. Modeling results provided by the EIS (Appendix I) show elevated levels far above 2mG at ROW edge, whether based on a 200-foot-wide or 150-foot-wide ROW.

Response:

Section 3.4.2 in the Final EIS presents information on magnetic fields in general and how they are created by sources such as transmission lines. The commenter's statement appears to be related to AC fields rather than DC fields. Section 3.4.11.2.1.2.2.7 presents information on health studies associated with high voltage AC transmission lines. In the Final EIS, Section 3.4.11.2.1.2.2.7 was also expanded to include a discussion on the merits of using an individual scientific study versus multidisciplinary expert panel reviews of the overall available scientific literature (i.e. a balanced explanation of study results). Overall, panels and organizations have looked at power-frequency electric and magnetic fields and have concluded that the association between AC magnetic fields and adverse health effects is weak. Section 3.4.11.2.3.2.6 presents information on health studies associated with high-

voltage DC transmission lines. DC magnetic fields have not been reported to be associated with negative health effects.

The Precautionary Principle of risk management states that if an action or policy has a suspected risk of causing harm to the public or to the environment, in the absence of scientific consensus that the action or policy is not harmful, the burden of proof that it is not harmful falls on those taking an action. (Section 3.4.11.2.1.2.2.7 has been updated to include the definition of the Precautionary Principle.) However, scientific consensus from multidisciplinary expert panels and numerous health organizations has concluded that the association between AC magnetic fields and adverse health effects is weak, and DC fields have not been reported as associated with negative health effects.

For AC transmission line fields and health effects, the 2mG limit is addressed in the 1992 EPA report as follows (EPA 1992):

There is no number to which we can point and say “That is a safe or hazardous level of EMF exposure.” We do not yet know what if any magnetic field levels are safe or unsafe. The level of 2 mG is an arbitrary value used in some epidemiological studies to place people in broad exposure categories. Some other level could have been used. But, because no dose/response relationship has yet to be determined for EMFs, we cannot establish a level which would be considered safe or unsafe. As a result, neither the EPA nor any other federal regulatory agency has established a standard for EMFs.

There are no U.S. state government or federal government health-based limits established for electric and magnetic fields, and no states where the Project is proposed to be located have any state-mandated electric and magnetic field limits.

- Commenter is concerned that the proximity to power lines may be causing autism in young children.

Response:

Studies to-date have not associated proximity to AC or DC transmission lines or their electric or magnetic fields with an increased risk in autism. Text was added to Section 3.4.11.2.3.2.6 (health studies associated with high-voltage DC transmission lines) and Section 3.4.11.2.1.2.2.7 (health studies associated with high voltage AC transmission lines) to address autism with respect to transmission line noise. Hypersensitivity to noise can be one of the concerns for some children with autism. Engineers take steps in the design of transmission lines to keep noise levels low by using larger or multiple conductors for each phase and hardware with smooth and curved surfaces. In fair weather, the audible noise from a transmission line at a distance of several hundred feet and beyond would not be possible to measure in comparison to background levels. At that distance under rainy conditions, it would be very low as well, with the noise of falling rain or wind masking the transmission line noise. The audible noise section will also be updated to explain the characteristics of transmission line audible noise (see Audible Noise, Section 3.4.3).

- Commenters state that studies indicate that there are problems with electromagnetic waves (EMW) for someone with seizures. Commenter refers to a website (<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3659130/>) that discusses the effects of

higher frequency EMW on initial latency of epileptic seizures. The results may indicate a relationship between the seizure threshold and higher frequencies of EMWs. The conclusion states that “Our findings suggest that acute exposure to EMW may facilitate epileptic seizures, which may be independent of EMW exposure time. This information might be important for patients with epilepsy. Further studies are needed.” Commenter believes not enough studies have been performed to allow a 700 mile DC transmission line to go across the country.

Response:

The 2013 Turkish study reported the impact of electromagnetic waves on epileptic seizures (<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3659130>). The study found a possible trigger effect of electromagnetic waves (microwaves) on seizure activity in mice, and this study was raised in concern over possible seizures in humans living close to the Project transmission lines. However, the study utilized electromagnetic frequencies approaching the microwave band (ranging from 100MHz to 900MHz), which are 100–900 million times higher in frequency than static frequency (0Hz, the frequency of the Project HVDC transmission line) and almost 10 million times higher for power frequency (60Hz, the frequency of the Project AC transmission lines). In fact, the paper itself cites another paper (Canseven 2007) that states the authors “did not find any effect of 50Hz electromagnetic waves” (50Hz is the European power frequency, which is very close in frequency to the power frequency in the United States of 60Hz). Therefore, caution must be exercised to ensure that findings associated with a particular frequency are not applied to other frequencies (i.e., field effects are different for different frequencies). High frequency field effects such as those used in this seizure study (100–900MHz), would not be applicable to either the HVDC transmission line (0Hz) or the AC transmission lines (60Hz) associated with the Project. Section 3.4.2.3 has been added to the Final EIS to provide descriptions of the differences between static frequencies (0Hz), power-frequencies (50/60Hz), and much higher frequencies (such as radio, microwave, and higher ranges).

The Pacific Intertie, a high voltage DC transmission line routed from the Washington/Oregon border to northern Los Angeles, California, and approximately 845 miles in length has been in operation since 1970. Originally operating at an electrical voltage of 400kV, the Pacific Intertie was upgraded to 500kV in 1984 and has operated at that voltage ever since.

- Commenter notes that DOE states on page 3.4-70 that “...it is unlikely that the DC fields from the Project would have adverse effects on human health.” What is the expected response from the Corporation if, at some point in the future, new evidence arises concerning health effects of DC fields? Does the Corporation bear responsibility if (any aspect of) the high voltage line/towers is in the future shown to have had an impact on human (or animal) health?

Response:

DOE prepared the Final EIS with the best available information, consistent with 40 CFR 1502.22. The results of future research cannot be predicted or determined. Similarly, the response to future findings, whatever they may be, cannot be predicted or determined.

- Commenter requests 100 percent assurance that the transmission line will not affect the health of their family member.

Response:

DOE has disclosed the level of electric and magnetic fields and related risks to health associated with the Project based on current research. DOE cannot provide a 100 percent guarantee that the transmission line will not affect the health of a specific individual.

- Although understandably difficult to assess, are psychological effects a concern (especially if landowners are forced to cooperate)? Do studies exist that assess psychological health of residents or other affected persons after installation of high voltage lines/towers or other comparable activities in rural areas?

Response:

As noted by the commenter, psychological effects are difficult to assess. Studies have been performed on electromagnetic hypersensitivity, with symptoms that include headache, fatigue, stress, and sleep disturbances. The majority of studies indicate that electromagnetic-sensitive individuals cannot detect EMF exposure any more accurately than non-sensitive individuals, and well-controlled double-blind studies have shown that symptoms were not correlated with EMF exposure (WHO 2005).

- Commenter is concerned about the adverse health effects the project may cause and includes statements from the Responsible Electricity Transmission for Albertans (RETA). Facts commenter included (1) the homes of children in Denver, Colorado, who developed leukemia tended to be near electric power lines (2) male deaths in Washington State found a 2-fold increase in the expected normal occurrence of leukemia among workers exposed to above-normal EMFs; (3) a higher incidence of acute myeloid leukemia was found in electrical workers exposed to above normal EMFs in England.; (4) increased incidence of leukemia in New Zealand electrical workers exposed to above-normal EMS's; (5) higher risk of leukemia among workers exposed to EMFs from an analysis of the Finnish Cancer Registry; (6) study at the Cancer Registry of Norway supported an association between electrical workers exposed to EMFs and risk of leukemia; and (7) incidence of leukemia in children under 16 who lived within 300m of any 220kV and 400kV power lines in Sweden.

Response:

In the Final EIS, Section 3.4.11.2.1.2.2.7 was also expanded to include a discussion on the merits of using an individual scientific study versus multidisciplinary expert panel reviews of the overall available scientific literature. While individual scientific studies may provide support for a given hypothesis of potential health impacts, a thorough literature review is helpful in determining the scientific consensus, where one exists. Individual studies do not provide a comprehensive view of what is known in any field of science. When these studies are collectively evaluated scientifically, a balanced perspective is provided.

Multidisciplinary expert panels, acting on behalf of a number of national and international health and scientific agencies, and numerous health organizations have reviewed the available scientific literature regarding potential health effects of electric and magnetic fields and concluded that there are no known adverse health impacts from the electrical and

magnetic fields associated with AC transmission lines. Using a systematic identification and review of the relevant literature for a specific exposure and potentially related health outcome, none of these agencies found reliable evidence of biologically harmful effects. These panels and organizations have also looked at power-frequency electric and magnetic fields and have concluded that the association between AC magnetic fields and adverse health effects is weak.

- Commenter is opposed to the Plains and Eastern line due to unknown health issues that could be caused if it is constructed. Commenter notes this will be a 600kV power line, one of the largest in the world. Has a health study ever been conducted on a line this big? Is it really as safe as some claim, and if so, how can they be sure? If a similar line could affect a steel pipeline from 1000 feet away, what effect will it have on people living only 150 feet away? Commenter quotes Clean Line's take on health and safety concerns, "Clean Line says none of those concerns are backed-up by modern science. They say the real reason for objecting to the line is simpler: people don't feel like looking at power lines on their property." Commenter feels taking this approach speaks volumes about their lack of integrity and perceived responsibilities. If that's the case, then the commenter feels that none of the cited references on health effects found in the EIS are backed up by modern science either. There are plenty of studies out there saying that these lines are not harmful to people and animals, or even natural gas pipelines; however, there are just as many that speak to the contrary. Commenter does not feel that we can definitely say either way like the EIS leads us to believe. Commenter feels it is inappropriate to say that there are no harmful effects. Commenter notes concern about childhood leukemia cases, deaths from malfunctioned pacemaker, and exploding pipelines along one of the routes.

Response:

The Pacific Intertie, a high voltage DC transmission line routed from the Washington/Oregon border to northern Los Angeles, California, and approximately 845 miles in length has been in operation since 1970. Originally operating at an electrical voltage of 400kV, the Pacific Intertie was upgraded to 500kV in 1984 and has operated at that voltage ever since. The Pacific Intertie is one of numerous HVDC transmission lines presently in operation in the United States (ranging from 150kV to 500kV). HVDC transmission lines are also present in many countries throughout the world (Canada, South America, Europe, Asia, Africa, and Australia. The Xiangjiaba-Shanghai HVDC transmission line in China, presently the world's largest-capacity HVDC system, operates at 800kV (https://en.wikipedia.org/wiki/List_of_HVDC_projects).

The Applicant has provided information regarding the Project for evaluation. Although agricultural and wildlife/farm animal studies have been performed specifically under HVDC transmission lines, no major studies have been performed recently with respect to human populations living near HVDC transmission lines. However, laboratory studies of DC electric fields and laboratory/epidemiological studies of DC magnetic fields (such as those produced by HVDC lines) have been evaluated for humans. DOE has conducted the analysis of potential electrical effects from the Project on human health, animals, and pipelines (Section 3.4 in the Final EIS). This independent DOE evaluation reflects the current body of knowledge on these subjects. Furthermore, DOE has disclosed the level of electric and

magnetic fields and related risks to health associated with the Applicant Proposed Project, based on current research. Research regarding potential health effects of electric and magnetic fields is continuing, although there are no conclusive findings and no compelling evidence of cause and effect or dose response that EMF is related to health issues.

The NIEHS stated that, for most health outcomes, there is no evidence that electric and magnetic fields exposures have adverse effects, but there is some evidence from epidemiology studies that exposure to power-frequency magnetic field is associated with an increased risk for childhood leukemia. (However, this association is difficult to interpret in the absence of reproducible laboratory evidence or a scientific explanation that links magnetic fields with childhood leukemia.) The general consensus among researchers and the medical and scientific communities is that there is insufficient evidence at this time to conclude whether AC magnetic fields are a cause of childhood leukemia. Section 3.4.11.2.1.2.2.7 in the Final EIS provides an overview of the research of AC electrical effects on human health. Section 3.4.11.2.3.2.6 in the Final EIS presents information on health studies associated with high-voltage DC transmission lines. DC magnetic fields have not been reported to be associated with an increased risk in childhood leukemia.

Section 3.4.11.2.3.2.7 presents information on implanted medical devices associated with high voltage DC transmission lines, while Section 3.4.11.2.1.2.2.8 presents information on implanted medical devices associated with high voltage AC transmission lines. These two sections of the Final EIS were expanded to include additional information on medical devices (including some medical device manufacturer's recommendations for field limits). Over the past decade or so, major manufacturers of pacemakers and other implantable medical devices have designed these devices to provide shielding and improved filtering from the different types of EMF that arise from many sources in our daily environments. Modern pacemakers are designed to filter out peripheral electrical signals and these electrical filters increase the pacemaker's ability to distinguish extraneous signals from legitimate cardiac signals. In addition, most of the pacemaker circuitry is enclosed within a metallic case that shields the device from external EMF. Based on all of these factors, no interference with medical devices would be expected due to EMF from the proposed transmission line.

Comments also discuss issues associated with pipelines. Therefore, Section 3.4.11.2.1.2.2.10 was added to the Final EIS to discuss induced currents or stray voltage associated with pipelines. Transmission line engineers typically conduct field investigations to determine any potential safety issues that may result from a powerline being routed parallel to a nearby pipeline. Utility corridors that are shared by pipelines and power transmission lines are commonplace and are designed to meet the National Association of Corrosion Engineers guidelines to control induced pipeline voltage. Pipelines crossing transmission line routes are more benign because of the weak magnetic field coupling of the two systems.

- Commenter addresses concerns about the potential health risks associated with living close to power lines, specifically childhood leukemia and other childhood cancers as described in the BioInitiative Report.

Response:

The BioInitiative Report (BioInitiative 2007) was prepared by a group of EMF activists and researchers and makes many claims that greatly differ from established and recognized health organizations in several countries. As a practical matter, the BioInitiative Report implies that EMF exposure is a universal toxin and carcinogen causing many different types of diseases. This conclusion is strikingly different from what established and recognized health organizations have found. For instance, the Health Council of The Netherlands states that the report was compiled with “the selective use of scientific data” and “is not an objective and balanced reflection of the current state of scientific knowledge” (HCN 2008). Section 3.4.11.2.1.2.2.7 of the Final EIS was expanded to include new studies, including a summary regarding the BioInitiative Report.

The NIEHS stated that, for most health outcomes, there is no evidence that electric and magnetic fields exposures have adverse effects - but there is some evidence from epidemiology studies that exposure to power-frequency magnetic field is associated with an increased risk for childhood leukemia. (However, this association is difficult to interpret in the absence of reproducible laboratory evidence or a scientific explanation that links magnetic fields with childhood leukemia.) The general consensus among researchers and the medical and scientific communities is that there is insufficient evidence at this time to conclude whether AC magnetic fields are a cause of childhood leukemia.

Health studies/concerns cited by commenters refer to AC field effect studies rather than DC field effects. The majority of the Project consists of a ± 600 kV HVDC overhead electric transmission line (approximately 720 miles in length) rather than the shorter segments of AC transmission line. A new section, 3.4.2.3, was added to the Final EIS that addresses the differences between AC and DC electric and magnetic fields.

- Commenter states it is their understanding the transmission line will be placed next to the current Entergy line in Paradise River Resort. This would place two strong electromagnetic fields within about 200 yards of commenter’s home. The added intensity poses a serious health risk to us as senior citizens and our young grandchildren, both highly vulnerable age groups.

Response:

A new paragraph was added to Section 3.4.10 of the Final EIS to discuss the issue of electrical effects from multiple transmission lines. Electrical effects from multiple powerline sources are not simply additive. Fields from multiple sources are influenced by the distance relative to each source, the amount of current on each source, the direction of power flow, and the configuration of the source (i.e., the arrangement of the current-carrying conductors associated with the source). Since the spatial and time components of magnetic fields from various sources are not always known, a reasonable estimation of their additive effect assumes that they will add in quadrature (the square root of the sum of the squared field components) as a root mean square value (rms) value. For example, combining in quadrature a magnetic field of 10mG with a field of 5mG would equal 11.2mG (the square root of $10^2 + 5^2$) rather than 15mG if the fields were simply additive.

The American Cancer Society describes “vulnerable age” groups (ACS 2015a):

Leukemia is the most common cancer in children and teens, accounting for almost 1 out of 3 cancers. Overall, however, childhood leukemia is a rare disease. About 3 out of 4 leukemias among children and teens are acute lymphocytic leukemia (ALL). Most of the remaining cases are acute myelogenous leukemia (AML). ALL is most common in early childhood, peaking between 2 and 4 years of age. Cases of AML are more spread out across the childhood years, but this type of leukemia is slightly more common during the first 2 years of life and during the teenage years.

- Commenters state that the American Cancer Society makes note of some evidence that transmission lines may cause brain cancer.

Response:

The American Cancer Society currently states: “Exposure to aspartame (a sugar substitute), exposure to electromagnetic fields from powerlines and transformers, and infection with certain viruses have been suggested as possible risk factors, but most researchers agree that there is no convincing evidence to link these factors to brain tumors.” (ACS 2015b)

Scientific experiments have not clearly shown whether exposure to EMF increases cancer risk. There is no clear scientific evidence that electromagnetic fields affect health. Health studies/concerns cited by commenters refer to AC field effect studies rather than DC field effects. The majority of the Project consists of a ±600kV HVDC overhead electric transmission line (approximately 720 miles in length) rather than the shorter segments of AC transmission line. A new section, 3.4.2.3, was added to the Final EIS that addresses the differences between AC and DC electric and magnetic fields.

- Commenters note the power lines will come within hundreds of feet of numerous schools, which brings into question the concerns of the associated health risks.

Response:

DOE has updated the regional school data sets for the Final EIS. Information regarding schools is presented in Section 3.10. The American Cancer Society describes the age groups most prevalent for childhood leukemia (ACS 2015a):

Leukemia is the most common cancer in children and teens, accounting for almost 1 out of 3 cancers. Overall, however, childhood leukemia is a rare disease. About 3 out of 4 leukemias among children and teens are acute lymphocytic leukemia (ALL). Most of the remaining cases are acute myelogenous leukemia (AML). ALL is most common in early childhood, peaking between 2 and 4 years of age. Cases of AML are more spread out across the childhood years, but this type of leukemia is slightly more common during the first 2 years of life and during the teenage years.

ALL generally occurs in preschool age children (2 to 4 years of age), while AML is more spread out throughout school ages but is slightly more common during the first 2 years of life (again, preschool age).

Section 3.4.11.2.3.2.6 presents information on health studies associated with high voltage DC transmission lines, while Section 3.4.11.2.1.2.2.7 presents information on health studies associated with high voltage AC transmission lines. A new section, 3.4.2.3, was added to the

Final EIS that addresses the differences between AC and DC electric and magnetic fields. Most health concerns refer to AC field effect studies rather than DC field effects. The majority of the Project consists of a ± 600 kV HVDC overhead electric transmission line (approximately 720 miles in length) rather than the shorter segments of AC transmission line.

- Commenter expresses concern about radiation from the transmission line.

Response:

We assume that the term “radiation” is intended to refer to electrical characteristics, which includes electric and magnetic fields. A new section, 3.4.2.3, was added that addresses the differences between AC fields, DC fields, and radio-frequency fields. This new section presents a graphic of the electromagnetic spectrum.

- Commenter notes their Division of Radiological Health (DRH) has reviewed the Draft EIS. Given that the proposed project and its alternative involve only non-ionizing radiation (which DRH does not regulate), DRH has no comments to make at this time.

Response:

Comment noted.

Medical Device-Related Comments

- Several commenters expressed concern regarding the health risks transmission lines would have on individuals with pacemakers and defibrillators. Commenters noted that DOE’s own study states that magnetic field exposure may affect pacemakers. Directly below the line the electric field is 5,000 volts per meter. That is to say directly under the line a wire about 3 feet in length will have 5,000 volts charge on it. At 6 feet it will be 10,000 volts. Commenter is concerned that this may have an effect on pacemakers.
- A commenter states that his personal doctor explained to him that he needs to be as far away from the transmission line as possible because of the impact the lines may have on the functionality of his pacemaker.

Response:

Medical equipment certified by the U.S. Food and Drug Administration must pass rigorous electromagnetic compatibility testing to gain approval. Within the last decade or so, modern pacemakers are designed to filter out peripheral electrical signals and distinguish extraneous signals from legitimate cardiac signals. In addition, most of the pacemaker circuitry is enclosed within a metallic case that shields the device from external EMF.

Three of the major manufacturers of implantable medical devices recommend a power-frequency AC magnetic field limit in the range of 800mG to 1600mG (depending upon the manufacturer and type of implanted device). The calculated magnetic field levels from the proposed Clean Line AC transmission lines are well below these levels both inside and outside the ROW. For DC magnetic fields, manufacturers recommend static magnetic fields of 5,000 to 10,000 mG. The calculated magnetic field levels from the proposed Clean Line HVDC transmission line are well below these levels both inside and outside the ROW.

Manufacturers also recommend power-frequency AC electric field limits of 6 to 11.7kV/m. Calculated AC electric fields within the ROW range from 4.6kV/m to 10.2kV/m, depending on line voltage and configuration. These AC electric field levels are within the recommended limits from these three manufacturers. Manufacturers do not have recommended levels for DC electric fields because DC electric fields do not induce internal current on the leads of medical devices. In addition, electric fields are very easily shielded by grounded objects (as shown in Figure 3.4-2 in the Final EIS). Electric fields would generally be shielded levels (i.e., lower levels) except directly underneath the line in open areas. Someone riding in a vehicle, for example, would be shielded from electrical fields by the metallic body of the vehicle.

Based on all of these factors, no interference with medical devices would be expected due to EMF from the Project. Section 3.4.11.2.3.2.7 and Section 3.4.11.2.1.2.2.8 of the Final EIS were expanded to include additional information on medical devices (such as manufacturers' recommended field limits and other information presented in the response).

Underneath the HVDC transmission line, calculated electric fields within the ROW range from 4.6kV/m to 10.2kV/m, depending on line voltage and configuration (in an open area without the presence of shielding objects). However, a wire 3 feet in length would not have a 5,000 volt charge on it. The induced voltage on an object would be calculated based upon the dimensions of the object as well as the strength of the electric field (different calculation formulas are used for different object shapes). The object would also have to be isolated from a contact path to the earth; otherwise, the charge would be grounded and the potential of the wire would be at 0 volts.

The majority of the Project consists of the ± 600 kV HVDC overhead electric transmission line (approximately 720 miles in length) rather than the shorter segments of AC transmission line. AC transmission lines are required to connect converter stations into the existing electrical grid.

- Commenters are concerned about those in the community with hearing aids.

Response:

No interference issues for analog or digital hearing aids are anticipated with DC magnetic fields (since transmission line field levels are comparable to the earth's static field). Some AC interference could be present on digital hearing aids while in the "T-coil" setting in close proximity to AC transmission lines, but this interference may be eliminated by switching to the "normal" mode. Analog hearing aids are becoming less and less common, and most individuals who seek hearing help are offered a choice of only digital technology (<http://www.fda.gov/MedicalDevices/ProductsandMedicalProcedures/HomeHealthandConsumer/ConsumerProducts/HearingAids/ucm181470.htm>). Section 3.4.11.2.3.2.7 and Section 3.4.11.2.1.2.2.8 of the Final EIS were expanded to include additional information on hearing aids.

- Commenter is concerned about impacts to individuals with joint replacements (metal replacements).

Response:

To date, no adverse interactions related to EMF exposure and metallic implants have been reliably reported or documented for non-electrical metallic medical implants. Section 3.4.11.2.3.2.7 and Section 3.4.11.2.1.2.2.8 of the Final EIS were expanded to include additional information on non-electrical metallic medical implants (such as metallic stents and joint/metal replacements).

- Commenter states to get rid of the AC lines if you want to worry about pacemakers, go DC like the one that is proposed for this project.

Response:

The majority of the Project consists of the ± 600 kV HVDC overhead electric transmission line (approximately 720 miles in length) rather than the shorter segments of AC transmission line. AC transmission lines are required to connect converter stations into the existing electrical grid.

Animal Health-Related Comments

- Commenters are concerned about the health risks associated with being close to the line, specifically risks to wildlife.

Response:

Section 3.4.11.2.3.2.8 presents information on animal studies associated with high voltage DC transmission lines, while Section 3.4.11.2.1.2.2.9 presents information on animal studies associated with high voltage AC transmission lines. No anticipated health effects associated with wildlife are anticipated from the HVDC or AC transmission lines associated with the Project.

- Commenters are concerned that the transmission line would have a potential health impact on their cattle and cattle business. Commenter expresses concern about potential impacts to cattle housed in fields under the line and questions whether there is a risk posed to human consumption of cattle that live under the lines.
- Commenter states she read in a veterinarian publication that the health of cattle was being affected by high-powered metal electric lines similar to those being proposed. She requests that that be checked on as the proposed power lines may impact cattle on property the routes would cross. The proposed project may also be affecting the livelihood of the cattle.

Response:

Section 3.4.11.2.3.2.8 presents information on animal studies associated with high voltage DC transmission lines, while Section 3.4.11.2.1.2.2.9 presents information on animal studies associated with high voltage AC transmission lines. No anticipated health effects associated with cattle (or human consumption of cattle products) are anticipated from the HVDC or AC transmission lines associated with the Project.

Concerns are sometimes raised about small electrical shocks to animals (such as cattle) from metallic objects underneath high voltage transmission lines (referred to as “contact current” or “stray voltage”). Therefore, a new section was added to the Final EIS, Section

3.4.11.2.1.2.2.10, to discuss impacts of stray voltage as a potential source of concern regarding animal health and productivity. Typically, high voltage overhead transmission lines do not create stray voltage problems. Commonly accepted sources of stray voltage on a farm include a variety of internal electrical wiring problems, as well as non-farm related problems (such as high resistance wires and connections within the local electric distribution system). Various mitigation methods can be employed to eliminate stray voltage. For long fences parallel to the powerline, metallic sheds, or feeding troughs, the possibility of nuisance shocks from induced currents can be eliminated by having permanent grounding connections for these objects. Overhead canopies can also be constructed to reduce the electric field locally within an area and reduce the possibility of nuisance shocks. Electric company engineers typically provide grounding guidelines for these types of objects.

Additional health studies on cattle/cows were also added to Section 3.4.11.2.1.2.2.9. Most studies do not report behavioral or health effects associated with transmission lines. A few studies do report small effects, but they are not reported consistently between studies. It should be noted that many studies were performed for AC magnetic fields, not DC magnetic fields. DC magnetic field effects would be less common than AC field effects, since the magnitude of the DC magnetic field from the HVDC transmission line is comparable to the earth's magnetic field.

- Commenter notes that researchers at McGill University found that cattle's exposure to a 10kV/m vertical electric field decreased output and increased dry matter in-take in a dairy operation. There is a significant risk that similar detrimental effects could be experienced by cattle in beef production when exposed to any electromagnetic field. Commenter notes concern that cattle confined to the property are likely to be exposed to a significantly higher electromagnetic field than the field levels used for studies. The feeding operation on the property is a confined area, and after construction the cattle on this location would be limited to being directly under a high-voltage transmission line at all times, as opposed to a larger pasture where they would have more room to avoid the transmission line. Commenter notes that, based on the scientific evidence, it seems unlikely that they could keep cattle in the feedlot located on this property after the transmission line has been constructed.

Response:

The studies performed at McGill University (Burchard et al. 1996, 1998, 2004) were controlled experiments designed to mimic the exposures of cows standing continuously under a 735kV AC transmission line to determine whether EMF exposure reduces the production of melatonin, resulting in changes to milk production. Two groups of eight cows were continuously exposed to 10kV/m AC electric fields and 300mG AC magnetic fields for about 30 days. The researchers concluded that EMF did cause a biological response in productivity variables for the dairy cattle, but these responses were within the normal range of variability. They also speculated that these changes did not represent a health hazard for exposed cattle, but recommended further research. As discussed in Section 3.4.11.2.1.2.2.9 for AC fields and Section 3.4.11.2.3.2.8 for DC fields, the overall consensus is that no significant differences exist between animals living in constantly high magnetic fields and animals with typical magnetic field exposure. Some studies do report differences, but they are not reported consistently between studies and these differences typically fall within the

range of normal variability (as the McGill study does). It should be noted that the McGill studies were for AC magnetic fields, not DC magnetic fields. DC magnetic field effects would be less common than AC field effects, since the magnitude of the DC magnetic field from the HVDC transmission line is comparable to the earth's magnetic field.

- Commenter is concerned about the effect of the transmission line's magnetic field on a major migratory path for wildlife, particularly birds, as this is close to the Great Salt Plains, which is just a few miles north.

Response:

New text was added to Section 3.4.11.2.3.2.8 in the Final EIS to address the subject of bird migration. In summary, a variety of animals can perceive and use the earth's DC magnetic field, including birds. The results of decades of homing and migration studies indicate this is a very complex topic and the mechanisms involved are not yet completely understood. Different species of birds have different migration patterns (e.g., nocturnally, diurnally, or both) and it appears that there are numerous factors that are used during migration (e.g., landmarks, wind direction, sun, stars, geomagnetism, polarized light). It is now widely accepted that birds have numerous navigational-type problem solving mechanisms available and are capable of using a multiplicity of environmental information for orientation purposes.

One study has indicated that higher frequency magnetic fields (50kHz to 20MHz) can disrupt the internal magnetic compasses and disorient migratory birds, and birds shielded from these frequencies (but not the earth's field) regained their orientation (Morrison 2014). Since the HVDC transmission line's magnetic field is comparable to the earth's natural magnetic field (a maximum calculated DC magnetic field from the Project transmission line of about 763mG versus 510mG for the earth's field), effects on migratory patterns of birds is not anticipated. Even if the transmission line DC magnetic field were to cause some localized disorientation directly near the line, birds have numerous other environmental factors to use for orientation.

Electrical Equipment Interference Comments

- Commenters are concerned that the proposed transmission line could interfere with wireless cellular telephone connections, satellite internet service (broadband service), satellite television service, and related wireless services.

Section 3.4 does not provide evidence that the high voltage lines would have no impact on radio and television reception and cell phones. Commenter states that the transmission lines would cause interference to electrical devices, phones, TV and security systems which would jeopardize the safety of individuals in the event of severe weather or criminal activity. A commenter notes that the power lines will further affect the reception quality of an already stressed reception capacity feeding our cell phones coupled with cellular-based internet access that is located on the other side of the proposed transmission line and will potentially impact HDTV reception, as well. This is vital resource for this business.

Response:

A new section was added to the Final EIS, 3.4.11.2.1.2.2.11, Interference to Radio Frequency Equipment, that addresses the issue of electrical effects and potential interference to cell phones, digital TV and radio signals, GPS, precision agriculture equipment, and related electrical devices. Since these types of devices operate radio frequency bands, and transmission line electrical effects are in a much lower frequency band, the possibility of interference is very unlikely. If a transmission line structure blocks a line-of-sight to an antenna or receiver, then the antenna/receiver may have to be relocated to eliminate any line-of-sight issues. However, the blockage would have to be significant to cause a problem (e.g., a solid structure directly in the path between an antenna and its receiver). Powerline owners are required to resolve interference complaints from licensed operators in accordance with the Federal Communications Commission Rules and Regulations Title 47, Part 15 requirements (see Section 3.4.4).

Many cell phone base stations are now being installed on transmission line towers and have a GPS antenna for precise network operations. These GPS antennas are mounted directly on high-voltage transmission line towers, as are cellular antennas. If transmission line interference were an issue, then the cell phone industry would not utilize high voltage transmission line towers to mount their antennas/equipment.

Audible Noise Comments

- Commenters are concerned about the impacts from corona noise. Commenters believe the transmission line will cause corona noise that will travel far beyond the ROW. A commenter believes the EIS should include a discussion of what DOE proposes as a resource for residents experiencing excess noise levels, should they occur. Commenters also expressed concern about the intrusive noise levels generated from line voltage that is five (5) to ten (10) times great than typical will propagate across unprecedented distances making affected homes impossible to sell and building sites useless.

Response:

Audible noise calculations assume a 5 percent overvoltage condition at the highest line elevation (3,000 feet), and in general calculated audible noise levels will be lower than these conditions. As stated in Section 3.4.11.2.3.2.3, the Project HVDC line noise levels at the ROW edges (100 feet from centerline of the transmission line) for the standard monopole configuration is at or below the EPA guideline for L_{dn} (day-night) noise of 55 dBA. The lattice configuration is slightly higher than the EPA guideline at 55.2 dBA at one of the ROW edges (but calculated audible noise levels assume a 5 percent overvoltage condition at the highest line elevation of 3,000 feet). Section 3.4.11.2.3.2.3 of the Final EIS was expanded to present calculated audible noise values out to $\pm 2,000$ feet from the Project HVDC line and to include a discussion on the nature of transmission line audible noise and the reflective characteristics of that noise.

The majority of the Project consists of the ± 600 kV HVDC overhead electric transmission line (approximately 720 miles in length) rather than the shorter segments of AC transmission line. Some AC transmission line configurations do exceed the EPA standard at the ROW edges, but these are a relatively small portion of the overall Project.

Section 3.4.3 provides calculated levels for L_{dn} values, which is a day-night averaged noise level. L_{dn} represents a time-weighted 24-hour average noise level for a variety of weather conditions, which includes an additional 10 dBA increase that is added to noise events occurring during the nighttime hours of 10 p.m. to 7 a.m. L_{dn} values will be higher noise levels than other types of calculated noise levels, such as L_{50} foul weather conditions.

Section 3.4.11.2.3.2.3 of the Final EIS was expanded to present calculated audible noise values out to $\pm 2,000$ feet from the Project HVDC line for the four different line configurations. Since the elevation of the HVDC transmission line can change from as low an elevation as 200 feet to as high as 3,000 feet above sea level (for Regions 1–7), audible noise calculations were performed for both the lowest and highest elevations to illustrate how calculated audible noise levels can vary due to elevation and with distance away from the HVDC line. Except for the standard lattice configuration at one ROW edge at 3,000 feet above sea level (55.2 dBA), all other configurations are below the EPA guideline of 55 dBA at the ROW edges. The section also presents the nature of transmission line audible noise and the reflective characteristics of that noise.

- Commenter notes that DOE states on page 75 that “At ROW [right-of-way] edges (75 feet from center line of the transmission line), calculated audible noise levels typically exceed the EPA standard.” This appears to be a contradiction to DOE claims of no unacceptable noise.

Response:

Some AC transmission line configurations do exceed the EPA standard at the ROW edges, but these are a relatively small portion of the overall Project. The majority of the Project consists of the ± 600 kV HVDC overhead electric transmission line (rather than the shorter segments of AC transmission line) and calculated audible noise levels at the ROW edges (100 feet from centerline of the transmission line) for the standard monopole line configuration are at or below the EPA guideline for L_{dn} (day-night) noise of 55 dBA (the lattice configuration is slightly higher than the EPA guideline at 55.2 dBA).

- Commenter asks if the DOE knows how many homes, businesses, or other entities are located within areas that could be affected by noise from the high voltage line/towers? There is a great deal of public concern that there will be no recourse for residents experiencing excess noise levels?

Response:

Tables 3.4-6–3.4-13 in the Final EIS present summaries of the number of residences present within the ROI.

- Commenter states that EPA's standards and measures are limited to health and nuisance issues and don't account for quality of life considerations (such as the quiet in rural areas) and don't quantify or characterize the difference in corona noise impact depending on ambient noise levels. Commenter suggests establishing benchmarks for corona noise pollution that go beyond EPA health and nuisance levels.

Response:

Quality of life issues regarding audible noise are subjective and more difficult to quantify. Therefore, standards have been developed to characterize various noise levels. The EPA standard utilizes a day-night averaged noise level (L_{dn}) which represents a time-weighted 24-hour average noise level for a variety of weather conditions and includes an additional 10 dBA increase that is added to noise events occurring during the nighttime hours of 10 p.m. to 7 a.m. Sample noise environments are presented in Table 3.4-3. For example, the noise environment of a library is about 35 dBA, a Chicago suburb at night is about 40 dBA, a small town/quiet suburb is about 47 to 53 dBA, and an average residence is about 50 dBA. These levels characterize typical/ambient noise levels.

- Commenter states that the analysis doesn't consider sound carrying qualities of mountains and valleys, which may amplify corona noise and the related impacts so that they extend far beyond property owners near the transmission line. Quantify/characterize discernible increase in noise caused by corona effect overriding different ambient noise levels at varying distances.

Response:

Section 3.4.3 in the Final EIS has been expanded to include noise propagation as described herein. Transmission line noise and propagation are governed by the laws of acoustics. Transmission line conductors produce both broadband and pure tone (hum) components of noise. The atmosphere, trees, and structures diminish the broadband component of the noise significantly more than the hum. If the sound has a large broadband component, different sound frequencies may attenuate at different rates, and hence the overall characteristics of the sound may change. Reflected noise by the earth has a negligible effect on the broadband noise and can be disregarded, while the ground is a good reflector of hum. Reflections from objects close to the point of interest may also have a significant effect. The pure tone hum is only slightly attenuated by air, trees, and walls. Therefore, at larger distances from the line or inside houses, the hum may become more noticeable in relation to the high-frequency random noise. Fortunately, no pure tones are present in HVDC line audible noise (which would be associated with the Project HVDC transmission line). Altitude above sea level also affects audible noise levels. For HVAC, audible noise typically increases by about 1 dB for every 1000 feet of altitude above sea level; the same type of variation is also expected for HVDC audible noise.

Audible noise calculations assume a 5 percent overvoltage condition at the highest line elevation (3,000 feet), and in general calculated audible noise levels will be lower than these conditions.

It would be difficult to characterize the discernible increase in noise caused by corona for different ambient noise levels at varying distances due to the number of varying parameters encountered at different locations and under different conditions (terrain elevation, varying levels of ambient background noise, weather conditions, etc.). Because noise has different acoustical components, combining noise for different sources can be complicated.

- Commenter states that the analysis doesn't consider conditions of varying voltage. Analyze corona noise level data to cover effects over full operating voltage ranges.

Response:

Transmission line voltage is held relatively stable (typically within ± 5 percent of the nominal voltage) while the load (amperes) is allowed to vary (which does not affect audible noise). Therefore, the variation in transmission line voltage is very minimal. Audible noise calculations assume a 5 percent overvoltage condition (+5 percent of the nominal voltage) at the highest line elevation (3,000 feet), and in general calculated audible noise levels will be lower than these conditions.

- Commenter notes they are opposed to the Plains and Eastern Clean Line project because of the electrical environment discussed in Section 3.4. Commenter feels the Department of Energy does not believe that the high voltage line/towers will provide an unacceptable source of noise. Missing is evidence from existing operations that such impacts do not occur, and a discussion of what is proposed by the Corporation should they occur. Response:

Response:

Section 2.7 provides a summary of the BMPs for audible noise, which includes investigation of noise complaints.

- Commenter would like to know what the noise decibel at the 200-foot mark on this line on a normal day is.

Response:

At 200 feet from the HVDC transmission line, calculated L_{dn} audible noise levels range from 40.4 dBA to 51.6 dBA depending upon line configuration, ROW side, and terrain elevation. This range of noise level is comparable to a Chicago suburb/small town/quiet suburb (40 to 53 dBA).

- Commenter asks that the EIS survey noise from groan effects and static discharge from high voltage lines, especially in cold weather where you have a lot of moisture and rain. Tell the public if there is going to be any noise from the line or if there's going to be any groan or discharge or anything that would affect the temperament or how animals react underneath it or close to it, not just domestic animals but wildlife.

Response:

DOE assumes the commenter is referring to corona noise with regards to “groan effects”. Section 3.4.3 provides calculated levels for L_{dn} values, which is a day-night averaged noise level. L_{dn} represents a time-weighted 24-hour average noise level for a variety of weather conditions, which includes an additional 10 dBA increase that is added to noise events occurring during the nighttime hours of 10 p.m. to 7 a.m. L_{dn} values will be higher noise levels than other types of calculated noise levels, such as L_{50} foul weather conditions.

Section 3.4.11.2.3.2.3 of the Final EIS was expanded to present calculated audible noise values out to $\pm 2,000$ feet from the Project HVDC line. The section will also present the nature of transmission line audible noise and the reflective characteristics of that noise.

With regards to static discharge from the transmission line, during normal operation, the transmission line should not have arcing or sparking unless there is a broken or damaged insulator or other piece of hardware. This could cause very tiny arcs between the broken or damaged pieces of hardware on the transmission line itself. This type of damage can be located and repaired on any modern transmission line. Trees and other growth are cleared away within the transmission line ROW to facilitate line operations and maintenance.

Section 3.4.11.2.3.2.8 presents information on animal studies associated with high voltage DC transmission lines, while Section 3.4.11.2.1.2.2.9 presents information on animal studies associated with high voltage AC transmission lines.

Miscellaneous Comments

- Commenter is concerned about the electrocution hazards of this line as hot as it is going to be. Commenter notes that they will have to ground swinging metal gates because of the health risks. Commenter states, that west of Ames, there is a hill called Mount Zion that churches in Ames use for sunrise Easter services. There is a 10-foot-tall cross on it. Will this electrify that? One alternate route goes right over the top of that.

Response:

When the commenter states that “...of this line as hot as it is going to be,” it is assumed that the commenter refers to the high voltage of the transmission line (± 600 kV) rather than a physical temperature “hot.” Therefore, the commenter focuses on electrocution hazards associated with electrical effects such as grounding and stray voltage issues. A new section was added to the Final EIS, 3.4.11.2.1.2.2.10, Grounding and Stray Voltage, to discuss contact current impacts (or “stray voltage”) as a potential source of concern regarding health and safety. Typically high voltage overhead transmission lines do not create stray voltage problems. Commonly accepted sources of stray voltage on a farm include a variety of internal electrical wiring problems, as well as non-farm related problems (such as high resistance wires and connections within the local electric distribution system). Various mitigation methods can be employed to eliminate stray voltage. For long fences parallel to the powerline, metallic sheds, or feeding troughs, the possibility of nuisance shocks from induced currents can be eliminated by having permanent grounding connections for these objects. Overhead canopies can also be constructed to reduce the electric field locally within an area and reduce the possibility of nuisance shocks. Electric company engineers typically provide grounding guidelines for these types of objects.

Many structures such as the 10-foot-tall cross may be inherently grounded due to its construction and contact with the earth. Individual structures like the cross would depend on construction details to assess the electrical situation.

- Commenter states that with the addition of other lines that have been built near her home and the proposed transmission lines she will have a total of 1,280 kilovolts or 1,280,000 volts affecting her.

Response:

A new paragraph was added to the regional description in Section 3.4.10 in the Final EIS to discuss the issue of electrical effects from multiple transmission lines. Electrical effects from multiple powerline sources are not simply additive and can sometimes result in cancellation or reduction of fields. Fields from multiple sources are influenced by the distance relative to each source, the amount of current on each source, the direction power is flowing, and the configuration of the source (i.e., the arrangement of the current-carrying conductors associated with the source). Since the individual characteristics of a magnetic field (its strength, direction/orientation, and varying frequency cycle) from various sources are not always known, a reasonable estimation of their additive effect assumes that they will add in quadrature (the square root of the sum of the squared magnetic field components from each individual source) as a root-mean-square (rms) value. For example, combining in quadrature a magnetic field of 10mG with a field of 5mG would equal 11.2mG (the square root of $10^2 + 5^2$) rather than 15mG if the fields were simply additive.

- Commenter states that the Electrical Environmental assessment of the Plains and Eastern Transmission Line Project should be independently verified to guarantee no impacts to precision agriculture equipment (Page 10, Section 2.1.2.8 of the Draft EIS) and that questions the research concerning the impact of transmission lines on GPS units used in precision agriculture and agriculture-related aviation “did not reveal a problem” (Page 3.4-8 thru 3.4-9, Section 3.4.4, Lines 39-40 and 1-4 of the Draft EIS). The Draft EIS states that precision agriculture is a remarkably successful and widely applied practice in Jackson, Poinsett, Cross and Mississippi counties. Accordingly, DOE should provide more than three sentences of conclusory analysis that relies exclusively on a single research project from 2002.

Response:

Interference with precision agricultural equipment is presented in Section 3.4.3 and in 3.4.11.2.1.2.2.11 in the Final EIS. However, precision agricultural equipment utilizes GPS signals that are discussed in greater detail within these sections. Since these types of devices operate in radio frequency bands, and transmission line electrical effects are in much lower frequency bands, the possibility of interference is very unlikely. Figure 3.4-4 in the Final EIS illustrates the various frequency bands and shows how different GPS signals (approximately 1227 to 1575MHz frequency range) are from HVDC or AC transmission line frequencies (0 to 60Hz).

- Commenter notes that the Draft EIS states that “electrical effects from existing AC transmission lines may influence effects associated with the proposed HVDC transmission line,” but calculations of the combined electrical effects were not performed for these situations. DOE should perform the calculations of the combined electrical effects of locating the Project adjacent to existing transmission lines (Page 3.4-16, Section 3.4.10, Lines 1-6 of the Draft EIS).

Response:

A new paragraph was added to Section 3.4.10 of the Final EIS to discuss the issue of electrical effects from multiple transmission lines. Electrical effects from multiple powerline sources are not simply additive. Fields from multiple sources are influenced by the distance relative to each source, the amount of current on each source, the direction of power flow, and the configuration of the source (i.e., the arrangement of the current-carrying conductors associated with the source). Since the spatial and time components of magnetic fields from various sources are not always known, a reasonable estimation of their additive effect assumes that they will add in quadrature (the square root of the sum of the squared field components) as a root mean square value (rms) value. For example, combining in quadrature a magnetic field of 10mG with a field of 5mG would equal 11.2mG (the square root of $10^2 + 5^2$) rather than 15mG if the fields were simply additive. In some cases, multiple lines in close proximity to each other can result in cancellation or reduction of fields

- Commenter notes that the Draft EIS states that calculated electric fields exceed the ICES and ICNIRP public guidelines within the ROW and exceed the ICES and ICNIRP occupational standards for certain configurations (Page 3.4-65, Section 3.4.11.2.3.2.1, Lines 2-6 of the Draft EIS). Elsewhere, the Draft EIS provides that normal agriculture activities will be allowed to continue within the ROW. How will work continue when “public guidelines” and “occupational standards” are exceeded within the ROW? What are the “public guidelines” and “occupational standards”? The Draft EIS should further explain the potential impacts to working within the ROW. Stated differently, the Draft EIS must explain and document the potential impacts of working and operating within calculated DC electric fields exceeding “public guidelines” and “occupational standards.”

Response:

The HVDC transmission line will produce DC electric fields that are similar to those encountered in the natural environment, with levels outside ROW similar to those produced by atmospheric phenomena. Within the ROW, the maximum calculated DC electric field from the Project transmission line is about 19.4 to 24.3kV/m, which is above some public and occupational thresholds. In this level of electric field, induced currents may create shocks from touching ungrounded metallic objects. (However, metal buildings and fences on or adjacent to high voltage transmission line easements are typically grounded during transmission line construction.) Outside of the ROW, field levels would be lower. Based upon the reviews of scientific research, it is unlikely that the DC fields from the Project would have adverse effects on human health. Utilities often may supply information on living and working safely around high voltage powerlines (BPA 2010, BPA 2007).

- Commenter notes that the Draft EIS indicates that calculated DC magnetic fields at the ROW edges are below guidelines for public exposure (Pages 3.4-66 thru 3.4-68, Section 3.4.11.2.3.2.2 of the Draft EIS). However, the Draft EIS provides no narrative for the exposure at centerline or elsewhere within the ROW. Table 3.4-35 of the Draft EIS indicates that calculated levels “on ROW” are greatly elevated over those found at the ROW edges. The Draft EIS should further explain (i) the DC magnetic field guidelines for public exposure and (ii) the calculated DC magnetic field levels within the ROW. Finally, the Draft EIS

should evaluate and explain the potential impacts of working and operating within the calculated DC magnetic field levels expected within the ROW.

Response:

Guidelines for public and occupational exposure are presented in Section 3.4.6. As already stated in the Draft EIS, the earth has a natural static magnetic field of about 510mG in the Oklahoma, Arkansas, and Tennessee area. The maximum calculated DC magnetic field from the Project transmission line is about 763mG within the ROW, which is close to the earth's natural magnetic field intensity. The maximum calculated AC magnetic field from the Project transmission lines is about 367mG within the ROW, which is below public and occupational thresholds from non-regulatory organizations such as the Institute of Electrical and Electronics Engineers and American Conference of Governmental Industrial Hygienists (see Section 3.4.6). Utilities often may supply information on living and working safely around high voltage powerlines (as noted in the references in Section 3.4.11.2.3.2.6 for BPA 2010, BPA 2007).

- Commenter believes that Clean Line should consider EMP hardening of the line to protect it from solar flares or a nuclear weapon, both of which could wipe out electric generation capability for years.

Response:

Electro-magnetic pulses (EMP) from solar flares or nuclear weapons are unique electrical effects that transmission line engineers are aware of. Environmental or man-made pulses of this type could possibly have an effect on converter station equipment rather than the transmission line itself. Natural events or intentional destructive acts could potentially impact the system; these are addressed in Sections 3.8.5.2.2.4 and 3.8.5.2.2.5 of the Final EIS, respectively. The DOE has also recommended a BMP to develop and implement a Health and Safety Plan that would include overall natural disaster and emergency responder contact procedures, including severe weather reporting and hazardous materials spills, as described in Section 3.8.5.4 of the Final EIS.

- Commenter states that the Draft EIS contains extensive discussion regarding the potential effects of the Applicant Proposed Project and DOE Alternatives on the electrical environment, including both AC and DC electric fields, and AC and DC magnetic fields. Clean Line offers the following additional information to assist the DOE in preparing the Final EIS.

First, for a complete understanding of the body of research on electrical and magnetic fields it is critical to note that multidisciplinary expert panels, acting on behalf of a number of national and international health and scientific agencies, have reviewed the available scientific literature regarding potential health effects of static electric and magnetic fields and concluded that there are no known long-term health impacts from the electrical and magnetic fields associated with a transmission line. Using a weight-of-evidence approach, a systematic identification and review of the relevant literature for a specific exposure and potentially related health outcome, none of these agencies found reliable evidence of biologically harmful effects resulting from static magnetic fields below exposure levels of several tens of

thousands of gauss. These levels are several thousand-fold higher than the maximum static magnetic fields associated with the operation of the proposed DC line, which are comparable in magnitude to the geomagnetic fields of the earth. The static electric field of a DC line when standing beneath the conductors is approximately one-tenth of the static electric charge that a person may get from walking across a carpet on a dry winter day.

The Draft EIS includes substantial analysis of the potential impacts of the Project on electric and magnetic fields in the ROI. The Draft EIS, however, also includes language that could lead a reader to believe that more analysis is warranted regarding the electrical effects of the converter stations. See e.g., Section 3.4.11.1, p. 3.4-21, ln 9. Accordingly, Clean Line suggests that DOE clarify that additional analysis is unnecessary. A review of converter stations was completed as part of Clean Line's technical report supporting the Draft EIS, which states “[s]imilar to a typical AC substation, the electric and magnetic fields (EMF) associated with equipment in the converter station would not be a source of elevated DC fields or corona phenomena outside the boundaries of the large proposed sites ... (Institute of Electrical and Electronics Engineers Std. 1127-1990).” Technical Report, Electrical Environment Assessment of the Plains and Eastern Transmission Line Project, p. 48. With regard to the converter and substations, equipment within these areas is designed to contain the fields from these sources. This characteristic is recognized by Institute of Electrical and Electronics Engineers Std. 1127-1990, which provides in relevant part, “...electric and magnetic fields attenuate sharply with distance and will often be reduced to a general ambient level at the substation property lines.”

The Draft EIS also states, “[s]ome types of substation and switching station equipment can potentially be a source of electrical effects (e.g., power transformers can produce audible noise; converter equipment can produce radio noise, etc.). These effects can be reduced or eliminated by the use of filtering equipment ...” See e.g., Section 3.4.11.2.1.2, p. 3.4-23, ln 17-19. Clean Line would use filtering equipment at each converter station if necessary. See also EPM GE-17.

The issue of EMF effects at the locations at which the AC and DC transmission lines enter the converter stations is addressed in the Draft EIS as part of the AC interconnection impact discussion and the DC transmission line assessment. See Section 3.4.11.2.1.

The Draft EIS also includes language that could mislead a reader to believe that the DOE overlooked the need to analyze the electrical effects of circumstances where the transmission lines parallel other existing transmission lines. See e.g., Section 3.4.10, p. 3.4-16, ln 5. With regard to locations where a Project transmission line would parallel an existing transmission line, any additive effect of EMF from each line would almost entirely be limited to the ‘inner’ adjacent portions of these ROWs in cases where they are immediately adjacent to each other. The required separation distances between adjacent transmission lines means that the EMF (and other electrical effects such as audible noise and radio noise) from one transmission line will diminish sufficiently with distance so that it will have little effect on the far side of the ROW of an adjacent transmission line that might be near residences or other land uses. DOE should point out that placing a new transmission line for which the EMF and other electrical effects have been shown to be below applicable environmental and health criteria next to

another transmission line that also has met those criteria will not result in an exceedance of those criteria or any adverse impact. Moreover, when a DC transmission line is situated adjacent to an AC transmission line, the potential effects of the fields from each are not additive, i.e., the static electric and magnetic fields from the DC line will not induce electric fields in tissues, which is the basis for health-based limits on human exposure cited in the Draft EIS (i.e., ICNIRP, 2010; ICES, 2002). This underlying premise is recognized in the Draft EIS, “[o]utside of the ROW, calculated electrical effects for the Project are limited to levels that comply with associated standards and guidelines.” Section 3.4.11.5, p. 3.4-87, ln 13-14.

Response:

Section 3.4.11.2.3.2.6 presents information on health studies associated with high voltage DC transmission lines, while Section 3.4.11.2.1.2.2.7 presents information on health studies associated with high voltage AC transmission lines. A new section, 3.4.2.3, was added to the Final EIS that addresses the differences between AC and DC electric and magnetic fields. Most health concerns cited refer to AC field effect studies rather than DC field effects. The majority of the proposed Project consists of a ±600kV HVDC overhead electric transmission line (approximately 720 miles in length) rather than the shorter segments of AC transmission line. Section 3.4.11.2.1.2.2.7 was expanded to include new studies, as well as a discussion on the merits of using an individual scientific study versus multidisciplinary expert panel reviews of the overall available scientific literature.

Section 3.4.11.2.1 of the Final EIS was expanded to include more discussion regarding electrical effects at the converter station perimeter due to contributions from electrical equipment and transmission lines. It will also be noted that no additional analysis of electrical effects for converter stations is needed, since electrical effects at the station perimeter are typically limited to the transmission lines entering and leaving the station (which are evaluated in detail for each transmission line configuration).

A new paragraph was added to Section 3.4.10 of the Final EIS to discuss the issue of electrical effects from multiple transmission lines, as previously discussed. Electrical effects from multiple powerline sources are not simply additive.

16 Environmental Justice

The following comments were received relative to environmental justice:

- Several commenters are concerned about the siting of the project in the Great Plains and the burden it will put on rural and low-income populations. Commenters feel that the siting of the transmission line targets low-income populations that cannot fight back.

Response:

As discussed in Section 2.3 and Appendix G of the Final EIS, the Clean Line Routing Team developed the proposed location for the converter stations and HVDC transmission using an iterative process. The team began with a broad Study Area to which it applied progressively more detailed and restrictive siting criteria, resulting in identification of the proposed converter station siting areas and the Network of Potential Routes published in the NOI. The team considered and utilized guidelines and criteria consistent with transmission line siting principles used by federal entities such as the Rural Utilities Service, Western, and BPA. These principles included identification of opportunity areas (e.g., existing linear corridors, areas of land consistent with or compatible with linear utilities, etc.) and sensitive resources that limited or conflicted with transmission line development (e.g., residences, schools, USFWS-designated critical habitat).

As a first step in the route selection process, the team applied general and technical guidelines intended to avoid conflicts with existing resources, developed areas, and existing incompatible infrastructure; maximize opportunities for paralleling existing compatible infrastructure; and consider land use and other factors. Some of the general guidelines included avoiding existing residences, avoiding nonresidential structures (including barns, garages, and commercial buildings), minimizing adverse effects to economic activities (e.g. impacts to existing residences, businesses and developed areas), and minimize visibility of transmission lines from residential areas and visually sensitive public locations.

During routing development, Clean Line began a stakeholder outreach program to solicit site-specific regional feedback on the candidate corridors. The purpose of the stakeholder outreach was to (1) review and verify the data gathered and findings of the Routing Team with stakeholders and (2) to learn about additional opportunities and sensitivities within the candidate corridors and to identify potential alternative corridors.

In 2010, Clean Line conducted outreach meetings with county representatives in Arkansas and Oklahoma. In 2011, Clean Line conducted agency meetings with federal and state resource agency representatives in Oklahoma, Arkansas, and Tennessee to initiate preliminary agency outreach, present a Project overview and anticipated schedule, discuss the Routing Team's siting criteria and methodology, and gather additional information to inform the remainder of the route selection process. In 2011, Clean Line conducted Non-Government Organization Pre-Design Meetings with Arkansas and Oklahoma organization representatives to continue outreach with conservation NGOs, present a Project overview and anticipated schedule, discuss the Routing Team's siting criteria and methodology, and gather additional information to inform the remainder of the route selection process. Also in 2011 Clean Line conducted tribal outreach meetings with Native American tribes with

interest in the lands and/or cultural resources located in Oklahoma, Arkansas, and Tennessee.

DOE has conducted outreach and public involvement efforts in accordance with 40 CFR Part 1501.07, in accordance with public commenting as described in 40 CFR Part 1503 and in accordance with Public Involvement as described in 40 CFR Part 1506.6.

Public scoping is described in Section 1.5.2 of the Final EIS.

The public scoping period for the Project began when DOE published the NOI on December 21, 2012. The public scoping period continued for 90 days through March 21, 2013. DOE held 13 public scoping meetings in communities along the Applicant Proposed Route and HVDC alternative routes and 5 interagency meetings during the scoping period. Notifications and attempts to involve the public are documented in the public scoping report that is included in Appendix D.

The public comment period on the Draft EIS began when DOE published the Notice of Availability on December 19, 2014. The public comment period continued for 120 days through April 20, 2015. DOE held 15 public hearings to collect public comments in communities along the Applicant Proposed Route and HVDC alternative routes and 3 interagency meetings during the comment period. Documentation of this process, including public notification, is included in Chapter 1 of the CRD.

- Commenter states the EIS is inadequate because it does not address the potential for environmental justice issues. Race and economic status are two categories of often impinged classes disproportionately affected by utility infrastructure. The EIS must contain an analysis of the impact of this project on these and other potential classes and demonstrate that a reasonable effort has been made to identify environmental justice issues related to this project.

Response:

Environmental justice issues are discussed in Section 3.5 of the Draft EIS, which presents the affected environment and provides an assessment of the potential for disproportionately high and adverse environmental or human health effects on minority and/or low-income population. DOE concluded that impacts may occur in areas where minority and/or low-income populations were identified; however, it is expected that any impacts would affect all populations in the ROI equally. Therefore no unavoidable adverse impacts would be disproportionately borne by minority and/or low-income populations as a result of the Project. No long-term significant impacts were discernable to Agricultural Resources; Air Quality and Climate Change; Electrical Environment; Geology, Paleontology, Soils, and Minerals; Groundwater; Health, Safety, and Intentional Destructive Acts; Historic and Cultural Resources; Land Use; and Noise.

- Commenters disagree with the statements that there would be “no significant impact” or “Because the EIS did not identify any disproportionately high and adverse impacts to low-income or minority populations, there would be no long-term impact to these populations.” Commenters state that poor rural landowners will be impacted. A large portion of the

transmission route goes through many rural communities/areas in Arkansas. These economically depressed areas contain landowners that do not have the financial resources to afford them the opportunity to turn down the money offered as compensation for the right of way for the project. Therefore, these landowners do not have the freedom to make a choice.

Response:

The approach used in the EIS to assess environmental justice concerns is consistent with guidance provided by the White Council on Environmental Quality (CEQ 1997): Environmental Justice: Guidance Under the National Environmental Policy Act; and the 1998 EPA guidance: Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses (EPA 1998). Identifying whether disproportionately high and adverse human health or environmental effects on minority and/or low-income populations would occur typically involves identifying whether minority and/or low-income communities are present and whether the effects identified are predominantly borne by such populations.

Minority and/or low-income populations within the 1,000-foot-wide corridor for the Project were identified in accordance with CEQ (1997) and EPA (1998) guidance. Census data on race and ethnicity were reviewed for the almost 1,700 census blocks within the corridor. Low-income populations were identified using census data for the 115 census block groups within the corridor. The block group is the smallest geographic area for which data on low-income populations are compiled. Persons whose income is below the federal poverty threshold are identified as low-income. The poverty threshold for 2011 for a family of four was \$23,021. Overall, the analysis found that 2 percent of the blocks within the corridor included potential minority populations; 26 percent of the block groups crossed were identified as potential low-income populations, ranging from 16 percent of the block groups in the corridor in Oklahoma to 37 percent of the block groups in Arkansas.

As discussed in Section 3.5.6.2 of the Draft EIS, in areas where minority and/or low-income populations were identified, it is expected that any impacts would affect all populations in the ROI equally; therefore no unavoidable adverse impacts would be disproportionately borne by minority and/or low-income populations as a result of the Project. No long-term significant impacts were discernable to Agricultural Resources; Air Quality and Climate Change; Electrical Environment; Geology, Paleontology, Soils, and Minerals; Groundwater; Health, Safety, and Intentional Destructive Acts; Historic and Cultural Resources; Land Use; and Noise. Information regarding landowner compensation is described in Section 13, Agricultural Resources, of the CRD. No high and adverse impacts were identified, and those impacts that are expected to occur would not be expected to disproportionately affect potential minority or low income populations.

The environmental justice discussion for Arkansas is presented in Sections 3.5.4.3 and 3.5.6 of the Final EIS. While potential minority and/or low-income populations were identified within the ROI in Arkansas, no high and adverse impacts were identified, and those impacts that are expected to occur would not be expected to disproportionately affect potential minority or low income populations.

- Commenter indicates that the minority population being disproportionately impacted by the proposed project is the small rural landowner.

Response:

Data from the U.S. Census Bureau were used for this analysis. Minority populations are defined for environmental justice purposes to include Black or African American; American Indian and Alaska Native; Asian; Native Hawaiian and other Pacific Islander; Hispanic or Latino; or multi-racial. Minority in this context does not include “small rural landowner.” Persons whose income is below the federal poverty threshold are identified as low-income.

Environmental impacts (both positive and negative) from the Project have been evaluated and disclosed for 19 different resources and are included in Chapter 3 of the Final EIS. In an effort to reduce impacts to landowners, the Applicant would make reasonable efforts, consistent with design criteria, to accommodate requests from individual landowners to adjust the siting of the 200-foot-wide ROW and micrositing of transmission structures on properties.

- Commenter feels that the EIS fails to consider the impacts the project will have on one segment of society for the sole benefit of another. Commenter feels that the beneficiaries of the project are intended to be economically advantaged and politically influential eastern cities with a "green" conscience, and that the ones who must make the social and economic sacrifice to meet this need are rural landowners without political clout. The project will affect the historic, cultural and natural aspects of the rural environment, causing rural landowners to sacrifice for the needs of eastern cities. Commenter states if eastern cities require cleaner energy, they have the ability to create it themselves, and in fact, many already are doing so.

Response:

As discussed in Section 1.4 of the Final EIS, Clean Line proposes to develop new transmission facilities to be located in Oklahoma, Arkansas, Tennessee, and possibly Texas. According to Clean Line’s Section 1222 proposal, “The Plains and Eastern Clean Line is necessary to accommodate the actual and projected increase in demand for additional electric transmission capacity to deliver renewable energy from Western SPP to load centers in the southeastern United States.” Also, as discussed in Section 2.3 and Appendix G of the Final EIS, the Clean Line Routing Team developed the proposed location for the converter stations and HVDC transmission using an iterative process. The team began with a broad Study Area to which it applied progressively more detailed and restrictive siting criteria, resulting in identification of the proposed converter station siting areas and the Network of Potential Routes published in the NOI. The team considered and utilized guidelines and criteria consistent with transmission line siting principles used by federal entities such as the Rural Utilities Service, Western, and BPA. These principles included identification of opportunity areas (e.g., existing linear corridors, areas of land consistent with or compatible with linear utilities, etc.) and sensitive resources that limited or conflicted with transmission line development (e.g., residences, schools, USFWS-designated critical habitat). The team applied general and technical guidelines intended to avoid conflicts with existing resources, developed areas, and existing incompatible infrastructure; maximize opportunities for paralleling existing compatible infrastructure; and consider land use and other factors.

Environmental impacts (both positive and negative) from the Project have been evaluated and disclosed for 19 different resources. Section 3.3.6.8.1.2 describes the use of a commercially available simulation model (PROMOD version 10.1) to determine a best estimate of which power sources would be displaced, including coal and natural gas, and what the corresponding emissions reduction would be. The purpose of the EIS is to disclose potential impacts of a Proposed Action. The Final EIS, including the input from the public, is one of the elements that contributes to the decision by DOE whether to move forward with the Proposed Action.

Consumers and utilities in Oklahoma and Texas currently purchase wind energy generated in western and central Oklahoma from Xcel Energy and OG&E. The HVDC transmission line would allow the transmission of additional electricity generated by wind resources in western Oklahoma to load centers (areas of higher population) in the Mid-South and Southeast regions. The transmission needs are not limited to those at current levels but also consider future needs for electricity from a growing population. The graphic of the United States presented at the scoping meetings and public hearings on the Draft EIS (<http://plainsandeasterneis.com/public-scoping-materials.html?download=22:display-boards>, p. 8) illustrates that the average wind speeds in the Oklahoma Panhandle are more than twice those of Tennessee. Therefore, wind energy generation is not as available in other areas of the Mid-South and Southeast as compared to Oklahoma.

- Commenter believes that the main conclusions of Section 3.5, Environmental Justice, are incorrect. Commenter believes that important factors are left out of the methodology and new Census information points to troubling changes in poverty status in affected counties. The factors mentioned below should be added to the methodology and the updated Census information should be used as the Draft EIS is being updated.
 - The conclusion reached in Section 3.5.6.6 in the paragraph stating that "No unavoidable adverse impacts were identified" is not reasonable in view of the comments and evidence outlined in the commenter's paper.
 - Adverse financial impact incurred as a result of the Project, and borne by property owners who are already victims of increasing poverty levels, has not been addressed in Section 3.5.
 - Financially measurable adverse impacts resulting from corona noise and line-and-structure visual pollution are grossly understated in their respective sections of the EIS. The erroneous conclusions found in these sections are carried forward throughout the EIS thereby compounding the problem.
 - Adverse impacts to nearby property owners who are not under the ROW but are subject to the far reaching effects of noise and visual pollution that may measurably impact home and land valuation are ignored in Section 3.5 and throughout the EIS.
 - The adverse impact of cultural and historical alterations borne by family farmers as a result of the project is ignored in Section 3.5 and throughout the EIS.

Commenter's evidence to the factors mentioned above:

- Avoidable & Unavoidable Adverse Impacts Ignored:
 - a. Paragraph 3.5.6.6 stating that "No unavoidable adverse impacts were identified" is an illogical conclusion when one considers the magnitude of the Project and the

- immense number of complex problems that have to be addressed, solved, and mitigated.
- b. By ignoring the problems listed, both avoidable and unavoidable impacts have been hidden from view, assessment, and active mitigation.
 - c. Table 3.5-1 draws from EO 12898 addressing environmental justice and states: *“Requires each federal agency to make the achievement of environmental justice part of its mission by identifying and addressing disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations.”* The words “human health or environmental effects” should not be interpreted to exclude financial impact on minority and low-income populations that may be affected by Project activities.

Response:

As discussed in Section 2.8 of the Final EIS, unavoidable adverse impacts could occur during construction, operations and maintenance, and decommissioning phases of the Project. These impacts would be expected after implementation of the EPMs and those BMPs that DOE includes in a ROD or Participation Agreement; however, in all cases, the impacts would have been minimized through implementation of these measures. It is expected that any impacts that would affect all populations in the ROI equally. Therefore no unavoidable adverse impacts would be disproportionately borne by minority and/or low-income populations as a result of the Project. Section 3.5.6.6 was revised to provide clarification.

The EIS addresses unavoidable adverse impacts for all resource areas in Chapter 3. EPMs for all resource areas are described in Chapter 3 and are discussed further in Appendix F of EIS. Socioeconomic impacts are specifically discussed in Section 3.13 of the Final EIS.

- o Increasing Poverty Levels Ignored:
 - a. The poverty level data presented in EIS Tables 3.5-8 and 3.5-11 underestimates affected county poverty levels when compared to current US Census Bureau estimates.
 - b. The earlier data used in the EIS reported that there were six (6) counties in Arkansas with poverty levels ranging from 20.1 percent to 26.0 percent. Current US Census data shows that median household income in eight (8) of thirteen (13) affected counties now range from 20.1 percent to 28.1 percent below the poverty level. This is an increase of two (2) counties falling into an area of concern and worthy of attention. The top poverty level among these counties is another troubling statistic rising from 26.0 percent to 28.1 percent.
 - c. Comparing earlier US Census Bureau estimates with current estimates shows that nine (9) of thirteen (13) counties have endured increasing poverty levels rather than remaining stable or improving. This statistic and those mentioned above should increase our diligence when assessing environmental justice, and bring to light potentially adverse effects that may have previously been overlooked.
 - d. Table 3.5-8 does not include poverty status for three counties (Cleburne, Cross, and Johnson).

Response:

Census data collected to prepare Section 3.5 of the EIS were obtained from the 2011 American Community Survey (USCB 2011). The American Community Survey is an ongoing survey that samples a small percentage of the population every year. The data used were the most current data available during the preparation of the Draft EIS. Subsequently, 2013 Census data were released during the preparation of the Final EIS. An analysis of the 2013 data shows small changes in minority and low-income populations; however, there were no substantial changes between 2011 and 2013 data that would change the conclusion regarding environmental justice impacts.

As discussed in Section 3.5.2, the U.S. Census Bureau has defined levels of statistical geographic entities to present data from the decennial census and American Community Survey. Counties are divided in Census Tracts, Census Tracts into Census Block Groups, and Census Block Groups into Census Blocks, the smallest statistical areas the Census uses to report sample data. The analysis focuses Census Block and Census Block Groups to avoid the problem of larger geographic areas potentially “diluting” the presence of concentrations of minority and/or low income populations (CEQ 1997; EPA 1998). Census Block and Census Block Groups offer a finer resolution for analysis as opposed to the county level.

As discussed in Section 3.5.4, tables present data on Census Blocks with identified minority populations and Census Block Groups with identified low-income populations. Poverty status for Cleburne, Cross, and Johnson counties in Arkansas were not included in Table 3.5-8 because there were no Census Block Groups identified within the ROI with 20 percent or more of households below the poverty level. A note has been added to this table in the Final EIS.

- Disproportionate Impact on the Poor Ignored:
 - a. The Environmental Justice section of the EIS fails to capture, analyze, and quantify how the poor in society may suffer disproportionately when compared to middle or high income households.
 - b. It doesn't explain how they are being uncompensated for losses or the hidden consequences of being affected by the transmission line may disproportionately impact various parts of their lives such as: Nutrition, health, current & future financial wellbeing, shelter, transportation, education, and employment.

Response:

The approach used in the EIS to assess environmental justice concerns is consistent with guidelines in CEQ (1997) and EPA (1998). DOE has conducted outreach and public involvement efforts in accordance with 40 CFR Part 1501.07, in accordance with public commenting as described in 40 CFR Part 1503, and in accordance with Public Involvement as described in 40 CFR Part 1506.6. DOE held 13 public scoping meetings in communities along the Applicant Proposed Route and HVDC alternative routes. Notifications and attempts to involve the public in potentially affected communities are documented in the public scoping report that is included in Appendix D. Identifying whether disproportionately high and adverse human health

or environmental effects on minority and/or low-income populations would occur typically involves identifying whether minority and/or low-income communities are present and whether the effects identified are predominantly borne by such populations. As discussed in Section 3.5.6.2 of the Final EIS, impacts may occur in areas where minority and/or low-income populations were identified; however, it is expected that any impacts would affect all populations in the ROI equally. Therefore, no unavoidable adverse impacts would be disproportionately borne by minority and/or low-income populations as a result of the Project. No long-term significant impacts were discernable to Agricultural Resources; Air Quality and Climate Change; Electrical Environment; Geology, Paleontology, Soils, and Minerals; Groundwater; Health, Safety, and Intentional Destructive Acts; Historic and Cultural Resources; Land Use; and Noise. As shown in Section 3.8 there are no long-term health and safety impacts to any population.

Landowners or tenants may experience temporary or permanent impacts resulting from placement of Project features on agricultural land. As part of the easement acquisition process, the Applicant would work with landowners and tenants to develop compensation that would include payment to the landowner for the transmission line easement, payment for each transmission line structure on the landowner property, and additional payments for damages to property and reduction in crop yield. Compensation would be developed in accordance with practices identified in Section 2.1.3 of the Final EIS and the Applicant's Agriculture Impact Mitigation Policy provided in Appendix J of the Final EIS. Additionally, the Applicant would work with landowners and/or their representatives develop a site plan (EPM AG-7) for each cropland farm on which construction or maintenance is to be performed. The site plan would include a description of preconstruction land elevations as well as the planned post-construction conditions. The site plan would be approved by the Applicant and landowner and/or tenant prior to construction, and following completion of construction, a final inspection would be completed by the landowner and the Applicant. Additional details regarding the development of a site plan and the Applicant's Agriculture Mitigation Policy are provided in Appendix J of the Final EIS.

Environmental impacts (both positive and negative) from the Project have been evaluated and disclosed for 19 different resources and are included in Chapter 3 of the Final EIS. Socioeconomic conditions are discussed in Section 3.13; this section includes a discussion of the affected environment and the impacts the Project would have on population, economic conditions, agriculture, housing, community services, and tax revenues. Health and safety are discussed in Section 3.8; this section includes the results of DOE's analysis of potential health and safety impacts associated with the Project. Additional discussion is also included in Comment Issues 1, 13, 21, and 24 of the CRD.

- Losses due to Corona Noise & Visual Pollution Ignored:
 - a. Uncompensated financial losses in any form may disproportionately and unjustly impact minorities and those below the poverty level. The effect of corona noise and

visual pollution from lines and structures with their measurable negative financial consequences for property owners are unjustly ignored for those under the ROW and those near or adjacent to it.

Response:

In the Final EIS, the impacts from corona noise are discussed in Section 3.4, visual resources in Section 3.18, and impacts to property values in Section 3.13. As discussed in Section 3.5.6.2 of the Final EIS, although potential minority and low income populations were identified based on the analysis of impacts for resource areas, few long-term significant impacts from construction, operation and maintenance, and decommissioning activities phases are expected. No high and adverse impacts were identified, and those impacts that are expected to occur would not be expected to disproportionately affect potential minority or low income populations.

- Unique Agrarian Lives and Difficult Recovery from Impacts Ignored:
 - a. The environmental justice assessment fails to address how farmers and other rural property owners, often living below the poverty line, can be unjustly affected. The consequences they bear are unique to agrarian life. Section 3.5 ignores the difficulty they may have recovering from the impacts borne by them as a result of the project.
 - b. Unlike living and working in or near a city where options for homes and jobs abound, a farmer can't simply move and take his livelihood elsewhere. Unlike "spec" houses and look-alike neighborhoods, finding another farm or rural property in the proximity to family and having virtually the same attributes, may be impossible.
 - c. Often, when property is removed from his use, compensation for the land taken and for the loss of productivity falls short of making the farmer or landowner whole. This unjust exchange can destroy without compensation the use of future home sites set aside for the next generation of family farmers. The landowner may lose the very reason he chose the location, possibly for the peace and quiet it provides or the beauty that binds him to the land.
 - d. In addition to financially related impacts, there are other social implications that we simply cannot place a value on. Where the farm or land has supported multiple generations, what is the just value that can be placed on breaking a chain of family history and the proud culture removed from the generations that follow? What price can we place on historical homes where family members have been born and where cemeteries bear ancestors?
 - e. It is difficult for many of us to comprehend (many of us never will) how the farmer with his family and land are one. Like a married couple, the two become one unit. Taking any part of it away is like removing part of their oneness; part of their identity. These kinds of life changing events are more than unjust, they are unconscionable.

Response:

The Applicant has developed several EPMs to avoid or minimize effects to landowners (including farmers and other rural property owners) and existing land uses from construction, operations and maintenance, and/or decommissioning as appropriate.

These EPMs are discussed in further detail in Appendix F of the Final EIS. Some relevant Applicant-developed EPMs include:

- *GE-10: Clean Line will work with landowners to repair damage caused by construction, operation, or maintenance activities of the Project.*
- *GE-20: Clean Line will work with landowners and operators of active oil and gas wells, utilities, and other infrastructure to identify and verify the location of facilities and to minimize adverse impacts.*
- *LU-1: Clean Line will work with landowners and operators to ensure that access is maintained as needed to existing operations.*
- *LU-3: Clean Line will work with landowners to avoid and minimize impacts to residential landscaping.*
- *LU-4: Clean Line will coordinate with landowners to site access roads and temporary work areas to avoid and/or minimize impacts to existing operations and structures.*
- *LU-5: Clean Line will make reasonable efforts, consistent with design criteria, to accommodate requests from individual landowners to adjust the siting of the ROW on their properties.*
- *AG-1: Clean Line will work with landowners to minimize the placement of structures in locations that would interfere with the operations of irrigation systems.*
- *AG-3: Clean Line will consult with landowners and/or tenants to identify the location and boundaries of agriculture or conservation reserve lands and to understand the criteria for maintaining the integrity of these committed lands.*
- *AG-4: Clean Line will work with landowners and/or tenants to identify specialty agricultural crops that may require protection during construction, operation, or maintenance.*
- *AG-5: Clean Line will work with landowners and/or tenants to consider potential impacts to current aerial spraying or application of herbicides, fungicides, pesticides, and fertilizers within or near the transmission ROW.*
- *AG-6: Clean Line will work with landowners to develop compensation for lost crop value caused by construction and/or maintenance.*

Compensation for affected landowners is addressed in Section 2.1.3 of the Final EIS. Applicant-developed EPMs that address compensation include AG-6: Clean Line will work with landowners to develop compensation for lost crop value caused by construction and/or maintenance. Access restrictions and enforcement mechanisms will be worked out during final ROW easement negotiations with the landowner, and access restrictions would be implemented according to landowner agreements. To the extent that the DOE participates in the Project, the acquisition of easements and, in limited areas, land purchased in fee (such as for the converter stations), may be subject to applicable provisions of the Uniform Act, the purpose of which is to ensure that landowners are treated fairly and consistently. The Applicant intends to acquire all of the necessary ROW for the Project through voluntary negotiations, and has developed a Code of Conduct for its negotiations with landowners, provided in Attachment 4 in Clean Line's comments on the Draft EIS (included in Chapter 2 of the CRD). This Code of Conduct requires that all communications with landowners be factually correct, in good faith, and respectful.

In addition, environmental impacts (both positive and negative) from the Project have been evaluated and disclosed for 19 different resources and are included in Chapter 3 of the Final EIS. Socioeconomic conditions are discussed in Section 3.13; this section includes a discussion of the affected environment and the impacts the Project would have on population, economic conditions, agriculture, housing, community services, and tax revenues. Health and safety are discussed in Section 3.8; this section includes the results of DOE's analysis of potential health and safety impacts associated with the Project. Additional discussion is also included in Comment Issues 1, 13, 19, 21, and 24 of the CRD.

A similar response is included in Comment Issue 20 of the CRD related to comments about impacts on "way of life."

- Commenter provides suggestions to updating the EIS:
 - Update the EIS to include the most recent US Census data for poverty levels in the affected counties.
 - Drawing on historical data and future projections, estimate poverty levels in affected counties over the next five years, or longer if practicable.
 - Assess the impact of the direct and indirect effects of the Project on financially disadvantaged property holders under and near the right of way.
 - Include and assess the impacts of increasing poverty levels.
 - Capture, analyze, and quantify how affected property owners in economically challenged counties may suffer disproportionately when compared to middle or high income property owners in more affluent counties.
 - For this group, identify potential uncompensated losses that may impact various parts of their lives such as: Nutrition, health, current & future financial wellbeing, shelter, transportation, education, and employment.
 - Include the identified disproportionate impacts on the poor.

Response:

As discussed in Section 3.5.6.2 of the Final EIS, although potential minority and low income populations were identified, few long-term significant impacts from construction, operation and maintenance, or decommissioning activities are expected based on the analysis of impacts for resource areas. No high and adverse impacts were identified, and those impacts that are expected to occur would not be expected to disproportionately affect potential minority and/or low-income populations.

Census data collected to prepare Section 3.5 of the EIS were obtained from the 2011 American Community Survey (USCB 2011). The American Community Survey is an ongoing survey that samples a small percentage of the population every year. The data used were the most current data available during the preparation of the Draft EIS. Subsequently, 2013 Census data was released during the preparation of the Final EIS. An analysis of the 2013 data shows small changes in minority and low-income populations; however, there were no substantial changes between 2011 and 2013 data that would change the conclusion regarding environmental justice impacts.

The approach used in the EIS to assess environmental justice concerns is consistent with guidelines in CEQ (1997) and EPA (1998) guidance). Identifying whether disproportionately high and adverse human health or environmental effects on minority and/or low-income populations would occur typically involves identifying whether minority and/or low-income communities are present and whether the effects identified are predominantly borne by such populations. As discussed in Section 3.5.6.2 of the Final EIS, impacts may occur in areas where minority and/or low-income populations were identified, however it is expected that any impacts would affect all populations in the ROI equally. Therefore no unavoidable adverse impacts would be disproportionately borne by minority and/or low-income populations as a result of the Project. No long-term significant impacts were discernable to Agricultural Resources; Air Quality and Climate Change; Electrical Environment; Geology, Paleontology, Soils, and Minerals; Groundwater; Health, Safety, and Intentional Destructive Acts; Historic and Cultural Resources; Land Use; and Noise. As shown in Section 3.8 there are no long-term health and safety impacts to any population.

The Applicant has developed several EPMs to avoid or minimize effects to landowners (including farmers and other rural property owners) from construction, operations and maintenance, and/or decommissioning as appropriate. These EPMs are discussed in further detail in Appendix F of the Final EIS.

In addition, environmental impacts (both positive and negative) from the Project have been evaluated and disclosed for 19 different resources and are included in Chapter 3 of the Final EIS. Socioeconomic conditions are discussed in Section 3.13; this section includes a discussion of the affected environment and the impacts the Project would have on population, economic conditions, agriculture, housing, community services, and tax revenues. Health and safety are discussed in Section 3.8; this section includes the results of DOE's analysis of potential health and safety impacts associated with the Project. Additional discussion is also included in Comment Issues 1, 13, 19, 21, and 24 of the CRD.

Socioeconomic conditions are discussed in Section 3.13 of the Final EIS; the section includes a discussion of the affected environment and the impacts the Project would have on population, economic conditions, agriculture, housing, community services, and tax revenues. Health and safety are discussed in Section 3.8 of the Final EIS; this section includes the results of DOE's analysis of potential health and safety impacts associated with the Project.

- According to Figures 3.5-1a-f in Appendix A, a sizable portion of the proposed route will impact low-income populations (defined as ≥ 20 percent of the population living below the poverty line). This appears to be borne out by Table 3.5-6, showing that eight of eight census block groups in Oklahoma contain >20 percent of the population living below the poverty line. However, when the census tracts are incorporated into their respective counties, the county-wide percentage of poor households falls below 20 percent for five of the six counties. The same observation holds for Arkansas (Table 3.5-8). By census block group, 19 of 19 contain >20 percent of people living below the poverty level, but when the census

blocks are incorporated into their respective counties, three of ten counties have <20 percent of their population considered poor. Table 3.5-11 lists affected counties by region, and according to this table only in Regions 6 and 7 do >20 percent of the population fall into the "low income" category. It appears that individuals (mostly rural) who will be most impacted by the high voltage line/towers (i.e., those living/working nearest the line) could be considered a low-income population; is there an effect of dilution when adding data from the entire county (adding in more urbanized areas)?

Response:

Tables presenting race and ethnicity and poverty status do not list all the Census Blocks or Census Block Groups within a county, but present Census Blocks or Census Block Groups with identified minority or low-income populations. As discussed in Section 3.5.2, the U.S. Census Bureau has defined levels of statistical geographic entities to present data from the decennial census and American Community Survey. Counties are divided in Census Tracts, Census Tracts into Census Block Groups, and Census Block Groups into Census Blocks, the smallest statistical areas the Census uses to report sample data. Census Block and Census Block Groups offer a finer resolution for analysis as opposed to the county level. The analysis focuses Census Block and Census Block Groups to avoid the problem of larger geographic areas potentially "diluting" the presence of concentrations of minority and/or low income populations (CEQ 1997; EPA 1998). Census Block and Census Block Groups offer a finer resolution for analysis as opposed to the county level.

- Figures 3.5-1a through 3.5-1f in Appendix A show the census block groups within 1,000 feet of the Project where 20 percent or more of the households was below the poverty level in 2011. The same data are presented in tabular form in Tables 3.5-4, 3.5-6, 3.5-8, and 3.5-10 for Texas, Oklahoma, Arkansas, and Tennessee, respectively. The analysis uses data at the census block group level (the smallest geographic unit for which these data are available) to avoid potential issues with county-level data "masking" or "diluting" the presence of low income populations. There appears to be a typographical error in the last column of Table 3.5-11. Household Median Income is specified as "%" instead of "\$". It is unclear from the table footnotes how the regional totals were obtained. They do not appear to be averages of the counties assigned to the region (it is stated that counties are located in more than one region, but were assigned to one region).

Response:

The typographical error in Table 3.5-11 has been corrected. Regional totals for population, total households, and poverty are the sum or percentage of the counties. Regional totals for the household median income are the median values of the counties within a region.

- In Section 3.5.6.2—Impacts Associated with the Applicant Proposed Project, the DOE states on page 3.5-17 that where minority or low-income individuals were found, everyone in the area would be equally affected. However, it is not clear from the analysis presented that the area underneath and adjacent to the high voltage line/towers is not populated by predominantly low-income households, compared to the surrounding area. In that case, would a disproportionate percentage of low-income individuals be affected?

The DOE also states on the same page that it could identify "...no long-term impacts to any population," based on this Draft EIS. This is a subjective opinion. The Draft EIS identifies various long-term impacts that will affect individuals and communities along the entire proposed route. Indeed, the DOE identifies "unavoidable adverse impacts" throughout the Draft EIS.

Response:

The analysis for the Applicant Proposed Route includes the 1,000-foot-wide corridor of the Applicant Proposed Route. Section 3.5.4 lists the Census Blocks and Census Block Groups with identified minority and low-income populations within the 1,000-foot-wide corridor. The environmental justice analysis only includes Census Block and Census Block Groups within the 1,000-foot-wide corridor. It was determined that no unavoidable adverse impacts would be disproportionately borne by minority and/or low-income populations.

Impacts may occur in areas where minority and/or low-income populations were identified, however, it is expected that any impacts would affect all populations in the ROI equally. Therefore no unavoidable adverse impacts would be disproportionately borne by minority and/or low-income populations as a result of the Project. The Final EIS was updated to provide clarification.

- Commenter submits a copy of Executive Order 12898, Federal Action to Address Environmental Justice in Minority Population and Low-Income Populations and highlights how the people should have an opportunity to comment. The commenter notes that federal agencies should hold public meetings to ensure greater public participation, with each federal agency required to conduct programs, policies and activities in a manner that ensures that they do not have an effect in excluding persons including populations for participation in them.

Response:

Comment noted. DOE held 15 public hearings in communities along the entire proposed route for the Project. Every attempt was made to select locations that were within approximately one hour's drive from potentially affected landowners. The public was notified by direct mail, newspaper notices, the EIS website, and the EIS email list.

- Commenter states the EIS says that the poor are not disproportionately affected. Using numbers from the EIS to calculate the amount of property value loss by those people on and near the route, because you don't have to be on the route to have your property devalued by it, in the country if you can see it or hear it, your property values are going to decrease. Up to \$800 million in property loss will be borne by the people of Arkansas and Oklahoma and in Arkansas the average median income in rural Arkansas is \$33,000.

Response:

The commenter does not explain how they developed the estimate of "up to \$800 million in property loss" or what this loss consists of. Potential impacts on property values, including property values outside the 200-foot-wide representative ROW, are discussed in Section 3.13.6.2.5 of the Final EIS. As discussed in the Final EIS, some short-term adverse impacts

on residential property values (and marketability) might occur on an individual basis as a result of the Project, but these impacts would be highly variable, individualized, and difficult to predict. Unique Project characteristics that need to be taken into consideration when assessing the potential effects of transmission line structures on residential property values include the type and height of the structures, the distance and view from the potentially affected property, intervening topography and vegetation, and the property market and type of landscape involved. For properties that would be crossed by the transmission line, the effect a transmission line may have on property value is a damage-related issue that would be negotiated between Clean Line and the affected landowner during the easement acquisition process.

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17 Geology, Paleontology, Minerals, and Soils

The following comments were received relative to geology, paleontology, minerals, and soils:

- Commenter notes the long-term impacts from the project include the potential loss of productivity for disturbed soils, and commitment of soils (including soils designated prime farmlands) to a utility use (primarily for access roads, converter stations, and transmission line pole structures). Clearing, grading, excavation, and other construction activities could increase soil erosion. Construction vehicles and equipment could cause soil compaction, particularly in soils with characteristics inherently susceptible to compaction. The use of access roads would cause soil compaction; decompaction plan is needed to bring the soil back to its original densities after construction is completed. Commenter notes that data pertaining to soil limitations in Section 3.6 point to problems with high compaction potential virtually throughout the ROI in five of the seven regions. Who will be responsible for repairing damages from erosion?

Response:

Section 3.6.2.6.1.1 of the Final EIS discusses and acknowledges impacts to soils from the Project including soil disturbance, loss of designated farmland, erosion, and compaction. Section 3.6.2.6 documents acreage impacts to soils with high compaction potential and impacts to soils with high wind and water erosion potential for the Project. EPM GE-27 specifically addresses soil compaction concerns. EPMs that would be implemented to avoid and minimize soil erosion include GE-3, GE-6, GE-9, GE-11, GE-22, GE-30, AG-2, and GEO-1. A SWPPP would be created for the Project that would be consistent with federal and state regulations; and would describe the practices, measures, and monitoring programs to control sedimentation, erosion, and runoff from disturbed areas. A Restoration Plan would be created and implemented following construction. The plan would include restoration measures that would minimize erosion. Tables 3.6.2-19, 3.6.2-21, and 3.6.2-23 document impacts to designated farmland, including prime farmland. It is important to note that the majority of impacts to acreage would be temporary during construction and that permanent impacts would impact less acreage. Farming could continue in areas surrounding transmission line structures. DOE has consulted with the state NRCS offices in Oklahoma, Arkansas, and Tennessee concerning impacts to farmland protected under the FPPA and has received a determination from the agencies that the transmission lines do not irreversibly convert farmland (Sagona 2014; Adams 2014). This determination, however, does not apply to the converter stations, the construction of which would potentially convert farmland and would require a Form AD-1006 be submitted for evaluation. The locations of access roads needed for the Project have not yet been determined; however, the Applicant would avoid placement of permanent access roads through farmland. Once the exact locations of Project components have been determined, a farmland conversion assessment would be completed by the NRCS for any remaining components for which the NRCS has not yet issued a determination. EPMs that would protect farmland include AG-1, AG-2, AG-3, and AG-4.

EPMs and the SWPPP would minimize potential damages from erosion during construction and operations and maintenance of the Project. Landowners or tenants, however, may experience temporary or permanent impacts to their properties and/or operations. As documented in Clean Line's comment letter to DOE regarding the Draft EIS, dated April 20,

2015, as part of the easement acquisition process, Clean Line would work with landowners and tenants to develop a compensation structure that includes payment to the landowner for the transmission line easement, payment for each transmission line structure on the landowner property, and additional payments for damages to property such as disruptions to slope, drainage features, irrigation systems, and reduction in crop yield. This compensation structure would be developed in accordance with the Agriculture Impact Mitigation Policy provided in Appendix J of the Final EIS.

- Commenter notes Tennessee Division of Remediation (DoR) has reviewed the Draft EIS. While DoR does not have any specific comments on the proposed action or its alternatives, there are several contaminated sites near the proposed route. Commenter included these in Figure 3, attached to the correspondence. Commenter further notes their Division of Solid Waste Management (SWM) and its Hazardous Waste Management Section have reviewed the Draft EIS. Based on this review, there appear to be no known solid waste facilities within the proposed right-of-ways. However, where the proposed route transits the Chickasaw Bluffs, unknown sites may be encountered, as large gullies are ideal sites for illicit disposal of waste. While there is no apparent application of TDEC Hazardous Waste Management Rules within the context of the proposed action, should any hazardous wastes be generated during the project, it should be characterized for proper disposal or recycling. Commenter notes their Tennessee Office of Energy Programs has also reviewed the Draft EIS.

Response:

Information regarding the contaminated sites in the vicinity of the Project is appreciated. Based on additional review of the site locations as shown in attached Figure 3, none of the sites are located in the ROIs for HVDC Alternative Route 7-C, 7-B, or 7-D or for Applicant Proposed Route Link 5. The Chickasaw Bluffs would be traversed by HVDC Alternative Route 7-C and Applicant Proposed Route Link 3. Further discussion has been added to Section 3.6.2 of the Final EIS to reflect the concerns of the Tennessee Division of Solid Waste Management in this area. EPMs GE-1, GE-12, and GE-15 would be employed to avoid, or handle and dispose of potentially hazardous materials. These EPMs include working with federal and/or state agencies to determine any required actions.

- Commenter notes Tennessee Office of Energy Programs has also reviewed the Draft EIS. The proposed location for the eastern converter station in western Tennessee is located in an area that is vulnerable to potential New Madrid Seismic Zone activity coupled with soil susceptibility to compaction and water erosion. Given these characteristics of the proposed site, the Office of Energy Programs recommends that the Final EIS include discussion of risk management protocols, emergency response measures, and alternative fuel supply sources to be utilized in the event that an earthquake occur during construction or operations of the transmission line.

Response:

The Project would be designed to the applicable earthquake standards for the area. The health and safety discussions in Section 3.8 of the Final EIS address potential impacts associated with natural disasters. Risk management and emergency response protocols would be addressed through standard industry practices and regulatory requirements as well

as EPMs and plans identified by the Applicant (GE-1, training related; GE-13, emergency and spill response related; Construction Security Plan). Additional applicable BMPs have been identified in Section 3.8 that include a Health and Safety Plan and a Communications Program that would also address necessary protocols.

- Commenter states that soils are a precious resource in Oklahoma. Commenter states that the Draft EIS does not give sufficient attention to the impact the construction of the line may have on the soil resources along the proposed route, nor are there adequate safeguards being considered to prevent soil erosion. Commenter notes that changes in soil may result in reduced or eliminated productivity for prime agricultural land in Oklahoma. Commenter notes that the land the line will cross near the Cimarron River west of Ames is rough, fragile country. The sand along the Cimarron, if skimmed off, won't come back. It will blow away.

Response:

Section 3.6.2.6 documents impacts in relation to soils that would be most prone to water and/or wind erosion. EPMs that would be implemented to avoid and minimize soil erosion include GE-3, GE-6, GE-9, GE-11, GE-22, GE-30, AG-2, and GEO-1. A SWPPP would be created for the Project that would be consistent with federal and state regulations and that would describe the practices, measures, and monitoring programs to control sedimentation, erosion, and runoff from disturbed areas. A Restoration Plan would be created and implemented following construction. The plan would include restoration measures that would minimize erosion.

DOE has consulted with the state offices of the NRCS in Oklahoma, Arkansas, and Tennessee concerning impacts to farmland protected under the FPPA and has received a determination from the agencies that the transmission lines do not irreversibly convert farmland (Sagona 2014; Adams 2014). This determination, however, does not apply to the converter stations, the construction of which would potentially convert farmland and would require a Form AD-1006 be submitted for evaluation. The locations of access roads needed for the Project have not yet been determined; however, the Applicant would avoid placement of permanent access roads through farmland. Once the exact locations of Project components have been determined, a farmland conversion assessment would be completed by the NRCS for any remaining components for which the NRCS has not yet issued a determination. EPMs that would protect farmland include AG-1, AG-2, AG-3, and AG-4.

The Cimarron River crossing area is located in Region 2 of the Project. The Region 2 Applicant Proposed Route would impact 1,889 acres of soils with moderate to high wind erosion potential—the greatest acreage of all the Project regions. HVDC Alternative Route 2-A would impact 1,082 acres of soils with moderate to high wind erosion potential and the corresponding Applicant Proposed Route link would impact 1,004 acres. Soils present in the area surrounding and within the Cimarron River in Region 2 include a predominance of fine sandy loams and fine sands that can form dunes. It is acknowledged that most of these soils are very susceptible to wind erosion. Although EPMs and other measures would not completely eliminate erosion that might result from the Project, erosion would be avoided and minimized to the extent feasible in coordination with federal, state, and local agencies.

- Commenter feels the plan does not consider the impact on sub-surface mineral resources and their opportunity for development in Oklahoma.

Response:

Mineral resources (mines, shale plays, natural gas fields, and oil/gas wells) are presented by region in Section 3.6.1.5, Tables 3.6.1-3 through 3.6.1-5; Figure 3.6-6 (mines), and Figure 3.10-2 (gas wells). Additionally, potential impacts to these resources within the 200-foot-wide representative ROW are presented in Section 3.6.1.6.3.2.

EPMS GE-29, LU-1, and LU-4 will be in place to mitigate impacts of the Project on mineral resources. These measures state that Clean Line will work with landowners and operators of active oil and gas wells, utilities, and other infrastructure to identify and verify the location of facilities and to minimize adverse impacts (GE-29); the Project will be designed to avoid crossing existing operations (such as the well pads of any active oil and gas wells or impeding access to these resources (LU-1); and that Clean Line will work with landowners and operators to ensure that access is maintained as needed to existing operations (e.g., to oil/gas wells, private land, agricultural areas, pasture, hunting leases) (LU-4). Micrositing of the lines and towers can be employed when necessary to allow adequate access to existing infrastructure. DOE, therefore, does not anticipate that the high voltage line/towers will impede access to these resources.

- Commenter states the proposed route crosses fewer slopes than AR 4-A.

Response:

Comment noted. Summing the acres cited in Table 3.6.2-24 of the Final EIS, the Applicant Proposed Route corresponding links would impact 444 acres with slopes of 15–30 percent and HVDC Alternative Route 4-A would impact 741 acres.

- Commenter states erosion will increase due to shallow top soil in most of the route, especially in the western part of Arkansas and eastern Oklahoma.

Response:

It is acknowledged that EPMs and other erosion protection measures would not completely stop erosion that might result from the Project. Section 3.6.2.6 of the Final EIS documents impacts in relation to soils that would be most prone to water and/or wind erosion. EPMs that would be implemented to avoid and minimize soil erosion include GE-3, GE-6, GE-9, GE-11, GE-22, GE-30, AG-2, and GEO-1. A SWPPP would be created for the Project that would be consistent with federal and state regulations and would describe the practices, measures, and monitoring programs to control sedimentation, erosion, and runoff from disturbed areas. A Restoration Plan would be created and implemented following construction. The plan would include restoration measures that would minimize erosion.

- Commenter notes concern about the fragile sub-ground rock formations and geo-structures that are to be drilled into and blasted into.

Response:

As noted in section 3.6.1.6.2.3 of the Final EIS, the excavation and drilling required for the foundations of the transmission structures would permanently impact the geologic formation underneath the transmission structure footprint to depths ranging from 15 to 30 feet in most areas of the Applicant Proposed Route. In the area of the Mississippi River crossing, foundation depths could reach 17 to 158 feet deep for lattice structures and 26 to 115 feet for pole structures. The area of potential impact to a geologic formation represents a very small portion of the total area of the geologic formation. The total estimated transmission structure footprints by region range from 5.4 to 20.4 acres, which is a conservative estimate of the areal extent of affected geologic formation. In total, the tower footprints would affect about 90.6 acres of geologic formation for the entire Applicant Proposed Route.

- Commenter notes concern about the slope of the area in relation to the proposed right-of-way. Commenter notes the proposed right-of-way in the EIS has a slope of 56 percent, which he believes is 3 times the recommended maximum slope found in Table 1. Commenter notes that clearing this right-of-way area would create 3 acres of bare ground on an approximately 60 percent slope, and, therefore, be extremely difficult to control erosion (Region 5, Link 1, Buck Point Subdivision north of Dover AR).

Response:

The Applicant has developed a route variation to address a newly built home in this area of the Project. In Region 5, Applicant Proposed Route Link 1, Variation 2, increases the distance between the HVDC transmission line and the new home and also decreases the amount of area that would be crossed through steep slopes.

- Commenter suggests using Oil and Gas Commission or the Corporation Commission at the Bristow office should be used to get most of the information and GIS information on the oil/gas wellhead locations and might be able to pinpoint a lot of the obstructions that you're going to have.

Response:

The GIS data used to map oil and gas wells in Oklahoma were obtained from the Oklahoma Corporation Commission and accessed February 20, 2014.

- Commenter notes concern about the historical instability of their farm land and the recent significant expenditures and actions taken to attempt to slow down erosion of the land, which is adjacent to the St. Francis River (Marked Tree, Arkansas).

Response:

The Project crosses the St. Francis River near the intersection of Regions 6 and 7. The Region 7 Applicant Proposed Route and HVDC Alternative Route 7-A, and Region 6 Applicant Proposed Route Link 8 are located in the crossing area. Section 3.6.2.6 of the Final EIS documents impacts in relation to soils that would be most prone to water and/or wind erosion. EPMs that would be implemented to avoid and minimize soil erosion include GE-3, GE-6, GE-9, GE-11, GE-22, GE-30, AG-2, and GEO-1. A SWPPP would be created for the Project that would be consistent with federal and state regulations and would

describe the practices, measures, and monitoring programs to control sedimentation, erosion, and runoff from disturbed areas. A Restoration Plan would be created and implemented following construction. The plan would include restoration measures that would minimize erosion.

The area along the St. Francis River contains a predominance of soils characterized as designated farmland. Tables 3.6.2-19, 3.6.2-21, and 3.6.2-23 of the Final EIS document impacts to designated farmland, including impacts to prime farmland.

Landowners or tenants may experience temporary or permanent impacts to their properties and/or operations. As documented in Clean Line's comment letter to DOE regarding the Draft EIS, dated April 20, 2015, as part of the easement acquisition process, Clean Line would work with landowners and tenants to develop a compensation structure that includes payment to the landowner for the transmission line easement, payment for each transmission line structure on the landowner property, and additional payments for damages to property such as disruptions to slope, drainage features, irrigation systems, and reduction in crop yield. This compensation structure would be developed in accordance with the Agriculture Impact Mitigation Policy provided in Appendix J of the Final EIS. Additionally, Clean Line would work with landowners and/or their representatives develop a site plan (EPM AG-7) for each cropland farm on which construction or maintenance is to be performed. The site plan would include a description of preconstruction land elevations as well as the planned post-construction conditions. The site plan would be approved by Clean Line and landowner and/or tenant prior to construction, and following completion of construction, a final inspection would be completed by the landowner and Clean Line. Additional details regarding the development of a site plan and the Agricultural Mitigation Policy are provided in Appendix J of the Final EIS. EPMs that would protect farmland include AG-1, AG-2, AG-3, and AG-4.

- Commenter notes the land is rugged, steep and is very prone to erosion on property in Conway County, Arkansas.

Response:

Conway County is traversed by Region 5 Applicant Proposed Route Link 3 and by HVDC Alternative Route 5-B. HVDC Alternative Route 5-B traverses more than one county in Arkansas. HVDC Alternative Route 5-B would impact approximately 287 acres of soils with slopes from 15 to 30 percent, and the corresponding Applicant Proposed Route links would impact 261 acres. HVDC Alternative Route 5-B does not cross slopes greater than 30 percent, but the corresponding Applicant Proposed Route links would impact 32 acres of slopes greater than 30 percent. EPM GEO-1 specifically addresses erosion in relation to steep slopes. Other EPMs that would be implemented to avoid and minimize soil erosion include GE-3, GE-6, GE-9, GE-11, GE-22, GE-30, and AG-2. A SWPPP would be created for the Project that would be consistent with federal and state regulations and would describe the practices, measures, and monitoring programs to control sedimentation, erosion, and runoff from disturbed areas. A Restoration Plan would be created and implemented following construction. The plan would include restoration measures that

would minimize erosion including any special measures that might be necessary in areas of steep slopes.

- Commenter with property near Ringwood Oklahoma describes the soil as native baby fine blow sand that is very susceptible to erosion. Commenter notes concern that, should the top soil be damaged, the grazing ability would be reduced. The cattle operation would be hurt.

Response:

Section 3.6.2.6 of the Final EIS documents impacts in relation to soils that would be most prone to water and/or wind erosion. EPMs that would be implemented to avoid and minimize soil erosion include GE-3, GE-6, GE-9, GE-11, GE-22, GE-30, AG-2, and GEO-1. A SWPPP would be created for the Project that would be consistent with federal and state regulations and would describe the practices, measures, and monitoring programs to control sedimentation, erosion, and runoff from disturbed areas. A Restoration Plan would be created and implemented following construction. The plan would include restoration measures that would minimize erosion.

The area surrounding Ringwood, Oklahoma, is located in Region 2 of the Project. The Region 2 Applicant Proposed Route would impact 1,889 acres of soils with moderate to high wind erosion potential—the greatest acreage of all the Project regions (see Table 3.62-22). HVDC Alternative Route 2-A would impact 1,082 acres of soils with moderate to high wind erosion potential (see Table 3.6.2-24), and the corresponding Applicant Proposed Route link would impact 1,004 acres (see Table 3.6.2-24). Soils present in the area include fine loams and fine sands that can form dunes and they are very susceptible to wind erosion. Although EPMs and other measures would not completely eliminate erosion that might result from the Project, erosion would be minimized to the extent feasible in coordination with federal, state, and local agencies.

In addition, as part of the easement acquisition process, Clean Line would work with landowners and tenants to develop a compensation structure that includes payment to the landowner for the transmission line easement, payment for each transmission line structure on the landowner property, and additional payments for damages to property such as disruptions to slope, drainage features, irrigation systems, reduction in crop yield, and to grazing and other livestock resources. This compensation structure would be developed in accordance with the Agriculture Impact Mitigation Policy provided in Appendix J of the Final EIS.

- Commenter concerned about the drilling and blasting that would occur at Region 7, specifically Poinsett, Mississippi Cross, and Tipton counties, each of which runs across the New Madrid fault line. Drilling and blasting in this area may trigger earthquakes and would be detrimental to Arkansas. Commenter notes concern about the potential for earthquakes with a magnitude of 3.0 or greater within Oklahoma. Commenter does not feel the EIS adequately addressed the effect of earthquakes on power lines.

Response:

Drilling and blasting is not expected to trigger earthquakes along the New Madrid Fault System because these construction activities would take place at depths between 0 and 158 feet below ground surface. These depths are very shallow compared to the depth of the New Madrid Fault System, where seismic activity is generally recorded at depths between 3 and 15 miles.

As stated in Section 3.8.5.2.1.4 of the Final EIS, the Project would be constructed to withstand probable seismic events within the seismic risk zones crossed and comply with all applicable federal, state, and industry building codes and standards, which are intended to avoid or minimize safety risks posed by natural events and disasters.

- Commenter notes that the EIS only talks of minimum impact from landslides. Since 2005 to current, the Ozark Mountain region has endured many minor and major slide events closing highways such as US 71, AR Highway 23 & AR Highway 7, some of these slides are low down and near the Arkansas River Valley. Most of these are occurring in the Boston Mountain Region of Arkansas. The standards for some sort of substructure for the support of these massive towers will require some sort of deep reinforced concrete base, in many parts of the River Valley of Arkansas this will require blasting into the rock. What type of information is in the blast plan, what type of standards will be required for the blasting as not to do damage to existing structures and water wells. What type of vibrations and air overpressure specifications will be used to insure no damage occurs from this type of operations? Not discussed is how blasting will be conducted, e.g., what type of explosives are expected to be used, will there be a notification plan for homeowners and other persons in the area and will the blasting crew work to ensure that blasting does not cause damage to nearby structures? According to text on page 3.6-25, Regions 4 and 5 contain the most shallow bedrock (63 percent and 87 percent, respectively, of the proposed route). The implication is that there would be a significant amount of blasting in these two regions.

Response:

As described in Section 3.6.1.6.1.1 of the Final EIS, Clean Line would site new access roads and transmission structures to avoid steep side slopes (i.e., loading slopes) to the extent practicable. Where unstable slopes cannot be avoided, construction activities, including vegetation clearing and alteration of surface drainage patterns, may increase landslide risk. Erosion control measures and monitoring programs to control sedimentation, erosion, and runoff from disturbed areas would be implemented per the Project SWPPP. Implementation of EPMs GE-9 and GEO-1 serve to maintain slope stability. In addition, areas subjected to clearing and grading would be stabilized and/or revegetated consistent with the Restoration Plan and landowner or land manager requirements. Where access to structures along steep slopes is required, special construction techniques are required to ensure the structure foundation and access roads are stable. Should transmission structures and new roads be sited on steep slopes, an excavated bench would be created to increase foundation stability.

The Applicant would excavate the tower foundation holes by drilling, blasting, or installing special rock anchors. Blasting may be used in isolated locations where required to break up rock, enabling excavation using traditional techniques. The Applicant would develop a

Blasting Plan designed to minimize adverse effects due to blasting. The Blasting Plan would contain blast monitoring protocol. When blasting techniques are used, all safeguards associated with using explosives (e.g., blasting mats) would be implemented. Blasting would be conducted by a licensed blasting contractor and would be in compliance with federal regulations referenced in the Federal Explosives Law and Regulations (Bureau of Alcohol, Tobacco, Firearms, and Explosives), and other applicable state regulations that address blasting. Blasting is used most frequently in steep mountainous terrain where structure benches must be excavated in hard rock. There are four main categories of commercial high explosives: dynamite; slurries; ammonia nitrate and fuel oil; and two-component explosive. Ammonia nitrate and fuel oil is the most common general purpose explosive in use today. Every blast must be designed to meet existing conditions of the rock formation and overburden and to produce the desired result. A trial blast is typically performed in the field to validate theoretical blast designs or to provide additional information for final blast designs. The Applicant would follow federal and state regulations concerning the transportation and handling of explosives. All safeguards associated with using explosives (e.g., blasting mats) would be implemented.

- Commenter notes that on page 3.6-17 the Corporation will try to avoid or minimize impacts to mineral resources during the design phase by avoiding mineral resource features. Does the DOE anticipate that any portion of the high voltage line/towers will unavoidably directly impact existing mineral features such as oil or gas wells or impede access to them? In that case, would the Corporation have authority to remove the existing mineral feature in favor of the high voltage line/towers?

Response:

EPMs LU-1, LU-4, and GE-29, will be in place. These measures state that Clean Line will work with landowners and operators of active oil and gas wells, utilities, and other infrastructure to identify and verify the location of facilities and to minimize adverse impacts (GE-29); the Project will be designed to avoid crossing existing operations (such as the well pads of any active oil and gas wells or impeding access to these resources [LU-1]); and that Clean Line will work with landowners and operators to ensure that access is maintained as needed to existing operations (e.g., to oil/gas wells, private land, agricultural areas, pasture, hunting leases [LU-4]). Micrositing of the lines and structures can be employed when necessary to allow adequate access to existing infrastructure. DOE, therefore, does not anticipate that the high voltage line/towers will impede access to these resources.

- Commenter is opposed to the project because of the unavoidable negative impact it will have on soil resources used for agricultural activities. Commenter states that the proposed route crosses a great deal of prime farmland, which will be affected and permanently damaged. This consequence should be kept in mind during the evaluation process. Commenter states that the transmission line would increase erosion around poles, specifically on agricultural property.

Response:

Tables 3.6.2-19, 3.6.2-21, and 3.6.2-23 of the Final EIS document impacts to designated farmland, including impacts to prime farmland. It is important to note that much of the

acreage impacts would be temporary during construction and that permanent impacts would impact less acreage. Farming could continue in areas surrounding transmission line structures. It is acknowledged that areas of the Project mapped as designated farmland may be irreversibly converted by the Project. DOE has consulted with the state NRCS offices in Oklahoma, Arkansas, and Tennessee concerning impacts to farmland protected under the FPPA and has received a determination from the agencies that the transmission lines do not irreversibly convert farmland (Sagona 2014; Adams 2014). This determination, however, does not apply to the converter stations, the construction of which would potentially convert farmland and would require a Form AD-1006 be submitted for evaluation. The locations of access roads needed for the Project have not yet been determined; however, the Applicant would avoid placement of permanent access roads through farmland. Once the exact locations of Project components have been determined, a farmland conversion assessment would be completed by the NRCS for any remaining components for which the NRCS has not yet issued a determination. EPMs that would protect farmland include AG-1, AG-2, AG-3, and AG-4.

- Commenter feels the Draft EIS fails to address any construction modification requirements due to earthquake risks related to the proximity of the New Madrid fault zone. Commenter notes that several of the Arkansas counties within the proposed route(s) are in an alluvial plain that consists of a water saturated sandy loam type soil to a depth of 3 to 5 miles, thereby susceptible to liquefaction by an earthquake. Will there be a plan in place to mitigate soil liquefaction if it does occur?

Response:

As stated in Section 3.6.1.6.1.1 of the Final EIS, geologic/geotechnical investigations would be conducted during the engineering design in the areas identified as containing high susceptibility to soil liquefaction. It is noted that areas of high liquefaction potential might increase the risk of damage to Project infrastructure from earthquakes and subsequent destabilization of underlying soils, particularly in the Mississippi River floodplain. The placement of Project components would be governed in part by site conditions and construction requirements, which would minimize risks related to soil liquefaction. If it is not feasible to avoid areas of high liquefaction, measures such as specialized foundation design, specialized fill materials, and additional monitoring protocols following seismic events would be implemented as appropriate. Additionally, foundation depths would be increased in areas containing soils prone to liquefaction to increase stability in the structures in the event of an earthquake.

As stated in Section 3.8.5.2.1.4 of the Final EIS, the Project would be designed and built according to federal, state, and industry building codes and standards, which are intended to avoid or minimize safety risks posed by natural events and disasters.

- Commenter notes potential erosion due to the deforestation necessary for your project. The line lies adjacent to and within a deep ravine on landowner's property, hence the enhanced certainty of erosion and permanent destruction of the ecosystem.

Response:

The commenter is referring to an area within Region 4 and most specifically an area crossed by HVDC Alternative Route 4-D. Review of this area indicates that micrositing within the 1,000-foot-wide corridor could be employed to avoid the ravine if this alternative is constructed. Section 3.6.2.6 of the Final EIS documents impacts in relation to soils that would be most prone to water and/or wind erosion. EPMs that would be implemented to avoid and minimize soil erosion include GE-3, GE-6, GE-9, GE-11, GE-22, GE-30, AG-2, and GEO-1. A SWPPP would be created for the Project that would be consistent with federal and state regulations and would describe the practices, measures, and monitoring programs to control sedimentation, erosion, and runoff from disturbed areas. A Restoration Plan would be created and implemented following construction. The plan would include restoration measures that would minimize erosion.

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18 Groundwater

The following comments were received relative to groundwater resources:

- Commenters are concerned about impacts to groundwater such as contamination, including from any actions to defoliate within the ROW and wells drying up or being otherwise damaged by actions such as blasting.

Response:

As described in Section 3.7.6.1.1 of the Final EIS, the Project would involve the potential risk of contamination to groundwater from the inadvertent release of hazardous substances, including herbicides that could be used to control vegetation. The same Final EIS section also describes the potential for the Project to damage structures such as well systems during movement of heavy equipment and excavations for tower structures and converter buildings, which could include blasting if necessary.

As stated in the Final EIS, the potential for groundwater contamination would be present primarily during construction and would be minor and similar to that from any typical construction project involving ground disturbance and the presence of motorized equipment. The Project's size (greater than 1 acre of land disturbance) triggers regulatory requirements for practices intended to further reduce the potential for adverse impacts. If the Project is implemented after the NEPA process, the Applicant would be required to obtain an NPDES stormwater construction permit and develop a SWPPP; both the permit and the plan would require actions to minimize the potential for contaminants to be released that could impact surface water, thereby also protecting groundwater. The Applicant has also committed to developing an SPCCP to minimize the potential for accidental discharge of oil (including fuel, hydraulic fluids, etc.). Should a discharge occur, practices in the SWPPP and SPCCP would minimize the potential for contaminant to leave the site or reach groundwater. As stated in Section 3.7.6.1.1, the materials used in excavating, drilling, and placing the concrete footings for the towers are non-toxic and would not contaminate groundwater, even if groundwater were reached during excavation. Vegetation removal is not expected to adversely affect groundwater. As identified in Section 3.7.6.1.5, EPMs also include adhering to federal, state, or local regulations, as well as label instructions, when applying any herbicides during construction or during operations and maintenance. The EPMs further identify actions that would be taken by the Applicant to minimize clearing of vegetation within the ROW, consistent with a TVMP that would be created and implemented according to NERC Reliability Standard FAC-003 as well as being developed to meet applicable regulations. The TVMP may require additional analysis under NEPA depending on whether and under what conditions DOE decides to participate in the Project.

With regard to the potential to damage structures such as well systems, the Applicant would work with landowners and tenants to identify locations of wells and water systems so they could be avoided whenever possible. If construction causes damage to water systems, the Applicant would arrange for a temporary water supply until the Applicant and landowner/tenant, working together, identified a permanent solution. Per Section 3.7.6.1.4, blasting would be considered only if determined to be the best way to excavate in areas of shallow hard rock. The need for blasting would be determined through a geotechnical study

completed by the Applicant as part of the Project's engineering design. If needed, blasting would be implemented only after developing a Blasting Plan, which would detail the measures to be taken to minimize the blasting's adverse effects. DOE believes the potential to harm an aquifer from blasting in hard rock if needed to support the Project's excavation requirements is minor, and if there were effects on the aquifer (such as by propagating rock fractures or joints or by increasing turbidity,) these effects would be localized. Also as noted in Section 3.7.6.1.4, if blasting were required within 150 feet of a spring or groundwater well, preconstruction monitoring of yield and water quality would be performed, and if there were damage, the Applicant would arrange for a temporary water supply until a permanent solution was identified. Section 3.7.6.1.5 identifies EPMs that would be taken by the Applicant to provide protection for groundwater quality and groundwater well systems.

As discussed in Section 3.7.6.1.3, impacts to water availability would be minor, because water demand would be relatively low and short-term in any single location. The Applicant would comply with regulations and permits that limit withdrawal volumes. The potential for changes in infiltration rates and corresponding groundwater recharge rates associated with construction actions is discussed in Section 3.7.6.1.2. As described in Section 3.7.6.1.5, access roads used during construction, but not needed for maintenance and operations, would be restored to preconstruction conditions through actions including, as needed, decompacting, recontouring, and re-seeding.

- Commenters are concerned about impacts to groundwater in local aquifers. Concerns include construction of piers to support transmission poles, potential related pollution of aquifer, and destruction of aquifers.

Response:

The descriptions of regional groundwater features in Sections 3.7.5.1–3.7.5.7 of the Final EIS include identification of the principal aquifers that would be crossed the Project as well as the typical depth to the water table in each region. Section 3.7.6.1.1 specifically discusses the types of groundwater issues that would be expected during typical construction of foundations or piers if they reached as deep as groundwater. The discussions of potential impacts to groundwater in Sections 3.7.6.2 and 3.7.6.3 include identification of possible construction areas where groundwater may be shallow enough that the water table could be encountered during construction of foundations. As stated in Section 3.7.6.1.1, all materials that could come into contact with groundwater during foundation construction are not toxic, so adverse impacts to groundwater quality would not be expected. DOE does not believe the construction of foundations or piers would result in any noticeable changes in groundwater elevations; the areal extent of the foundations or piers is too small in comparison to the size of regional aquifers to displace a notable amount of water.

Per Section 3.7.6.1.4, blasting would be considered only if determined to be the best way to deal with hard rock at an excavation site. The need for blasting would be determined through a geotechnical study completed by the Applicant as part of the Project's engineering design. If needed, blasting would be implemented only after developing a Blasting Plan, which would detail the measures to be taken to minimize the blasting's adverse effects. DOE believes the potential to harm an aquifer from blasting in hard rock in relatively shallow excavations is

minor, potential effects on the aquifer (such as by propagating rock fractures or joints or by increasing turbidity) would be localized. Also as noted in Section 3.7.6.1.4, if blasting were required within 150 feet of a spring or groundwater well, preconstruction monitoring of yield and water quality would be performed, and if there were damage, the Applicant would arrange for a temporary water supply until a permanent solution was identified.

- Commenter stated concern that they have not seen any reclamation plan in case there is a problem.

Response:

Plans addressing reclamation or remediation of groundwater would not be required as a precursor for this Project in which the potential for groundwater contamination is low. In addition, such plans are typically so site- and contaminant-specific that their development would not be practical for an action like the Project where such a great span of land is involved and groundwater contamination is not expected to occur. As described in Section 3.7.6.1.1, the Applicant would be required to obtain an NPDES stormwater construction permit and develop a SWPPP. Per Section 2.1.7 of the Final EIS, the Applicant would also prepare an SPCCP (Appendix F). The process of obtaining this permit and preparing the plans, like going through the NEPA process, requires the Applicant to develop avoidance and mitigation measures to prevent releases of hazardous substances and to respond and recover from releases should they occur and, as applicable, would require development of plans to remediate groundwater should it become contaminated. If a groundwater reclamation or remediation plan was to be prepared, it would be developed for a specific location and to address a specific contaminant or contaminants.

- In critiquing a comment letter submitted in favor of the Project, the commenter notes the claim of “cleaner water” is greatly exaggerated. Since the comment letter being critiqued makes no mention or claim of cleaner water, no additional context for the commenter’s concern is available.

Response:

The potential for impacts to groundwater and surface water from the Project are addressed in Sections 3.7.6 and 3.15.6 of the Final EIS, respectively. The Final EIS identifies the potential for adverse impacts to water quality, but DOE believes the potential for significant adverse impacts to either groundwater or surface water quality is minor. Nowhere does the Final EIS claim that either groundwater or surface water would be “cleaner” as a result of the Project; rather the Final EIS projects that groundwater quality and surface water quality are unlikely to be significantly affected one way or the other.

- Commenter disagrees that surface water is the predominant source of water for Pope and Conway counties, noting that many people get their water from wells.

Response:

The water use data presented in Section 3.7.5 are from the nationwide inventory compiled by the U.S. Geological Survey, which is considered the best data available at a national scale. As can be seen in Table 3.7-17 (Final EIS Section 3.7.5.5.4) for Region 5, groundwater is

used for several purposes in both Pope and Conway counties, including for self-supplied domestic water (and, accordingly, some people get their water from wells). However, on a county-wide basis and considering all water uses, far more surface water is used than groundwater in both counties as shown in the respective row totals.

- Commenter provides specific comments on the EIS:
 - Pages 3.7-35 thru 3.7-36, Section 3.7.6.1.3, Lines (All): DOE's analysis of the Project's impacts on water availability during the construction phase distorts potential impacts to specific areas by spreading projected water use out over the entire length of the 700-mile route. Within Poinsett and Cross counties (Region 6), the cited critical groundwater designation is based, in part, on "cones of depression" caused by large groundwater withdrawals. These areas may be particularly sensitive to new industrial water withdrawals. Accordingly, DOE should (i) properly account for projected water use in these key areas and (ii) apply stringent environmental protection measures and best management practices that prohibit the Project from constructing new wells in this area.

Response:

DOE's evaluation of the Project's impacts on water availability describes an average daily water use for the Project (i.e., 0.1 million gallons per day) over a 36-month construction period and recognizes that this water demand would be experienced at different locations along the 700-mile route as the Project progressed. For example, the entire Project's daily water demand might come from a single source at some time during the Project, but it is expected that any single water source would be used for only a portion of the construction period. DOE believes this is a reasonable way to characterize the Project's water needs at this stage of Project's planning when specific water sources have not yet been established. The Applicant plans to obtain water from municipal water providers rather than drilling new wells. The Applicant would obtain the necessary approvals and limit withdrawal volumes so as to not adversely affect supplies for other uses as stated in Section 3.7.6.1.3. As identified in Section 3.7.5.6.2 of the Final EIS, Region 6 of the Project's route, which includes Poinsett and Cross counties in Arkansas, would pass over the Cache Critical Groundwater Area, an area of significant groundwater depletion. If an existing municipal water provider already operated wells with drawdown (or cone of depression) concerns, an added demand could aggravate that concern. For the purposes of this analysis, DOE assumes that any municipality would provide water only if it could do so within established operating limits. However, as identified in Table 3.7-20, Poinsett and Cross counties use an average of 846 and 524 million gallons of groundwater per day, respectively. The Project would propose to use 0.1 million gallons per day, on average, or less than 0.02 percent of the average groundwater use in those counties. DOE believes the relatively small and short-term water demand associated with the Project would result in only minor changes to existing conditions.

- Commenter provides specific comments on the EIS:
 - Page 3.7-42, Section 3.7.6.2.3.1, Lines 22-23: DOE utilized a 500-foot-wide corridor to identify wells and account for possible physical damage from blasting within the ROW. Because of particular groundwater concerns in Poinsett and Cross counties, the Draft EIS

should also identify wells and account for the potential depletion of water availability if new wells are required for Project construction.

Response:

For Project actions in Poinsett and Cross counties, as well as the other areas that could be affected, the Applicant plans to obtain water from municipal water providers, rather than drilling new wells. The Applicant will obtain the necessary approvals and limit withdrawal volumes so as to not adversely affect supplies for other uses as stated in Section 3.7.6.1.3. DOE assumes that any municipality would provide water only if it could do so within established operating limits. As identified in Section 3.7.6.1.5, if there are no municipal water providers within a reasonable haul distance of a Project area, the Applicant would acquire water through other permitted sources (including the unanticipated, but possible construction of new wells) or through supply agreements with landowners. In either case, DOE assumes that the local jurisdictions providing new or existing water permits would include requirements to minimize potential depletion of water availability or other impacts from the Project's water demand.

- Commenter provides specific comments on the EIS:
 - The DOE states on page 3.7-34 that "Considering the requirements of the construction general permits, the measures that the Applicant would implement per its internal plans and procedures, and the non-toxic nature of additives used in excavating or drilling below the water table, it is unlikely that construction activities would result in contaminated groundwater." The DOE has produced no evidence demonstrating that additives the Corporation would use in excavating/drilling are non-toxic, nor has it defined non-toxic in the context of excavating/drilling additives (all substances are potentially toxic, to some species, at some dose). The potential will exist for groundwater contamination during construction, whether from fuel spills or from spills or misuse of products used during excavating/drilling. How does the Corporation propose to ascertain that it has not contaminated the groundwater? Stating that it will not contaminate groundwater is at best simplistic. Is there a plan in place to verify that it has not contaminated groundwater after construction is complete, and if so is there a plan in place for remediation of contaminated groundwater?

Response:

Section 3.7.6.1.1 of the Final EIS identifies the specific commercial materials the Applicant would expect to use, as needed, for excavation or drilling below the water table. These non-toxic commercial materials are commonly used throughout the construction industry to stabilize the saturated soil when there is drilling or excavation that extends below the water table. These materials or their primary components are not identified as hazardous constituents under EPA's hazardous waste regulations (i.e., 40 CFR Part 261, Appendix VIII) or as hazardous substances under EPA's Comprehensive Environmental Response, Compensation and Liability Act (40 CFR Part 302). Also, the materials or their components are not identified as regulated drinking water contaminants (i.e., 40 CFR Parts 141 and 143); that is, other than possibly contributing to suspended solids or turbidity if reaching a drinking water source. The Final EIS discussion further identifies any OSHA-regulated components in those commercial

materials as listed on the applicable safety data sheets. Although the commenter's statement that "all substances are potentially toxic, to some species, at some dose" is noted, DOE believes toxicity criteria established by OSHA are appropriate for purposes of the Final EIS evaluation because protecting people (and possible drinking water sources) is the primary consideration in this case. Per the discussion in Final EIS Section 3.7.6.1.1, DOE believes the potential for groundwater contamination is low and would be experienced primarily during construction actions. As stated in Section 3.7.6.1.5, EPMs would be implemented to minimize the potential for release or mismanagement of hazardous materials that could eventually result in groundwater contamination. These measures include requiring that refueling of vehicles and storage of fuels and hazardous chemicals occur at least 100 feet from wetlands, surface waterbodies, and groundwater wells. The Applicant would be required to obtain an NPDES stormwater construction permit and develop a SWPPP, and per Section 2.1.7, the Applicant would also prepare an SPCCP. These permits and plans would include measures to prevent releases of hazardous substances and to respond and recover from releases should they occur to protect groundwater as well as surface water. The Applicant does not have current plans to perform post-construction monitoring of the groundwater. However, if a release of a hazardous substance were to occur, appropriate response actions would be developed in consultation with the appropriate regulatory agency, to include site-specific monitoring as necessary to insure protection of groundwater or, as applicable, effective remediation of groundwater quality. As stated in Section 3.7.6.1.4 and 3.7.6.1.5, to minimize potential impacts to wells from either physical damage or from potential contaminants, the Applicant would work with landowners and tenants, and if there was damage to water systems, would arrange for a temporary water supply until a permanent solution was identified.

- Commenter provides specific comments on the EIS:
 - Section 3.7.6.1.3, Effects on Water Availability. The Corporation proposes to drill wells as needed to "support operational facilities..". Is there any recourse for landowners who do not wish to have wells drilled on their properties and their groundwater used to support construction of the high voltage line/towers? Drilling wells around an active construction site, where fuels, oils, herbicides, and drilling additives are being used, introduces another possibility of groundwater contamination.

Response:

Although not anticipated, Section 3.7.6.1.3 of the Final EIS identifies the possible need for new wells to support operational facilities. Normal operation and maintenance of transmission line would require no water and water needs for the converter stations would be limited to the personal needs of the small number of full-time employees at each station. The Applicant plans to connect operational facilities to municipal water systems, but if such connections are not available, are impractical, or cannot be made for some other reason, a new well or wells would be pursued. Section 3.7.6.1.5 discusses groundwater protective measures and notes that if "groundwater wells are needed to support operational facilities, volumes will be limited so as not to adversely affect supplies for other uses." As noted in Section 3.7.6.2.1.2, it is anticipated that the converter stations would be connected to municipal water systems. In Section 2.1.3, it is

noted that the land for converter stations could be obtained through purchase rather than ROW, and if a well were needed to support the fewer than 15 full-time workers at a converter station (see Section 2.1.5), it would be expected to be constructed on the owned property rather than on adjacent ROW for the transmission line. In any case, if a well were needed, it would be constructed with all necessary permits and in accordance with applicable regulations. As stated in Section 3.7.6.1.5, EPMS would be implemented to minimize the potential for release or mismanagement of hazardous materials that could eventually result in groundwater contamination. These measures include requiring that refueling of vehicles and storage of fuels and hazardous chemicals occur at least 100 feet from wetlands, surface waterbodies, and groundwater wells.

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19 Health, Safety, and Intentional Destructive Acts

The following comments were received relative to health, safety, and intentional destructive acts:

- Commenter states that the HVDC transmission project and wind power are not more secure but will make the grid more vulnerable to such events as terrorist activity.

Response:

Although it is not possible to predict if acts of terrorism or sabotage events would occur, or the nature of such events if they do occur, DOE has considered the potential for events involving terrorism. Section 3.8 of the Final EIS addresses health, safety, and intentional destructive acts, including potential terrorist activities. Security of the components of the Project facilities can involve a variety of different regulatory and reporting structures, authorities, and agencies. Intentional destructive acts, sabotage, vandalism, theft, or other mischief, whether from terrorist activities or other criminal behavior, would be addressed through law enforcement and Project design protocols. Presidential Policy Directive 21 (February 12, 2013), “Critical Infrastructure Security and Resilience,” identifies 16 critical infrastructure sectors, including energy, and identifies the national goal to advance a national policy to strengthen and maintain secure, functioning, and resilient critical infrastructure. This Project would fall under the energy sector’s definition of critical infrastructure. This directive includes measures that address public-private partnerships to reduce vulnerability and guidelines to address vulnerability, and the directive establishes federal government roles and responsibilities for protecting critical infrastructure. A review of the criteria of vulnerability suggests that HVDC transmission projects and wind power generation are no more vulnerable to terrorist activities or other acts of violence than other power generation projects, any of which could experience temporary disruption in electrical service and possible worker and public safety concerns from criminal activity. The Applicant would prepare a comprehensive Construction Security Plan that would describe measures designed to avoid and/or minimize adverse effects associated with breaches in Project security during construction, including terrorism, sabotage, vandalism, and theft. This plan would include provisions describing how the Project construction team and operations and maintenance personnel would coordinate with state and local law enforcement agencies to improve Project security and facilitate security incident response if required.

- Commenter notes that the use of long transmission lines to carry renewable energy to large numbers of users across multiple states is more vulnerable to disastrous interruption (such as natural disasters and terrorism) than renewable energy generated in the general region of use. Interruption of a long line could affect multiple millions of people, whereas interruption in a regional area would affect far fewer people.

Response:

Temporary interruption of the power transmission system could occur to the Project from a variety of off-normal events such as natural disasters, terrorism, or accidents. These issues are addressed in various sections of the health, safety, and intentional destructive acts discussions of Section 3.8. The Project would be designed to prevent outages from these events to the maximum extent practicable. While it stands to reason that interruption of a smaller regional power transmission system would impact a smaller customer base than a

larger system, neither situation is necessarily considered disastrous. There are multiple thousands of miles of aboveground electrical transmission lines providing electrical power to consumers over long distances in the United States. Interruptions of power have occurred to power transmission systems in the past and have been mitigated and power restored through standard industry, engineering, and security practices. The Project alone would not represent a critically high percentage of power transmission service to consumers nationally and therefore temporary disruption of the grid would be considered manageable. The Applicant would operate the system and respond to any unplanned outages according to those practices and identified EPMs, BMPs, plans and procedures, and applicable regulatory requirements.

- Commenters are concerned about the siting of the transmission lines in areas known for tornadoes and ice storms. Tornadoes could cause major destruction to towers and power lines, endangering landowners, families, cattle and property. Commenters are scared that the transmission lines are only made to withstand an F3 tornado when F4 tornadoes have occurred in Arkansas. One commenter is concerned that towers could fall on his family's home, which is close to the planned transmission line. Commenters want to know how Clean Line can predict that nothing bigger will come along.

Response:

The transmission system would be designed to applicable engineering standards to withstand to the maximum extent practicable natural disasters that could result in system failures. In general, the potential for tornadoes to occur can be forecast; however, the actual severity of tornadoes cannot be accurately predicted. The Applicant plans to utilize weather monitoring systems currently in place in the Regions of the Project to track tornadic and icing activity, and to communicate elevated risk levels to interconnecting utilities to ensure operational readiness. Forecasting potential severe weather would generally allow adequate time to alert, prepare, and mobilize response teams to be ready to respond if needed. The Applicant has designed robust structures that incorporate the appropriate NESC requirements (<http://standards.ieee.org/about/nesc/index.html>). The Project's design criteria contemplate a loading scenario, on a structure without wires, of wind speeds equivalent to an F-2/EF3 tornado. Although F-4 tornadoes have been known to occur in Arkansas, they are rare events in the region in general and would be even less likely to occur at any specific location where the transmission system would be sited and does not justify the added design and construction cost associated with more robust structures. While the contemplated loading scenarios would not eliminate the potential for damage to the line, they would decrease the likelihood of non-Project structure damage or a major power outage. The transmission line system could fail in a manner that allows components to collapse and generally fall to the ground within the ROW; however, it is possible that debris could land beyond those boundaries from sufficiently strong tornadoes or high winds. The collapse of a tower would generally affect an approximate area not greater than a radius equal to the height of the tower (approximate 200-foot radius for the majority of the tallest structures). The Applicant would take all prudent measures to site transmission towers at safe distances from residences and other structures to provide safety buffers. Updated information addressing potential impacts from tornadoes has been added to Section 3.8.5.2.2.4 of the Final EIS.

- Commenters express general concern regarding aerial application of herbicides/defoliant spray and health impacts. Including contamination of waters along the route, health impacts, impacts of herbicides to wildlife and vegetation, and impacts to livestock. Are there any assurances that can be given that chemicals used are 100 percent nontoxic to humans? The DOE states on page 3.2-13 that "Herbicide spraying for weed control along the transmission line representative ROW could affect organic farmers if fields of organic crops are sprayed inadvertently." It is unclear whether the Corporation proposes to use aerial spraying all along the right-of-way, or whether the Corporation proposes to apply defoliant with personal or vehicle-mounted devices. The DOE did not state whether it recognizes that landowners, even those who may not be organic farmers, may object to such chemical use on their lands. What provision exists to communicate to landowners the specific chemicals used, the spraying schedule, the method of spraying, the application rate, and any potential human/animal health effects of exposure? Do landowners have recourse if they do not wish such chemical application on their land? If labeling for the specific chemicals used prohibits use around livestock (and/or other animals or humans), will provisions be made for their protection?

Response:

There may be some confusion between the use of herbicides by agricultural aerial spraying operations and potential use of herbicides by the Applicant. Aerial application of various chemicals (commonly referred to as crop-dusting) on agricultural fields is a routine operation in many areas where the transmission system may be located. However, the Applicant may also selectively apply herbicides during necessary clearing and grading for construction and during ongoing corridor maintenance to minimize the regrowth of certain trees and woody species. The statement made on page 3.2-13 of the Draft EIS about potential impacts to organic farmers from inadvertent herbicide spraying on crops was made in error and has been deleted from the Final EIS. Proper application of herbicides would minimize impacts outside locations of intended use. There is no plan by the Applicant to routinely apply herbicides on an extensive and wide-scale basis in the transmission corridor. If herbicides are applied, only persons who are certified and licensed would perform this work and only chemicals certified for safe use would be applied. In no situation is it expected that herbicides would be applied for corridor vegetation control using aerial application methods. EPM GE-5 (see Final EIS section 3.8.5.1) states that any herbicide used during construction and operations and maintenance would be applied according to label instructions and any federal, state, and local regulations. In addition, a TVMP will also be prepared and would address situations where herbicide use is necessary. Pursuant to NERC Reliability Standard FAC-003, Clean Line is required to create and implement a TVMP. The TVMP may require additional analysis under NEPA depending on whether and under what conditions DOE decides to participate in the Project. In situations where selective use of herbicides may impact agricultural lands, the Applicant will work with landowners to address issues. Appendix F of the Final EIS describes in detail the vegetation management program that would be implemented for the Project.

- Commenter is concerned the transmission line may cause erosion on their property. The projected path across my property for the Clean Line is directly over a ravine (or "canyon" as it is referred to). If trees and shrubbery are removed, the erosion will cause my yard and house to wash away. In 2008 the spring storms brought flooding rain and there was literally a

"river" rolling down the hill behind my house. This is where the route is and with all the trees and shrubs removed there will be MAJOR erosion which will eventually wash away my yard and home. This will be hazardous to my health and life. There are two water lines that run through the "ravine" as mentioned above.

Response:

It is not the intent to remove all vegetation on landowner property such that erosion may cause unacceptable impacts. Erosion is a potential impact along certain locations of the transmission corridor. If vegetation removal is required for fire safety situations and erosion along the transmission corridor or landowner property could occur, appropriate erosion control measures would be implemented by the Applicant. EPM GEO-1 (see Section 3.6.1.6.1 of the Final EIS) requires the stabilization of slopes exposed by its activities to minimize erosion. A SWPPP consistent with federal and state regulations would describe the practices, measures, and monitoring programs to control sedimentation, erosion, and runoff from disturbed areas. The Applicant would work with individual landowners to address specific erosion issues if necessary.

- Commenter notes concern that the lines will make it unsafe for airplanes to spray agricultural fields and in some cases impossible.

Response:

DOE and the Applicant understand that the presence of transmission lines in or near agricultural fields may pose a safety risk to pilots conducting aerial spraying operations. As stated in Section 3.2.6.2 of the Final EIS, there would be temporary and long-term impacts to aerial spraying operations. Although pilots can make modifications to their flight patterns to account for the presence of transmission lines within agricultural fields, these modifications can lead to increases in the costs of aerial application and can reduce yields and/or increase the probability of chemical drift due to impacts to accuracy. As stated in EPM AG-5 (see Final EIS Section 3.8.5.1), the Applicant would work with landowners and/or tenants to consider potential impacts to current aerial spraying or application (i.e., aerial crop spraying) of herbicides, fungicides, pesticides, and fertilizers within or near the transmission ROW. In certain situations, the Applicant may be able to address concerns by micrositing the transmission line within the 1,000-foot-wide corridor (small location adjustments) and the implementation of EPM LU-5 (see Section 3.10.6.1 of the Final EIS) and/or engineering designs to minimize obstructions. However, if micrositing is not feasible, the Applicant would work with the landowner to negotiate compensation for the impact to the airstrip as documented in the Applicant's April 20, 2015, comment letter to DOE regarding the Draft EIS. The Applicant has provided a ROW acquisition plan and a Code of Conduct for negotiations with landowners.

- Commenter is concerned about the transmission line causing electrocution.

Response:

Sections 3.8.5.2.1.1 and 3.8.5.2.2.1 of the EIS address electrocution potential in the worker and public health and safety discussion. The transmission line and associated facilities would be designed to strict industry standards and practices (e.g., NESC and OSHA) that address

the potential for electrocution incidents. During normal operations, system security features and practices would not allow for members of the public to come in contact with any components that could cause electrocution. During accident scenarios (e.g., downed lines), safety features are designed to detect circuit interruptions and de-energize the system.

- Commenter requests studies showing that a 600 KV transmission line is safe to the public. Commenters also expressed concern regarding general health impacts, including leukemia that the project will have on landowners and livestock and general hazards that would result in injury. Commenters note that the EIS includes a statement concerning health issues; however, based upon the studies available, no conclusion about the health risks can be drawn. Commenters feel the health risks are too severe to justify this project.

Response:

Numerous comprehensive health studies have been conducted and referenced in the EIS to help evaluate whether the Project could be engineered, constructed, and operated safely and reliably (see Section 3.4.11 of the Final EIS). In addition, there are many thousands of miles of electrical transmission lines operating safely in the United States that also required studies and analyses to evaluate public health and safety. Data from other transmission projects were available for evaluation and applicability to the Applicant Proposed Project and those data were utilized as references in preparing Project documents and impact analyses. Extensive industry standards and regulatory requirements must be followed when designing and siting a transmission system. The Final EIS contains an evaluation of the potential impacts (including public and worker health and safety), EPMs, and BMPs associated with the Project. Section 3.8.5.2 presents the range of impacts expected and concludes that the Project can be constructed and operated safely with the implementation of EPMs that would help ensure impacts are minimized. Additional public health evaluations (including leukemia studies) related specifically to the electrical environment are presented in Section 3.4 of the Final EIS.

- Commenter is concerned about the transmission line being a fire hazard to vegetation if the line were to break from a variety of potential accidents and start a fire. There are NO fire hydrants and only a volunteer fire department in many communities. Water has to be trucked-in when there is a fire. Commenters are also concerned about the impacts from wildfires. The DOE states that, while Oklahoma has a significant wildfire hazard, northern Arkansas does not (citing ADEM, 2013). The logical inference from this statement is that there is little fire hazard potential in Arkansas. The Arkansas Department of Emergency Management's All-Hazards Mitigation Plan (ADEM, 2013) states that "The probability of a wildfire event is "Highly Likely" (emphasis in original). From 1997- 2012, Franklin, Jackson, Cross, Poinsett, and Mississippi counties had 1-300 fires per county; Crawford, Johnson, Pope, Conway, Van Buren, and Cleburne counties had 300- 600 fires per county; and White County had 600-900 fires.

Response:

Downed transmission lines would generally land within the confines of the ROW where active management of vegetation would be an ongoing activity during operations. Standard transmission line protection and control systems are designed to detect faults and rapidly

shut off power flow in the case of line break. Pursuant to NERC Reliability Standard FAC-003, Clean Line would be required to create and implement a TVMP. The TVMP may require additional analysis under NEPA depending on whether and under what conditions DOE decides to participate in the Project. The TVMP would describe how work would be conducted within the ROW to prevent outages due to vegetation and associated potential incidents including fires. In addition, EPMs and BMPs including a Health and Safety Plan and a Communications Program would identify fire prevention and management protocols. Ongoing communications and interaction with emergency service providers along the transmission corridor would be maintained by the Applicant to ensure a safe and reliable first responder process in the case of wildfire ignition from multiple potential sources including natural fires, electrical system induced fires, aircraft and other vehicle accidents, and accidents from natural disasters.

Section 3.8.4.3 of the Final EIS presents general fire hazard data for the states to be crossed by the power transmission system. The text was not meant to imply that there is little fire hazard in Arkansas; instead it accurately states that wildfires have occurred in every county in Arkansas and that northern Arkansas (where the transmission line would be sited) is primarily categorized as having a low to medium occurrence of wildfire events for the period 1997 to 2012 compared to other parts of the state.

- The Draft EIS is inadequate because it does not address Fiber Optic issues. The Draft EIS should address safety issues associated with Fiber Optic, such as current running down the distribution in the case of a transmission fault, risk of fire, and risk of cyberterrorism.

Response:

An optical ground wire and a static wire are installed overhead on the top of transmission structures to protect the transmission lines from direct lightning strikes. Embedded within the optical ground wire are fiber optic cables used to support communications between substations. In addition, fiber optic regeneration sites would be installed periodically along the corridor to amplify degraded fiber optic communication signals. The fiber optic system is just one component of a complex transmission line system and does not represent a unique set of safety issues should something go wrong. Industry standards and protocols would be followed for the design, construction, and operation of the fiber optic communication system and any off-normal situations that might occur including transmission faults, fires, and terrorist threats. These types of incidents are addressed in Section 3.8.

- Commenters have concerns about how the proposed alternative route will affect the flight operations at the Little Rock Air Force Base. Consider that we are designated as a "low level route" fly over zone used by the U.S. Air Force Base in Jacksonville, Arkansas. Almost weekly, several cargo aircraft conduct training in the skills of low level flying over our home and the proposed route of the power lines greatly increasing the potential for "other undesirable and unintended consequences", which could happen from training errors, equipment failure, etc.; potentially resulting in huge fires accelerated by aircraft fuel causing dense smoke. According to the online Mid-Air Collision Avoidance and Flight Operations manual on page 8, "In Mission training, single aircraft or formations fly low-level routes at 300-500' AGL during the day." On page 13, the North West Low Level Routes will cross

over the proposed transmission lines here and in several locations. Commenter notes that the Plains and Eastern proposal states the towers will be at 120 to 200' tall. If the towers are 200 feet tall and the flights are down as low as 300 feet, with one slight error, this could cause a potential disaster to the residents in these areas and to the Little Rock Air Force pilots. Commenter is not sure the Department of Defense is aware of the Plains and Eastern proposed transmission lines and how it will affect their current flights in Arkansas, but feel there is a reason for great concern in Arkansas.

Response:

DOE has considered the potential for military aircraft accidents associated with the transmission system structures and addressed them in the transportation and health and safety discussions in the Final EIS. Adequate clearance between low-level military flights and transmission structures would be maintained through communication and interactions with local military facilities and identified procedures for conducting flight operations in the area. The Department of Defense is aware of the potential siting of the Project and has stated that it will have minimal impact on military operations and training along the planned route in the region. Ongoing interactions with the Department of Defense will occur as variations to route alternatives are contemplated. Any military aircraft mishaps associated with components of the Project would be responded to through local, military, and Applicant emergency response actions.

- Commenter notes the power line will be in Region 5 Section 31 of Cleburne County. This is about 1,500 to 2,000 feet off the south end of their turf airstrip. The runway direction is north and south with the northern end at latitude 35.376568, longitude -92.214215 and the south end at latitude 35.373532, longitude -92.214869. Commenter is concerned that there is no way they can safely take off to the south and clear a 200-foot-tall tower or line on a hot day and hard pressed to clear on a cold day.

Response:

Consistent with EPM LU-5 (see Final EIS section 3.10.6.1), the Applicant would make reasonable efforts, consistent with design criteria, to accommodate requests from individual landowners to adjust the siting of the ROW on their properties. The Applicant has confirmed the presence of the private airstrip; the information provided by the commenter is new and was not previously known to the Applicant. The information has been added to the Project GIS database. The Applicant anticipates the concerns can be addressed by micrositing the transmission line within the 1,000-foot-wide corridor (small location adjustments) and the implementation of EPM LU-5 and/or engineering designs to minimize obstructions. However, if micrositing is not feasible, the Applicant would work with the landowner to negotiate compensation for the impact to the airstrip as documented in the Applicant's April 20, 2015, comment letter to DOE regarding the Draft EIS. The Applicant has provided a ROW acquisition plan and a Code of Conduct for negotiations with landowners. Section 3.16.6.4 in the Final EIS has been revised to include a BMP that states that the Applicant would perform mitigation to address Project structures in the vicinity of private airstrips. This BMP would require conducting specific flight plan analyses to determine whether interference with private airstrips can be avoided through micrositing within the 1,000-foot-wide corridor, to the extent practicable. If impacts are unavoidable, the Applicant would

develop and implement mitigation measures and/or provide compensation, in coordination with landowners. The Applicant would apply similar mitigation to private airstrips where Project structures would present a hazard within a 1:20 glide slope from each end of private airfields.

- Commenter is concerned about the impacts the transmission lines may have on gas wells in the vicinity of the lines. Because of the exploitation of my community's natural gas deposits along with other surrounding communities and land areas also affected, there are so many gas well in close proximity of my home to give serious consideration to the Congressional national environmental policy statements that are quoted herein. The gas wells are "remotely" monitored and the proposed power lines will run very near and in some cases the right of way will cross over these gas wells. This gives cause for great concern should undetected gas leaks ever meet with power line sparks causing "other undesirable and unintended consequences", which could be interpreted to mean the demise of this community and its beautiful environment. Such a "what if" scenario could well become a reality should this power line be introduced into this area dominated by gas wells.

Response:

As identified in EPM GE-29 (see Final EIS section 3.8.5.1), the Applicant would work with landowners and operators of active oil and gas wells, utilities, and other infrastructure to identify and verify the location of facilities and to minimize adverse impacts. During normal operation, the transmission line should not arc or spark unless there is a broken or damaged insulator or other piece of hardware. If the equipment is broken or damaged, it could cause very small arcs between the broken or damaged pieces of hardware. This type of damage can be located and repaired on any modern transmission line. In addition, underground pipeline infrastructure in the area of the transmission corridor is equipped with leak detection equipment and safety valves that can shut the pipeline down if necessary in the event of gas leaks. Any potential arcing or sparking from off-normal scenarios along the transmission line would tend to happen at the height of the conductors or lines, providing separation between that and any potential off-normal or undetected underground gas pipeline leaks. For a downed line, the breakers/fuses in the substation/converter stations should sense a ground fault and the line would normally trip out (de-energize), minimizing the potential for an ignition source. Also, the probability that an off-normal sparking or arcing condition would occur at the same location as an undetected gas pipeline leak is extremely remote and not considered a reasonably foreseeable scenario by the Applicant or DOE. Nevertheless, in the event that such a situation occurs, established industry standards and protocols, along with EPMs, BMPs, and Project plans would be followed for proper emergency communication and response.

- Commenters state that the Plains and Eastern Project has the potential to jeopardize pipeline and well casing integrity through corrosion. Specifically, pipelines and well casings are susceptible to corrosion from stray current originating from the operation of HVDC transmission lines. As National Association of Corrosion Engineers International, a professional organization in the corrosion prevention field, has observed, "[b]oth the operation of bipolar HVDC transmission systems that use the earth as a conductor of transmission currents and monopolar systems that use earth return currents can have serious

repercussions on underground metallic structures. Whenever stray DC interference current discharges directly into the ground, corrosion occurs." Similarly, ASM International, a professional organization of metals engineers and scientists, has noted that "[c]orrosion of underground pipelines can be accelerated by stray [DC] flowing in the soil near the pipeline." This same analysis would apply to other underground metal structures.

Although a metallic return along the entire length of the transmission line may reduce stray current, it will not eliminate stray or excess current. As a result, stray current from the Plains and Eastern Project has the potential to adversely affect pipelines and casings by accelerating corrosion even under normal operating conditions. However, during abnormal operations which may be experienced from time to time, creation of grounded "imbalanced" DC currents could even more significantly impact pipelines and well casings. Moreover, the Draft EIS does not analyze the potential risk of harm to pipeline facilities that would result if the metallic return is compromised, increasing the magnitude and frequency of stray current conditions. Given that corrosion can lead to pipeline failure, which in turn could result in death and property damage, the Draft EIS is incomplete. DOE should require Clean Line to conduct an in-depth engineering study to analyze the impact of the Plains and Eastern Project on pipeline facilities, wells, and other metal conduits, including the levels and duration of stray current.

Response:

As identified in EPM GE-29 (see Final EIS section 3.8.5.1), the Applicant would work with landowners and operators of oil and gas wells, utilities, and other infrastructure to identify and verify the location of facilities and to minimize adverse impacts. It is true that HVDC transmission lines can cause accelerated corrosion, particularly in the monopole configuration where the earth is used as a return for current. In the bipolar configuration, the earth is not used as a return for current and therefore corrosion issues are not as significant. The Applicant's HVDC transmission line is configured in a bipolar configuration, with a dedicated metallic conductor on the towers to carry return current during maintenance or single pole outages. This configuration would minimize earth-return currents to a sufficient degree during normal operations and hence subsurface corrosion. There are also stray voltage mitigation systems available to drain off unwanted DC current from pipelines that could be implemented if warranted. Abnormal transmission operations, including a compromised metallic return, would immediately be detected through monitoring systems and mitigated, minimizing extended periods of potential stray current. If planned stray or excess current mitigation systems and procedures prove to be inadequate, the Applicant would work with area operators to address and mitigate the issues.

- Commenter notes that with regard to operations equipment, SWN-A and DGC use computer, radio, instrumentation, satellite communications, and telecommunications equipment in the routine course of its activities. Manufacturers of this equipment have been unable to confirm to SWN-A and DGC that a 3,500MW HVDC transmission line will not adversely impact the equipment's functionality, as it has not been tested under the electrical conditions that will be created by the transmission line. In addition to electrical conditions, telecommunications equipment could also be adversely impacted due to physical line-of-sight obstructions caused by the proposed transmission towers which could block radio signals. Due to the importance

of electronic equipment to ensure safe operations, there is no room for interference or interruption from electrical conditions or line-of-sight obstructions. This issue should be identified and comprehensively studied by DOE. It is unlikely that these safety issues can be satisfactorily mitigated.

Response:

Presumably, commenters' concerns regarding interference with electronic equipment associated with well pads would result from EMF produced by the operation of the HVDC line. The strength of the electric and magnetic fields that would be produced by the Project decrease rapidly with distance away from the transmission line such that the fields have a minimal overall effect on naturally occurring EMF outside the transmission line ROW. The small variations that could be detected beyond the edge of the ROW are too small to reasonably interfere with electronic equipment.

Potential effects of EMF on communications equipment have also been studied. Under certain conditions, HVDC lines produce corona noise. Most communications (including cellphones, wireless internet, and GPS) operate at far greater frequencies than the radio noise from this corona. However, the corona from DC transmission lines can produce interference with AM radio and analog TV picture signal. This interference is typically limited to within approximately 100 feet of the transmission line. Due to ROW requirements, since there are no well pads located within the representative ROW, interference with electronic equipment on those well pads is extremely unlikely. Nevertheless, as identified in EPM GE-29 (see Final EIS section 3.8.5.1), the Applicant would work with landowners and operators of oil and gas wells, utilities, and other infrastructure to identify and verify the location of facilities and to minimize potential adverse impacts associated with computer, radio, instrumentation, satellite communications, and telecommunications equipment.

20 Historic and Cultural Resources

The following comments were received relative to historic and cultural resources:

- Several commenters note that their property contains historic or cultural areas including Indian campsites, burial sites, and historic family cemeteries. Localities that were specifically identified included:
 - Unmarked pioneer gravesite in Woodward County Oklahoma (concerning Applicant Proposed Route 1, Link 5);
 - Unidentified historic period or modern graves in Major County, Oklahoma (concerning Applicant Proposed Route 2, Link 2);
 - Unidentified family burial site in Garfield County, Oklahoma (concerning HVDC Alternative Route 2-B);
 - Unidentified historic period cemetery in Crawford County, Arkansas (concerning HVDC Alternative Route 4-A);
 - Ashes (cremains) of deceased friend have been spread on commenter's property (concerning HVDC Alternative Route 4-B);
 - The historic period Comstock family and the Comstock community cemeteries, Crawford County, Arkansas (concerning HVDC Alternative Route 4-B);
 - The historic period John Huggins cemetery, Franklin County, Arkansas (concerning HVDC Alternative Route 4-B);
 - Native American burial site and prehistoric period Native American campsite, Franklin County, Arkansas (concerning Region 4 Applicant Proposed Route and/or HVDC Alternative Route in vicinity of Ozark, Arkansas);
 - Possible prehistoric period Native American mounds on a farm in Johnson County, Arkansas (concerning Region 4 Applicant Proposed Route and/or HVDC Alternative Route in vicinity of Clarksville, Arkansas)
 - Two parcels in Pope County, Arkansas, containing unidentified prehistoric period Native American archeological sites and historic family cemeteries (concerning Applicant Proposed Route 5, Link 1)
 - Unidentified historic and modern period cemetery near Rose Bud, White County, Arkansas (concerning HVDC Alternative Route 5-B); and
 - Other localities mentioned in subsequent comments below.

Response:

DOE appreciates receiving information about the locations of archeological sites and potential historic properties from property owners and others familiar with the area proximate to the Project. In some instances, Clean Line or DOE had already obtained the same information from other sources. DOE has provided this information to the Applicant for further consideration during Project cultural resources surveys and micro-siting. As appropriate to their location and the potential for Project impacts, some sites or localities identified by commenters would potentially be subject to cultural resources investigations prior to construction, in accordance with the process established by the Programmatic Agreement being developed to address DOE's responsibilities under Section 106 of NHPA. See Final EIS Sections 3.9.1.1 and 3.9.6.1. The draft Programmatic Agreement is included in Appendix P of the Final EIS. The Applicant is committed to constructing and maintaining the Project in accordance with applicable

state laws, including those relating to cemeteries, burial places, human remains, and related furnishings (enumerated in Table 3.9-1). Under EPM LU-5 (Final EIS Appendix F), the Applicant is also committed to making reasonable efforts, consistent with design criteria such as micrositing within the 1,000-foot-wide Project corridor, to accommodate requests from individual landowners to adjust the siting of the ROW on their properties

- Commenters feel the Project will lead to the destruction of culture and the way of life.

Response:

DOE has considered the potential effects of the Project on whole cultures and ways of life under the topics of environmental justice in Section 3.5 of the EIS, potential impacts to land use in Section 3.10, and potential socioeconomic impacts in Section 3.13. As these sections describe, the Applicant has developed several EPMS to avoid or minimize effects to landowners or to existing land uses from construction, operations and maintenance, and/or decommissioning. These EPMS are discussed in further detail in Appendix F of the Final EIS. Some relevant Applicant-developed EPMS include:

- *GE-10: Clean Line will work with landowners to repair damage caused by construction, operation, or maintenance activities of the Project.*
- *GE-20: Clean Line will work with landowners and operators of active oil and gas wells, utilities, and other infrastructure to identify and verify the location of facilities and to minimize adverse impacts.*
- *LU-1: Clean Line will work with landowners and operators to ensure that access is maintained as needed to existing operations.*
- *LU-3: Clean Line will work with landowners to avoid and minimize impacts to residential landscaping.*
- *LU-4: Clean Line will coordinate with landowners to site access roads and temporary work areas to avoid and/or minimize impacts to existing operations and structures.*
- *LU-5: Clean Line will make reasonable efforts, consistent with design criteria, to accommodate requests from individual landowners to adjust the siting of the ROW on their properties.*
- *AG-1: Clean Line will work with landowners to minimize the placement of structures in locations that would interfere with the operations of irrigation systems.*
- *AG-3: Clean Line will consult with landowners and/or tenants to identify the location and boundaries of agriculture or conservation reserve lands and to understand the criteria for maintaining the integrity of these committed lands.*
- *AG-4: Clean Line will work with landowners and/or tenants to identify specialty agricultural crops that may require protection during construction, operation, or maintenance.*
- *AG-5: Clean Line will work with landowners and/or tenants to consider potential impacts to current aerial spraying or application of herbicides, fungicides, pesticides, and fertilizers within or near the transmission ROW.*
- *AG-6: Clean Line will work with landowners to develop compensation for lost crop value caused by construction and/or maintenance.*

- Commenters are concerned about the impacts to Arkansas and Oklahoma Centennial Farms.

Response:

The Oklahoma Centennial Farm and Ranch Program and the Arkansas Century Farm Program are designed to promote and celebrate the agricultural heritage of their respective states. Inclusion in either is based on 100 or more years of documented, continuing family tenancy and operation of farms or ranches, whose current size and value of agricultural production meets specific, state-determined criteria. Both programs are honorary, voluntary, and do not afford legal protections. Information from the Oklahoma and Arkansas Century Farm programs, along with data from similar programs operated by Texas and Tennessee, has been added to Section 3.9 of the Final EIS. The criteria by which centennial or century farms are certified under these programs are different from those used to identify and list historic properties on the NRHP, the Oklahoma Landmarks Inventory, and the Arkansas Register of Historic Places (ARHP). Listing of an agricultural operation as a centennial or century farm or ranch does not necessarily mean that it contains buildings, structures, districts, objects, or landscapes that meet the criteria of these historic registers. As described in Section 3.9 of the Final EIS, the listing of an agricultural operation as a centennial or century farm should serve to alert Project architectural historians to the potential presence of historic buildings or other elements that may be NRHP or state-register eligible resources to be evaluated when surveys of the Project alignment are conducted in accordance with the Programmatic Agreement. The draft Programmatic Agreement is included in Appendix P of the Final EIS.

- Commenter notes that on January 12, 2015, the Council of the Cherokee Nation approved a resolution opposing the Clean Line Project based on impacts to historical and ceremonial grounds.

Response:

DOE is aware of the position of the Council of the Cherokee Nation (Enactment # R-003-15) and has provided the Council with a letter in response (Jane Summerson, NEPA DOE/EIS-0486 Document Manager, to the Council of the Cherokee Nation, March 17, 2015). DOE recognizes the government-to-government relationship between the federal government and the Cherokee Nation, acknowledges the participation of the Cherokee Nation to date in communicating about the Project and its review of the environmental analysis of this Project, and looks forward to continuing the relationship as the environmental review moves forward. The Cherokee Nation is a consulting party in the Section 106 consultation process. DOE also recognizes that the Council is expressing the concerns of the people it represents along the Project route regarding the Project's potential environmental impacts.

With regard to potential impacts to specific locations mentioned in Enactment # R-003-15, DOE has determined using information provided by the Cherokee Nation that one of the locations of concern, the Stokes Smith Ceremonial Grounds, is 1.4 miles north of the Region 4 Applicant Proposed Route and 1.6 miles south of HVDC Alternative Route 4-A. Subsequent to DOE's response to the Council of the Cherokee Nation, the Applicant developed a variant of the Applicant Proposed Route through a portion of Sequoyah County, Oklahoma, to address concerns that had been raised by public comments on the Draft EIS.

This route variation, Region 4 Applicant Proposed Route, Link 3, Variation 2, passes approximately 0.6 mile south of the ceremonial grounds. Therefore contrary to the Enactment, under any one of these alternatives the Project will not cross the ceremonial grounds. In addition, as discussed in Sections 3.9 and 3.18 of the Final EIS, DOE is continuing to analyze potential Project impacts to the Trail of Tears NHT at various points in Oklahoma and Arkansas. Current information indicates that Applicant Proposed Route 4 Link 1 will cross the Trail of Tears alignment delineated by the NPS once within the jurisdictional area of the Council, near Gore, Sequoyah County, Oklahoma. In this area, the Trail of Tears is paralleled by the Cherokee Hills Byway/Oklahoma Highway 100. Available information does not indicate the presence of any identified specific, historic properties associated with the trail, such as archeological sites, relict landscape features, or buildings or structures, where the Project crosses the trail.

- Several commenters expressed concern regarding the impact to several historic trails including the Trail of Tears, Butterfield Trail Stage Route, Old Military Road, Fort Supply Historic Road.

Response:

As discussed in Sections 3.9.4 and 3.9.5 of the Final EIS, the Applicant Proposed Route and various HVDC alternatives routes cross and/or pass close to the alignments of various historic travel routes, transportation corridors, trails, and roads, including the Chisholm Trail, Route 66 NHT, Trail of Tears NHT, Butterfield Trail Stage Route, Old Military Road, Fort Supply Historic Road, and others. The locations of these features have been documented and established to varying degrees of geographic precision and historical meaningfulness. Based upon the best available information, DOE believes that at no location of intersection between the Project and these various historical corridors are there currently identified associated historic properties, such as archeological sites, relict landscape features, or buildings or structures that could be impacted or adversely affected by the Project. It should be stressed, however, that the assessment of impacts or effects at any given location depends upon a detailed understanding of the overall qualities, characteristics, and features that make a given trail or route corridor historically significant and worthy of preservation, as well as an assessment of how these elements are expressed in the vicinity of the Project. As part of a phased process of cultural resources impact assessment and to meet its obligations under Section 106 of the NHPA, DOE is developing a Programmatic Agreement with SHPOs, certain Indian Tribes and Nations on whose tribal lands the undertaking may occur or that attach religious and cultural significance to historic properties that may be affected by the undertaking; THPOs; other federal, state, and local agencies; and others that, in accordance with 36 CFR Part 800 (the regulations that implement Section 106 of the NHPA), will provide a framework for the identification and evaluation of historic properties, assessment of potential Project impacts, and adoption of strategies to resolve potential effects. The draft Programmatic Agreement is included in Appendix P of the Final EIS. One final point concerning historic trails and related corridors bears mentioning. In some instances, named travel routes are not specific historical trails or roads, but are instead modern driving routes created by local and state boards and others to promote heritage tourism. The tourist-oriented, modern Southwest Trail in Arkansas is one such route. It traces a line of travel followed by thousands of Euroamerican settlers in the early nineteenth

century and in places incorporates or closely approximates the alignments of early road segments. However, the “trail” as a whole is a modern concept and does not have standing as a historic resource.

- Commenters are concerned that the proposed route will go through Cherokee tribal lands destroying any remaining artifacts and would cause a loss of heritage.

Response:

DOE is developing a Section 106 Programmatic Agreement with SHPOs and certain Indian Tribes and Nations on whose tribal lands the undertaking may occur or that attach religious and cultural significance to historic properties that may be affected by the undertaking; THPOs; other local, state, and federal agencies; and others that will provide a framework for the identification of and evaluation of eligibility for the NRHP of archeological and historical resources and TCPs, assessment of potential Project impacts to historic properties, and adoption of strategies to resolve potential effects, in accordance with 36 CFR Part 800. The draft Programmatic Agreement is included in Appendix P of the Final EIS. As reported in Section 3.9.1.1.2, DOE has invited several Tribes or Nations, including the Cherokee Nation, Eastern Band of Cherokee Indians, and United Keetoowah Band of Cherokee Indians in Oklahoma, to participate in consultations to develop the Programmatic Agreement. The level of formal involvement among these entities in the Programmatic Agreement consultations has varied, but DOE has continued to engage on a government-to-government basis with them. The United Keetoowah Band of Cherokee Indians in Oklahoma has actively participated as a Consulting Party to the Programmatic Agreement. The Cherokee Nation is a consulting party in the Section 106 consultation process for the Project.

- Commenter notes the presence of our Trail of Tears Removal corridor in portions of the Project's APE could result in the inadvertent discovery of Choctaw artifacts, burials and/or human remains from our removal from Mississippi to Oklahoma. The Choctaw Nation Historic Preservation Department requests to remain a consulting party for the Project's Programmatic Agreement. The Choctaw Nation of Oklahoma asks that the Project areas be surveyed prior to any ground disturbing activities taking place. Also, we ask that an inadvertent discovery clause be added to the project plans.

Response:

At the invitation of DOE, the Choctaw Nation is participating in the consultations to develop a Section 106 Programmatic Agreement that will provide a framework for addressing the Project's potential effects on historic properties, including archeological sites, historic resources, and TCPs, in accordance with 36 CFR Part 800. The draft Programmatic Agreement (Appendix P of the Final EIS) includes stipulations concerning the unanticipated discovery of cultural resources, as well as providing a phased framework for the identification and evaluation of historic properties, assessment of potential effects, and the treatment of possible effects. DOE has solicited comments on this draft Programmatic Agreement from the Choctaw Nation and other Consulting Parties. See also Section 3.9.1.1.2 of the Final EIS.

- Commenter notes that the Muscogee (Creek) Nation has historic area of interest in several areas of the proposed Project including within the Tribal boundaries in Oklahoma and along the forced removal route throughout Eastern Oklahoma, Arkansas and Tennessee. Commenter notes that this Project has the potential to impact cultural resources significant to the Muscogee (Creek) Nation as well as sacred sites, traditional cultural properties and unmarked human burials. The Muscogee (Creek) Nation expects a thorough archaeological review by the applicant and overseen by the Department of Energy and federal archaeologist that includes a thorough review of all previous known sites within 1 mile of the Project right-of-way, previously known archaeological surveys, history maps including historic topographic maps, historic Government Land Office maps, historic county road maps and tribal allotments, as well as interviews with local property owners and consultation with the Tribe. Commenter notes the Tribe will be the entity that will be able to assist in identifying TCPs along the transmission line route that may be impacted. Commenter strongly suggests open and continuous consultation and that all potentially significant cultural resources, Traditional Cultural Properties, sacred sites, and human burials be avoided by all transmission line operations and activities. Commenter notes the EIS states that the Department of Energy will be establishing the timing and protocols for the cultural resource surveys in a Programmatic Agreement. The Muscogee (Creek) Nation views the role of the Tribe as a signatory in any Programmatic Agreement due to the specialized knowledge that the Tribe provides in the 106 process. Commenter expects the Department of Energy to maintain their position stated above that they will establish protocols for the cultural resource surveys and that this important process will not be delegated to the applicant's contractor. Commenter notes that, at a recent consultation meeting, the Department of Energy allowed the applicant's contractor to lead the cultural resource survey protocols discussion. Commenter feels this was highly inappropriate. The Department of Energy should partner with another federal agency to provide archaeological oversight of the protocols and procedures for cultural resource survey, not the applicant's contractor. Commenter has provided information regarding the locations of restricted and trust properties and highly recommend avoiding those areas. If not, the Bureau of Indian Affairs (BIA) Rights-of-Way will need to be negotiated through the Tribe with the approval of the Bureau of Indian Affairs.

Response:

The Muscogee (Creek) Nation is a Consulting Party to the NHPA Section 106 consultations to develop a Programmatic Agreement that will provide a phased framework for addressing the Project's potential effects on historic properties, including archeological sites, historic resources, and TCPs. The draft Programmatic Agreement (Appendix P of the Final EIS), outlines the identification and evaluation of resources, assessment of potential adverse effects, and the resolution of adverse effects, in accordance with 36 CFR Part 800, the implementing regulations for Section 106 of the NHPA, and it also includes stipulations concerning the unanticipated discovery of cultural resources during Project construction and operation. DOE solicited comments on the draft Programmatic Agreement, from the Muscogee (Creek) Nation and other Consulting Parties. See also Section 3.9.1.1.2 of the Final EIS. Under NEPA regulations of both the CEQ (40 CFR 1506.5(a)) and DOE (10 CFR 1021.215(b)(2), 1021.215(d), and 1021.216(b)-1021.216(c)), DOE may require an applicant, recipient of financial assistance, or joint venture partner to produce data needed for DOE's

environmental analysis. However, DOE is required to independently assess the validity of the data and retains authority for its use and application in environmental analysis. In the situation cited by the commenter, the Applicant's contractor presented information based on its area of technical expertise, but DOE retained supervisory authority and responsibility for using that information in Section 106 consultations and for addressing NEPA requirements to assess potential impacts of the Project on historic and cultural resources. Also note that Southwestern has contracted with the USACE to provide cultural resources expertise for the Project.

- Commenter notes that the methodology for archaeological survey will need to comport with standards in areas where Section 404 or Section 10 permits may be required, and/or in areas that cross district lands. SWCA has previously indicated they believe 100-meter shovel test spacing was adequate for site detection in all areas-including high probability areas in Oklahoma because Oklahoma has no published state standards. They were informed that they should always utilize guidelines that districts have been working on compiling for permit and fee lands, but short of that, should use best archaeological practices (at the least) and be consistent with requirements in surrounding states, where appropriate. Tulsa District requires 100 percent survey of any potentially affected land under Tulsa District jurisdiction being crossed, even if not being impacted directly by a tower or whatever they are proposing. Right-of-ways, easements, access, temporary construction areas, borrow, disposal, staging areas, etc. are included in this requirement.

Response:

The draft of the Programmatic Agreement (Appendix P of the Final EIS) being developed by DOE in consultation with four SHPOs; certain Indian Tribes and Nations; THPOs; certain local, state, and federal agencies; and others, specifically refers to guidelines for Oklahoma, Arkansas, and Texas to be used by Clean Line (and by extension, its archeological contractor, SWCA) for development of the Historic Properties Identification Plan that is to become a part of the Programmatic Agreement. USACE is not participating as a consulting party to develop the Programmatic Agreement.

- Commenter notes that the Draft EIS includes discussion of how the HVDC transmission line might impact identified burial and ceremonial grounds. In particular, in Section 3.9, the Draft EIS correctly states that "[c]oncerns for specific burial and ceremonial ground areas have been expressed in consultation meetings in relation to the ROI [Region of Influence, or study area]." Section 3.9, p. 3.9-9, ln 11. During the tribal consultation meetings in September 2013, a tribal representative stated there were resources of cultural importance in the region, including "active ceremonial grounds" as one of those resources. The Draft EIS, however, misstates the potential impacts of the HVDC transmission line on these identified resources. In the discussion of Region 4, the Draft EIS states, "tribal consultation with DOE in September 2013 indicated the possibility that the Applicant Proposed Route in Region 4 may intersect a 'burial site location and a ceremonial grounds location.'" Section 3.9, page 3.9-18, ln 18-19 (emphasis added). The phrase "may intersect" is incorrect. The Final EIS should clarify that no known burial site locations and no ceremonial grounds locations are intersected by the Applicant Proposed Project or DOE Alternatives.

Response:

The Final EIS, Section 3.9.5.4 has been revised to clarify the circumstances of these cultural features.

- Commenter notes that the Draft EIS also states that "Property types associated with the Bell-Drane Cherokee Removal Route of the Trail of Tears (1838-1839) where intersected by the ROI potentially include roadbed segments; ferry crossings, landings, and fords; campsites; buildings, structures, and building sites; and gravesites." Section 3.9.5.4, p. 3.9-17, ln 25. This statement could mislead the reader to believe that all of these features are present within the ROI. To clarify the current level of knowledge, the Final EIS should indicate that no historic properties have been identified at any of the intersections of the Trail of Tears with the APR or any of the DOE HVDC transmission line alternatives. This would be consistent with similar statements made regarding the APR and the Alternative Route in Region 4. See e.g. Section 3.9, p. 3.9-19 ln 7; Section 3.9, p. 3.9-40, ln 14.

Response:

The commenter, the Applicant, correctly notes that no NRHP-listed or -eligible historic properties have been identified to date at the referenced locations. However, it should also be stated that no Project-specific cultural resource surveys have been conducted to date. Section 3.9 of the Final EIS has been revised to address these concerns.

- Commenter notes that several Key Observation Points (KOPs) analyzed in the visual resources section the Draft EIS (Section 3.18) show the existing condition of the Trail of Tears. These KOPs include Mississippi River and Trail of Tears AR; Mississippi River and Trail of Tears APR; Trail of Tears (Highway 352); and Trail of Tears State Route 100 APR. These KOPs, and others nearby show existing modern features and infrastructure on the landscape surrounding the Trail of Tears. These features include existing transmission lines, bridges, highways and an interstate. Section 3.18 of the Draft EIS should include references to relevant subsections of Section 3.9, as appropriate, to characterize the existing conditions of the Trail of Tears.

Response:

Final EIS Sections 3.9.5.4, 3.9.6.2.3.1.4, and 3.9.6.3.2.1.4.1 characterize the existing conditions of the Trail of Tears in the Final EIS.

- Commenter notes that Table 3.9-1 has an error in matching jurisdiction to statue column (Arkansas public and private lands and waters tied to Oklahoma statue).

Response:

DOE confirms that the citation referenced by this comment is correct as was presented in the Draft EIS.

- The National Park Service (NPS) has identified two National Historic Landmarks (NHLs) that could be impacted by the proposed project. Numerous segments of the Trail of Tears National Historic Trail (NHT) could be crossed by the project. Commenter encourages DOE to assess potential impacts to the Stamper Site National Historic Landmark (Texas County,

Oklahoma), which is located in the vicinity of the proposed "Region 1" Wind Development Zone and AC Collection System route. The Draft EIS has not identified this National Historic Landmark in the list of historic and cultural resources. Commenter requests the results of this assessment be sent to NPS, Intermountain Region, and National Historic Landmarks Program.

Response:

Commenter correctly notes that the Stamper Site (34TX1, NRIS 66000635), an NHL, was omitted from the Draft EIS. The site, however, is not within the 2-mile wide ROI adjacent to the centerlines of the AC collection system for sections NE-1/NW-2 that were studied for this EIS (see Final EIS Sections 2.4.2.1, 2.5.1, and 3.1.1). It was not considered in Section 3.9 because it was not subject to Project impacts, as defined by the EIS methodology for cultural and historic resources. Although the AC collection system is included as part of the environmental analysis for this Project, DOE will not be making decisions on the locations on these transmission lines, because their specific locations will depend on engineering and other considerations arising from future wind energy development. It is thus premature to assess specific impacts to the site, because these cannot be defined in any meaningful way.

- To the maximum extent possible, efforts should be made to avoid and minimize any potential impacts to the Honey Springs Battlefield National Historic Landmark (McIntosh & Muskogee counties, Oklahoma), which is located near the proposed area of potential effect for the alternative routes 3-C and 3-D. Visual impacts are identified in the Draft EIS for these proposed alternate routes; however, if these routes are selected DOE should consult directly with NPS's Intermountain Region, National Historic Landmarks Program to minimize or mitigate any potential impacts to this nationally significant site. Section 110(f) of the National Historic Preservation Act requires, "prior to the approval of any Federal undertaking, which may directly and adversely affect any National Historic Landmark, the head of the responsible Federal agency shall, to the maximum extent possible, undertake such planning and actions as may be necessary to minimize harm to such landmark." Moreover, as stated in 36 CFR Part 800.10(c), federal agencies are required to notify the Secretary of the Interior (delegated to the NPS) of any consultation involving an undertaking at a NHL and invite the Secretary to participate in the consultation where there may be an adverse effect. Adverse effects are not limited to direct impacts and include visual effects.

Response:

The potential effects of the Project on the Honey Springs Battlefield NHL are among the factors that would be considered in DOE's decision about the Project's specific routing. DOE recognizes its responsibilities under Section 110(f) of the NHPA and 36 CFR 800.10(c), which likely would be addressed through the Section 106 Programmatic Agreement (the draft Programmatic Agreement is included in Appendix P of the Final EIS), to which NPS is a Consulting Party.

- Commenter notes that the Trail of Tears National Historic Trail (NHT) has great cultural significance to the Cherokee Nation and other Tribes and Nations. Some of the alternative alignments in northwest Arkansas would result in the construction of a very large transmission line on top, nearby, or within view of as much as 50 miles of the

congressionally designated route of the Trail of Tears NHT, and two crossings of a water route of the trail north of Memphis, Tennessee. It appears the alternative alignments presented show that the NHT will be crossed by land at least ten times from central Arkansas to the Arkansas/Oklahoma border. The alternative alignments also show a crossing of the NHT near Gore, Oklahoma. If these alternatives are selected, the proposed Project will create irreversible permanent direct, indirect, and cumulative adverse effects to the Trail of Tears NHT, associated resources, and its setting.

Response:

Comments noted. DOE would consider the proximity of the Trail of Tears NHT to the Project in its decision about the Project's specific routing. While DOE concurs that the Applicant Proposed Route and various HVDC alternative routes intersect the Trail of Tears 10 or more times all together in Arkansas, it is also misleading to assert that the Project is "on top" of the route. Although the Trail of Tears NHT commemorates, in the words of NPS, "a journey of injustice" undertaken by the Cherokee people as a result of the actions of the United States (<http://www.nps.gov/trte/index.htm>), it does not represent a historic landscape corridor with continuous integrity of setting. Instead, many portions of the trail routes have been altered by subsequent use and development since 1837–1838, and the historical character, features, and sites associated with the period of significance of the trail are distributed discontinuously along them. Indeed, this understanding of the nature of the historic resources associated with the Trail of Tears is precisely the perspective that lies behind the "Historic and Historical Archaeological Resources of the Cherokee Trail of Tears" NRHP Multiple Property Documentation Form, which was prepared for and under the supervision of NPS (Thomason and Parker 2003). This discontinuous historical character also explains why the Trail of Tears, unlike some other historic trail corridors, has not been nominated in its entirety to the NRHP or as an NHL. DOE's analysis of the Applicant Proposed Route and HVDC alternative routes, based upon the best-available information, found that at no location does the proposed routing result in direct effects to an NRHP-listed or known NRHP-eligible historic resource associated with the Trail of Tears. In consultation with NPS, the Arkansas SHPO, and other parties, DOE is developing a Section 106 Programmatic Agreement that will provide a phased framework to ensure that historic properties in the vicinity of the Project, including those associated with the Trail of Tears, are identified and evaluated and that potential Project impacts to historic properties are assessed and appropriately addressed as the Project moves forward. The draft Programmatic Agreement is included in Appendix P of the Final EIS.

- Commenter notes that for the past fifteen years, the Arkansas State Historic Preservation Office (Arkansas SHPO) has conducted extensive research, documentation, and mapping of Trail of Tears alignments in Arkansas. The Arkansas SHPO has listed a number of trail segments on the National Register of Historic Places. It is recommended that the Arkansas SHPO be consulted early on in the review process. The Cherokee Nation, one of NPS's strongest partners in the preservation, protection, and interpretation of the Trail of Tears NHT, is also concerned about potential impacts from the proposed Project.

Response:

Comment noted. DOE has been involved in consultations with the Arkansas SHPO concerning the Project since November 2012 (see Final EIS Sections 3.9.1.1.2 and 3.9.2). DOE has received information from the Arkansas SHPO concerning inventoried and potential historic resources, including resources associated with the Trail of Tears NHT. DOE is developing a Section 106 Programmatic Agreement, which will provide a phased framework to ensure that historic properties in the vicinity of the Project, including those associated with the Trail of Tears, are identified and evaluated and that potential Project impacts to historic properties are assessed and appropriately addressed as the Project moves forward. The Arkansas SHPO is a Consulting Party to the Programmatic Agreement consultations and has indicated that it expects to be a Signatory when the Programmatic Agreement is completed. The Cherokee Nation is a consulting party in the Section 106 consultation process for the Project. The draft Programmatic Agreement is included in Appendix P of the Final EIS.

- Commenter notes that the proposed transmission line alignment also crosses historic Route 66, a cultural route that NPS's National Trails Intermountain Region administers through the Route 66 Corridor Preservation Program. The crossing is just to the northwest of Depew, Oklahoma. This area could yield segments of the historic road that are determined eligible for the National Register of Historic Places.

Response:

Comment noted. As stated in Final EIS Section 3.9.5.3, the Applicant Proposed Route and HVDC Alternative Route 3-C both intersect the historic U.S. Route 66 corridor in Creek County, Oklahoma, northeast of Depew. The Applicant Proposed Route intersects the historic U.S. Route 66 corridor approximately 5 miles northeast of Bristow and 10 miles northeast of Depew. HVDC Alternative Route 3-C intersects the historic U.S. Route 66 corridor approximately 5.3 miles west-southwest of Bristow and 1.5 miles northeast of Depew. The Applicant Proposed Route passes within approximately 0.5 mile south of a 1.8-mile segment of the 1926 Portland Concrete-paved alignment of U.S. Route 66, which is the longest privately owned section of unaltered first-generation paving in Oklahoma. This segment is recommended as eligible for the NRHP; concurrence information from the Oklahoma SHPO (if any) is not available. No historic resources associated with historic U.S. Route 66 have been documented within at least 1.3 miles of HVDC Alternative 3-C.

- The NPS requests participation as a consulting party on all phases for this Project, including the National Environmental Policy Act, and for the National Historic Preservation Act Section 106 consultations.

Response:

NPS is a consulting party to DOE under the NHPA Section 106 process for this Project.

- Commenter notes that their property is home to several 'Centennial Trees', and other historical properties, including family burial sites.

Response:

Comment noted. The Applicant is committed to constructing and operating and maintaining the Project in accordance with applicable state laws, including those relating to cemeteries, burial places, human remains, and related furnishings (enumerated in Table 3.9-1).

According to information obtained in June 2015 by the Applicant from the Oklahoma Forestry Services, the state does not maintain a database of Centennial Trees, which were acknowledged upon application by individual property owners as part of the state centennial in 2007. Under EPM LU-5 (Final EIS Appendix F), the Applicant is committed to making reasonable efforts, consistent with design criteria, such as micrositing within the 1,000-foot-wide Project corridor, to accommodate requests from individual landowners to adjust the siting of the ROW on their properties.

- Commenter, a cultural resources specialist, reviewed the EIS and states that cultural resource concerns should be adequately addressed and that the programmatic agreement under development should address the concerns and potential impacts of cultural resources, archaeological sites, historic properties. Two National Register-listed properties not far from Muskogee (Oktaha School and the Honey Springs Battlefield) should be avoided by selecting the applicant proposed route over the 3C or 3D alternative. Commenter also states that while he expects new archaeological sites and historic properties to be found and documented, projects like these typically make avoidance of disturbance fairly simple as transmission lines have a small footprint.

Response:

The Programmatic Agreement is part of the ongoing process to ensure that all participating federal agencies meet their obligations under Section 106 of the NHPA, as well as NEPA requirements. The draft Programmatic Agreement is included in Appendix P of the Final EIS. DOE intends to execute the Programmatic Agreement prior to issuance of the ROD or otherwise comply with procedures set forth in 36 CFR Part 800. Potential visual impacts to Oktaha School and Honey Springs Battlefield are addressed in Sections 3.18.5.3 and 3.18.6.3 of the Final EIS.

- Commenter states that the EIS does not show that adequate consultation with the Arkansas State Historic Preservation office regarding affects to historic and/or cultural resources has occurred. Without this information people have been voided the opportunity to comment regarding the effects or potential effects to these resources.

Response:

DOE has been involved in consultations with Arkansas SHPO concerning the Project since November 2012 (see Sections 3.9.1.1.2 and 3.9.2 of the Final EIS). DOE has received information from the Arkansas SHPO concerning inventoried and potential historic resources. DOE is developing a Section 106 Programmatic Agreement, which will provide a phased framework to ensure that historic properties, such as archeological sites, historic buildings and structures, and TCPs that may be affected by the Project are identified and evaluated and that potential Project impacts to historic properties are assessed and appropriately addressed as the Project moves forward. The Arkansas SHPO is a Consulting Party to the Programmatic Agreement consultations and has indicated that it expects to be a

Signatory when the Programmatic Agreement is completed. The draft Programmatic Agreement is included in Appendix P of the Final EIS.

- Commenter notes that Alternate Route 4E would cross his property on an 80 acre easement. Commenter notes that his property, the Christian Knoerschild Homestead was recognized as an Arkansas Century Farm. The commenter is proud of this distinction. Commenter also notes that there are two historic sites located on this route, a home which belongs to his nephew and a one room school house, which is the last extant building from a group of structures associated with St. Paul's Lutheran Church, established in 1882. St. Paul's Cemetery is three acres across the road.

Response:

The one-room school house is the Lutherville or St. Paul's School, which is listed on the NRHP (NRIS No. 99000228). The school is discussed in Sections 3.9.5 and 3.9.6 of the Final EIS. The cemetery mentioned by the commenter has been added to the database of potential historic resources. The Applicant is committed to constructing and operating and maintaining the Project in accordance with applicable state laws, including those relating to cemeteries, burial places, human remains, and related furnishings (enumerated in Table 3.9-1). Under EPM LU-5 (Final EIS Appendix F), the Applicant is committed to making reasonable efforts, consistent with design criteria, such as micrositing within the 1,000-foot-wide Project corridor, to accommodate requests from individual landowners to adjust the siting of the ROW on their properties. The Arkansas Century Farm program is an honorary and voluntary program based upon the longevity of family tenure on an agricultural property, which does not afford legal protections. The criteria by which century farms are certified are different from those used to identify and list historic properties on the federal and Arkansas state registers of historic places (NRHP and ARHP, respectively). Listing of an agricultural operation as a century farm does not necessarily mean that it contains buildings, structures, districts, objects, or landscapes that meet the criteria of these historic registers.

- A number of sensitive historic and cultural resources were identified in Section 3.9, including archaeological sites and historic buildings, trails and roads (including the Trail of Tears), and other structures. Because a thorough evaluation of historic sites or sites of importance has not been undertaken (the information analyzed was stated to be "conceptual, preliminary, or non-Project-specific nature;" "Project-specific cultural resources surveys" have not been done), this section is incomplete. While the authors focused on archaeological sites and historic properties, sites of relevance to individuals and communities are also expected to exist along the proposed route. For example, pioneer or family burial plots may exist in the area of the proposed route. Does the Corporation propose to disturb such sites if they exist along its proposed route? Is a situation anticipated in which the Corporation would decide to disturb locally meaningful historic sites in favor of building its high voltage line/towers? From just the preliminary discussion in this section, it appears that the entire proposed route, and especially the route through Region 4, contains many historically and culturally significant sites. The permanent disruption (destruction) of these sites is being seriously considered as a consequence of this Project, and it is incumbent upon involved entities to carefully consider such consequences. Once removed or disturbed, these cultural resources cannot be remediated, replaced, or reclaimed.

Response:

DOE prepared the Final EIS with the best available information, consistent with 40 CFR 1502.22. DOE is involved in consultations with SHPOs; certain Indian Tribes and Nations on whose tribal lands the undertaking may occur or that attach religious and cultural significance to historic properties that may be affected by the undertaking; THPOs; local, state, and federal agencies; and others to develop a Programmatic Agreement that will provide a process for addressing the Project's potential effects on historic properties, including archeological sites, historic buildings and structures, and TCPs. See Section 3.9.1.1.2 of the EIS. The draft Programmatic Agreement is included in Appendix P of the Final EIS. The Applicant is committed to constructing and operating and maintaining the Project in accordance with applicable state laws, including those relating to cemeteries, burial places, human remains, and related furnishings (enumerated in Table 3.9-1). Under EPM LU-5 (Final Appendix F), The Applicant is committed to making reasonable efforts, consistent with design criteria, such as micrositing within the 1,000-foot-wide Project corridor, to accommodate requests from individual landowners to adjust the siting of the ROW on their properties.

- Because the residents of this community have deep roots here going back to the founding of St. Vincent in 1880, none will give up their heritage, home, lands and the stewardship thereof and leave this community to the most certain devastation that will be brought by the proposed power lines. The community of St. Vincent, Arkansas should be considered "important" within the intent of the Congressional declaration of national environmental policy, quoted as follows, "(b)(4) preserve important historic, cultural, and natural aspects of our national heritage, and maintain wherever possible, an environment which supports diversity and variety of individual choice." St. Vincent's inhabitants, since its founding in 1880 have persevered in their stewardship of this land, maintaining the quality of the environment for their succeeding generations without benefit of knowing that their perseverance in exercising their rights of individual choice and love of the land.

Response:

Comment noted. The process of assessing potential visual impacts is discussed in Final EIS Section 3.18.

- Commenter notes that this transmission line Project would adversely impact the location of the historic Chisolm Trail. Visible remnants of the Chisolm Trail exist within the proposed easement. In 1990, a recognized authority on the Chisolm Trail, Robert Klemme, erected monuments marking where the Trail crosses the Cherokee Strip. Due to the trail ruts being most visible on our property (SE/Q S25-20N-7W) he chose to erect the first marker there. A news story about Mr. Klemme and his placement of this marker appeared in the Friday, November 30, 1990 Enid, Oklahoma Enid News and Eagle newspaper. The Chisolm Trail runs in a north/south direction and so, also crosses the NE/Q S36-20N-7W which would also be directly impacted by this transmission line. Any construction in this area would disturb, damage, or permanently bury historic artifacts associated with the Chisolm Trail. Artifacts that are said to have been discovered on our property and in the immediate vicinity over the past 80+ years include old horseshoes, arrowheads, and at least one rusted handgun. Due to the presence of trail ruts related to the Chisholm Trail and the existence of other historical

features on the commenter's farm, the commenter has initiated the process to nominate his farm the NRHP and is working with the Oklahoma SHPO to do so. Commenter also notes that he hopes to set aside an area on the farm for public viewing of the trail ruts to enhance appreciation of the Chisholm Trail. Commenter is concerned that noise produced both by electrical transmission and by wind blowing through the transmission lines would detract from visitor's ability to enjoy the site.

Response:

Reference to the Chisholm Trail ruts in the vicinity of the Region 2 Applicant Proposed Route have been added to EIS Sections 3.9.5.2 and 3.9.6.2.3.1.2. The process of assessing potential visual impacts is discussed in EIS Section 3.18. DOE is developing a Section 106 Programmatic Agreement (the draft Programmatic Agreement is included in Appendix P of the Final EIS), which will provide a phased framework to ensure that historic properties in the vicinity of the Project are identified and evaluated and that potential Project impacts to historic properties are assessed and appropriately addressed as the Project moves forward. The Chisolm Trail will be incorporated into the Programmatic Agreement process, and impacts associated with noise and vibration would be evaluated in accordance with the Section 106 Programmatic Agreement's process. The Oklahoma SHPO is a Consulting Party to the Programmatic Agreement consultations and would be a Signatory when the Programmatic Agreement is completed.

- Commenter is concerned the proposed route will disrupt an area that is the last of Indian lands open prairie and should be preserved. Commenter notes that much of the Indian land was an original allotment and has been preserved by family members for many years.

Response:

Comment noted. Tribal consultation is discussed in Final EIS Section 3.9.1.1.2.

- Commenter feels the assessment failed in several areas. Commenter feels the assessment did not mention residences, churches, cemeteries, and the fact that it parallels, and then intersects, a historic civil war trail.

Response:

DOE reviewed the entire comment and determined it was focused on the Applicant Proposed Route Region 5 Link 3. At DOE's request the Applicant reviewed available 2013 and 2014 aerial photography for residences, churches, and cemeteries, and all data appears to be correct and current as presented in the EIS in the area of this link. According to the Applicant, trails referenced in the comment appear to refer to modern driving tours that connect Civil War sites. A segment of the Civil War heritage trail crosses and parallels Region 5, Link 3. Other segments of the tour route cross portions of the proposed route to the east and west of Link 3.

- Commenter states that several Indian Tribes have opposed the Project including Choctaw Nation, Creek Nation and from her understanding the Cherokee Nation and believes that between all of the Indian Tribal agencies, no one should be gaining access to tribal lands.

Response:

The only location along the Project involving tribal lands is in the vicinity of a crossing of the Arkansas River south of Webbers Falls Lock and Dam 16. Tribal interests here are managed by the Arkansas Riverbed Authority, an entity created jointly by the Chickasaw, Choctaw and Cherokee Nations (Title 25 USC §§ 1779-1779f) to administer tribal interests in this section of the river. In addition, the BIA has legal jurisdiction with regard to ROWs over land held in trust for American Indians (Final EIS Section 1.2.1).

- Commenters note that in the vicinity of US Highway 81 near the Garfield County line south of Enid, Oklahoma, approximately one-half mile south of Region 2 PR Link 3 are several locally-known historical features. These include is the site of the “Marrying Tree,” where, according to local lore, in the time of early white settlement of the region couples would be joined in matrimony under the more liberal law of Garfield County than under the more restrictive law of its neighbor to the south. A seedling or graft of the original tree grows near the spot where the Marrying Tree once stood and is a “living historical marker.” Land nearby preserves buffalo wallows that pre-date white settlement of the region, contains an early barn, and occasionally yield Indian arrowheads. Commenters are concerned about the potential impacts of the Project on these features.

Response:

Based on a review of available aerial and street-level imagery it appears that only a stump of the "Marrying Tree" remains approximately 0.5 mile south of the Applicant Proposed Route. The Applicant is aware of commenter's knowledge about potential archeological and historical sites and has noted it for any future field investigation.

- Commenter states that their property near (Clarksville, Arkansas, has areas on the National Register of Historic Places called King's Canyon. Also between the property and the proposed line there are Native American burial sites which may be impacted by the Project.

Response:

Although the precise location of the Kings Canyon Petroglyph Site (NRIS No. 82002119) is not publicly available, the site is estimated to be located 0.6 to 1 mile north of Applicant Proposed Route 4 Link 9. It is well outside the area of direct effects for the Project. The presence of potential Native American burial sites is noted and would be addressed through the process established by the proposed Programmatic Agreement and in accordance with applicable state and federal law. The draft Programmatic Agreement is included in Appendix P of the Final EIS.

- All cultural resource surveys need to be done far enough in advance of construction to allow for survey to modern archaeological standards, site excavation and site eligibility determination. Surveys need to be conducted by DOE personnel or someone under contract with DOE.

Response:

DOE is involved in consultations with SHPOs, certain Indian Tribes and Nations on whose tribal lands the undertaking may occur or that attach religious and cultural significance to

historic properties that may be affected by the undertaking; THPOs, local, state, and federal agencies; and others to develop a Programmatic Agreement that will provide a process for addressing the Project's potential effects on historic properties, including TCPs. See Section 3.9.1.1.2 of the EIS. The draft Programmatic Agreement is included in Appendix P of the Final EIS.

- Commenters are concerned that the proposed route will go through Cherokee tribal lands destroying any remaining artifacts and would cause a loss of heritage.

Response:

Comment noted. As described in Section 3.9.1.1.2 of the Final EIS, DOE is involved in consultations with SHPOs, certain Indian Tribes and Nations on whose tribal lands the undertaking may occur or that attach religious and cultural significance to historic properties that may be affected by the undertaking; THPOs; local, state, and federal agencies; and others to develop a Programmatic Agreement that will provide a process for addressing the Project's potential effects on significant historic properties, including archeological sites, historic buildings and structures, and TCPs. The draft Programmatic Agreement is included in Appendix P of the Final EIS. The Applicant is committed to constructing and operating and maintaining the Project in accordance with applicable state laws, including those relating to cemeteries, burial places, human remains, and related furnishings (enumerated in Table 3.9-1). Under EPM LU-5 (see Appendix F of the Final EIS), the Applicant is committed to making reasonable efforts, consistent with design criteria, such as micrositing within the 1,000-foot-wide Project corridor, to accommodate requests from individual landowners to adjust the siting of the ROW on their properties.

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21 Land Use

The following comments were received relative to land use:

- Commenter notes that for access to the Lee Creek crossing and Lee Creek Variation a road would need to be constructed on either side of the crossing. Commenter notes this area is forest and pasture land and has been maintained to reduce runoff and sedimentation. Commenter notes that the Draft EIS states "site conditions, engineering design, construction requirements, adopted environmental protection measures and relevant permits would govern the specific locations of proposed new access roads." Commenter acknowledges Clean Line's need for temporary construction areas, but has concerns that these activities may be outside the right-of-way. Commenter states that the interspersed land cover and land ownership along the route suggests that a variety of land uses may occur along the right-of-way.

Response:

It is anticipated that, if the Leek Creek Variation is chosen, concerns in this comment can be addressed through the implementation of a SPCCP, SWPPP, and EPMs GE-3, GE-6, and W-3. See also Section 2.1.2.4 and Section 2.1.4.1 in the Final EIS for a description of access roads and temporary construction areas, respectively.

- Commenter notes concern about land use associated with the invasion and disruption that would accompany the transmission line due to the creation of access roads, clearing for rights-of-way and staging areas, grading of the installation site, foundation construction, and the assembly of structures.

Response:

It is anticipated that concerns in this comment can be addressed through the implementation of EPMs LU-1, LU-3, LU-4, and LU-5. See also Section 2.1.2.4 and Section 2.1.4.1 in the Final EIS for a description of access roads and temporary construction areas, respectively.

- Commenter notes concern that the present proposed route would severely damage a large tract of leveled land, which would interfere with multiple inlet furrow irrigation. Commenter feels that, if the line is moved, the field involved to the south uses flood irrigation and will not be planted in corn.

Response:

This comment refers to Region 6, Link 2 of the Applicant Proposed Route. The Applicant reviewed this comment and determined that the tenant's and landowner's concerns could be addressed through the development of a route variation. The Applicant coordinated directly with the landowner's tenant farmer, who provided additional input. In response, Clean Line developed a route variation (Applicant Proposed Route, Link 2, Variation 1) that addresses their concerns. The route variation is described in Section 2.4.2.6 and Appendix M. Potential impacts to land use related to the routing variation are included in Section 3.10 of the Final EIS.

- Commenter notes that in Final EIS, DOE should clarify that the nature and form of the ROW acquisition is neutral with respect to effects on the environment. It is the land use and

activities that would occur within the ROW that must be analyzed in the EIS. For example, while a ROW easement may be either temporary or permanent, the potential environmental impacts of such ROW easement acquisition results from the subsequent land use (the Project) rather than the legal instrument and process used to acquire the ROW easement. In some Sections of the Draft EIS, however, it can be difficult to clearly discern how DOE has addressed each of the Project components. For example, while Section 2.1.2.4 of the Draft EIS explains the types and approximate miles of access roads required for construction and operations and maintenance of the Project, several of the resource chapters could be improved by more clearly explaining how access roads were included in the impact analysis (at a level commensurate with available information). In some of the resource chapters (e.g., agricultural resources, surface waters, and wetlands), the impact discussion lists the number of linear feet or acres intersected by the Project and leads the reader to conclude that that entire area would be impacted by the Project. For example, in Section 3.2.6.2.3.1.1 regarding the impacts of the HVDC transmission line in Region 1 on agricultural resources, the Draft EIS states that "[a]pproximately 1,742.3 acres of grasslands/herbaceous and 748.8 acres of cultivated crops would be disturbed." Section 3.2.6, p. 3.2-20, ln 6. These types of statements could be misinterpreted as suggesting that the Project will affect use of that entire area. The fact that the HVDC transmission line ROW crosses a certain acreage of one land use type does not automatically mean that the transmission line would impact that entire area, nor does it speak to the type or magnitude of any impact that the Project may generate. Another example is Section 3.15 regarding potential impacts to surface water resources. There, the Draft EIS identifies the number of miles of surface waters that would be crossed by the HVDC transmission line. See Section 3.15, Tables 3.15-4 and 5, 3.15-8, 3.15-12, 3.15-16, 3.15-20, 3.15-24, 3.15-28, and 3.15-32. Similar to land use, miles of intersection are not equivalent to miles of impacts. Only a fraction of the total mileage identified in the tables is likely to be impacted by the Project components. To make this clearer to the reader, we recommend that the sections of the resource chapters that identify the areas (acreages or linear feet) that could be impacted by the Project be related back to the general discussion of impacts from the Project components to the resource. Similarly, the Final EIS should acknowledge that the areas (acreages or linear feet) cited within the Representative ROW are the areas that could be subject to effects from the Project. We suggest that DOE revise the sentence on p 3.1-3, ln 2-3, to clarify that the final ROW could be located anywhere within the 1,000-foot-wide corridor—and not anywhere within the ROI. The reference to the ROI on line 3 could confuse readers by implying a larger potential siting area for the final ROW than is intended by the Draft EIS. The various ROIs define the boundaries used to complete the impact analyses for the each of the resource areas, but do not modify or expand the 1,000-foot-wide transmission line siting corridors within which the ROW may be sited. The Draft EIS mischaracterizes the potential land use restrictions during construction and operation of the Project. Consequently, the potential impacts described in Agricultural Resources and Land Use sections are overstated. For example, both Summary S.6.1.2 and S.6.1.10 state, "[I]and uses that would not be permitted in the ROW include buildings or structures, changes to grading and land contours, and some restrictions for infrastructure such as fences and irrigation lines." These statements are contradictory to Clean Line's intent and inconsistent with the discussion of potential restrictions in the Project Description and Section 2.1.5.1 regarding the permitted uses within the ROW. See section 2.1.5.1, p. 2-19, ln 4-6. The Draft EIS explains, "Incompatible land uses within the ROW include construction

and maintenance of inhabited dwellings and any use requiring changes in surface elevation that affect the electrical clearances of existing or planned facilities. Limitations on land uses would be described in the easement agreement; these limitations could be modified in the easement based on site-specific conditions and/or coordination with landowners." Section 2.1.5.1, Pg. 2-19, ln 11-20. As noted in Chapter 2.1.5.1, any restrictions on land use within the ROW would be determined based on site-specific conditions and/or in coordination with landowners. These are not blanket limitations or restrictions that would apply to every parcel associated with the Project. The current impacts summary leaves the reader with the impression that "...changes to grading and land contours..." will not be permitted in the ROW. Section 2.1.5.1, p. 2-64, Table 2.6. We request that in preparing the Final EIS DOE thoroughly review the agricultural and land use impacts analysis to ensure that the appropriate assumptions and conditions for potential land use restrictions are incorporated.

Response:

The comment regarding separation between land acquisition and environmental impact analysis is addressed in a revision to Section 2.1.3 of the Final EIS. The balance of the comment is addressed in Section 3.10.6 of the Final EIS. Revised text clarifies the extent to which access roads were included in the analysis, how the acreages in the representative ROW relate to potential land use impacts, and the potential land use restrictions during operation of the Project.

- Commenter notes that landowners will still be able to use the land for cattle or farming as long as they do not interfere with the safe and reliable operation of the transmission line. Commenter believes that if the poles are installed properly they can probably skip over any field, and not impact land use too much. Commenter thinks the poles are analogous to trees that you have to go around.

Response:

Impacts to cattle grazing and farming from the Project are discussed in Section 3.2.6 of the Final EIS.

- Commenter notes this project will assist farmers to diversify their lands and gives them other options besides oil and gas and whatever they are ranching and farming on those lands. Commenter states that land usage would be small compared to other projects, especially given the amount of cropland that is developed, fails, or is abandoned. Commenter also states that the project will allow many acres to be returned to production, which is beneficial to land resource conservation.

Response:

As noted in Sections 2.1.5.1 and 3.10.6.2.2.2 of the Final EIS, limitations on land uses would be described in individual landowner agreements, and could be modified based on site-specific conditions and/or coordination with landowners.

- Commenter does not like the potential restrictions on land use, as well as the potential detrimental effects.

Response:

As described in Section 3.10.6, much of the land affected during construction could return to previous uses after construction is complete. Restrictions on land uses would be described in individual landowner agreements and could be modified based on site-specific conditions and coordination with landowners. In addition, the EPMs described in Section 3.10.6.1 will help to address some of the potential detrimental effects.

- Commenter states that the EIS does not discuss how disputes between landowners and the Corporation during construction and maintenance would be resolved.

Response:

A written easement agreement would state the rights and obligations of both the Applicant and the landowner with regard to any easement on a landowner's parcel. The easement agreement would state the rights and obligations of each party and, once executed by the parties, will apply for the entire time the easement is in effect, including during the construction and operations and maintenance phases of the Project.

- Commenter believes DOE should have no say on land practices outside the ROW unless they pay a usage restriction in the easement agreement. Commenter manages his land for timber values; however, timber management is not listed as "generally permitted". Outside of the ROW, landowners should be allowed to manage their land as they see fit.

Response:

There would be no restriction on activities outside the ROW. Pursuant to the NERC Reliability Standard FAC-003, the Applicant is required to create and implement a documented vegetation management program for the Project's permanent ROW to prevent vegetation-caused outages on the transmission system. The vegetation management program will provide the framework for the Project's TVMP. The TVMP may require additional analysis under NEPA depending on whether and under what conditions DOE decides to participate in the Project. The TVMP would apply to the ROW, temporary work areas, access roads, and other facilities associated with the Project during preconstruction clearing activities, construction, site restoration, and operations and maintenance. Any Project-related ground disturbing activities outside these areas would require prior approval by the appropriate landowners and/or agencies.

- Commenter states that the covenant subdivision (Walnut Valley Estates, in Region 5 APR Link 1) has underground utilities and strict enforcement on architecture and landscaping codes.

Response:

Walnut Valley Estates appears to be crossed by HVDC Alternative Route 5-A as well as Application Proposed Route Region 5, Link 1. Restrictive covenants are deed restrictions that apply to a group of homes or lots, i.e., property that is part of a specific development or subdivision. Although the specific restrictive covenant for this subdivision was not immediately available for review, the requirement for underground utilities and the architecture and landscaping codes in this type of restrictive covenant would typically only

apply to utilities servicing the subdivision, such as distribution powerlines, phone, cable, etc., and would not be applicable to the Project.

- Commenter questions the one time use of 5,916 acres stated in the EIS, and if this land is for the easement, access roads, or both. Also the commenter questions how the amount was arrived at, as his estimates show the easement alone would destroy 17-18,000 acres in Oklahoma and Arkansas combined.

Response:

It is unclear where the number 5,916 acres appears, but the Final EIS has been revised to incorporate updated Project information. Section 3.10.6 of the Final EIS includes additional details on how estimated acreages of impact were calculated.

- Commenter asks how close could barns, houses, or other structures be to the line. Commenter has questions regarding grazing livestock on land near the right of way. Commenter would also like to know if they are permitted to put up fences (to rotate pastureland), as well as put up haystacks, and sheds/barns/houses.

Response:

As noted in Sections 2.1.5.1 and 3.10.6.2.2.2 of the Final EIS, limitations on land uses would be described in individual landowner easement agreements and could be modified in the easement based on site-specific conditions and/or coordination with landowners.

- Commenter notes that section 3.2.6.2.3.2 paragraph 1 of the Draft EIS states that "once construction has been completed, most of the lands in the ROW could be returned to previous uses. But land uses that would not be permitted in the ROW include construction of buildings or structures or changing the grading and land contours; some restrictions and coordination for infrastructure such as fences would be required." Commenter feels this restriction would all but prevent the operation from making any improvements on this location.

Response:

As noted in Sections 2.1.5.1 and 3.10.6.2.2.2 of the Final EIS, limitations on land uses would be described in individual landowner easement agreements, and could be modified in the easement based on site-specific conditions and/or coordination with landowners. The commenter is the owner of the Jet Ranch. It is anticipated that the type of grading and land contours, fences, and other types of land modification for the operation of a ranching operation would be compatible with the safe operation of the Project.

- Commenter is opposed to the Plains and Eastern Clean Line project for the following reason: The Corporation proposes that it will "work with landowners to ensure that access is maintained as needed to existing operations (e.g. to oil/gas wells, private lands, agricultural areas, pastures, hunting leases)" (EPM LU-1). The Corporation does not specify who is the arbiter of "as needed". Can circumstances arise where landowners are denied access to their private property, where workers from oil/gas companies are denied access to their facilities, where hunters are denied access to their customary hunting areas, etc.? Given the Corporation's historical lack of communication with landowners, and indeed gas utilities, I

am concerned with how the Corporation proposes to communicate and enforce whether or not it allows access.

Response:

The Applicant intends to acquire all of the necessary ROW for the Project through voluntary negotiations, and has developed a Code of Conduct for its negotiations with landowners. A copy of this Code of Conduct can be found in comments submitted by the Applicant, which are included in this CRD (see page 2-856 of this CRD). The Code of Conduct is also available on Clean Line's website at:

<http://www.plainsandeasterncleanline.com/site/page/code-of-conduct>. This Code of Conduct requires that all communications with landowners be factually correct, in good faith, and respectful. It would be up to the Applicant and landowner to work out the level and timing of access if the Applicant acquired rights to a landowner's land through a negotiated easement,

- Commenter states that the alternate route 4-E would render the land useless for anything besides grazing.

Response:

As noted in Sections 2.1.5.1 and 3.10.6.2.2.2 of the Final EIS, limitations on land uses would be described in individual landowner easement agreements, and could be modified in the easement based on site-specific conditions and/or coordination with landowners.

- Commenter notes they are opposed to the Clean Line project due to the operations and maintenance impacts produced by operating the high voltage line/towers. Commenter notes that the Department of Energy states that most of the land in the right-of-way could be returned to its previous use. However, the corporation would prohibit the following: the building of structures, changing the grading, and changing land contours; the corporation would also restrict building fences and irrigation lines. Commenter states that landowners will not be able to access their land during maintenance. Commenter also notes that the corporation proposes to construct 5 to 7 pole buildings, 28 feet x 28 feet, every mile, and to build access roads. No information is available on the access roads, because the corporation has not decided where it would locate them. Commenter feels that, based on this information, it is not clear how the Department of Energy concluded that operation and maintenance impacts would not irreversibly convert primary farmland to non-agricultural uses in the representative right-of-way; however, the Department of Energy did not cite studies or give examples of the existing high voltage lines/towers that run along prime farmland and demonstrate that the land was able to be used as it was before the lines were built. Commenter suspects that no such information exists. Commenter additionally notes that Table 3.10-20 does not appear to address pole structures.

Response:

As noted in Sections 2.1.5.1 and 3.10.6.2.2.2 of the Final EIS, limitations on land uses would be described in individual landowner easement agreements, and could be modified in the easement based on site-specific conditions and/or coordination with landowners. In calculating potential impacts, the lattice structures were used as a bounding scenario since the footprint of the lattice structures would be larger than that of monopole structures. The

total acreage calculations did include access roads, but the location of these roads cannot be determined until the final route is identified and detailed engineering completed. Text has been added throughout Section 3.10.6 acknowledging that some agricultural areas may no longer be practicable to be used for farmland or grazing depending on the location of access roads.

- Commenter notes they have plant irrigation on one of their properties. Commenter is concerned about access roads. Commenter states that the access roads will be there for potentially the rest of their lives, or forever. These lines will tear up the land. Commenter is concerned that, as farmers, they will have to work around them with equipment, around the poles, underneath the lines, every time they go on the land. Commenter is concerned about the restrictions that may apply on the land use.

Response:

As noted in Sections 2.1.5.1 and 3.10.6.2.2.2 of the Final EIS, limitations on land uses would be described in individual landowner easement agreements, and could be modified in the easement based on site-specific conditions and/or coordination with landowners. As noted in EPM GE-7, roads not otherwise needed for maintenance and operations would be restored to preconstruction conditions. According to EPM GE-10, the Applicant would work with landowners to repair damage caused by construction, operation, or maintenance activities of the Project.

- Commenter notes other than road width, there are no road specifications listed in the EIS such as drainage, soil bearing strengths erosion controls temporary or permanent, surfacing type, and maintenance of these other than best management practices (BMP) which seems to be a catch all thought out this EIS but very broad and general. Commenter also notes that in the proposal it is planned to construct an additional 386 miles of roads for this project, at the designated width in table 2.1.8. Using the width in the table and the number of miles, this calculates out to an additional disturbance of 1,600 acres.

Response:

Access roads are described in Section 2.1.2.4. Based on the Applicant's estimates, the Project would require approximately 946 miles of new roads and 342 miles of existing roads that may need improvements/repairs (including both the HVDC line and the AC collection system). The Final EIS has been revised to incorporate updated Project information. Section 3.10.6 of the Final EIS includes additional details on how estimated acreages of impact were calculated.

- Commenter believes this project will destroy 17,000 acres of land. Commenter notes concern that this project will take away grazing land. It will take away what farmers can and cannot do with the land. Commenter is concerned about the environmental impacts as a result of the line going through their property.

Response:

The Final EIS has been revised to incorporate updated Project information. Section 3.10.6 of the Final EIS includes additional details on how estimated acreages of impact were

calculated. As noted in Sections 2.1.5.1 and 3.10.6.2.2.2 of the Final EIS, limitations on land uses would be described in individual landowner easement agreements, and could be modified in the easement based on site-specific conditions and/or coordination with landowners. Per EPM LU-5, the Applicant would make reasonable efforts to accommodate requests from individual landowners to adjust the siting of the ROW on their properties. These adjustments may include consideration of routes along or parallel to existing divisions of land and existing compatible linear infrastructure, with the intent of reducing the impact of the ROW on private properties.

- Commenter states the transmission line will cross his farm (north of Orgill Golf Course in W. Tennessee). The commenter notes that the line will limit development in the area and keep the corridor free and clear, which he sees as a positive impact that was not addressed in the EIS.

Response:

The potential for the Project to limit development is described in Section 3.10.6.2.3.2. Limiting development can have both positive and negative impacts.

- Commenter notes concern about land use impact, as the land is primarily cultivated farm land. A transmission line inhibits the ability to cultivate the land and affects the ability for aerial spraying. Commenter notes that rural road E590 along the proposed segment is heavily populated for a rural road with 10 families residing in just one 2 mile stretch just east of Highway 81.

Response:

Impacts to agriculture are discussed in Section 3.2 of the Final EIS. The Applicant Proposed Route in this segment of Region 2 east of Bison, Oklahoma, is along rural road E580 and is approximately 1 mile from rural road E590. This segment is comparable to many sections of the Applicant Proposed Route and is less densely populated than other segments of the Route. As described in Section 2.3 of the Final EIS, the Applicant's routing process aimed to avoid conflicts with existing resources, developed areas, and existing incompatible infrastructure, while maximizing opportunities for paralleling existing compatible infrastructure and considering existing land use and other factors.

In many cases, impacts to agricultural operations can be minimized through the implementation of EPM LU-5 and AG-1. In an effort to reduce impacts to landowners, the Applicant would make reasonable efforts, consistent with design criteria, to accommodate requests from individual landowners to adjust the siting of the 200-foot-wide ROW and micrositing of transmission structures on properties.

- Commenter is against the amount of access roads required. Commenter feels that, not only will the rights-of-way take up land use, the access roads will also take away valuable farm lands. Commenter feels too much land will be taken for this project. Commenter notes they do not support the number of multi-use construction yards, approximately every 25 miles.

Response:

The estimated number of access roads and multi-use construction yards is consistent with typical transmission line construction. As described in Sections 3.2.6 and 3.10.6, the majority of the land in the ROW will be able to return to previous uses after construction is complete.

- Commenter notes that DOE states on page 3.2-21 that long-term impacts by region are summarized in Table 3.10-20 for pole structures. Table 3.10-20, found on page 3.10-55 of Chapter 3, Section 10, "Land Use," does not appear to address pole structures. It is a summary of land cover in Region 6.

Response:

Table 3.10-22 summarizes impacts for pole structures; this typographical error has been corrected in the final EIS.

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22 Noise

The following comments were received relative to noise:

- Commenter states EIS must specify how, where, and to what degree noise exceedances would occur, by what parts of the system (i.e., lines, substation, transformers, corona), whether that violation can be avoided, what mitigation is proposed, and if mitigation is not possible, whether permits can be issued.

Response:

The Final EIS presents an assessment of potential noise impacts associated with Project construction and operation of all parts of the system (i.e., HVDC transmission lines and converter stations). The assessment describes the evaluation criteria used, methodology, and results. The EPA 55 dBA L_{dn} noise guideline (corresponding to a 48.6 dBA L_{eq} for sources of continuous sound) was used to evaluate operational noise impacts. DOT guidelines were used to evaluate construction noise impacts, which includes a daytime $L_{eq(1-hr)}$ 90 dBA limit and a nighttime $L_{eq(1-hr)}$ 80 dBA limit, both of which are applicable at residential land uses. Sound attenuation calculations were conducted to determine threshold distances from a given Project activity or sound source, correlating with the appropriate noise criterion for the activity or sound source being analyzed. Therefore, an NSA located within a calculated threshold distance would experience received sound levels in excess of that criterion. Threshold distances, and the number of potentially impacted NSAs, were analyzed for Project construction and operations and maintenance activities for the converter stations, Applicant Proposed Route, AC collection system, and HVDC alternative routes. Results of these various analyses are provided within section 3.11 of the Final EIS.

The Final EIS also includes proposed noise mitigation measures for construction and operation. EPMs developed specifically to reduce construction noise are listed in Section 3.11.6.1 of the Final EIS. For operational noise complaints, the Applicant has developed a Communications Program, which will include a procedure where complaints are investigated and further steps may be taken by the Applicant, as necessary, to address the complaint.

- Commenter notes that throughout the Draft EIS there are claims that the negative impact from corona noise is inconsequential. However, when reviewing the technical data presented in the Noise Technical Report and the Electrical Environment Assessment, the commenter finds that financially destructive corona noise can impact the homes of property owners up to 2,000 feet from the transmission line and ROW. The analysis relies on prior studies that do not include the unprecedented impact of intrusive 55 dB-A corona noise emanating from the 600,000 volt DC transmission line as it relates to property values in the region of impact. The analysis does not include an assessment of how the penetrating nature of corona noise may override a variety of typical ambient background noises found along the route of the line.

Response:

Results of the noise impact assessment presented in the Draft EIS did not incorporate potential effects of masking by other sound sources in the ambient environment, which would be expected to occur to varying degrees based on location, time of day, prevailing weather

conditions and other factors. To determine expected received sound levels from the Project transmission line at further distances, the Applicant completed additional analysis using a methodology consistent with that used for the Draft EIS. This analysis was independently reviewed and verified by DOE. Sound levels from the HVDC transmission line were for fair (worst case) and foul weather conditions at various distances from the line out to 2,000 feet for the highest altitude (3,000 feet) and lowest altitude (200 feet) and assuming flat open terrain. Results of these additional calculations show that at a distance of 2,000 feet sound levels would attenuate to 25 dBA under fair weather and 19 dBA under foul weather and assuming an altitude of 3,000 feet and 22 dBA under fair weather and 16 under foul weather and assuming an altitude of 200 feet. This additional information has been incorporated into Sections 3.11.6.2 and 3.11.6.3. In addition, considering the conservative measures incorporated into the analysis, received sound levels at NSAs would expect to be lower than those reported on average.

- Commenter notes that the Noise Technical Report and the Electrical Environment Assessment are incomplete and lack correlation to the real human impact inflicted by the project. a. While important for health and safety, Environmental Protection Act standards used for comparison do not correlate to the unprecedented corona noise and visual pollution radiating from this project. Beyond health and safety concerns are property value issues. Corona noise emanating from the transmission line will inflict uncompensated financial losses on directly affected and adjacent property owners up to 2,000 feet to either side of the route. b. The data presented in the reports prematurely cutoff the projection of corona noise at 500 feet from the transmission line where the level is still 40 dB-A. This level of intrusive corona noise can easily be heard over the low level background noises typical in rural areas along the route. Noise pollution from the line only dissipates into the background at four times (4X) that distance. See the enclosed corona noise graphs (as published and with the extended projection). c. The reports fail to measure and predict how difficult it is for ambient background noise to mask the electrical hissing and crackling that is characteristic of corona noise. The corona noise levels presented in the Electrical Environment Assessment reflect a median value (p 25) that may be experienced over a one year period. The calculated data should include the peak value plus a number of lesser values with estimates of the duration for each. Further data about corona noise should be provided that predicts how variables such as seasons, temperature, wind direction, and wind speed affect its propagation.

Response:

Results of the noise impact assessment presented in the Draft EIS did not incorporate potential effects of masking by other sound sources in the ambient environment, which would be expected to occur to varying degrees based on location, time of day, prevailing weather conditions and other factors. To determine expected received sound levels from the Project transmission line at further distances, the Applicant completed additional analysis using a methodology consistent with that used for the Draft EIS. This analysis was independently reviewed and verified by DOE. Sound levels from the HVDC transmission line were calculated for fair (worst case) and foul weather conditions at various distances from the line out to 2,000 feet for the highest altitude (3,000 feet) and lowest altitude (200 feet) assuming flat open terrain. Results of these additional calculations show that, at a distance of 2,000 feet sound levels would attenuate to 25 dBA under fair weather and 19 dBA under foul

weather assuming an altitude of 3,000 feet and 22 dBA under fair weather and 16 under foul weather assuming an altitude of 200 feet. This additional information has been incorporated into Sections 3.11.6.2 and 3.11.6.3. In addition, considering the conservative measures incorporated into the analysis, received sound levels at NSAs would expect to be lower than those reported on average. It is possible that transmission line noise may be audible at distances of 2,000 feet or more from the Project but at a very low level. The EPA noise guidelines, and other criteria used to evaluate noise impacts in the Final EIS, do not require inaudibility of a sound source and this expectation is not applied to other industrial, commercial, or agricultural activities.

- Commenter states the Noise Technical Report wrongly assumes that corona noise will be obscured by ambient background noise within a short distance from the transmission line. The Applicant wrongly assumes that at distances from the transmission line greater than 130 feet, home and property owners will not be burdened with unacceptable noise levels. Background noise measured in the quiet rural area at my home is less than 30 dBA. Against this low ambient noise common to rural areas, corona noise 2,000 feet or more from the transmission line may be audible. The effects of varied terrain such as found in mountainous areas has not been studied or assessed. I can hear chatter of human voices over one half mile away and church bells from over 3 miles away. Some of this is assumed to be due to the channeling or amplifying effects of the local terrain, much as commonly experienced at an outdoor amphitheater.

Response:

Results of the noise impact assessment presented in the Draft EIS did not incorporate potential effects of masking by other sound sources in the ambient environment, which would be expected to occur to varying degrees based on location, time of day, prevailing weather conditions and other factors. To determine expected received sound levels from the Project transmission line at further distances, the Applicant completed additional analysis using a methodology consistent with that used for the Draft EIS. This analysis was independently reviewed and verified by DOE. Sound levels from the HVDC transmission line were calculated for fair (worst case) and foul weather conditions at various distances from the line out to 2,000 feet for the highest altitude (3,000 feet) and lowest altitude (200 feet) assuming flat open terrain. This additional information has been incorporated into Sections 3.11.6.2 and 3.11.6.3. Flat open terrain was chosen because it is the practical situation under which the highest audible noise levels are expected to occur at a given location. Unlike much lower frequencies of sound often associated with AC power systems (e.g., 60Hz, 120Hz, etc.), higher frequencies of sound do not reflect well from surfaces or propagate long distances through the atmosphere. A clear line of sight to the line in all directions (i.e., flat open terrain) is the condition that will result in the highest level of audible noise from the HVDC transmission line at that location.

Results of these additional calculations show that at a distance of 2,000 feet sound levels would attenuate to 25 dBA under fair weather and 19 dBA under foul weather assuming an altitude of 3,000 feet and 22 dBA under fair weather and 16 under foul weather assuming an altitude of 200 feet. In addition, considering the conservative measures incorporated into the analysis, received sound levels at NSAs would on average be expected to be lower than those

reported. It is possible that transmission line noise may be audible at distances of 2,000 feet or more from the Project but at a very low level. The EPA noise guidelines, and other criteria used to evaluate noise impacts in the Final EIS, do not require inaudibility of a sound source and this expectation is not applied to other industrial, commercial, or agricultural activities.

- Commenter requests: a. integrate the information from the Noise Technical Report and Electrical Environment Assessment Technical Report into the Sections 3.5 Environmental Justice and 3.11 Noise so that the analysis and conclusions regarding corona noise may be easily accessed. b. Identify and list in the EIS all properties within audible range of corona noise emanating from the transmission line. c. Recognize that the impact of corona noise pollution can destroy the value of homes and other property far beyond the ROW. Describe the Applicant's plan for noise abatement and restitution of home and other property values impacted by corona noise and visual pollution.

Response:

A) Text from the Noise Technical Report and Electrical Environment Assessment Technical Report (Clean Line 2014) was reviewed and text was incorporated into the Sections 3.5, Environmental Justice, and 3.11, Noise, as appropriate, so that the analysis and conclusions regarding corona noise may be easily accessed.

B) The Final EIS presents an assessment of potential noise impacts associated with Project construction and operation of all parts of the system (i.e., transmission lines and converter stations). The assessment describes the evaluation criteria used, methodology, and results. The Final EIS also includes proposed noise mitigation measures for construction and operation. Specific EPMs developed to reduce construction noise are given in section 3.11.6.1 of the Final EIS. For operational noise complaints, the Applicant has developed a Communications Program that will include a procedure where complaints are investigated and further steps may be taken by the Applicant, as necessary, to address the complaint.

C) Potential impacts to property values are discussed in Section 3.13.6.2.5 of the Final EIS. Based on a review of applicable research, it has been concluded that some short-term adverse impacts on residential property values (and marketability) might occur on an individual basis as a result of the Project. However, these impacts would be highly variable, individualized, and difficult to predict. Unique Project characteristics that need to be taken into consideration when assessing the potential effects of transmission line structures on residential property values include the type and height of the structures, the distance and view from the potentially affected property, intervening topography and vegetation, and the property market and type of landscape involved.

- Commenter is concerned about the corona noise. The constant hissing and crackling will make it impossible to sell his home. This will financially devastate many who receive no restitution because their property is not on the ROW.

Response:

Assessment of noise impacts at NSAs was conducted using conservative assumptions, specifically that the transmission lines would be operating continuously and concurrently at the maximum rated sound level and incorporating meteorological conditions corresponding worst-case sound emissions and downwind propagation, which is conducive to sound propagation. In addition, the AC lines were assumed to be located at the highest possible altitude for the proposed alignments, approximately 3,000 feet. As demonstrated in the Final EIS (Sections 3.11.6.2.3.2 and 3.11.6.3.2.2), there were two NSAs that were located within the threshold distance of 130 feet from the Applicant Proposed Route, which corresponds to the EPA L_{dn} guideline threshold of 55 dBA. Therefore, while there is the potential for some NSAs to experience noise impacts from the Project, on average the impacts would be expected to be less than what was predicted under worst-case operational and meteorological conditions and if the AC lines are located at an altitude less than 3,000 feet.

- Commenter states corona discharge will pick up particulate matter, create its own corona wind, and carry particulates downstream creating lung problems.

Response:

The electrical environment surrounding an HVDC overhead transmission line includes an electric field, air ions, charged aerosols, and a magnetic field. Air ions and charged aerosols are the constituents of the space charge. Ions are formed by ionization of air molecules by various processes capable of stripping electrons from neutral molecules. If there is no wind, ions travel along the electric field. Each ion is attracted in the direction of the electric field, positive ions in the positive direction of the field and negative ions in the negative direction. Most of the ions are directed toward the opposite polarity conductor, but a significant fraction is also directed toward the ground. The ion drift velocity is such that it will take at least a few seconds for them to reach ground. While most ions are neutralized in the vicinity of the line, some of them escape from the transmission line field and are windborne on the downwind side of the line until they are eventually neutralized by transferring their charge to aerosols or to the ground. Because aerosols have masses significantly larger than those of air molecules, they are not as easily moved by electric field forces, and their trajectories are controlled primarily by the wind. The movement of space charges results in current flow.

Several studies of the effects of DC fields and space charges have been conducted and they have generally concluded that there are no significant effects on either humans or animals (EPRI 2010). In addition, public health surveys and field studies conducted at new HVDC overhead lines indicate that the environment surrounding these lines is not harmful to humans, animals, or crops. Air ion exposures were extensively studied with no clear evidence of effects. Studies of exposures ranging from ambient levels to levels much higher than those found in proximity of HVDC lines have been made looking at both biological and behavioral effects, including learning and performance, physiological arousal, reproductive function, and brain biochemistry. Some effects have been reported, but the findings are often inconsistent. Positive and negative ion exposures have sometimes been reported to produce opposite effects. Many studies, however, have reported no effect.

Air ions can be inhaled, and many studies have evaluated air ion exposure as possible therapy for respiratory disease. Some reports indicated that exposure to either positive or negative ions improved lung function in people with bronchial asthma; other reports suggest that only negative ions improve function and the positive ions aggravate these conditions.

While some effects from air ion and electric field exposures have been reported in the laboratory, the evidence indicates that such exposures produce no significant or permanent effects on either humans or animals. Many of the effects that have been observed may be attributed to insufficient control of experimental conditions and other factors. Nevertheless, among studies that reported some effects, there was no indication that the effects were harmful to humans or animals, even at exposure levels much greater than would be found within DC transmission line ROWs. Public health surveys and field studies confirm these conclusions: the operation of DC lines has not led to any discernible effects on nearby humans, animals, or crops.

Details regarding the electrical effects from HVDC transmission lines are presented in Section 3.4.5 of the Final EIS.

- Commenter notes concern that people will be able to hear the "swoosh, swoosh, swoosh" sounds from the wind turbines.

Response:

The ability for people to hear sound generated by wind turbines, which may be part of facilities that would interconnect with the Project, will depend on a number of factors including the size of the wind energy facility, the wind turbine model(s), and the proximity of the wind turbines to noise sensitive areas such as residences. Site-specific acoustic analyses would be required for each wind energy facility to assess noise impacts to potentially affected NSAs and is outside the scope of this EIS.

- Commenter is concerned about noise from arcing after clear cutting and noise from blasting.

Response:

Like other construction activities, noise from arcing after clear cutting and blasting would be considered a short-term impact. For example, modern blasting techniques include electronically controlled ignition of multiple small explosive charges in an area of rock 8/1000ths of a second apart and resulting in a total event duration of approximately 3/10ths of a second. The detonations are timed so that the energy from individual detonations destructively interferes with each other, which is called wave canceling. As a result, very little of the kinetic energy is wasted as ground vibration and audible noise. Impulse (instantaneous) noise from blasts could reach up to 140 dBA at the blast location or over 90 dBA for NSAs within 500 feet. Though noise generated during blasting can cause concern among nearby NSAs, blasting is a relatively short duration event compared to rock removal methods such as using track rig drills, rock breakers, jack hammers, rotary percussion drills, core barrels, and/or rotary rock drills. Blasting plans will be prepared by the contracted blasting specialist that demonstrate compliance with all applicable state and local blasting

regulations, including the use of properly licensed personnel and obtaining all necessary authorizations.

- Commenter notes, a subsequent point that lends itself to the differences in perspective is noted in the description of the acknowledged violation of accepted guidelines for audible noise. While this may be considered "insignificant" or an "inconvenience" by individuals not directly affected by this project... this constant disruption of daily living will likely be viewed quite differently by those in the path of the project, especially since many have chosen to live in these unincorporated areas in order to avoid the noise of a more urban residence.

Response:

To minimize operational noise impacts, the Project has been designed, inclusive of a number of conservative assumptions, to be sited as far away from NSAs as possible in consideration of other routing constraints. However, as documented in the Final EIS, there are exceedances of the criteria used to evaluate Project noise impacts. For evaluating operational noise impacts, the EPA 55 dBA L_{dn} noise guideline (corresponding to a 48.6 dBA L_{eq} for sources of continuous sound) was used. For evaluating construction noise impacts, the DOT guidelines were used, which includes a daytime $L_{eq(1-hr)}$ 90 dBA limit and a nighttime $L_{eq(1-hr)}$ 80 dBA limit, both applicable at residential land uses. Sound attenuation calculations were conducted to determine threshold distances from a given Project activity or sound source, correlating with the appropriate noise criterion for the activity or sound source being analyzed. Therefore, an NSA located within a calculated threshold distance would experience received sound levels in excess of that criterion. Threshold distances, and the number of potentially impacted NSAs, were analyzed for Project construction and operations and maintenance activities for the converter stations, Applicant Proposed Route, AC collection system, and HVDC alternative routes. Results of these various analyses are provided within Section 3.11 of the Final EIS. With regard to audibility, the Project may be audible beyond the threshold distances identified in the Final EIS; however, the EPA and DOT noise guidelines used to evaluate noise impacts for the Project do not require inaudibility of a sound source and this expectation is not applied to other industrial, commercial, or agricultural activities.

- Commenter notes, this section states that both short-term (from construction) and long-term (i.e., as long as the line is in operation) noise will be generated. Noise is expected in urban areas: traffic sounds, street repair, maintenance on densely-spaced buildings, emergency vehicles, etc. In this case, the Corporation is proposing to introduce noise pollution into hundreds of miles of largely rural areas. Individuals living, working, and recreating in these areas will be affected as long as the line is in operation. Does the DOE or the Corporation have audio recordings of noise from the same type of high voltage line/towers as they propose to install? It would be helpful to provide such recordings for various distances from other high voltage lines/towers, and in various types of weather conditions. Has the DOE or the Corporation documented the distance from the proposed high voltage line/towers to homes, businesses, livestock feeding operations, recreational areas, and other areas that will be impacted by noise, and calculated the noise that humans and animal life in these areas will experience as a result of the operation of the high voltage line/towers? If the project is

completed, and if noise levels are documented to be greater than those stated in the Draft EIS, what remedy does the DOE or the Corporation propose?

Response:

While recordings may not be available, sound source levels for the Project transmission line were derived using the BPA's Corona and Field Effects (CAFE) program. Developed by DOE and BPA, CAFE algorithms have been validated and used by engineers and scientists for many years to calculate the expected levels of audible noise produced by transmission lines. The inputs to the model include line voltage, load flow (current), altitude, meteorological conditions that would result in the conductors being wet, the physical dimensions of the line, conductor diameter, spacing, and height of the conductors and receivers above ground level. The BPA method of calculating audible noise from transmission lines is based on long-term statistical data collected from operating and test transmission lines.

The Final EIS presents an assessment of potential noise impacts associated with Project construction and operation of all parts of the system (e.g., transmission lines and converter stations). The assessment describes the evaluation criteria used, methodology, and results. EPMs developed specifically reduce construction noise are given in Section 3.11.6.1 of the Final EIS. For operational noise complaints, the Applicant has developed a Communications Program which will include a procedure where complaints are investigated and further steps may be taken by the Applicant, as necessary, to address the complaint.

23 Recreation

The following comments were received relative to recreation:

- Commenter states, to the extent possible, the Project should avoid impacts to recreation and historical areas. Some recreational and historical areas that may be impacted by the Project include Ozark Lake Wildlife Management Area (WMA), Frog Bayou WMA, Webbers Falls Lock and Dam Reservoir lands, Ozark National Forest, Cherokee WMA, Singer Forest Natural Area within the St. Francis Sunken Lands WMA, and the Trail of Tears National Historic Trail. Where avoidance is not possible, the Project should be sited to minimize impact to these areas. Participants should work with local, state and federal land and park managers to best evaluate routes and alternatives.

Response:

Potential impacts to the lands listed are addressed in the following sections:

- *Ozark Lake WMA—Section 3.12.6.2.3.1.3*
- *Frog Bayou WMA—Section 3.12.6.2.3.1.3*
- *Webbers Falls Lock and Dam Reservoir—Section 3.12.6.2.3.1.3*
- *Ozark National Forest—Section 3.12.6.2.3.1.3*
- *Cherokee WMA—Section 3.12.6.2.3.1.4*
- *St. Francis Sunken Lands/Singer Forest Natural Areas—Section 3.12.6.2.3.1.5*
- *Trail of Tears National Historic Trail—Section 3.12.6.2.3.1.6*

Impacts to these areas are not expected to be significant or preclude use of the lands. The Project participants have conducted public meetings and coordination with agencies during comment periods for public scoping and public hearings on the Draft EIS. Records of comments submitted by federal, state, and local agencies are included in the Scoping Comment Summary Report and this CRD as well as in the EIS Administrative Record. In addition, the federal, state, and local agencies with a regulatory interest in the Project have been asked to participate in the EIS process. Cooperating Agencies are described in Section 1.2.

The Applicant has committed to the EPMs listed in Section 3.12.6.1 of the Final EIS. EPMs related to other resources are included in the respective resource analysis chapters.

- Commenter notes that the proposed route crosses Arkansas Game and Fish Commission owned Frog Bayou Wildlife Management Area (WMA). Commenter notes that Audubon Arkansas has identified Frog Bayou WMA and the surrounding area as a waterbird concentration. Commenter also states that the proposed corridor of the proposed route currently overlaps the property boundary of the Arkansas Game and Fish Commission owned St. Francis Sunken Lands WMA/Singer Forest Natural Area. Commenter notes that the quitclaim deed for the property states: "The purpose of this gift is to provide for the preservation, maintenance and enhancement of the integrity and character of the ecosystems of the property for use as a wildlife area, nature study, scientific research, and aesthetic enjoyment area" and "The grantee shall maintain the property, solely as a wildlife area for

scientific, educational and aesthetic purposes. There shall be no commercial development or exploitation of the property."

Response:

Impacts to Frog Bayou WMA are described in Section 3.12.6.2.3.1.3. Recognition of Frog Bayou WMA as a "waterbird concentration area" or as an IBA by the National Audubon Society does not carry regulatory authority except for those IBAs that also overlap the existing WMA. It is the status of the land as an existing protected land area (WMA) that provides the regulatory authority.

IBA is an international program that is operated by the National Audubon Society in the United States. IBAs are recognized as important wildlife resource areas and often considered in NEPA or other planning documents. "Waterbird congregation" is one of the criteria used to identify and designate IBAs. Frog Bayou is not on the list of IBAs. The St. Francis Sunken Lands WMA is listed as an IBA. WMAs are not only managed for wildlife conservation but are also important areas for hunting and fishing.

Arkansas wildlife code Section 20.06 states that building structures in a WMA are prohibited; however, these regulations relate to hunting and fishing structures such as hunting stands, duck blinds, and cabins.

Regarding Frog Bayou, the Applicant determined that the suggestion of structure placement to avoid sensitive areas and aerial spanning is technically feasible and reasonable. The route could not be shifted to completely avoid impacts to the WMA because of other constraints to the north, including residences and agricultural structures and crops. According to the management plans for the WMA, electric transmission lines are an allowed use within the boundary.

Regarding St. Francis Sunken Lands, the avoidance of this property is technically feasible and reasonable. For both of these instances the Applicant anticipates the concerns can be addressed by micrositing within the 1,000-foot-wide corridor and the implementation of EPM LU-5.

- Commenter notes, Pages 3.12-13 thru 3.12-14, Section 3.12.6.2.3.1, Lines 28-36 and 1-21: The Draft EIS places emphasis on the impact to "recreation areas." However, it is not clear that "recreation areas" include recreation that takes place on private lands throughout Jackson, Poinsett, Cross and Mississippi counties. Within these counties, continued rice production along and among key Central Flyway staging areas for migratory waterfowl has created abundant opportunities for waterfowl hunting. DOE's review and analysis of the Project's impact to recreation resources should more fully account for the impact to waterfowl hunting opportunities on private lands. Relatedly, the Draft EIS should better address the Project's direct and indirect impacts to migratory waterfowl and associated feeding and staging areas.

Response:

Construction and operation of the Project is not expected to preclude hunting in any areas, including private land, crossed by HVDC or AC transmission lines. Clean Line has committed to the EPMs listed in section 3.12.6.1 of the Recreation chapter, including those to protect hunting access.

The potential direct and indirect impacts to migratory waterfowl and associated feeding and staging areas from the Project are addressed in Section 3.20.1.7.

- Commenter states that the line should avoid crossing the Frog Bayou Wildlife Management Area if feasible. If avoidance is not possible, the developer should work closely with the Arkansas Game and Fish Commission to minimize impacts to the area. Commenter also notes that, though they have been assured that the proposed route would not cross Singer Forest Natural Area, they would like to reiterate the need to avoid this site. This is an area on which the Arkansas Natural Heritage Commission holds a conservation easement (the Arkansas Game and Fish Commission holds fee title). Review and approval by the commenter would be required should the route cross this area.

Response:

Impacts to the Frog Bayou WMA are addressed in Section 3.12.6.2.3.1.3 of the Final EIS. Impacts to Singer Forest Natural Areas are addressed in Sections 3.12.6.2.3.1.5 and 3.12.6.3.2.1.5.4 of the Final EIS. According to the management plan for these resources, electric transmission lines are an allowed use within the area boundaries. The Applicant has committed to the EPMs listed in Section 3.12.6.1 of the Final EIS. EPMs related to other resources are included in the respective resource analysis chapters.

Several EPMs were developed based on agency consultation or include measures to coordinate with agencies in the future. FVW-4 and FVW-5 state that the Applicant will consult with the USFWS based on its authority under the Migratory Bird Treaty Act (FVW-4), the Bald and Golden Eagle Act (FVW-4), and the ESA (FVW-4 and FVW-5).

A measure for agency consultation is indirectly included in EPM FVW-1. The EPM states that environmentally sensitive vegetation (which includes wetlands) would be identified and protected. Although this EMP does not specifically say it, the identification of wetlands (i.e., wetland delineation) would need to be reviewed and approved by USACE.

- Commenter (the Arkansas Dept. of Parks & Tourism) is the primary agency tasked with guarding Arkansas's outdoor, recreational, and scenic resources and takes seriously any action that adversely affects this state's ability to attract tourism through its system of public lands, parks, and recreational areas. The Arkansas Dept. of Parks & Tourism is concerned with the following:

(1) The APR crosses several navigable stream in Arkansas, of particular concern to the Arkansas Dept. of Parks and Tourism are those crossings that will adversely affect the ingress and egress of pleasure boaters.

(2) Fishing is another facet of Arkansas waterways that contributes to the state's economic well-being.

(3) The department is also concerned with any potential disturbance of Arkansas's unique wildlife habitat and areas of scenic, natural beauty as interaction with undisturbed natural areas is a primary driver of Arkansas tourism.

(4) The department takes exception to any proposed project that will degrade the aesthetic value and concomitant economic potential for rural Arkansas for little or no long-term benefit to the average Arkansan.

Response:

Based on the analysis in the EIS, the Project is not anticipated to cross any boat ingress or egress locations of navigable streams in Arkansas. Construction and operation of the Project is not expected to preclude fishing in any areas crossed by HVDC or AC transmission lines. Impacts to visual/aesthetic resources are described in Section 3.18 of the Final EIS. Section 3.20 of the Final EIS addresses direct and indirect impacts to aquatic species.

- Commenter notes that the APR should avoid the following public and/or federally funded properties: Frog Bayou Wildlife Management Area (WMA), National Conservation Easements, and Cherokee WMA.

Response:

Impacts to the recreational resources listed are addressed in the following sections:

- *Frog Bayou WMA—Section 3.12.6.2.3.1.3*
- *Cherokee WMA—Section 3.12.6.2.3.1.4*

According to the management plans for these resources, electric transmission lines are an allowed use within the area boundaries. The Applicant has committed to EPMs listed in Section 3.12.6.1 of the Final EIS. EPMs related other resources are included in the respective resource analysis chapters. The Applicant anticipates that sensitive resources can be avoided by micrositing within the 1,000-foot-wide corridor.

- Commenter notes that commercial enterprise in Sequoyah County, Oklahoma has 1920 acres of Deer Management Assistance Lands, which have been managed under the Oklahoma Department of Wildlife Conservation for over 20 years. Commenter has concerns that the proposed line would cross this management area, and may cause damage to the lease-hunting operation within this area.

Response:

Clean Line has identified a routing variation to the Applicant Proposed Route in Region 4 (Applicant Proposed Route Link 3, Variation 2) in this area to avoid the structure and commercial enterprise located on these DMA lands. The variation is described in Section 2.4.2.4. Potential impacts related to the routing variation are included in Section 3.12.6.2.3.1.3.

- Commenter notes that the Mulberry River provides recreation; Mill Creek is a popular recreation spot that would be impacted by the proposed power lines.

Response:

Impacts to the Mulberry River are addressed in Section 3.12.6.2.3.1.3 of the Final EIS. The Project, however is not anticipated to have significant impacts on the recreation resources of the Mulberry River. The Mill Creek Recreation Area in Heber Springs, Arkansas, is located approximately 15 miles north of HVDC Alternative Route 5-B. This recreation resource is not specifically addressed in the Final EIS because it is outside the area of impact of the Project. No impacts to the Mill Creek Recreation Area are expected from construction or operation of the Project.

- Commenter notes that the main value of their property is aesthetic and recreational. Commenter notes that there are many in the community that love hunting and fishing. It's a cultural aspect of life. They are not willing to put that at risk because of this line. Commenter feels hunting is a pastime that would be lost for them if the proposed Region 5 HVDC Alternative Route for these transmission lines comes through and ruined the private property they have always used to enjoy these sports. Commenter notes that they have people from several states coming to Jackson County for hunting and fishing. Commenter states that it cannot be guaranteed that these activities will not be affected by these high powered lines. The line goes through where the commenter's family hunts. The pasture can be replanted. The trees are not going to be replanted.

Response:

Construction and operations and maintenance the Project is not expected to preclude hunting in any areas crossed by HVDC or AC transmission lines. The Applicant has committed to EPMs listed in section 3.12.6.1, including those to protect hunting access.

- Commenter notes that these state lands have been listed: Frog Bayou WMA, Ozark Lake WMA, Cherokee WMA, Rainey WMA, Piney Cree WMA, Woody Hollow State Park. Commenter feels that listing of state lands is erroneous. At least one is private land administered for hunting as a state WMA and another is federal land administered for hunting as a state WMA. Due diligence is not being exercised in this project. Commenter notes that for federal lands, Lower Hachie NWR is listed, but on any map it's Lower Hatchie.

Response:

Impacts to the state lands listed are addressed in the following sections:

- *Frog Bayou WMA—Section 3.12.6.2.3.1.3*
- *Ozark Lake WMA—Section 3.12.6.2.3.1.3*
- *Cherokee WMA—Section 3.12.6.2.3.1.4*
- *Rainey WMA—Section 3.12.6.2.3.1.4*

The Woolly Hollow State Park is located approximately 3.5 miles from HVDC Alternative Route 5-B. This recreation resource is not specifically addressed in the Final EIS because it

is outside the area of impact for the Project. No impacts to the Woolly Hollow State Park are expected from construction or operations and maintenance of the Project.

The Lower Hatchie National Wildlife Refuge is located approximately 2.75 miles from HVDC Alternative Route 7-A. This recreation resource is not specifically addressed in the Final EIS because it is outside the area of impact for the Project. No impacts to the Lower Hatchie National Wildlife Refuge are expected from construction or operations and maintenance of the Project.

According to the management plans for these resources listed above that are addressed in the EIS, electric transmission lines are an allowed use within the area boundaries. The Applicant has committed to EPMS listed in Section 3.12.6.1 of the Final EIS. EPMS related other resources are included in the respective resource analysis chapters.

- Commenter states that we have been property owners for 20 years in the Paradise River Resort in Region 5. The construction of the power line through this beautiful area would disrupt and destroy many of the natural areas and wildlife we enjoy.

Response:

According to DOE's research, the Paradise River Resort area is located in Judsonia, Arkansas. This area is approximately 2–5 miles outside the area of impact for HVDC Alternative Route 5-B in Region 5. This recreation resource is not specifically addressed in the Final EIS because it is outside the area of impact for the Project. No impacts to Paradise River Resort are expected from construction or operation of the Project.

24 Socioeconomics

The following comments were received relative to socioeconomics:

- Commenter states that the additional wind capacity developed because of the project would generate jobs, local tax revenues, and royalty payments for landowners.

Response:

Economic impacts associated with potential wind development are addressed in Section 3.13.6.8.1 of the EIS.

- Commenter states utility customers in the southeastern states will also benefit from lower utility bills as low-cost wind power replaces costly fossil-fuel generation. The cost of coal-fired generation is constantly increasing due to increased public health protections, while the cost of wind energy is plummeting; the average cost of wind energy has dropped by about 60 percent since 2009, to the point that it is now cost-competitive with fossil fuel generation in many regions. For example, Georgia Power recently signed a purchase power agreement for wind energy from Oklahoma, and explained to regulators that because the wind was less expensive than other forms of electric generation already on the grid, the agreement was a good deal for the utility's shareholders and customers. In the last five years Southwest Electric Power Company, an Arkansas utility, signed power purchase agreements for nearly 400MW of Oklahoma wind, at a cost that was lower than [Southwest Electric Power Company's] average cost of generation online today. The Tennessee Valley Authority has stated its support for the development of the Clean Line based on the opportunities it would create to purchase low-cost wind energy. As a general matter, alleviating transmission congestion reduces costs for utility customers, since it allows the grid operator to dispatch the lowest-cost generation in the region, rather than forcing the operation of more local but inefficient units. Wind energy also reduces the volatility of energy generation costs. In comparison with natural gas and coal generation, the costs of which can swing widely based on supply of and demand for the underlying fuel, wind energy is typically provided under 20-year fixed price contracts, which enables utilities to lock in advantageous rates for a significant period of time

Response:

Clean Line provided specific information on the cost of wind energy in Part 2 of its Section 1222 application (<http://www.energy.gov/oe/downloads/plains-eastern-clean-line-transmission-line-part-2-application>).

- Commenter notes, while Oklahoma and Texas would not be able to purchase renewable energy transmitted by the proposed project, they will experience significant economic development benefits as a result of the construction of the HVDC line, and the connected wind farms and AC collection system. If around half of the 4550MW of wind expected to be installed in connection with the Clean Line is built in Oklahoma, it would represent a two-thirds increase in the state's current installed wind capacity. This additional wind capacity would generate jobs, local tax revenues, and royalty payments for landowners. Even for Texas, which already has 12,000MW of wind installed, its share of the wind development

stimulated by the Clean Line would provide significant economic benefits to the northern section of the state, which has been hit hard by drought.

Response:

Economic impacts associated with the Project, including potential wind development, are addressed in Section 3.13.6.8.1 of the Final EIS.

- Commenter notes the Department of Energy's recent Wind Vision report highlights compelling information about the local economic benefits of wind development. It notes that a 2012 study evaluating county-level economic development effects in counties with wind development determined that wind power installations between 2000 and 2008 increased county-level personal income by approximately \$11,000 for every megawatt (MW) of installed capacity. Across the nation, wind power projects delivered at least \$180 million annually to local landowners through lease payments in 2013. However, direct lease payments to landowners account for only a portion of the economic benefits, which also include increased local tax revenue, skilled employment opportunities, and indirect economic benefits stimulated by construction.

Response:

Economic impacts associated with potential wind development are addressed in Section 3.13.6.8.1 of the Final EIS. This section assesses the potential socioeconomic impacts of the development of approximately 4,000MW of wind generating capacity in 12 WDZs in Oklahoma and Texas using two potential scenarios based on a range of capacities for individual wind farms.

- Commenter notes while none of the wind development directly connected to the Plains & Eastern Clean Line Project will be constructed in Arkansas, the state of Arkansas is home to at least five wind energy-related manufacturing facilities that serve the domestic and international wind industry markets. These facilities would undoubtedly benefit from the expanded wind development in neighboring states

Response:

Arkansas manufacturing facilities could benefit from the expanded wind development in other states. However, the data are not available to analyze the extent of this benefit.

- Commenter notes, as part of the socioeconomic impact analysis, the Draft EIS evaluates job implications for the Project as well as connected actions. Overall, it is unclear if supply chain jobs and economic development impacts are included in the socioeconomic impact analysis. Specifically, Clean Line has announced its intention to regionally source power cable as well as power pole structures. According to Clean Line, "Plains & Eastern Clean Line and General Cable signed a Memorandum of Understanding for an order worth around \$100 million, based on current commodity prices. Orders for the Plains & Eastern Clean Line high-voltage conductor cable would keep the current 152 associates at the Malvern, Arkansas plant busy for almost two years." Clean Line also states, "Pelco Structural will be a preferred supplier for the tubular steel transmission structures that will be used for the Plains & Eastern Clean Line transmission line project." Clean Line's potential future supply order from Pelco

could be worth \$300 million or more depending on commodity prices and the number of structures purchased. Under the agreement, Pelco will supply structures from its facility with approximately 100 employees in Claremore, Oklahoma. The transmission structures for the Plains & Eastern Clean Line will be manufactured within the states that the project crosses and raw materials will be sourced from local companies as much as possible." It is unclear if the Draft EIS has incorporated these jobs in its socioeconomic impact analysis. At a minimum, a scenario should be included in the Final EIS that specifically allocates socioeconomic benefits to these already publicly announced agreements.

Response:

Supply chain and economic development impacts are incorporated as part of the regional economic impact analysis presented in the Draft EIS and summarized in Tables 3.13-25 and 3.13-26. Total (direct, indirect, and induced) regional economic impacts were estimated at the state level using direct-effect multipliers for earnings and employment from the U.S. Bureau of Economic Analysis' RIMS II regional modeling system. The analysis used statewide economic multipliers that are based on modeled relationships between different sectors of the economy to capture indirect (supply chain) and induced (consumer-driven) impacts. The methodology employed in this analysis is described further in Section 3.13.6.1.

- Several commenters do not believe that there will be hundreds of good paying jobs, nor will the state receive revenue from the project. Commenter does not feel Arkansas will benefit, as none of the jobs are permanent.

Response:

Socioeconomic impacts are described in Section 3.13 of the Final EIS. The impact assessment included estimates of projected employment and tax revenues expected to occur during construction and operation of the Applicant Proposed Project, DOE Alternatives, and connected actions.

- Commenter states project will boost jobs and have a positive influence on our local economy in the panhandle of Oklahoma. It will pay millions annually to local communities that host the transmission to support schools and other community services for decades to come.

Response:

Socioeconomic impacts are assessed in Section 3.13 of the Final EIS. The impact assessment included estimates of projected employment and tax revenues expected to occur during construction and operation of the Applicant Proposed Project, DOE Alternatives, and connected actions.

- Commenter states the Plains & Eastern Clean Line project is estimated to bring \$6 billion worth of new wind energy investment to Oklahoma that could not otherwise be built due to limitations in the existing electric grid. Other economic benefits to the state include over 5,000 construction jobs, more than 25 wind energy supply chain companies already located in Oklahoma, and over 500 operations jobs. The project will not only create thousands of new jobs in the electric power sector, but will also create countless indirect permanent jobs in Oklahoma in sectors including construction, maintenance, manufacturing and hospitality.

The new wind farms made possible by the transmission line will create demand for wind energy products manufactured and serviced in Oklahoma. Siemens U.S. has a wind service distribution center in Woodward, in the western part of the state; Pelco Structural makes tubular steel transmission structures in Claremore, Oklahoma, on the eastern side of the state. Clean Line has committed to using qualified local and regional contractors to build the converter station and transmission line, including surveying, equipment rentals, trucking, hauling, aggregate and concrete suppliers, among other support needed to complete the project. The Plains & Eastern Clean Line will also provide millions of additional tax revenue for state and local governments that will provide funding for community hospitals, schools, police and fire. Landowners will reap the benefit of market-based payments for easements, including the opportunity for one-time or annual payments for any transmission structures located on private property. Perhaps most importantly, the project will increase access to competitively priced domestic renewable wind energy which will help improve our nation's energy security

Response:

Socioeconomic impacts are assessed in Section 3.13 of the Final EIS. The impact assessment included estimates of projected employment and tax revenues expected to occur during construction and operation of the Applicant Proposed Project, DOE Alternatives, and connected actions.

- Commenter states the exceptional waterfowl hunting activities in Regions 5, 6 and 7 help facilitate a secondary economy for individuals and communities in the impacted counties.

Response:

DOE's review and analysis of the Project's impact to recreation resources, including waterfowl and other hunting activities (Section 3.12 of the Final EIS) accounts for these activities. The impact assessment included potential impacts to the Cherokee WMA in Region 5 and the Singer Forest Natural Area/St. Francis Sunken Lands WMA in Region 6. Potential impacts to waterfowl and other hunting activities would be limited to the immediate area of construction activity and would be short-term in nature and, in some areas, may be mitigated by the continuing presence of vegetation that is outside the ROW and not subject to clearing. As a result, these impacts are not expected to have significant effects on recreation and tourism in the affected regions.

- Commenter states the Draft EIS fails to analyze the socioeconomic consequences of adverse impacts on natural gas development to the Arkansas economy on a state, regional, and local level. The Plains and Eastern Project--as currently routed--could potentially disrupt development activities in the Fayetteville Shale. Among other things, development companies would have difficulty siting new well pads or accessing existing well pads which, in turn, would substantially curtail the level of development in this region. Further concerns about the potential of the Plains and Eastern Project to adversely impact gathering pipelines and electronic equipment used in operations also could unnecessarily limit development activities. As a consequence, the socioeconomic benefits of the Fayetteville Shale development likely would be significantly reduced. This could manifest itself in increased unemployment, reduced royalty payments, and declines in tax revenue. DOE's analysis of the

socioeconomic impacts of the Plains and Eastern Project should consider the potential adverse impacts that would occur if the Project is sited through the Fayetteville Shale. In particular, DOE's analysis should address the reduced development that could result from siting an electric transmission line through an area that supports such a robust natural gas exploration and production industry, and quantify the resultant adverse local, state, and regional socioeconomic impacts that would occur as result of reduced shale play development.

Response:

Potential impacts to natural gas development and the Fayetteville shale are addressed in Section 3.6 of the EIS, which identifies the acres of shale play within the representative ROW by Project region. Information provided as part of this comment indicates that the Fayetteville shale extends approximately 9,000 square miles and generally coincides with the western portion of the Project (Regions 4 and 5). The representative ROW that would be occupied by the Project encompasses only a small share of the Fayetteville shale play and is not expected to restrict future shale play development. Additional discussion has been added to the Socioeconomics section of the EIS.

- Commenter has concerns that this project will cost Oklahoma tax payers millions in tax credits for electric services that would benefit other states. We do not embrace such projects that contribute to the decline of Rural Oklahoma; but rather those projects that will enhance, improve and have a positive impact on the quality of life for the people of Sequoyah County and the state of Oklahoma.

Response:

Socioeconomic impacts are assessed in Section 3.13 of the EIS. DOE reviewed this comment and asked Clean Line to disclose any tax credits they currently expect to receive as part of the Project. Clean Line responded as follows:

At this time, Clean Line is not receiving, or under consideration to receive, any tax credits from the states of Oklahoma, Texas, Arkansas, or Tennessee specific to the proposed Project.

Depending on applicable tax codes in these states, Plains and Eastern Clean Line LLC and/or Plains and Eastern Clean Line Oklahoma LLC may, in the future, receive credits for purchases made outside these states for equipment installed in the state. These credits may be applicable to sales and use taxes, state income taxes and/or other taxes and would be available to an entity engaging in similar purchases outside these states but used in Oklahoma, Arkansas and/or Tennessee and are not specific to energy or electric transmission.

- Commenter states Section 2.1.4 of the Draft EIS includes a summary of the construction practices, durations and workforce requirements for the Project. This discussion is incomplete and in some instances co-mingles or confuses durations and work force requirements for different Project facilities (e.g., HVDC line and DC collection lines). For example, the "project-wide" workforce number (rounded to 1,700 in Section 2.1.4, p. 2-16, ln 30) does not appear to include the workforce required for the converter stations. This should be corrected as part of preparing the Final EIS. When stating the project-wide workforce, the

DOE should include the workforces from AC Collection System, HVDC transmission line, and converter stations.

Response:

Detailed employment estimates are presented in Section 3.13 of the Final EIS. Separate estimates are presented for construction, operation, and decommissioning of the Applicant Proposed Project (converter stations and AC interconnection siting areas, AC collection system alternatives, Applicant Proposed Route), the DOE Alternatives, and connected actions (wind energy generation and related substation and transmission upgrades). The summary of workforce requirements in Section 2.1.4 has been revised and updated in the Final EIS.

- The Draft EIS summarizes the estimated ad valorem or property tax revenues that would be generated by the Oklahoma, Arkansas and Tennessee converter stations. (See, for example, Section 2.6, p. 2-51, Table 2.6-1). These summaries provide a reasonable estimate of the expected ad valorem revenues, but are ambiguous. Please clarify that all estimates provided in the Draft EIS are for payments that would be made in the first year of operation. Thereafter, ad valorem taxes would be paid annually, and would be based on an annual assessment by the responsible taxing agency. With regard to the estimated ad valorem tax revenues from the Tennessee Converter Station, the Draft EIS states: "In Tennessee, the converter station would result in estimated annual ad valorem tax revenues of \$5.6 million and \$3.4 million for Shelby and Tipton counties, respectively." Section 2.6, p. 2-51, Table 2.6-1. On February 19, 2014, the Economic Development Growth Engine Industrial Development Board of City of Memphis and Shelby County, Tennessee, ("EDGE") approved Plains and Eastern Clean Line, LLC's application for a payment-in-lieu of taxes (or "PILOT") arrangement. Plains & Eastern was awarded a 41 percent 11-year PILOT incentive on the real and tangible personal property at the converter station. According to the terms of the agreement, after the construction of the Project, Shelby County would receive an estimated \$3.19 million annually for the term of the PILOT and \$5.4 million thereafter. Plains & Eastern would pay 59 percent of the assessed value for all real and tangible personal property during the term of the PILOT lease. Clean Line request that DOE incorporate this information into any estimates of ad valorem property taxes to be paid on the Tennessee converter station.

Response:

The cited text has been revised to include this information, as have the corresponding subsections in Section 3.13.

- Commenter states Clean Line project does not have an "off ramp" in Oklahoma for purchase of power, even though Oklahoma generates the power and suffers the burden of transmission and helps finance the project through tax credits and tax increment financing. Electricity transmitted as part of this Project should be made available to Oklahoma residents.

Response:

Local distribution of power and renewable energy financing in Oklahoma is outside the scope of this EIS, meaning that these topics have no bearing on the analysis in the Final EIS. No further response will be provided.

DOE reviewed this comment and asked Clean Line to disclose any tax credits they currently expect to receive as part of the Project. Clean Line responded as follows:

At this time, Clean Line is not receiving, or under consideration to receive, any tax credits from the states of Oklahoma, Texas, Arkansas, or Tennessee specific to the proposed Project.

Depending on applicable tax codes in these states, Plains and Eastern Clean Line LLC and/or Plains and Eastern Clean Line Oklahoma LLC may, in the future, receive credits for purchases made outside these states for equipment installed in the state. These credits may be applicable to sales and use taxes, state income taxes and/or other taxes and would be available to an entity engaging in similar purchases outside these states but used in Oklahoma, Arkansas and/or Tennessee and are not specific to energy or electric transmission.

- Construction of the Plains & Eastern wind hub in Millington, Tennessee will involve the investment of over 300 million dollars and bring over 100 construction, operations, and maintenance jobs to Tennessee. Millington will be the distribution point for clean and renewable wind energy for residents, businesses and aid the region in attracting new economic development.

Response:

Potential socioeconomic impacts associated with construction of the Tennessee converter station are assessed in Section 3.13 of the Final EIS.

- Commenter states for as long as the transmission structures are on the property, Clean Line will also compensate landowners for any damage to crops, marketable timber, livestock or other things affected by construction and maintenance.

Response:

Compensation for affected landowners is addressed in Section 2.1.3 of the Final EIS. EPMs that address compensation include AG-6: Clean Line will work with landowners to develop compensation for lost crop value caused by construction and/or maintenance. Potential impacts to livestock grazing are assessed in Sections 3.2 and 3.13.6.2.3.2.1.1 of the EIS. More detailed information on the ROW acquisition process is provided in the Right-of-Way Acquisition Plan for the Project included in the public comments on the Draft EIS submitted by Clean Line (2015). In addition, Clean Line would work with landowners to minimize the placement of structures in locations that would interfere with the operation of irrigation systems (AG-1). In areas where irrigation systems would be disrupted and could not be avoided, the affected area could be measured and affected parties compensated for any associated reduction in productivity (see Appendix J to the Final EIS).

- Commenter states that the project will help Texas County with added revenue which includes the addition of ad valorem taxes which can be used for schools, sales tax from new workers

spending money in the area, and use tax. Commenter believes the project will be a financial boom for Texas County.

Response:

Socioeconomic impacts are assessed in Section 3.13 of the Final EIS. The impact assessment included estimates of Project-related sales and use and ad valorem taxes by affected county.

- Commenter states that the project will provide a host of economic benefits to Arkansas including an investment of \$100 million in Russellville to establish an intermediate converter station. Commenter states that the project will provide jobs for high voltage linemen, including current students, through work with local companies that will be involved with the project. Commenter states the project will facilitate half-billion dollar investment in Arkansas, increase economic development, and generate hundreds of jobs.

Response:

Socioeconomic impacts are assessed in Section 3.13 of the Final EIS. The impact assessment included estimates of projected employment and tax revenues expected to occur during construction and operation of the Applicant Proposed Project, DOE Alternatives, and connected actions.

- Commenter states that the project will bring positive benefits to Arkansas in the form of General Cable's contract with Clean Line to provide overhead transmission cable for the project. This work would have a value of \$100M and have a meaningful impact for General Cable's Malvern location, as well as local supply chain contractors. A local trucking company would also benefit, and there would be an overall positive impact on the state's economy. Commenter states the project will bring beneficial impacts to Arkansas, including jobs, such as production of blades for wind turbine by L&M Fiber in Little Rock, and construction jobs.

Response:

Socioeconomic impacts are assessed in Section 3.13 of the EIS. The impact assessment included estimates of projected employment and tax revenues expected to occur during construction and operation of the Applicant Proposed Project, DOE Alternatives, and connected actions.

- Commenter is with the International Brotherhood of Electrical Workers, and represents workers that would be doing this type of work as far as linemen, operators, groundmen, guys pouring footers for the towers. States, it's not every day you get an opportunity for something like this to come close to your area where you get to work on this type of project. Our construction workers are usually working all around the country chasing these types of jobs, and it would be great for them to be able to work on a project in their area this brings a whole lot of good, positive economic development as far as construction workers coming through eating at the local diners, the truck drivers getting to deliver the material, the local feed stores selling the barbed wire and gates and seed.

Response:

Socioeconomic impacts are assessed in Section 3.13 of the EIS. The impact assessment included estimates of projected employment and tax revenues expected to occur during construction and operation of the Applicant Proposed Project, DOE Alternatives, and connected actions.

- Commenter states that project will have numerous benefits for Arkansas, mainly the economic impact including the increase in jobs, income revenue for communities, and improved infrastructure. Jobs would include trucking/hauling, equipment operation, fueling, site grading, framing and drilling foundations, pouring concrete, and building temporary access roads. Additional benefits would include funds paid to communities that host the line, funds could be used to improve community services, schools, and infrastructure.

Response:

Socioeconomic impacts are assessed in Section 3.13 of the EIS. The impact assessment included estimates of projected employment and tax revenues expected to occur during construction and operation of the Applicant Proposed Project, DOE Alternatives, and connected actions.

- Commenter notes concern about the fiscal aspects of the plan. Oklahoma taxpayers are paying \$60 million in incentives for this project. Landowners that are leasing their land are only getting about \$9 million. Commenter feels there is a discrepancy there that needs to be looked at.

Response:

As described in Chapter 2 of the Final EIS, any property interests in land needed for the Project would be acquired through a negotiated sale or eminent domain proceedings, with affected landowners compensated for their property interests. The total compensation expected to be paid to landowners is not currently known and not necessarily expected to be equivalent to tax credits or other unrelated aspects of Project financing.

DOE reviewed this comment and asked Clean Line to disclose any tax credits they currently expect to receive as part of the Project. Clean Line responded as follows:

At this time, Clean Line is not receiving, or under consideration to receive, any tax credits from the states of Oklahoma, Texas, Arkansas, or Tennessee specific to the proposed Project.

Depending on applicable tax codes in these states, Plains and Eastern Clean Line LLC and/or Plains and Eastern Clean Line Oklahoma LLC may, in the future, receive credits for purchases made outside these states for equipment installed in the state. These credits may be applicable to sales and use taxes, state income taxes and/or other taxes and would be available to an entity engaging in similar purchases outside these states but used in Oklahoma, Arkansas and/or Tennessee and are not specific to energy or electric transmission.

- Commenter notes that the Oklahoma State legislature plans to cut the jobs tax incentive because there's not enough people hired with the wind farms. Commenter notes that they are losing support for wind energy from the Oklahoma State Senate and the Oklahoma House of

Representatives. Senator Mike Mazzei of Tulsa and State Representative Earl Sears of Bartlesville have cosponsored legislation to curtail 3 major subsidies that Oklahoma taxpayers no longer can live with. They are the zero emissions tax credit, the investment tax credit, and the ad valorem exemptions, which in 2013 amounted to \$44 million to \$64 million. Commenter feels that this wind energy cannot live without taxpayer handouts, and this includes this proposed \$2 billion transmission line.

Response:

DOE reviewed this comment and asked Clean Line to disclose any tax credits they currently expect to receive as part of the Project. Clean Line responded as follows:

At this time, Clean Line is not receiving, or under consideration to receive, any tax credits from the states of Oklahoma, Texas, Arkansas, or Tennessee specific to the proposed Project.

Depending on applicable tax codes in these states, Plains and Eastern Clean Line LLC and/or Plains and Eastern Clean Line Oklahoma LLC may, in the future, receive credits for purchases made outside these states for equipment installed in the state. These credits may be applicable to sales and use taxes, state income taxes and/or other taxes and would be available to an entity engaging in similar purchases outside these states but used in Oklahoma, Arkansas and/or Tennessee and are not specific to energy or electric transmission.

DOE also asked Clean Line to disclose any ad valorem tax exemptions they expect to receive as part of the Project. Clean Line responded as follows: “Aside from the PILOT program for the Tennessee Converter Station, Clean Line has not entered into any arrangements related to or exemptions from ad valorem taxes for the Plains & Eastern Clean Line.”

The above-referenced PILOT program is discussed in the Final EIS and relates to ad valorem taxes in Shelby County, Tennessee.

- Commenters state the short-term benefits of the people that are going to work on this project does not even come close to compensating the irreversible damage this is going to have to our state and to our environment.

Response:

Project employment associated with construction and operation of the Project is provided in Section 3.13 of the Final EIS. Irretrievable and irreversible commitments of resources are discussed by affected resource in Chapter 3 of the Final EIS.

- Commenters note that Arkansas is a beautiful state that attracts thousands of tourists each year. This will have a very negative impact on tourism.

Response:

Potential impacts to recreation and tourism are assessed in Section 3.12 of the Final EIS. Construction of the Project is not expected to permanently preclude the use of or access to any existing recreation areas or activities; however, some direct short-term impacts to these resources, such as noise, visual disturbance, or restricted access may diminish the quality of a recreational visit. These impacts would be localized and short-term, with the length of

disturbance affected by the land use and progress of the individual work crews. Project EPMs would be employed to avoid and minimize impacts to recreation resources.

Long-term impacts would result from vegetation clearing and structure erection. The transmission structures could have impacts on scenic landscapes by reducing the quality of the natural or rural landscapes. The impacts would vary depending on existing visual conditions in the affected areas, with impacts less in those areas where high-voltage transmission lines and other types of development are already present. Potential long-term impacts are described by region in Section 3.12. Although the presence of the transmission line could reduce the quality of natural or rural landscapes in locations, its presence is not expected to affect statewide tourism in Arkansas or the other states crossed by the Project.

- Commenter states P&E will also interfere with rural landowners' ability to make a living, bisecting small farms that provide income and/or real estate investment wealth to those who depend on their land for economic purposes.

Response:

Potential impacts to agriculture and the agricultural economic sector are assessed in Sections 3.2 and 3.13 of the Final EIS, respectively.

- Commenter states the EIS failed to locate the schools on the proposed route, but located schools off of the proposed route. States that there are three schools in Alma, Arkansas, located 2,600 feet from the proposed line. Two schools in Mulberry located 1,300 feet from the proposed line. However, school administrators were not aware of the line until the commenter visited with them.

Response:

Schools located within the ROI for the Project are shown on Figure 1.0-2 in Appendix A to the Final EIS. The ROI is identified in Section 3.1.1 of the EIS and includes a 1,000-foot-wide corridor for the HVDC transmission line. Therefore, schools outside the corridor may not be included on the maps. DOE has evaluated and updated its dataset for schools in the Final EIS. Public scoping activities conducted in advance of publication of the Draft EIS are summarized in Sections 1.5.2 and 1.6 of the Final EIS and included 13 public scoping meetings in communities along the Applicant Proposed Route and HVDC alternative routes.

- Commenter feels the number of permanent jobs and temporary jobs associated with the project are dwindling. Commenter notes that Clean Line has posted thousands of jobs on the original proposal, with 6000 permanent jobs. In 2011 it came down to 10,000 construction jobs and 1000 permanent jobs. The current website says 5000 construction jobs and 500 direct jobs. But, on the Draft EIS it says the peak construction has 1700 jobs, of an average of 965 and a total of full-time jobs between 72 and 87, that's 15 at each converter station and 42 permanent jobs for the entire state of Oklahoma and Arkansas.

Response:

The estimated numbers of workers expected to be employed during construction and operation of the Project are identified by Project component in Section 3.13.6 of the Final

EIS. These numbers—based on detailed monthly estimates of workers required by crew and task—are the best available estimates for this Project.

- Commenter is concerned the EIS fails to adequately address the socioeconomic impacts the project will have on the affected landowners. Several commenters note that many families have invested their savings into their properties, which may be affected by the project. In rural America, there is generational landownership, land is our investment, it is our wealth, it's not in the bank. Using numbers from the EIS to calculate the amount of property value lost by those people on and near the route, up to \$800 million in property loss will be borne by the people of Arkansas and Oklahoma and in Arkansas the average median income in rural Arkansas is \$33,000.

Response:

Socioeconomic impacts are assessed in Section 3.13 of the Final EIS. The commenter does not explain how they developed the estimate of “up to \$800 million in property loss” or what this loss consists of. Potential impacts on the value of adjacent properties are discussed in Section 3.13.6.2.5 of the Final EIS. For properties that would be crossed by the transmission line, the effect a transmission line may have on property value is a damage-related issue that would be negotiated between the Applicant and the affected landowner during the easement acquisition process.

- Commenter does not believe the project will be of economic value to the area. The Commenter feels the project exaggerates the number of jobs created and that any jobs created will be temporary and only occur during construction. Commenter does not feel this is a legitimate reason to approve the project.

Response:

The estimated numbers of workers expected to be employed during construction and operation of the Project are identified by Project component in Section 3.13.6 of the Final EIS. Construction jobs would be temporary, with some workers employed for the full duration of construction and others employed for shorter periods based on their trades. Operations and maintenance jobs would last for the operating life of the Project.

- Commenter notes concern that an increase in water turbidity may lead to an increase in the cost of treating drinking water, as it will take more time to filter the water. Commenter notes that Dover already has some of the highest water rates in the area.

Response:

Potential impacts to surface water are assessed in Section 3.15 of the Final EIS. The crossing of drainage features could result in downstream impacts to turbidity, but these impacts are expected to be short-lived and are not expected to result in increases in local water rates.

- Commenter states concerns regarding the socioeconomic resources section of the EIS. No avoidable adverse impacts to socioeconomic resources were identified. Commenter does not understand this statement. Commenter feels it is brazen to make this statement. Commenter

feels that this gives the impression that the economic losses to home and property people will endure does not matter. Commenter feels the references are old and not based on the largest proposed power line ever seen in this country, and that it is looking at all of the affected individuals along this line as a statistic, not a real person. Commenter feels that to truly state that there are no socioeconomic issues from this line, you would have to site it across federal and state lands—which should have been done from the onset.

Response:

Socioeconomic impacts are addressed in Section 3.13 of the Final EIS. For properties that would be crossed by the transmission line, the effect a transmission line may have on property value is a damage-related issue that would be part of the negotiation between the Applicant and the affected landowner during the easement acquisition process.

- Commenter questions, How will Clean Line guarantee that there will be money to pay for right-of-way agreement in 50 to 100 years, if one did not take an upfront payment?

Response:

The easement acquisition process for the Project is described in Section 2.1.3 of the Final EIS. Prior to construction, the Applicant or DOE, if it elects to participate in the Project, would acquire property interests from owners of land along the path of the Project. Any property interests in land needed for the Project would be acquired through a negotiated sale or eminent domain proceedings, with affected landowners compensated for their property interests. The terms and conditions of these agreements would be negotiated with the affected property owners.

- Commenter wants to know what the estimated short and long-term economic impact of the project will be and if the EIS will include these economic factors. Commenter also asks if there has been any research done on the basis for taxation valuation and how the project will be assessed. Commenter poses the question because school districts need the revenue that may be collected from the project.

Response:

The potential short- and long-term economic impacts of the Project are assessed in Section 3.13 of the Final EIS. Section 3.13 also presents estimates of Project-related ad valorem or property taxes by county. These estimates were developed using a simplified cost approach and assumed values per Project component. The methodology employed for these estimates is described in more detail in Section 3.13 of the Final EIS.

- Commenter hopes this project will bring a lot of primary jobs, high wage jobs, not secondary labor market jobs, which are low wage and so forth. Commenter feels the economy needs this. Commenter feels Clean Line needs to point out what kind of jobs they're going to bring into the economy, and not just a lot of low wage jobs.

Response:

The types of jobs expected to be supported by the Project are described in Section 3.13. Construction jobs would be temporary with some workers employed for the full duration of

construction, and others employed for shorter periods based on their trades. Local hires would include surveyors and workers employed in site development, fence installation, traffic control, ROW clearing, access road and pad construction, foundation construction, restoration, and materials management. Local hires would compose a smaller share of the workforce for more specialized tasks, such as equipment footings and cable trenching, conduits, and grounding and steel structure erection and electrical equipment installation, tower lacing (assembly), tower setting (erection), wire stringing, supervision, blasting, and construction inspection. Construction-related employment and earnings would also generate secondary economic activity and support employment and earnings elsewhere in the local economy through the multiplier effect, as initial changes in demand “ripple” through the economy and generate indirect and induced impacts.

Operations and maintenance jobs would be full-time, permanent positions that would last for the operating life of the Project. The annual average wage across the United States for all occupations in the electric power generation, transmission, and distribution industry in 2012 was \$67,950. Like the construction phase of the Project, the operations and maintenance phase would also support secondary employment and earnings elsewhere in the economy.

- Commenter states project will have a very positive impact in Arkansas in the creation of jobs that include industries that we're directly involved with in surveying and engineering but also with construction jobs, the transportation jobs. Those are jobs that will be created here in Searcy, Arkansas and throughout the River Valley area all across the state of Arkansas.

Response:

The estimated numbers of workers expected to be employed during construction and operation of the Project are identified by Project component in Section 3.13.6 of the EIS.

- Commenter states County revenues will be lost due to decreased property values to the county, town, city or state and will hold true for the future of its operation.

Response:

Construction and operation of the Project would not result in a reduction in county revenues. Operation of the Project components would generate annual property or ad valorem tax revenues in the counties where they would be located, and the addition of Project infrastructure would be expected to increase ad valorem and property tax payments from encumbered lands in all cases. Estimated ad valorem or property tax revenues are presented by county for the Applicant Proposed Project in Section 3.13.6.2.7 of the Final EIS. Potential impacts to property values are addressed in Section 3.13.6.2.5. The presence of a transmission line is not expected to result in a reduction of assessed property values for adjacent or nearby properties.

- Commenter supports the project because of the creation of jobs. Commenter notes that their area of the community has a company called Pelco Structural that manufactures steel tubular. This company will employ people that will make these windmills, and they employ about 100 Oklahomans. There are businesses across the state that will benefit, along with their communities, from this project. The construction of this line and the building of these wind

farms will create about 1000 or thousands of jobs, and once this project is complete, the sites will employ hundreds of people to maintain and operate them. Commenter feels this project will allow the area to export wind energy in a way that they already export oil and natural gas, which is another opportunity for the state to benefit financially from the project.

Response:

The estimated numbers of workers expected to be employed during construction and operation of the Project are identified by Project component in Section 3.13.6 of the Final EIS.

- Commenter states that the EIS should provide a cost benefit analysis that compares the environmental benefits with the environmental harm of the Project.

Response:

The potential environmental impacts of the Proposed Action and alternatives are evaluated in detail in Chapter 3 of the EIS; a detailed summary of the same is presented in Chapter 2. This analysis provides an appropriate level of information to support the analysis required by NEPA and a decision on the Project, and informs the public and others of the potential impacts of the Project. Impacts are not expressed in monetary form, but are fully captured in Chapter 3 of the EIS.

- Commenter states that the ad valorem and property tax estimates presented in the Draft EIS are exaggerated because federally-owned projects are exempt from local taxation. The commenter believes the Project would also be subject to accelerated depreciation and would benefit from tax exemptions further reducing the amount of ad valorem and property tax payments to local taxing authorities.

Response:

DOE reviewed this comment and asked Clean Line to address these potential concerns. Clean Line has indicated that aside from the PILOT program for the Tennessee converter station (discussed above), it has not entered into any relationships related to or exemptions from ad valorem taxes for the Project. If DOE or another federal entity were to own part of the Project, Clean Line has committed to work with county and/or state officials to develop a PILOT agreement, with the amount of compensation based on the property tax assessments applicable to public utilities in the affected areas.

- One commenter stated that the EIS does not address the cultural impact to rural America. The commenter feels that lives and livelihoods are going to be affected and changed forever. Urbanites can just move across town. That's not how it works in rural areas with generational landownership, where wealth is invested in the land.

Response:

Compensation for affected landowners is addressed in Section 2.1.3 of the EIS. EPMs that address compensation include AG-6: Clean Line will work with landowners to develop compensation for lost crop value caused by construction and/or maintenance. More detailed information on the ROW acquisition process is provided in the Applicant-developed Right-of-

Way Acquisition Plan for the Project included in the public comments on the Draft EIS submitted by Clean Line (2015). In addition, Clean Line would work with landowners to minimize the placement of structures in locations that would interfere with the operation of irrigation systems (AG-1). In areas where irrigation systems would be disrupted and could not be avoided, the affected area could be measured and affected parties compensated for any associated reduction in productivity (see Appendix F to the Final EIS).

Other concerns expressed with respect to the rural environment include potential visual and noise impacts. Some direct short-term impacts to these resources would be expected during construction. These impacts would be localized and short term, with the length of disturbance affected by the existing land use and progress of the individual work crews. Project EPMs would be employed to avoid and minimize impacts to agriculture and other resources. Long-term impacts would result from vegetation clearing and structure erection. The transmission structures could have impacts on scenic landscapes by reducing the quality of the natural or rural landscapes. Impacts would vary depending on existing visual conditions in the affected areas, with impacts less in those areas where high-voltage transmission lines and other types of development are already present. Impacts to visual resources are addressed in Section 3.18 of the Final EIS. Potential long-term impacts from noise are addressed in Sections 3.4 and 3.11.

- One commenter stated that the EIS should specifically address "Unique Agrarian Lives" in the following ways: a. Capture, analyze, and quantify how farmers and rural landowners are unique in their ties to the land and why recovery from land altered by the project or relocating to a comparable property is so difficult. b. List any uncompensated financial losses that may occur as well as the cultural and historical losses possible due to changes to their way of life even though difficult to quantify.

Response:

Compensation for affected landowners is addressed in Section 2.1.3 of the EIS. EPMs that address compensation include AG-6: Clean Line will work with landowners to develop compensation for lost crop value caused by construction and/or maintenance. More detailed information on the ROW acquisition process is provided in the Applicant-developed Right-of-Way Acquisition Plan for the Project included in the public comments on the Draft EIS submitted by Clean Line (2015). In addition, Clean Line would work with landowners to minimize the placement of structures in locations that would interfere with the operation of irrigation systems (AG-1). In areas where irrigation systems would be disrupted and could not be avoided, the affected area could be measured and affected parties compensated for any associated reduction in productivity (see Appendix F to the Draft EIS). Uncompensated financial losses to landowners are not expected to occur as a result of the Project.

Compensation for landowners is described in the Applicant's April 20, 2015, comment letter to DOE regarding the Draft EIS and in Section 2.1.3 of the Final EIS. No farmers and rural landowners are expected to be displaced as a result of the Project. Additional information about farmers and rural landowners has been added to Section 3.13.4.3 of the Final EIS.

- Commenter states the route of the proposed project across Interstate 40 and Exit 24 in the Mulberry City limits destroys the economic value of developing Exit 24. Taking away the

economic development on an interstate hurts the growth of a community. Commenter expresses concern that the current path of the line will undermine the economic accomplishments that have been made and the plans for the future.

Response:

DOE is not aware of specific plans for economic development of this area, but anticipates the concerns can be addressed by micrositing within the 1,000-foot-wide corridor and the implementation of EPM LU-5.

- Commenter states concern that the proposed alternative routes would cause direct and substantial damages to the client's business. Commenter notes the damages to the client's property would be ongoing, and would defy accurate quantification, making compensation for any such easement difficult to fairly determine.

Response:

DOE anticipates the concerns can be addressed by micrositing within the 1,000-foot-wide corridor and the implementation of EPM LU-5.

- Commenter states three houses within a quarter mile in rural Van Buren will be destroyed and hundreds of acres of cattle farm will also be destroyed. This project will destroy our entire economic structure.

Response:

Impacts to residential land uses and agriculture are addressed in Sections 3.10 and 3.2, respectively. Socioeconomic impacts are assessed in Section 3.13.

- Commenter states this portion of the HVDC Applicant Proposed Route is very intrusive and has an extreme negative economic impact on our business. Green Bay Packaging's purpose for owning property is to be able to grow timber to supply our mills. We are not able to grow our "crop" under the lines. Green Bay Packaging has already lost numerous acres out of this particular tract of land to the natural gas industry in exploration and transmission, as well as a crude oil line that will bisect this same property. We believe that we have done our fair share in allowing acres to be taken in an effort to provide energy resources to customers.

Response:

DOE reviewed this comment and asked Clean Line to look at the technical feasibility of a route variation in this area. Clean Line determined that the landowner's concerns could be addressed through the development of a variation. Clean Line was also contacted directly by the landowner, who provided additional input regarding their preferred route. In response, Clean Line developed a route variation (Region 5, Link 2, Variation 2) that was reviewed and accepted by DOE. This is one of the route variations evaluated in the Final EIS and shown graphically in Appendix M.

- Commenter states their client has invested in excess of \$50,000 to implement sustainable practices. The placement of a transmission line across their client's ranch will create additional, unnecessary, and unreasonable financial expenses.

Response:

The commenter is concerned about the use of herbicides and pesticides during operation if the selected route crosses their property. The updated Project Description in the Final EIS (Appendix F) includes a description of how and where pesticides would be used for vegetation management. If the selected route crosses the comment author's property, other location-related concerns can be addressed by micrositing within the 1,000-foot-wide corridor and the implementation of EPM LU-5.

- Commenter is a ranch operator near Ames, Oklahoma whose family has been in the ranching business for over 100 years. Commenter states that the proposed route would cross in front of the entrance of their ranch and would change their livelihood and business. Their business is working cattle ranch, quarter horses, raising crops and cattle, in addition their business is based on hunting waterfowl, migratory birds, and deer. Also, their ranch creates a large amount of revenue for the state. The proximity of the line to their ranch would impact their business. Commenter states that the line would have a negative financial impact on their cattle business. Commenter states that construction of the line would negatively impact their family's livelihood and businesses, which include a guest ranch, wedding venue, hunting business, and cattle ranch. Specifically notes that tourist income from foreign (European) travel companies would cease to exist and be financially devastating

Response:

In an effort to reduce impacts to landowners, including those related to agriculture and tourism, the Applicant would make reasonable efforts, consistent with design criteria, to accommodate requests from individual landowners to adjust the siting of the 1,000-foot-wide corridor and micrositing of transmission structures on properties. The Applicant would not displace or prohibit livestock from grazing in pastures overlapped by the ROW during construction and operations and maintenance of the Project, unless otherwise desired by the landowner. Livestock can continue to use the ROW during construction and operations and maintenance; however, livestock may be temporarily blocked from grazing within or accessing the ROW in discrete locations during times that the ROW is restricted during construction for safety reasons.

- Commenter states main concern is the region 6, AR 6-C alternate route. This route would come directly through my 800 acre farm. Not only would this impact my farming operation but it could have a major impact on my hunting operation. Waterfowl are naturally attracted to this area in Poinsett County. The hunting is second to none on this farm. This great hunting allows me to use this farm to generate additional income outside of producing cash crops. In these uncertain times in agriculture we need all the means possible to generate income. I have spent money along with NRCS, and DU to help improve the habitat for wintering waterfowl. I am afraid if this alternate route is used it could impact our natural waterfowl migration corridor in a negative way. This would impact my bottom line in more ways than one. I know this line is going to affect many no matter where it comes through.

Response:

Impacts to migratory birds and waterfowl are addressed in Section 3.20 of the Final EIS. If HVDC Alternative 6-C is the selected route, concerns related to wetlands and waterfowl habitat will be addressed to the extent practicable through micrositing within the 1,000-foot-wide corridor and implementation of EPM LU-5.

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25 Special Status Wildlife, Fish Aquatic Invertebrate, and Amphibian Species

The following comments were received relative to Special Status Wildlife, Fish Aquatic Invertebrate, and Amphibian Species:

- Multiple commenters expressed concern that bats in general and specific bat species listed as threatened or endangered (Endangered: Gray bat (*Myotis grisescens*), Ozark big-eared bat (*Corynorhinus townsendii ingens*), and Indiana bat (*Myotis sodalists*), and the threatened Northern long-eared bat (*Myotis septentrionalis*) would be affected. Commenters were specifically concerned about the potential impacts of clearing of vegetation and specifically of roost trees in the right of way based on the potential amount of land that could be cleared (19- 30 square miles) given the length and width of the project. One commenter noted that the primary threat is not habitat loss or alteration but is pandemic mortality associated with white-nosed syndrome (WNS). Concern was also expressed that impacts to bats would increase mosquito populations and risk to people from mosquito borne diseases. Several commenters noted that in January 2015, the presence of the federally listed Ozark big-eared bat was documented in Lee Creek Reservoir Park in Van Buren County and that additional surveys should be conducted to determine if the cave is used as a maternity roost and/or swarming site.

Response:

The EIS addresses potential impacts to federally protected species in Section 3.14.1.7 including the four species of threatened or endangered bat species that could be affected. Section 3.14.1.7.1 lists EPMs that would be implemented to avoid or minimize impacts to wildlife species. With respect to the amount of bat habitat that could be affected, the primary habitat of concern for bats is summer roosting habitat in forested areas. Most of the land cleared for construction would not be forest land. Any potential forest habitat impact would be less than the 19 to 30 square miles suggested in comments. Any potential bat roosting habitat would be surveyed prior to land clearing to determine presence of bats or would be cleared during the non-roosting season to avoid impacts. DOE is consulting with the USFWS under Section 7 of the ESA regarding effects of the Applicant Proposed Project on special status species listed as threatened or endangered, including the Ozark big-eared bat, gray bat, northern long-eared bat, and Indiana bat. USFWS will consider white-nosed syndrome when evaluating cumulative impacts during the Section 7 ESA consultation. Through the separate but parallel Section 7 consultation process, DOE, Clean Line, and USFWS will identify specific protection and mitigation measures to avoid, minimize, and mitigate any potential impacts to these species. Such measures may include surveys. These mitigation measures will be requirements that must be implemented for the Project to be developed. Any potential impacts to bats would expected to be minor so that no effects to mosquito populations would occur. Section 3.14.1.7.2.6.4 has been updated to reflect the most recent information on the presence of the Ozark big-eared bat near Lee Creek Reservoir Park in Region 4. In addition, Clean Line has developed and analyzed a localized variation to the Applicant Proposed Route in the vicinity of the Lee Creek Reservoir as a means to avoid and minimize potential impacts to the Ozark big-eared bat and any other bat species using the caves reported by the City of Fort Smith Utility Department. This is a localized variation to

the Applicant Proposed Route and DOE has integrated it into the Applicant Proposed Route in the Final EIS. The variation is approximately 0.75 mile north of Applicant Proposed Route in the vicinity of the caves discovered with Ozark big-eared bats.

- Two comments stated that the transmission line would impact the ivory-billed woodpecker and its habitat, and one noted that the ivory-billed woodpeckers live on her property.

Response:

The ivory-billed woodpecker until recently was commonly believed to be extinct (75 FR 41886). A possible sighting in 2004 in eastern Arkansas based on indistinct video clips from the Cache River National Wildlife Refuge raised hope that it was not. However, despite additional searches no unequivocal evidence has been collected confirming its existence. The ivory-billed woodpecker closely resembles the more common pileated woodpecker. No impact to potential ivory-billed woodpecker habitat is expected.

- Several commenters expressed concerns for migratory bird species that either occur along the route or specifically on their property and are protected by the Migratory Bird Treaty Act but may not be listed as threatened or endangered. The comments included woodpeckers, roadrunners, Swainson's hawk, western snowy plover, American avocet, and sand hill cranes. One commenter specifically noted the high quality habitat along the Cimarron River, particularly the more undeveloped north side.

Response:

Species such as woodpeckers, roadrunners, Swainson's hawk, western snowy plover, American avocet, sand hill cranes, and other migratory birds are protected under the Migratory Bird Treaty Act. Clean Line would implement EPMs listed in Section 3.14.1.7.1, such as timing construction and clearing of vegetation to avoid potential take of individual birds, nests, or eggs. Clean Line has committed to conducting preconstruction surveys for active nests of migratory birds during the nesting season and consulting with USFWS regarding environmentally sensitive areas such as breeding and nesting locations (Volume IV, Appendix F, Section 2.0). The intent is to follow existing ROWs and avoid existing undeveloped areas to the extent practical.

- Commenter also notes the St. Francis River contains the endangered fat pocketbook mussel. Where the proposed power line crosses this stream, commenter recommends maintaining a riparian buffer within the right-of-way to reduce sediment runoff and preserve the scenic, recreational, and biological integrity of this river containing populations of the fat pocketbook mussel.

Response:

Section 3.14.2.4.3.6 identifies the presence of the endangered fat pocketbook mussel in the St. Francis River Basin, including tributaries and drainage ditches. The EIS addresses potential impacts to federally protected species in Sections 3.14.1.7 and 3.14.2.7. Section 3.14.2.7.1 lists EPMs that would be implemented to avoid or minimize impacts to fish, aquatic invertebrate, and amphibian species. Specifically regarding the HVDC transmission line crossing the St. Francis River, Clean Line has committed to maintaining a streamside

management zone (EPM W-3; see Sections 2.1.7 and 3.14.2.7.1 and Appendix F of the Final EIS) of 50 feet on both sides of streams and waterbodies where removal of low growing vegetation would be minimized, which would aid in protection of the stream environment. Pursuant to the NERC Reliability Standard FAC-003, Clean Line would develop a TVMP, which would address how vegetation is to be managed in the ROW. The TVMP may require additional analysis under NEPA depending on whether and under what conditions DOE decides to participate in the Project. Furthermore, Clean Line would develop a SWPPP that would control sedimentation, erosion, and runoff and would be consistent with the state and federal regulations. In addition to these specific measures associated with stream crossings, DOE and Clean Line are consulting with the USFWS under Section 7 of the ESA for those special status species listed as threatened or endangered. Through the separate but parallel Section 7 consultation process that includes a detailed BA of potential threats to ESA-listed species, DOE and USFWS will identify specific protection and mitigation measures to avoid, reduce, and mitigate any potential impacts to these species, including possible surveys. These protection measures will be requirements that must be implemented for the Project to be developed.

- Several commenters stated concerns about impacts to interior least terns. Commenters were particularly concerned about the crossings of the Mississippi River because of least tern nesting sites on sand bars 4 miles upstream and 2 miles downstream of the APR crossing location, and the crossings of the Cimarron River in ROI3 and Arkansas River in ROI4. Concern was expressed that least terns may avoid nesting in the vicinity of tall structures to avoid avian predators.

Response:

The EIS addresses potential impacts to the interior least tern in Sections 3.14.1.7.2.6.2, 3.14.1.7.2.6.3, and 3.14.1.7.2.6.7. General and wildlife-specific EPMs that would be implemented to minimize impacts to the interior least tern and other wildlife are listed in Sections 3.14.1.7.1 and 3.14.2.7.1. The DOE is consulting with the USFWS under Section 7 of the ESA regarding potential impacts to multiple threatened or endangered fish and wildlife species, including the interior least tern. Clean Line is assisting with the consultation in the role of non-federal representative. Through the separate but parallel Section 7 consultation process, DOE, Clean Line, and USFWS will identify specific protection and mitigation measures to avoid, reduce, and mitigate any potential impacts to the least tern and other threatened and endangered species. These protection measures will be requirements that must be implemented for the Project to be developed. Any specific habitat areas, such as sandbars and known nesting locations, considered important to the interior least tern, would be evaluated during this process along with potential impacts of tall structures on nesting.

- Multiple commenters stated concerns regarding potential impacts to both bald or golden eagles and specific concerns about eagles that reside on or near their property. Commenters generally noted that putting the transmission line near where eagles live could have impacts on the species. In addition, one reviewer noted that no avian protection plan was included in the EIS and there was no record of the USFWS reviewing the document. One commenter was concerned about impacts to eagles from wind energy development because USFWS had

reported 85 eagles killed by wind turbines during a 15 year time period. Another commenter was concerned about the impact of the EMF from the powerline on eagle navigation ability.

Response:

Bald and golden eagles are protected by the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. Impacts to bald and golden eagles have been evaluated in Section 3.14.1.7 of the EIS. Clean Line would implement protective measures such as identifying eagle nest sites and winter roost sites and would avoid those sites during construction. The USFWS has reviewed the EIS and any comments and responses will be documented in the administrative record and comment response document. Clean Line has committed to preparing an APP based on established APLIC guidelines http://www.aplic.org/uploads/files/2634/APPguidelines_final-draft_Apr12005.pdf

The APP is not part of the EIS. The commitment to preparing an APP is found in the EPMs proposed by Clean Line in Appendix F, of the EIS. This commitment is referenced in Section 3.20.1.7.1 of the EIS. Although some frequencies of EMF may affect avian navigation, the particular frequency of the EMF emitted by the HVDC transmission line (i.e., similar to background DC EMF) is not expected to affect avian navigation and therefore not affect eagle flight ability (discussed in Section 3.4.11.2.3.2.8). With respect to wind energy development impacts on eagles, the Project does not include specific wind energy projects. Environmental impacts from any potential future wind energy developments that have federal involvement would be evaluated on a site- and Project-specific basis. Impacts to bald or golden eagles, as appropriate, would be included in those impact analyses. Wind energy development is considered as a connected action in the EIS and typical potential impacts that might be expected are discussed in Section 3.14.1.6.1.

- Commenter notes concern that the EIS states there are thirty-one species of federally protected species that could be damaged by this Project, and critical woodland habitat would be lost forever.

Response:

The EIS addresses potential impacts to federally protected species in Sections 3.14.1.7 and 3.14.2.7. General and wildlife-specific EPMs that would be implemented to minimize impacts to the interior least tern and other wildlife are listed Sections 3.14.1.7.1 and 3.14.2.7.1. The DOE is consulting with the USFWS under Section 7 of the ESA regarding potential impacts to multiple threatened or endangered fish and wildlife species. Clean Line is assisting with the consultation in the role of non-federal representative. Through this separate but parallel Section 7 consultation process, DOE, Clean Line, and USFWS will identify specific protection and mitigation measures to avoid, reduce, and mitigate any potential impacts to the threatened and endangered species. These protection measures will be requirements that must be implemented for the Project to be developed. Requirements established during the threatened or endangered species consultation will be integrated into the EIS directly or by reference.

- One commenter was concerned about the Black-tailed Prairie Dog and noted that the black-tailed prairie dog was considered for listing under the Endangered Species Act and is

classified as a state species of special concern in Oklahoma. The commenter suggested that colony surveys be conducted within 1.5 miles of the transmission line and facilities because the black-tailed prairie dog is limited to fewer than 700 colonies primarily in western half of Oklahoma with 75 percent in the panhandle counties.

Response:

It is recognized that the prairie dog is an ecologically important species in grassland ecosystems, providing habitat and resources for many other species. The species was considered for listing under the ESA but the USFWS determined it was not warranted for listing and has no federal regulatory protection. The black-tailed prairie dog is listed as a small game species in Oklahoma and is not protected except on Department of Wildlife Conservation owned- or managed-land. Hunting for prairie dogs is allowed year-round with no bag limits except on the aforementioned state-managed lands where hunting of black-tailed prairie dogs is prohibited. There is no regulatory requirement to conduct surveys for prairie dogs.

- Multiple commenters expressed concern about potential impacts to the lesser prairie chicken (LEPC) from development of the transmission line, AC collection system, and potential future windfarms in the wind development zones. Several comments asked whether there would be a requirement to pay for mitigation of LEPC habitat loss or compensation of habitat loss through improving other habitat and purchasing other habitat to be administered as a National Grassland and or National Wildlife Refuge. Two comments provided detailed evaluations of the relative impacts to LEPC of the APR and alternative routes in ROI 1 and 2. One comment noted that the Draft EIS accurately reflects the habitat needs and current range of the Federally Threatened Lesser Prairie-chicken (LEPC) (*Tympanuchus pallidicinctus*) within the EIS (Sec. 3.14-Special Status Wildlife and Fish Species - subsection: 3.14.1.4.2.3) and the EIS also acknowledges information regarding the threats to LEPC and evidence suggesting that LEPC avoid certain manmade structures such as roads, wellheads, and vertical structures (e.g., buildings and transmission structures and lines) even if suitable habitat occurs in the immediate surroundings (USFWS 2014d). Based upon the above concerns of LEPC avoidance of vertical structures (including transmission lines and wind turbines) we have evaluated the siting of the project's infrastructure and its potential impact upon LEPC. We concur that the Applicant Proposed Route (APR) for the HVDC line appears to have the greatest avoidance of quality LEPC habitat within ROI 1 and the western portion of ROI 2 when compared with the Alternative Routes (AR). Oklahoma Department of Wildlife Conservation (ODWC) biologists utilized the Southern Great Plains Critical Habitat Assessment Tool (SGPCHAT) tool, as well as additional presence/absence reports from field personnel, to evaluate the potential impacts to LEPC. Additionally, prior to the LEPC listing decision in May 2014, nearly 400,000 acres of private land in Oklahoma was enrolled into LEPC Candidate Conservation Agreements with Assurances (CCAAs). As part and parcel to these agreements, landowners agreed to multiple conservation practices designed to preserve and restore LEPC habitat. The future development of the HVDC line, the AC Collection System and Feeder lines, construction of substations and other infrastructure will certainly impact many of these enrolled properties and will thus reduce the amount of conservation acres available for LEPC population recovery, and eventual de-listing. Pursuant to the project's impact upon LEPC and LEPC habitat, ODWC recommends the applicant pursue

compensatory mitigation either within enrollment in the Rangewide Plan for LEPC (administered by WAFWA), or, through an alternate process under direct consultation with USFWS. An analysis of the APR shows that the route bisects approximately 10 individual CCAA-enrolled properties which will have an estimated reduction of 205 conservation acres based upon the HVDC ROW impact zone (this amount could vary depending upon micro-siting and/or placement into previously impacted zones such as existing transmission ROWs). ODWC has categorized the AR routes for the HVDC line in ROI 1 as follows (from most impact to LEPC to least): AR 1- A If this alternative route were chosen, it would bisect the largest portion of LEPC Focal Areas (CHAT 1&2); and has the greatest potential for fragmenting known LEPC leks and large, unbroken parcels of native prairie habitats. This route will impact 2 CCAA tracts with total impacts of approximately 2,090 acres. Of particular concern is the portion of the AR 1-A between State Highway 183 eastward to the Jct. of State Highway 34. There are multiple LEPC leks within this area on both private land and land under ownership of the Oklahoma School Lands Commission (Approx. 10 tracts with a total of 3,319 acres of impact to quality LEPC habitat). The portion of AR 1- A west of State Highway 3 also runs thru higher quality habitat than some of the other alternate routes and is in closer proximity to Optima Lake and Wildlife Management Area (WMA) and which have a greater potential attraction to migratory birds. This route also runs in close proximity (1.5 miles) north of Lake Evans Chambers in Beaver County. AR-1-C As with the portion of AR 1- A west of State Highway 3, this alternative route bisects two (2) CCAA properties with 319 acres impacts and is in closer proximity to Optima Lake and WMA. AR-1-B Where AR-1-B splits off from AR 1-C (slightly east of the Jct. of State Highway 83) and follows a more southerly route, it appears to bisect lower quality LEPC habitat than AR-1-C, and certainly less than AR-1-A. This site will, however, impact four (4) CCAA properties consisting of 1216 acres of new impacts. This route also impacts the Shorb property, a small ODWC owned property in Texas County. This route is also further distance from Optima Lake and Wildlife Management Area. AR-1-D This alternative route appears to run in close proximity to previously impacted areas along the US HWY 270 ROW and does not likely have significant impacts to LEPC compared with the APR. AR 2-A While this alternative bisects similar LEPC habitat as the APR, it would run adjacent to ODWC's Major County Wildlife Management Area which has a greater potential attraction to migratory birds.

Another comment stated that impacts to LEPC from the AC Collection System routes and the Wind Development Zones (WDZs) that they will serve were of greater concern to ODWC than the potential route (APR or AR) of the HVDC line. Construction of the AC Collection System will likely provide significant incentives to wind developers who want to progress with developments rapidly. The construction of the AC Collection System will require land clearing for the construction of access roads and installation of transmission structures (Sections 2.1.2.3 and 2.1.2.4). ODWC has concerns this initial phase has potential of LEPC habitat loss and fragmentation, but of greater concern is continued construction of large wind turbine developments occurring in the WDZs that will be served by the AC Collection routes. ODWC has concerns that once these routes are determined, consideration of wildlife impacts, particularly impacts to LEPC and LEPC habitat, may not be given appropriate and thorough due diligence. The following are ODWC's concerns to specific AC Collection System routes, and the future WDZs that will be served. AC Collection System Routes: E-1, E-2 If developed, these collection routes will access areas within WDZ-K, which has a long history

of LEPC, particularly on the eastern portion. Additionally, development in this zone would likely bisect at least one parcel of private property that is currently enrolled in the LEPC Agricultural Candidate Conservation Agreement with Assurances (CCAA). If transmission infrastructure is constructed along either of these proposed collection routes, the impacts from both the transmission infrastructure and any subsequent wind power development that follows / results will have significant impacts on LEPC populations. AC Collection System Routes: E-1, E-2 & E-3 If developed, these collection routes will access areas within WDZ-J, which currently has populations of LEPC. Additionally, development in this zone would likely curtail or block potential LEPC movement between this population and populations to the east. AC Collection System Route NE-2 If developed, these collection routes will access areas within WDZ-I, which lies on the NW edge of another population of LEPC. Development in this zone would likely curtail or block potential LEPC movement between this population and populations located north of the Oklahoma/Kansas border. Comments regarding impacts within other Wind Development Zones (WDZ): -WDZ-D would include two ODWC Wildlife Management Areas: Schultz and Shorb. Additionally, two CCAA's are enrolled within this zone. -WDZ-E has extensively cropped areas that support multiple local confined animal feeding operations (swine farms) with marginal native rangeland remaining. Potential LEPC impacts in this area would be much less than several other alternatives. -WDZ-F has cropland, but some large private ranches that have excellent range conditions that have potential to support LEPC populations. Additionally, two CCAA's are enrolled within the zone. -WDZ-H has large cropland areas with a mix of Conservation Reserve Program (CRP) enrolled acreage with several large ranches that have potential to support LEPC populations. -WDZ-G has a mix of cropland, CRP, and native prairie. Development in this zone, particularly on the northern tier, would likely curtail or block potential LEPC movement between populations located here and just across the Oklahoma border in portions of far SE Colorado and far SW Kansas.

Response:

DOE appreciates the specific detailed comments regarding the potential relative impacts of the Project alternatives with respect to the LEPC. The EIS considers the potential impacts on LEPC in Section 3.14.1.7 and includes Environmental Protective Measures (EPMs) to avoid or minimize potential impacts to wildlife species (Section 3.14.1.7.1). With respect to lands that have conservation agreements, EPM AG-3 states that Clean Line will consult with landowners and/or tenants to identify the location and boundaries of agriculture or conservation reserve lands and to understand the criteria for maintaining the integrity of these committed lands. DOE and Clean Line are consulting with the USFWS regarding threatened or endangered species under the separate but parallel Section 7 of the ESA. Any mitigation measures regarding the LEPC, including potential compensation through habitat offsets or other compensation would be determined through that process and would be referenced as appropriate in the EIS or ROD. DOE appreciates the detailed comments regarding the relative merits of the various alternatives with respect to impacts to the LEPC. The specific comments regarding impacts of the Applicant Proposed Route, HVDC alternative routes, the AC system collection routes, and WDZs have been reviewed with respect to the analysis of potential impacts in the EIS in Section 3.14.1.7. Changes to the EIS text were made where appropriate. With respect to future wind generation development, the Project does not include or analyze the location of specific wind farms. Any future wind farm

projects would likely have to be subject to consultation with or permitting by USFWS either under Section 7 (federal nexus) or Section 10 (non-federal) of the ESA that would address impacts to the LEPC if the potential exists for adverse impacts to individual birds or their habitat. Therefore, impacts to LEPC would be given due diligence.

- Several commenters expressed concern about impacts to multiple federally listed avian species. Commenters mentioned or discussed, the following federally-listed avian species: Endangered-Whooping crane (*Grus americana*) - ROI 2, Interior Least tern (*Sterna antillarum*) - primarily near the crossings of the Cimarron River in ROI 3, and Arkansas River in ROI 4, and Red-cockaded woodpecker; Candidate -Sprague's pipit (*Anthus spragueii*), Threatened-Piping plover (*Charadrius melodus*) and Threatened-Rufa red knot (*Calidris canutus rufa*). One commenter stated that they concurred with the EIS that impacts to the federally listed avian species will be minimal and can be minimized by timing of construction and other EPMs found within guidance provided by the APLIC.

Response:

The EIS addresses potential impacts to federally listed avian species in Sections 3.14.1.7. General and wildlife specific EPMs that would be implemented to minimize impacts to listed avian species are listed Section 3.14.1.7.1. The DOE is consulting with the USFWS under Section 7 of the ESA regarding potential impacts to multiple threatened or endangered fish and wildlife species, including listed avian species. It should be noted that the red-cockaded woodpecker does not occur in the ROI and would not be impacted by the Project and is not being evaluated in the EIS or the Section 7 consultation. Clean Line is assisting with the consultation in the role of non-federal representative. Through the consultation process, DOE, Clean Line, and USFWS will identify specific protection and mitigation measures to avoid, reduce, and mitigate any potential impacts to the least tern and other threatened and endangered species. These protection measures will be requirements that must be implemented for the Project to be developed. Clean Line has committed to preparing an APP based on established APLIC guidelines. The APP is not part of the EIS. The commitment to preparing an APP is found in the EPMs proposed by Clean Line in Appendix F of the EIS. This commitment is referenced in Section 3.20.1.7.1 of the EIS.

- Two commenters expressed concern about potential impacts to the American burying beetle. The project appears likely to disturb soil and/or vegetation which could impact the Endangered-American Burying beetle (ABB). Most of eastern Oklahoma (ROI 2, 3 & 4) was recently included in the 45-county listing of the U.S. Fish and Wildlife Service's (USFWS) Industry Conservation Plan ABB in Oklahoma (Ref. C.F.R. 79 FR 21480 issued on 4-16-2014). Soil disturbance due to energy exploration, construction of roads or buildings, or burial of pipelines and/or transmission lines have been identified as possible threats to ABB.

Response:

Potential impacts to the American burying beetle are discussed in Section 3.14.1.7 of the EIS. General and wildlife specific EPMs that would be implemented minimize impacts to American burying beetles and other wildlife are listed in Section 3.14.1.7.1. DOE is consulting with the USFWS under Section 7 of the ESA regarding effects of the Project on special status species listed as threatened or endangered, including the American burying

beetle. Clean Line is assisting with the consultation in the role of non-federal representative. Through the separate but parallel Section 7 consultation process, DOE, Clean Line, and USFWS will identify specific protection and mitigation measures to avoid, reduce, and mitigate any potential impacts to the American burying beetle and other threatened and endangered species. These protection measures will be requirements that must be implemented during Project construction and operation. These protection measures will be integrated into the EIS directly or by reference.

- Commenter notes, Other listed aquatic species: Threatened-Arkansas River Shiner, Endangered-Neosho Mucket, Threatened-Rabbitsfoot mussel, and Oklahoma State-Endangered Longnose Darter (*Percina nasuta*). Oklahoma's Comprehensive Wildlife Conservation Strategy, (CWCS) identifies Large Rivers as High Priority habitats. This includes the Cimarron River (ROI 2), which is designated as critical habitat for the Threatened-Arkansas River Shiner (*Notropis girardi*). Additionally, the CWCS identifies the eastern Oklahoma (ROI 4) Ozark streams as High Priority Habitats. Several of these streams are designated as Oklahoma Scenic Rivers (i.e. Illinois River, Lee Creek, Little Lee Creek and others) which provide habitat for several sensitive freshwater mussel species, including Neosho Mucket (*Lampsilis rafinesqueana*) and Rabbitsfoot mussels (*Quadrula cylindrica cylindrica*). ODWC concurs with the APR as it travels within Sequoyah County (ROI 4), but specifically objects to the "Lee Creek Variation." It appears that the "Lee Creek Variation" along with the two alternate routes (AR 4-A, and AR 4-B) will require much more land clearing for the construction of access roads and installation of transmission structures than following the APR. Significant forest clearing near the Lee Creek and/or Little Lee Creek crossings and adjacent riparian zones is a concern for increased sedimentation and/or other changes to the water quality and flow regimes of Lee Creek. Lee Creek is designated as a state of Oklahoma Scenic River, and supports the last known population of the State-Endangered Longnose Darter (*Percina nasuta*). ODWC opposes the HVDC "Lee Creek Variation." ODWC asserts that this route variation is unnecessary and should follow the APR which runs parallel to Southwestern's existing Gore-to-Alma 161kV transmission line. The impacts associated with additional HVDC ROW land clearing through approximately 3.4 miles (1.9 miles in Oklahoma, 1.5 miles in Arkansas) of mostly forested habitat has much greater potential impact to the Lee Creek Reservoir watershed (and endemic species such as the Longnose darter) than following the original APR. ODWC concurs with the Environmental Protection Measures (EPMs) described within Chapter 3 Section 3.20 to avoid and/or minimize adverse effects to wetland and waterbodies. Implementing the practices described for construction at water crossings or near waterbodies (Ref. W-2 thru W-10), will help minimize impacts to the aquatic species identified above as well as other sensitive species.

Response:

Section 3.14.2.4 identifies and describes the presence of federally proposed or listed fish, aquatic invertebrate, and amphibian species, as well as state designations for aquatic species. The EIS addresses potential impacts to special status fish, aquatic invertebrate, and amphibian species in Section 3.14.2.7. Section 3.14.2.7.1 lists EPMs that would be implemented to avoid or minimize impacts to fish, aquatic invertebrate, and amphibian species. Detailed EPMs for both construction and ROW maintenance would be in place prior

to construction, designed to ensure slope stability, prevent excessive soil erosion, prevent other hazardous runoff to waters, and retention of low growing near stream vegetation (Sections 3.14.2.7.1 and 3.20.2.7.1; see Appendix F for a complete list of EPMs). Specifically regarding potential impacts to vegetated riparian habitat, Clean Line has committed to maintaining a streamside management zone (EPM W-3, see Appendix F of the EIS) of 50 feet on both sides of streams and waterbodies where removal of low growing vegetation would be minimized, which would aid in protection of the stream environment. Pursuant to the NERC Reliability Standard FAC-003, Clean Line would develop a TVMP, which would address how vegetation is to be managed in the ROW. The TVMP may require additional analysis under NEPA depending on whether and under what conditions DOE decides to participate in the Project. Furthermore, Clean Line would develop a SWPPP that would control sedimentation, erosion, and runoff and would be consistent with the state and federal regulations. In addition to these specific measures associated with stream crossings, DOE and Clean Line are consulting with the USFWS under Section 7 of the ESA for those special status species listed as threatened or endangered. Through the separate but parallel Section 7 consultation process that includes a detailed BA of potential threats to ESA-listed species, DOE and USFWS will identify specific protection and mitigation measures to avoid, reduce, and mitigate any potential impacts to these species, including possible surveys. These protection measures will be requirements that must be implemented for the Project to be developed.

- Two commenters expressed concern regarding impacts to the Texas Horned Lizard. One commenter recommended that a field survey be conducted for the Texas Horned Lizard (*Phrynosoma cornutum*) where suitable habitat exists within a 0.5-mile buffer from planned infrastructure because the Texas Horned Lizard is a state species of special concern that is protected under a year-round closed season that prohibits the killing, collection or possession of these lizards. Texas Horned Lizard populations have declined and become more fragmented across their range during the past 50 years as a result of multiple factors, the most important of which is the loss and fragmentation of their habitat (the conversion of native prairies and shrublands into crop fields and Bermuda grass pastures). Another factor contributing to their decline appears to be unintentional road mortality. The increased miles of road created by these access roads may have unanticipated consequences on horned lizard and other reptile and amphibian populations because of the increased potential for road mortality from the vehicles that are used to maintain the transmission lines or other vehicles that may use these roads.

Response:

The Texas horned lizard as noted in the comments is a species of special concern in Oklahoma and is protected by regulation from killing, collecting, or selling as pets. No commitment has been made to survey for Texas horned lizards but the presence of the horned lizard would be documented in any surveys conducted for other wildlife species. Routing the transmission line along existing ROWs would reduce potential impacts to the Texas horned lizard by minimizing disturbance of native prairie and shrub lands. Any requirement for surveys would be negotiated between the Oklahoma Department of Wildlife Conservation and DOE as the species is not federally protected.

- Commenter states AR River Shiner - Baseline surveys need to be conducted and analyzed, without occurrence data, this analysis is flawed.

Response:

The EIS addresses potential impacts to Arkansas River Shiner in Section 3.14.2.7. Analysis of impacts to special status fish, aquatic invertebrate, and amphibian species was based on the range of each species distribution. Special status fish, aquatic invertebrate, and amphibian species with documented presence, or that could have any reasonable likelihood of being present in a drainage, including tributaries and ditches, were considered to be present, with impact determinations based on the assumption of the species being present. Using this approach, surveys for presence are not needed for the assessment of effects in the EIS; however, through the separate but parallel Section 7 consultation process, DOE and USFWS will identify specific protection and mitigation measures to avoid, reduce, and mitigate any potential impacts to these species, including possible surveys. These protection measures will be requirements that must be implemented for the Project to be developed.

- Commenter notes concern about the potential negative impacts to the endangered honey bee communities that will be devastated immediately in the ground zero areas and for many miles around the line-zones, with indirect adverse destruction of the food supply.

Response:

Although domesticated, honey bee colonies have experienced declines in recent years (“Colony Collapse Disorder”) (USDA 2015), honey bees are not listed as an endangered species. EMF are not considered a factor in honey bee colony collapse. The effect of high voltage transmission lines on bees is discussed in Section 3.4.11.2.1.2.2.9. As discussed in that section, no negative impacts on bees were found in a study of native bees near high voltage AC transmission lines in Maryland, Wisconsin, or Oregon, and there continues to be no credible evidence that native bee species are harmed by EMF in terms of foraging, nesting, or behavior. In most cases, the construction of the powerline would not adversely affect the food resource (i.e., flowering plants) for honey bees and in some cases may actually enhance food resources by replacement of non-nectar producing woody species with flowering nectar producing herbaceous species.

- Commenter asks, does the Corporation propose to actively monitor the areas it will disturb for the presence of these special species, to document destruction of habitat and, where known, mortality rates inflicted upon such species.

Response:

The DOE is consulting with the USFWS under Section 7 of the ESA regarding potential impacts to threatened or endangered fish and wildlife species. Through the separate but parallel Section 7 consultation process, DOE, Clean Line, and USFWS will identify specific protection and mitigation measures to avoid, reduce, and mitigate any potential impacts to threatened and endangered species. Any specific monitoring for particular species or their habitat would be identified through the consultation process. Commitments have been made to survey for particular species prior to habitat disturbance such as bat roost sites and eagle nesting and roosting habitat.

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26 Surface Water

The following comments were received relative to surface water:

- Several commenters identify specific Arkansas surface waters, the special designations or uses associated with those surface waters, and their concerns that the waters be protected. Commenter notes the Mulberry River and Big Piney Creek are listed by the Arkansas Department of Environmental Quality as Extraordinary Resource Waters; the Little Red River is a high quality Arkansas fishery; the White and Cache Rivers are focal areas of the America's Great Outdoors initiative; and Bayou DeView contains a designated Arkansas Water Trail. Commenter notes that the proposed route would cross Frog Bayou multiple times and cross streams with Arkansas Department of Environmental Quality special designations: Big Piney Creek, Cadron Creek, Illinois Bayou, Little Red River, Mulberry River, and St. Francis River. Commenter notes the Mulberry River provides history and enjoyment all year long for fishing, kayaking, swimming, and is a federally protected waterway. Commenter notes the Illinois Bayou, in addition to having special state designation, is also home to a large variety of game and non-game fish, and is a popular floating and fishing destination. Commenters express concern about potential impacts to these streams and their riparian areas; one commenter recommends, in areas where the proposed power line crosses these streams, maintaining a riparian buffer within the right-of-way to reduce sediment runoff and preserve the scenic, recreational, and biological integrity of these waterways.

Response:

DOE agrees with the commenters regarding the significance of these designations and uses associated with these surface waters, which the EIS describes in various sections. For example, Table 3.15-17 in Section 3.15.5.4 and Table 3.15-21 in Section 3.15.5.5 of the Final EIS describe waters of special interest in Regions 4 and 5, respectively. These include designations for Mulberry River, Big Piney Creek, Illinois Bayou, and Cadron Creek. Table 3.15-21 includes identification of the Little Red River as an Arkansas Trout Water. The significance of the Frog Bayou WMA is discussed in Sections 3.10.5 and 3.12.5. Features associated with America's Great Outdoors Initiative and Arkansas Water Trail designations have been added to Section 3.12.1 of the Final EIS.

As described Section 3.15.6.1 of the Final EIS, the Project would involve the potential risk of contamination to surface water, including disturbed soil being eroded and carried away in stormwater runoff. However, as stated in this section, the potential for surface water contamination would primarily be present during construction and would be minor and similar to those from any typical construction project. In the case of the Project, its size (greater than 1 acre of land disturbance) triggers regulatory requirements for practices intended to further reduce the potential for adverse impacts. As described in Section 3.15.6.1.1, the Applicant would be required to obtain an NPDES stormwater construction permit and develop a SWPPP, and both the permit and the plan would require actions to minimize the potential for contaminants to be released that could impact surface water. The Applicant has also committed to developing an SPCCP to minimize the potential for accidental discharge of oil (including fuel, hydraulic fluids, etc.). If a discharge occurred,

required practices in the SWPPP and SPCCP would minimize the potential for contaminants to leave the site or reach surface water.

A surface water protective measure (EPM W-3) identified in Section 3.15.6.1.5 is the Applicant's commitment to establish streamside management zones within 50 feet of both sides of intermittent and perennial streams and along margins of bodies of open water where removal of low-lying vegetation would be minimized. A complete list of EPMs for all resources that would be followed by the Applicant is presented in Appendix F of the EIS. These measures include a general commitment to minimize clearing of vegetation within the ROW, consistent with a TVMP created and implemented according to NERC Standard FAC-003, and applicable federal, state, and local regulations. The TVMP may require additional analysis under NEPA depending on whether and under what conditions DOE decides to participate in the Project.

- Commenter notes concern that Section S.6.1.15 speaks of potential surface water contamination (line 28) and direct impact to surface water and drainage channels (line 38). The proposed transmission line would destroy a spring-fed drainage creek on our property that flows into Cadron Creek. The line then follows the Cadron's river bank and will undoubtedly cause erosion, before actually crossing the Cadron.

Response:

As described in Section 3.15.6.1.1 of the Final EIS, the Applicant would be required to obtain an NPDES stormwater construction permit and develop a SWPPP, and both the permit and plan would require actions to minimize the potential for contaminants to be released that could impact surface water. The Applicant has also committed to developing an SPCCP to minimize the potential for accidental discharge of oil (including fuel, hydraulic fluids, etc.). If a discharge occurred, practices in the SWPPP and SPCCP would minimize the potential for contaminants, including eroded soils or sediments, to leave the site or reach surface water. As described in Section 3.15.6.1.3 of the Final EIS, the Applicant would avoid placing structures in surface waters as practicable and implement measures to avoid damage to drainage features. Access roads are the Project component most likely to involve disturbance of drainage features, and Section 3.15.6.1.3 also describes planned approaches for crossing such features if necessary. Section 3.15.6.1.5 of the Final EIS identifies EPMs that would be implemented by the Applicant to provide protection for surface water quality and surface water drainage features.

- Commenter notes that blasting would need to be done to install structures in the Lee Creek watershed. Commenter notes that, as this watershed flows into the Lee Creek Reservoir, Fort Smith is concerned with additional sediment from this work as well as explosive residuals in the drinking water. Commenter is additionally concerned with the possible increased sediment load and the issues of hydrocarbon runoff from road construction equipment and materials flowing into the drinking water reservoir, as well as the overall impact on the reservoir itself. All activities must be either performed only in the right-of-way or done as far away as possible to reduce the possible contamination of the drinking water reservoir. Commenter notes that all vegetation control should be done by hand near the reservoir, with no chemicals used in the area of the reservoir to prevent contamination of the drinking water

reservoir. Commenter is concerned about the effect construction and maintenance will have on the drinking water reservoir. Commenter feels the further north and the further away from the reservoir, the more time for sediment and contaminants to be naturally removed. Commenter notes that the proposed route would cross just outside the buffer area of the drinking water reservoir allowing for the potential to contaminate the drinking water for over 200,000 people in Arkansas and Oklahoma.

Response:

As identified in Section 3.15.5.4.2 of the Final EIS, the Project would pass through the Robert S. Kerr Reservoir watershed, which includes Lee Creek and its local watershed and the Lee Creek Reservoir and its buffer zone; these surface waters are identified as surface waters of special interest in Table 3.15-17 of Section 3.15.5.4.2. As described in Section 3.15.6.1.1 of the Final EIS, the Applicant would be required to obtain an NPDES stormwater construction permit and develop a SWPPP, and both the permit and the plan would require actions to minimize the potential for contaminants to be released that could impact surface water. The Applicant has also committed to developing an SPCCP to minimize the potential for accidental discharge of oil (including fuel, hydraulic fluids, etc.). If a discharge occurred, practices in the SWPPP and SPCCP would minimize the potential for contaminants to leave the site or reach surface water. With regard to the commenter's concern about blasting, the need for blasting would be determined through a geotechnical study completed by the Applicant as part of the Project's engineering design. If determined to be necessary, blasting would be implemented only after developing a Blasting Plan, which would detail the measures to be taken to minimize blasting's adverse effects. Section 3.15.6.1.5 of the Final EIS identifies EPMs that would be implemented by the Applicant to provide protection for surface water quality. EPM GE-5 is the Applicant's commitment that any herbicides used during construction or during operations and maintenance would be applied according to label instructions and any federal, state, and local regulations. It should be noted that these regulations include measures to protect surface waters from contamination. EPM W-3 describes the Applicant's commitment to establish streamside management zones within 50 feet of both sides of intermittent and perennial streams and along margins of bodies of open water where removal of low-lying vegetation would be minimized. EPM W-12 is a commitment to monitor the preconstruction yield and quality of any springs within 150 feet of a blasting site so that damage might be determined should it occur, and action taken if necessary. As described in Section 3.15.6.1.3 of the Final EIS, the Applicant would avoid placing structures in surface waters as practicable and implement measures to avoid damage to surface waters.

DOE requested that the Applicant evaluate any potentially new information provided in this comment with respect to routing, and the Applicant responded by proposing a route variation in Region 4, Link 3 of the Applicant Proposed Route. In this new variation, the Applicant Proposed Route would veer slightly to the north after crossing Lee Creek and the buffer zone. This variation would locate the transmission line directly north of Lee Creek Reservoir further from the reservoir. HVDC Alternative Routes 4-A and 4-B, passing farther to the north, would avoid the buffer zone. Regardless of the route selected, construction practices to install transmission line elements would be conducted in a manner protective of the area's drinking water resources.

- Commenter notes that their Division of Water Resources (Tennessee Division of Water Resources) has reviewed the Draft EIS. Based on the information included within the document, several permits may be required for the proposed action. Further, the Tennessee Division of Water Resources recommends that the Final EIS include additional detail with regard to any water use requirements and water discharges that might be involved in the proposed action.

Response:

Comment noted. Sections 3.7.1 and 3.15.1 of the Final EIS identify key elements of select federal and state laws and regulations associated with groundwater and surface water management, respectively, and associated permits and authorization required for construction of the Project. At the time of the Draft EIS, the Project had not progressed to the stage that detailed location-specific water use and water discharge data were available. Detailed water use and water discharge data identified in this comment were still not available for the Final EIS. DOE made impact evaluations based on reasonable estimates of Project requirements and made every effort to ensure those estimates were conservative. DOE recognizes, however, that the data are often general in nature because the Project is still in the planning phase. If DOE chooses to participate, the Project would move into a detailed design phase, and the Project proponent would develop the next level of more detailed Project criteria, such as water use and water discharges, as applications for the required permits are developed.

- Commenter notes that information in Table 3.15-19 should read as “Archey Creek” in HUC 11010014 and as “Greers Ferry Lake.” In 3.1.5.5.4, Oklahoma should not be included in this sentence as all Region 5 is in the state of Arkansas.

Response:

The issues identified by the commenter in Table 3.15-19 have been corrected in the Final EIS; that is, “Archey Creek” has replaced “Archery Creek” and “Greers Ferry Lake” has replaced “Greer Ferry Lake.”

With respect to the comment on Section 3.1.5.5.4, DOE assumes this callout should be to Section 3.15.5.5.4 where the “Oklahoma” entry has been corrected to “Arkansas” in the Final EIS.

- Commenter notes concern that the Arkansas Converter Station, the alternate site that will be placed on the edge of the Pope County and Conway County border, is fairly close to many creeks in the area. Commenter is concerned about how the construction of this site will affect the environment in the area, particularly dust from construction adding additional sediments into the creeks. This may dry them up and limit the amount of water the surrounding farms get from those creeks. Commenter feels that if the lakes dry up it may impact the local economies, with farmers having to use other water sources, such as city water or they will have to draw more from their wells.

Response:

As identified in Section 3.15.5.5.2 of the Final EIS, the site being considered does not contain what might be considered major waterbodies, but does contain relatively large combined distances of perennial and intermittent stream channels. The same is also true for the smaller siting area (all within Pope County) being considered in the Final EIS for the Arkansas converter station. Section 3.3.6.1 of the Final EIS describes potential impacts to air quality, including the measures that would be implemented during construction to minimize the creation of dust. As described in Section 3.15.6.1.1 of the Final EIS, the Applicant would be required to obtain an NPDES stormwater construction permit and develop a SWPPP, and both the permit and the plan would require actions to minimize erosion that could adversely impact surface water. As discussed in Section 3.15.6.1.3 of the Final EIS, the Project would avoid surface waters and their floodplains, to the extent practicable. Section 3.15.6.1.5 of the Final EIS identifies EPMs that would be implemented by the Applicant to minimize direct physical impacts to surface water features or to avoid hindering or restricting existing uses of a surface water. For example, EPM W-8 commits to conducting dewatering of Project sites (i.e., controlling runoff from Project sites) in a manner designed to prevent soil erosion, such as by using flow control devices or discharging water through vegetated areas.

- Commenter notes that water also represents a key concern in Oklahoma, particularly in the western part of the state where a large portion of the line will run. Changes in land use, particularly during construction of the line and converter stations, could negatively impact runoff into rivers and streams. Commenter notes that hazardous materials, fluids, or fuels could spill into Oklahoma's waterways, decimating the viability of the region's already scarce water resources.

Response:

As described in Section 3.15.6.1.1 of the Final EIS, the Applicant would be required to obtain an NPDES stormwater construction permit and develop a SWPPP, and both the permit and the plan would require actions to minimize the potential for contaminants to be released that could impact surface water, including minimizing erosion of soils and sedimentation into surface waters. The Applicant has also committed to developing an SPCCP (provided in Appendix F) to minimize the potential for accidental discharge of oil (including fuel, hydraulic fluids, etc.). Section 3.15.6.1.5 of the Final EIS identifies EPMs that would be implemented by the Applicant to provide protection for surface water quality. EPM GE-14 is the Applicant's commitment to restrict any refueling and storage of fuels and hazardous chemicals within at least 100 feet from wetlands, surface waterbodies, and groundwater wells. Other EPMs that would be adopted by the Applicant include minimizing the clearing of vegetation (GE-3), stabilizing slopes (GEO-1), and locating spoil piles outside streamside management zones (W-7). Once construction was complete, changes in land use would involve no more than operating converter stations and maintaining transmission lines. These actions would not be expected to pose any notable risks to surface water quality.

- Commenter notes that Cimarron River crossing is 4 miles wide. Commenter does not think the towers will stand up to a once every 100-year flood.

Response:

DOE notes the commenter's concern with regard to constructing transmission line structures within 100-year floodplains, but believes the "4-mile-wide" crossing distance for the Cimarron River is an overestimate. The proposed HVDC transmission line would cross the Cimarron River in two locations: once within Region 2 and again within Region 3. Link 2 of the Applicant Proposed Route in Region 2 would cross the Cimarron River in an area lying between the communities of Isabella and Ames in Major County, Oklahoma. The transmission line would cross the river at an angle that would minimize the crossing distance, and according to aerial views of the site (using Google Earth), the crossing distance of the river's incised channel at this location is about 800 feet (and the crossing distance of the actual water surface at the time of the aerial view was much less). HVDC Alternative Route 2-A would cross the Cimarron River about 15 miles to the northwest in an area to the south of the community of Cleo Springs in Major County, Oklahoma. At this location, the transmission line would again cross the river at an angle that would minimize the crossing distance, and according to the aerial view, the crossing distance of the river's incised channel is about 500 feet (with the crossing distance of the actual water surface at the time of the aerial view again being much less). In Region 3, the Cimarron would be crossed either by Link 4 of the Applicant Proposed Route or HVDC Alternative Route 3-C, both in southern Payne County to the southeast of Stillwater, Oklahoma. According to aerial views of the sites, the crossing distance of the river's incised channel would be about 600 feet for the Link 4 site and 1,100 feet for the HVDC Alternative Route 3-C site. At the HVDC Alternative Route 3-C site, the crossing would be at a shallower angle compared to the flowline of the river, which contributes the greater crossing distance. At both sites, the crossing distances of the actual water surface at the time of the aerial view were much less.

At times of high water flow, such as during a 100-year flooding event, the river may overflow what appears to be the incised channel in the aerial view. For example, Table 3.19-15 of Section 3.19 of the Final EIS identifies a single floodplain crossing for HVDC Alternative Route 2-A (i.e., that associated with the Cimarron River) and shows the 1,000-foot-wide corridor would cross 23 acres of the floodplain. Figure 3.15-2c, as shown in Appendix A, depicts the 100-year floodplain for the Region 3 Cimarron River crossings (similar data were not available for the Region 2 crossings in Major County). The 100-year floodplain crossing distance for Link 4 of the Region 3 Applicant Proposed Route appears to be in the range of 1,300 to 1,700 feet, and the crossing distance for HVDC Alternative Route 3-C would be approximately 1 mile. As described in Section 2.1.2.2.2 of the Final EIS, transmission line structures, depending on their size and type, would typically be placed at a rate of four to seven structures per mile, which equates to spans (between structures) ranging from about 1,300 to 750 feet. For large river crossings, as currently planned for crossing of the Arkansas and Mississippi rivers, the Applicant would use taller lattice structures that could be spaced 2,000 to 3,300 feet apart. So in the example Region 2 Cimarron River crossing, the transmission line could reasonably span the entire width of the floodplain. But even if this were not the case, the structures would be designed to have foundations extend above floodwaters or to otherwise withstand whatever forces that might be exerted by flood waters.

- Several commenters are concerned about contamination of water (ponds, creeks, wetlands) from the use of hazardous substances from heavy equipment and from herbicides (defoliation program) used long term after construction. Commenter notes concern about the toxins that would also get into the stream and ponds, and that these would greatly affect the cattle. Commenter notes that even if Clean Line did not use chemicals on their client's property, the use of such chemicals within the watershed poses an unreasonable risk of traveling onto their client's ranch as diffuse surface water. Commenter notes that many of their family members that live on the proposed route have small children, raise cattle for human consumption as well as chicken for Tyson Poultry company, produce vegetables for eating, etc. Commenter notes these families use water from ponds and branches that could be contaminated from the herbicides and toxins.

Response:

As described in Section 3.15.6.1.1, the Applicant would be required to obtain an NPDES stormwater construction permit and develop a SWPPP, and both the permit and the plan would require actions to minimize the potential for contaminants to be released that could impact surface water. The Applicant has also committed to developing an SPCCP to minimize the potential for accidental discharge of oil (including fuel, hydraulic fluids, etc.). If a discharge occurred, practices in the SWPPP and SPCCP would minimize the potential for contaminants to leave the site or reach surface water. Section 3.15.6.1.5 of the Final EIS identifies EPMs that would provide protection for surface water quality. A complete list of EPMs for the Project, including EPMs that would minimize the potential for contamination to reach surface water, is provided in Appendix F of the Final EIS. EPM GE-13 requires that emergency spill response equipment be kept on hand during construction. EPM GE-5 is the Applicant's commitment that any herbicides used during construction or during operations and maintenance would be applied according to label instructions and any federal, state, and local regulations. These EPMs would protect surface waters. Potential impacts to human health and safety from the Project are addressed in Section 3.8.5 of the EIS.

- Commenters are concerned about destruction of man-made surface water ponds, located directly under the line, used for cattle watering and wildlife. Commenter states that the project cuts off a large pond which is the main water source for her 60 acre ranch. Commenter notes they have a spring on the property that is still in use for water stock, and it feeds a large pond used for fishing and water for cattle and horses. Commenter is concerned about the line over the branches and waterways.

Response:

As described in Section 3.15.6.1.3 of the Final EIS, the Applicant would avoid surface waters as practicable and implement measures to avoid damage to drainage features. Section 3.15.6.1.5 of the Final EIS identifies additional measures that would be implemented by the Applicant to minimize direct physical impacts to surface water features or to avoid hindering or restricting existing uses of a surface water.

- Commenter states water quality will decrease and erosion will increase due to shallow top soil in most of the route, especially in the western part of Arkansas and eastern Oklahoma. Commenter notes the project will cut across the entirety of the Upper White River watershed,

which makes up 3/5 of the state of Arkansas, and suggests the project poses the greatest threat to the Lower White River Delta since the Great Depression.

Response:

As described in Section 3.15.6.1.1, the Applicant would be required to obtain an NPDES stormwater construction permit and develop a SWPPP; both the permit and the plan would require actions to minimize the potential for contaminants, including eroded soils and sediments, to be released that could impact surface water. Section 3.15.6.1.5 of the Final EIS identifies EPMs that would be implemented by the Applicant to provide protection for surface water quality. With regard to the specific comments on the Lower White River watershed, DOE appreciates the commenter's concern, but does not agree with the conclusion. As described in Sections 3.15.5.5.1 and 3.15.5.6.1, Regions 5 and 6, respectively, of the Project would pass through areas of the Upper White River watershed based on the U.S. Geological Survey's methodology for defining and cataloging the nation's surface water drainage systems. Impacts to water resources, which would be experienced primarily during construction, would be minor in the immediate areas of Project activities and, accordingly, would be minor in downstream areas (i.e., the Lower White River).

- Commenter states, I do not want the streams to be damaged or be contaminated if blasting was needed to drill through the shale on my property.

Response:

As described in EIS Section 3.15.6.4, the Project would involve the potential for direct disturbances to surface water features or drainage channels. However, the potential for adverse impacts of this type would primarily be present during construction and would be minor. The Project has not progressed to the stage that detailed location-specific crossing routes are available, but as described in Section 3.15.6.1.3 of the EIS, the Applicant would avoid surface waters as practicable and implement measures to avoid damage to surface waters or drainage features. As noted in Section 3.19.6.1.2.1, blasting in or adjacent to Waters of the United States, including wetlands, is not anticipated. In the unlikely event blasting was needed as part of the Project, the Applicant would develop and implement a Blasting Plan that would describe measures to minimize adverse impacts, including to any surface waters in the area. Section 3.15.6.1.5 of the EIS identifies EPMs that would be implemented by the Applicant to minimize direct physical impacts to surface water features or to avoid hindering or restricting existing uses of a surface water. EPM GE-9 is a commitment to repair or restore any drainage features or other improvements such as ditches, culverts, levees, tiles, and terraces if they were inadvertently damaged. EPM W-2 is a commitment to identify, avoid, and/or minimize adverse effects to wetlands and waterbodies and EPM W-5 is a commitment to construct access roads to minimize disruption of natural drainage patterns including perennial, intermittent, and ephemeral streams. EPM W-12 is a commitment to monitor the preconstruction yield and quality of any springs within 150 feet of a blasting site so that damage might be determined should it occur, and action taken if necessary.

- Commenter states, Regions 3-5 are identified as using predominantly surface water. Multiple watersheds within each region are identified as being crossed by the proposed route for the

high voltage line/towers. The DOE admits that adverse impacts to surface water are “likely.” Will the Corporation actively monitor surface water quality in order to document that it did or did not pollute surface waters? If the construction/maintenance activities are shown to have affected water quality, what remedy does the Corporation propose? The Corporation proposes to utilize surface water resources and expects them to “renew” or “recover.” What remedy does the Corporation propose if its use of any particular surface water resource causes damage that does not renew or recover? What length of time does the Corporation expect it to take for surface water that it has used to renew or recover.

Response:

As described in Section 3.15.6.1 of the Final EIS, the Project would involve risk of contamination to surface water and the potential for adverse impacts would primarily be present during construction and would be small, similar to those from any typical construction project. The Project would not involve any planned discharge of process water or other wastewater to surface waters. The primary risk of contamination would be from stormwater runoff from areas where there could be disturbed, erodible soil or other contaminants associated with equipment operations or temporary material storage. The size of the Project (greater than 1 acre of land disturbance) would trigger regulatory requirements for practices intended to reduce the potential for adverse impacts. As described in Section 3.15.6.1.1, the Applicant would be required to obtain an NPDES stormwater construction permit and develop a SWPPP; both the permit and the plan would require actions to minimize the potential for contaminants, including eroded soil and sediment, to be released that could impact surface water. The Applicant has also committed to developing an SPCCP to minimize the potential for accidental discharge of oil (including fuel, hydraulic fluids, etc.). If a discharge occurred, practices in the SWPPP and SPCCP would minimize the potential for contaminants to leave the site or reach surface water.

With respect to the commenter’s concern for monitoring of surface waters, terms of the current NPDES construction general permit do not include requirements for routine monitoring of adjacent or nearby surface water other than visual monitoring for signs of erosion and sedimentation. This visual monitoring is part of the permit’s requirement that the permittee perform routine inspections of the site to ensure that the erosion and sediment control measures, good housekeeping measures, and pollution prevention measures are maintained in good working order at all times. The permittee is further required to report to the regulatory agency if inspections show a required stormwater control was never installed or was installed and is not effective, or if the inspection shows a prohibited discharge (e.g., of wastewater from a washout of concrete; fuels or oils; soaps, solvents, or detergents; or toxic or hazardous substances from a spill or other release) is occurring or has occurred. The permittee is then required to initiate corrective actions to remedy the problem, including taking all reasonable steps to minimize or prevent the discharge of pollutants and cleaning up any contaminated surfaces so that contaminants cannot be carried off in subsequent storm events. The permittee is responsible for developing and implementing the appropriate corrective action, which could involve surface water monitoring to guide the extent of the action or to verify its effectiveness. Also, once the applicable regulatory agency has been notified of the inspection finding, the agency can become involved in the direction of the corrective action or, at any time, the agency can make its own site inspection and, if permit

violations are noted, the agency can set its own corrective action requirements, which must then be implemented by the permittee. In either case, the regulatory agency could direct the corrective action to include monitoring of area surface waters if the agency determined that such actions were needed to achieve or verify a successful remedy.

In Sections 3.15.6.5 and 3.15.6.6 of the Final EIS, it is recognized that the Project would involve the commitment or use of surface water resources in the form of obtaining water from approved municipal water systems. Because availability of surface water is dependent on precipitation runoff, snow melt, and groundwater input that are generally cyclic on an annual basis, it can be considered renewable or recoverable. Although the EIS recognizes it as a commitment of resources, the relatively small amount of water resources that would be used by the Project and the relatively short span for its construction, during which most water demand would be experienced, would result in little impact to water resources as compared to existing uses.

27 Transportation

The following comments were received relative to transportation:

- Commenter notes that their client uses the airstrip on the property to service customers all over the area. The construction of this line would make the use of the airstrip impossible (Walton Land Company, Poinsett County, Arkansas, and Lazy D Bar Ranch, Sequoyah County, Oklahoma).

Response:

The Walton Land Company private airstrip is located in Region 6 Applicant Proposed Route, Link 8, near the Region 7 border. There are no alternative routes for the Project in this area. This airstrip was not previously identified, but its location and potential impacts are now included in Section 3.16. A BMP has been added to Section 3.16.6.4 that states that the Applicant would perform mitigation to address Project structures in the vicinity of private airstrips. This BMP would require conducting specific flight plan analyses to determine whether interference with private airstrips can be avoided through micrositing within the 1,000-foot-wide corridor to the extent practicable. If impacts are unavoidable, the Applicant would develop and implement mitigation measures and/or provide compensation, in coordination with landowners. The Applicant would apply similar mitigation to private airstrips where Project structures would present a hazard within a 1:20 glide slope from each end of private airfields. The Applicant has provided a ROW acquisition plan and a Code of Conduct for negotiations with landowners.

The Lazy D Bar Ranch is located in Region 4 near Applicant Proposed Route Link 3. A proposed route variation—Applicant Proposed Route Link 3, Variation 2—would avoid impacts to the airstrip. A description of the route variation is included in Section 2.4.2.4 of the Final EIS. The location of the route variation and its potential impacts to transportation are included in Section 3.16 of the Final EIS.

- Commenter notes that Clean Line has countered with funds that they are willing to give to the roads or general funds. Clean Line claims that they will pay up to \$800.00 per mile of road that is damaged by construction equipment when in reality it costs up to \$130,000 per mile to repair damaged roads. Who is to make up the difference?

Response:

In addition to the ad valorem property tax revenues (or payment-in-lieu of taxes, where applicable) estimated in Section 3.13 of the Draft EIS, the Applicant has committed to make an infrastructure payment to offset the potential costs of additional county services required during construction. Infrastructure payments would be based on the linear length of the HVDC transmission line constructed in a county. The infrastructure payment would be \$7,500 per mile. The Applicant anticipates these one-time payments would be made to counties concurrent with or soon after the commencement of construction activities in the county and expects to make these payments pursuant to an agreement with the county that would specify these payments.

The Applicant recognizes the impact heavy traffic can have on county and local roads and would minimize the impact of construction vehicles to existing road networks. The Applicant and its construction contractor would work with the state highway authority and county judges and engineers to plan road use during construction. The Applicant has committed to work with each county prior to construction to ensure repair or payment for repair of damage to county or local roads and would coordinate with the county in the event road upgrades are needed and would pay for such upgrades and improvements.

Estimates of the infrastructure payments by county are provided in Section 3.13 of the Final EIS. These estimates are based on the linear length of the HVDC transmission line constructed in a county. Actual lengths of the transmission will depend on the final engineering and construction of the Project.

- Commenter is concerned about the extent that roads would need to be re-routed or blocked off and affect access to oil and gas operations.

Response:

The following EPMs (as documented in Section 3.16.6.1.2 of the Final EIS) would be employed to ensure that access is maintained to properties and businesses—including oil and gas operations: LU-2, GE-26, LU-1, and LU-4. If closures were necessary, their durations would be minimized and closures would be conducted in accordance with a Transportation and Traffic Management Plan and appropriate state DOT requirements and procedures. As stated in Section 3.16.6.1.1.1 of the Final EIS, a more detailed traffic analysis is not possible at this stage of the Project because specific commuting and haul routes based on worker residences, material and equipment locations, and construction site destinations would not be identified until the design phase of the Project, when a Transportation and Traffic Management Plan would be developed.

- Commenter states that the USDOT is listed as a Cooperating agency. Each state DOT is also required to provide input and address impacts on state transportation use and needs. The EIS is inadequate because there is no USDOT and/or state DOT Policy/Policies of Accommodation between DOTs and transmission line owners/applicants.

Response:

Section 1.2 of the Final EIS identifies the cooperating agencies for the EIS and the DOT is not identified as a cooperating agency. Impacts to transportation resources are addressed in Section 3.16 of the Final EIS. Section 3.16.1 provides an overview of the regulatory requirements in relation to transportation resources from federal, state, and local agencies. DOT Policy/Policies of Accommodation between DOTs and transmission line owners/applicants were not identified as a regulatory requirement in regards to the Project; and no such policies were identified for federal or state DOTs in the area of the Project. These entities require permits for utilities, including transmission lines, to use roadway ROW. Permits for roadway ROW, oversized/overweight vehicles, and other requirements related to roadways are listed in Section 3.16.1 and Table 3.16-1 of the Final EIS.

- Commenter is concerned about the impacts to the highway system. Currently, Arkansas is still reeling from excessive usage of the state roads during Fayetteville Shale drilling that destroyed the highway system. The Clean Line project will probably destroy the highway system in the area in a similar manner. Commenter notes that traffic on Highway 95 has increased tremendously with the natural gas production in the area. Commenter is concerned that additional people/cars from this project will only serve to add to the destruction of the highway. It has been approximately 20 years since highway 95 was resurfaced north from Morrilton to past the Wonderview Schools location. Commenter notes concern that, if the proposed route through Johnson County, Arkansas ever becomes a reality, there will be damage to the county and state highway system. The existing road system was never built and designed to carry heavy loads, and the proposed Project will destroy the roads.

Response:

Section 3.16 of the Final EIS includes an evaluation of impacts to roadways within the ROI that takes into account the most recent traffic data. Oversize and overweight permits would be required from applicable regulatory agencies as outlined in Table 3.16-1. As stated in Section 3.16.6.1.2, the Applicant would implement EPMs to avoid or minimize potential impacts resulting from construction, operations and maintenance, and decommissioning of the Project. Prior to construction, the Applicant would develop and implement a Transportation and Traffic Management Plan that would detail the requirements, permits, plans, and mitigation procedures that would be implemented to avoid or minimize potential impacts on transportation infrastructure and traffic conditions. EPMs for transportation resources include LU-2, GE-26, GE-8, LU-1, LU-4, GE-1, GE-6, GE-7, GE-16, GE-20, and AG-5. As stated in Section 3.16.6.1.1.5, roadway pavement or other infrastructure might be damaged by heavy vehicles delivering equipment and materials to the site. Specifications and haul routes for oversize/overweight vehicles and equipment would be developed for a Transportation and Traffic Management Plan. Other impacts to roadway infrastructure could include damage from temporary access points. Such damage would be repaired and restored, so the impacts would be temporary. These impacts would generally be common to all alternatives and were therefore not specifically evaluated in terms of the Applicant Proposed Route or HVDC alternative routes. As stated in Section 3.16.6.1.1.1, a more detailed traffic analysis is not possible at this stage of the Project because specific commuting and haul routes based on worker residences, material and equipment locations, and construction site destinations would not be identified until the design phase of the Project, when a Transportation and Traffic Management Plan would be developed.

In addition, the Applicant has committed to make an infrastructure payment to offset the potential costs of additional county services required during construction. Infrastructure payments would be based on the linear length of the HVDC transmission line constructed in a county. The infrastructure payment would be \$7,500 per mile. The Applicant anticipates these one-time payments would be made to counties concurrent with or soon after the commencement of construction activities in the county and expects to make these payments pursuant to an agreement with the county that would specify these payments. The Applicant recognizes the impact heavy traffic can have on county and local roads and would minimize the impact of construction vehicles to existing road networks. The Applicant and its construction contractor would work with the state highway authority and county judges and

engineers to plan road use during construction. The Applicant has committed to work with each county prior to construction to ensure repair or payment for repair of damage to county or local roads and would coordinate with the county in the event road upgrades are needed and would pay for such upgrades and improvements.

- Commenter states that most of the roads and bridges that will be used for the construction and maintenance of this project are not structurally sufficient to accommodate the heavy equipment. Commenter is concerned about identifying the responsible party for the cost of road damage repairs during the construction phase?

Response:

Oversize and overweight permits would be required from applicable regulatory agencies as outlined in Table 3.16-1 of the Final EIS. As stated in Section 3.16.6.1.2 of the Final EIS, the Applicant would implement EPMs to avoid or minimize potential impacts resulting from construction, operations and maintenance, and decommissioning of the Project. Prior to construction, the Applicant would develop and implement a Transportation and Traffic Management Plan that would detail the requirements, permits, plans, and mitigation procedures that would be implemented to avoid or minimize potential impacts on transportation infrastructure and traffic conditions. As stated in Section 3.16.6.1.1.5 of the Final EIS, roadway pavement or other infrastructure might be damaged by heavy vehicles delivering equipment and materials to the site. Specifications and haul routes for oversize/overweight vehicles and equipment would be developed for a Transportation and Traffic Management Plan. Other impacts to roadway infrastructure could include damage from temporary access points. Such damage would be repaired and restored, so the impacts would be temporary. These impacts would be generally common to all alternatives and were therefore not specifically evaluated in terms of the Applicant Proposed Route or HVDC alternative routes.

In addition, the Applicant has committed to make an infrastructure payment to offset the potential costs of additional county services required during construction. Infrastructure payments would be based on the linear length of the HVDC transmission line constructed in the county. The infrastructure payment would be \$7,500 per mile. The Applicant anticipates these one-time payments would be made to counties concurrent with or soon after the commencement of construction activities in the county and expects to make these payments pursuant to an agreement with the county that would specify these payments. The Applicant recognizes the impact heavy traffic can have on county and local roads and would minimize the impact of construction vehicles to existing road networks. The Applicant and its construction contractor would work with the state highway authority and county judges and engineers to plan road use during construction. The Applicant has committed to work with each county prior to construction to ensure repair or payment for repair of damage to county or local roads and would coordinate with the county in the event road upgrades are needed and would pay for such upgrades and improvements.

- Commenter states that loss of service is identified in 8 to 37 roadway segments per region, with the most impact predicted in Region 4, where loss of service to level D or F is predicted. Level D is defined as approaching unstable flow: "Freedom to maneuver within the traffic

stream is much more limited and driver comfort levels decrease" and Level F is defined as forced or breakdown flow: "Travel time cannot be predicted and drivers' level of comfort is poor." It seems logical to predict that such travel disruption will quickly dissipate community goodwill toward this project.

Response:

Although tables in Section 3.16 of the Final EIS indicate columns where a decrease in the level of service to LOS-D or LOS-F might occur, a level of service decrease to LOS-F was not actually indicated for any of the Project components by the traffic model. As discussed in Section 3.16.6.2.3.1.4 of the Final EIS, the Applicant Proposed Route would result in a decrease from LOS-C to LOS-D for several segments in Region 4, one segment in Region 5, and numerous segments in Region 7. As discussed in Section 3.16.6.3.2.1.4, during construction of the HVDC transmission line, trips added within the ROI could result in a decrease to LOS-D from LOS-C for some segments. Although an LOS-D would result in a measurable decrease in roadway operations, the decrease would be temporary, and because the decrease is only one LOS, a significant incremental impact is not expected in relation to existing conditions and would therefore be minimally noticeable by motorists.

- Commenter states that all access roads should be within the ROW and should never go outside the 1,000-foot-wide analysis corridor. Specifically in Region 5 APR Link 1. The road is partly county maintained and partly landowner maintained, no portion of the road is within the 1,000-foot-wide analysis area so the impacts have not been addressed, therefore no portion of this road should be used for access to the ROW.

Response:

As discussed in Section 2.1.2.4 and documented in Tables 2.1-8 and 2.1-9 of the Final EIS, new access road construction for construction and/or operations and maintenance of the Project may be required outside the transmission line ROW in some cases. Access to the Project during construction and operations and maintenance phases via existing roadways—both public and privately owned—would be required during limited time periods. The construction phase of the Project would be the most intensive time where multiple points of access are required; and the operations phase of the Project would require continued, but much less intensive, use for monitoring and maintenance. Access roads on private land were not assumed to be entirely within the 1,000-foot-wide analysis corridor, because this would not be entirely feasible in some cases. The use of private roads and/or necessity of new access roads on private lands during all phases of the Project would be negotiated with individual landowners. As stated in Section 3.16.6.1.2 of the Final EIS, the Applicant would implement EPMs to avoid or minimize potential impacts resulting from the construction, operations and maintenance, and decommissioning phases of the Project. EPMs applicable to access roads on private lands include GE-8, LU-1, LU-4, GE-6, and GE-7. Most specifically, EPM GE-6 states that the Applicant will restrict vehicular travel to the ROW and other established areas within construction, access, or maintenance easements. As stated in Section 3.16.6.1.1.5 of the Final EIS, roadway pavement or other infrastructure might be damaged by heavy vehicles delivering equipment and materials to the site. Other impacts to roadway infrastructure could include damage from temporary access points. Such damage would be repaired and restored, so the impacts would be temporary. These impacts would be

generally common to all alternatives and were therefore not specifically evaluated in terms of the Applicant Proposed Route or HVDC alternative routes.

28 Vegetation Communities and Special Status Plant Species

The following comments were received relative to Vegetation Communities and Special Status Plant Species:

- Commenter notes that all vegetation control should be done by hand near the Lee Creek Reservoir, and no chemicals should be used in the area of the reservoir to prevent contamination of the drinking water reservoir. The use of ground vehicles and/or all-terrain vehicles should be kept to a minimum to prevent erosion.

Response:

A Vegetation Management Program (Vegetation Program) and a TVMP will be developed and implemented according to NERC Standard FAC-003 to comply with federal, state, and local regulations and standards for reliability and ROW vegetation clearing and maintenance. The TVMP would comply with current regulations for Lee Creek Reservoir to prevent contamination of the drinking water reservoir. The TVMP may require additional analysis under NEPA depending on whether and under what conditions DOE decides to participate in the Project. As described in the Project Description (Appendix F), the Vegetation Program and TVMP will utilize principles of Integrated Vegetation Management (IVM) following the guidelines presented in the American National Standards for Tree Care Operations—Tree, Shrub and Other Woody Plant Management—Standard Practices (Integrated Vegetation Management and Utility Rights-of-Way) (ANSI A300, PART 7), Best Management Practices (Second Edition; 2014), and subsequent versions or similar future guidance documents as appropriate. Based on ANSI A300 Part 7, the Applicant will implement the IVM in these key steps:

- *Gain a science-based understanding of incompatible vegetation and ecosystem dynamics within and near the ROW*
- *Set specific, measurable management objectives and tolerance thresholds based on site-specific conditions, regulatory requirements, stakeholder input, and other factors*
- *Select treatments from a variety of options and applying them responsibly to promote sustainable, desirable plant communities*
- *Monitor treatments to determine their efficacy in creating desired plant communities and achieving management objectives over time.*

IVM allows for an array of different treatment options to achieve desired management objectives and, while emphasizing biological controls, also encourages other treatment types, such as manual, mechanical, cultural and chemical. As with all potential control options consistent with IVM, the Applicant will evaluate herbicidal treatment options in consideration of site-specific ecological conditions, surrounding and underlying land uses, and any environmental sensitivities before selecting and applying a control.

During development of the TVMP, Clean Line has committed to DOE that it will solicit input from landowners or tenants (or other land managers as appropriate) as a key step when evaluating and selecting site-specific control methods for the TVMP. To accomplish this, Clean Line will utilize information obtained from landowners, tenants, and/or managers about specific land uses within their parcels to select control methods that best achieve the

ROW management objectives at a specific site and address landowners' concerns. For example, if a certified organic farm prohibits the use of synthetic chemicals to maintain their certification, Clean Line would work with those landowners to identify vegetative control or treatment options on their property that would not affect their certified status. Clean Line has also committed to DOE that they will work with landowners to clarify expectations for management objectives and to communicate the need for, benefits of, and scientific principles of IVM.

The Vegetation Program's goals, broad management objectives, and periodic progress reports are intended to be available and accessible to the general public or interested stakeholders upon request and/or through a Project or corporate website. Opportunities for accessing these resources may include public or community education materials focused on IVM's objectives and its benefits. Consistent with common utility practice, the TVMP is a detailed plan and living document that will contain site-specific treatment measures that will be coordinated with a landowner. The TVMP may contain sensitive information that could be considered Critical Energy Infrastructure Information (as defined by FERC Order 630) and or personally identifiable information for landowners (such as name, address, or property maps), and therefore general circulation may be limited in whole or in part.

- Commenter notes their Division of Natural Areas (Tennessee DNA) has reviewed the Draft EIS. The greatest potential for impacts to listed plants is along the portion of the proposed routes from the Loess Bluffs to the Mississippi River flood plain. Several *Schisandra glabra* (red starvine) records are north of the route along the Loess Bluffs. Based on the location and description of the Project, DNA does not anticipate adverse impacts upon the species above, provided that Best Management Practices are in place during the Project.

Response:

Comment noted. The ROD, and the documents incorporated by reference into the ROD, would stipulate the EPMs, BMPs, and any site-specific mitigation measures that are required of the Applicant.

- Commenter notes Project is another habitat dividing corridor crossing Oklahoma, continually diminishing the quality native habitat that we have left.

Response:

Habitat fragmentation can be an adverse impact that results from linear projects of this type. Efforts were made to evaluate fragmentation in the various habitats crossed by the proposed and alternative Project routes and to determine how best to avoid or minimize any potential impacts. Mapping and quantifying vegetation resources aids in this evaluation with the goal of choosing routes that limit the extent of fragmentation and, in some cases, avoiding fragmentation in more critical habitats. Section 3.17.6.1.2.1.1.2 of the Final EIS discusses habitat fragmentation. The Applicant will minimize clearing of vegetation as practicable as prescribed under EPM GE-3.

The construction of ROW corridors through forested tracts would create new long edge habitats that are susceptible to invasion by noxious weeds and other non-native vegetation

species. As previously stated, the Applicant would minimize clearing of vegetation (EPM GE-3). If overstory vegetation within the ROW were cleared, it would not be allowed to reestablish following construction due to the need to maintain the ROW for operational safety and system reliability.

- Commenter notes that their client is particularly concerned in the use of herbicides, pesticides, fungicides, or other chemicals on the transmission right-of-way. The use of any of those chemicals on the ranch would completely erase twenty years of hard work. These chemicals can drift onto the client's property from aerial application on nearby properties. Currently, no roads exist in the area contemplated for the transmission line. As such, Clean Line will have to construct roads over the ranch. Building roads has been shown to disturb native grasses—native grasses the client has spent years establishing. Moreover, it takes time and dedication to reestablish native grasses once disturbed. The proposed transmission line would render that portion of the ranch useless for an unreasonably prolonged period. If the proposed route is selected, the client requests the Department of Energy restrict the use of chemicals, including, but not limited to herbicides, fungicides, and pesticides, upstream in the watershed in which her property is located. The client requests Clean Line be prohibited from applying chemicals on and upwind of her property.

Response:

Pursuant to NERC Reliability Standard FAC-003, Clean Line would be required to create and implement a TVMP. The TVMP may require additional analysis under NEPA depending on whether and under what conditions DOE decides to participate in the Project. As described in the Project Description (Appendix F, Section 4.4), the Vegetation Program and TVMP will utilize principles of IVM following the guidelines presented in the American National Standards for Tree Care Operations—Tree, Shrub and Other Woody Plant Management—Standard Practices (Integrated Vegetation Management and Utility Rights-of-Way) (ANSI A300, PART 7), Best Management Practices (Second Edition; 2014), and subsequent versions or similar future guidance documents, as appropriate. As defined in ANSI A300 Part 7, key steps of the IVM include:

- *Gain a science-based understanding of incompatible vegetation and ecosystem dynamics within and near the ROW*
- *Set specific, measurable management objectives and tolerance thresholds based on site-specific conditions, regulatory requirements, stakeholder input, and other factors*
- *Select treatments from a variety of options and applying them responsibly to promote sustainable, desirable plant communities*
- *Monitor treatments to determine their efficacy in creating desired plant communities and achieving management objectives over time*

IVM allows for an array of different treatment options to achieve desired management objectives and, while emphasizing biological controls, also encourages other treatment types, such as manual, mechanical, cultural and chemical. As with all potential control options consistent with IVM, the Applicant will evaluate herbicidal treatment options in consideration of site-specific ecological conditions, surrounding and underlying land uses, and any environmental sensitivities before selecting and applying a control.

During development of the TVMP, Clean Line has committed to DOE that it will solicit input from landowners or tenants (or other land managers as appropriate) as a key step when evaluating and selecting site-specific control methods for the TVMP. To accomplish this, Clean Line will utilize information obtained from landowners, tenants, and/or managers about specific land uses within their parcels to select control methods that best achieve the ROW management objectives at a specific site and address landowners' concerns. For example, if a certified organic farm prohibits the use of synthetic chemicals to maintain their certification, Clean Line would work with those landowners to identify vegetative control or treatment options on their properties that would not affect their certified status. Clean Line has also committed to DOE that they will work with landowners to clarify expectations for management objectives and to communicate the need for, benefits of, and scientific principles of IVM.

- Commenter notes that efforts should be made to avoid bisecting areas of mature forest. Such fragmentation can have detrimental effects on forest interior bird species, and introduce exotic, invasive species into an area. Commenter also notes that disturbance and removal of riparian vegetation should be limited to the extent practical. The use of herbicides for transmission line maintenance should be avoided, except where needed to control exotic species. Commenter also states that native species or non-persistent annual species should be used to revegetate work areas when needed. Use of aggressive, exotic species should be avoided.

Response:

Pursuant to NERC Reliability Standard FAC-003, Clean Line would be required to create and implement a TVMP. The TVMP may require additional analysis under NEPA depending on whether and under what conditions DOE decides to participate in the Project. Field work prior to construction can be used to identify the areas of the chosen alternative that contain old growth forest. It is assumed that micro-siting of the line may aid in limiting the disturbance to old growth forest. The TVMP will specify native seed mixes for revegetation. Exotic and aggressive revegetation species will be avoided. It is also important to note that EPM FVW-1 seeks to identify environmentally sensitive vegetation and avoid and/or minimize impacts to these areas. EPM FVW-3 requires the clear demarcation of boundaries of environmentally sensitive areas during construction to increase visibility to construction crews. Finally, EPM GE-5 states that any herbicides used during construction and operations and maintenance will be applied according to label instructions and any federal, state, and local regulations. The application of these EPMs would lead to a greater likelihood of avoidance and/or minimization of the use of herbicides.

- The U.S. Fish and Wildlife Service (FWS) understands that while there will be permanent habitat conversion (e.g. upland forest converted to managed ROW) in the ROW, there may be vegetation management strategies that could benefit certain species of ground nesting birds (i.e., northern bobwhite quail). Therefore, the FWS would like the opportunity to review and comment on Clean Line's Transmission Vegetation Management Plan (TVMP). Commenter requests Vegetation Management Plan in order to make comments on it. Document needs to include the type of pesticides to be used and the application. This

document needs to be in place to complete an environmental analysis. The public needs to also be able to comment on the document.

Response:

The TVMP would be made available to the USFWS for comment prior to its finalization. It would specifically discuss types of herbicides, pesticides, fungicides, and other chemicals that may be considered for use and would discuss appropriate conditions for that use.

- Commenter notes concern about the habitat that will be destroyed if Clean Line is permitted across Arkansas. There has been no assurance that chemicals will not be used to control unwanted plants and trees from growing in the power line easement.

Response:

Pursuant to NERC Reliability Standard FAC-003, Clean Line would be required to create and implement a TVMP. The TVMP may require additional analysis under NEPA depending on whether and under what conditions DOE decides to participate in the Project. As described in the Project Description (Appendix F), the Vegetation Program and TVMP would utilize principles of IVM following the guidelines presented in the American National Standards for Tree Care Operations—Tree, Shrub and Other Woody Plant Management—Standard Practices (Integrated Vegetation Management and Utility Rights-of-Way) (ANSI A300, PART 7), Best Management Practices (Second Edition; 2014), and subsequent versions or similar future guidance documents, as appropriate. As defined in ANSI A300 Part 7, key steps of the IVM include:

- *Gain a science-based understanding of incompatible vegetation and ecosystem dynamics within and near the ROW*
- *Set specific, measurable management objectives and tolerance thresholds based on site-specific conditions, regulatory requirements, stakeholder input, and other factors*
- *Select treatments from a variety of options and applying them responsibly to promote sustainable, desirable plant communities*
- *Monitor treatments to determine their efficacy in creating desired plant communities and achieving management objectives over time*

IVM allows for an array of different treatment options to achieve desired management objectives and, while emphasizing biological controls, also encourages other treatment types, such as manual, mechanical, cultural and chemical. As with all potential control options consistent with IVM, the Applicant would evaluate herbicidal treatment options in consideration of site-specific ecological conditions, surrounding and underlying land uses, and any environmental sensitivities before selecting and applying a control.

During development of the TVMP, Clean Line has committed to DOE that it will solicit input from landowners or tenants (or other land managers as appropriate) as a key step when evaluating and selecting site-specific control methods for the TVMP. To accomplish this, Clean Line will utilize information obtained from landowners, tenants, and/or managers about specific land uses within their parcels to select control methods that best achieve the ROW management objectives at a specific site and address landowners' concerns. For

example, if a certified organic farm prohibits the use of synthetic chemicals to maintain their certification, Clean Line would work with those landowners to identify vegetative control or treatment options on their property that would not affect their certified status. Clean Line has also committed to DOE that they will work with landowners to clarify expectations for management objectives and to communicate the need for, benefits of, and scientific principles of IVM.

- Commenter notes that many parts of the line's route through Oklahoma travel through heavily forested areas. The transmission towers and cables, along with the requirements of their construction, could lead to the destruction of significant numbers of trees in these forests. Commenter notes that these are not an easily replaced heritage in the state. The route should avoid all such old growth forests in Oklahoma.

Response:

The vegetation resources assessment (Section 3.19) has considered the presence and significance of forests. Mature and old growth forests are important ecologically and are not readily replaced through a revegetation process. Field work prior to construction can be used to identify the areas of the selected alternative that contain mature and old growth forest. It is assumed that micrositing of the line may aid in limiting the disturbance to mature and old growth forest. The TVMP would specify native seed mixes for revegetation. It is also important to note that such a commitment would include the Applicant working with SPP EPM FVW-1 seeks to identify environmentally sensitive vegetation and avoid and/or minimize impacts to these areas. EPM FVW-3 requires the clear demarcation of boundaries of environmentally sensitive areas during construction to increase visibility to construction crews.

- Commenter notes concern that trees on property have been manicured and taken care of for years are just going to be bulldozed over. Commenter's property has big cottonwoods. Commenter would like to protect these trees. Commenter notes this transmission line will destroy several acres of mature forest on property.

Response:

The vegetation resources assessment (Section 3.19) has considered the presence and significance of mature trees. Field work prior to construction can be used to identify the areas of the chosen alternative that contain mature forest. It is assumed that micrositing of the line may aid in limiting the disturbance to mature forest. EPMs as described in Appendix F may also aid in protecting this resource. EPM LU-5 pertains to making reasonable efforts, consistent with design criteria, to accommodate requests from individual landowners to adjust the siting of the ROW on their properties. EPM FVW-1 seeks to identify environmentally sensitive vegetation and avoid and/or minimize impacts to these areas. EPM FVW-3 requires the clear demarcation of boundaries of environmentally sensitive areas during construction to increase visibility to construction crews.

- Commenter notes concern that endangered plants such as the ginseng species that grow wild on the slopes of the bluffs along the Illinois Bayou will be lost forever.

Response:

*The vegetation resources assessment (Section 3.17) has considered the presence and significance of federal and state listed plant species in the vicinity of the Project's Applicant Proposed Route and HVDC alternative routes. These species are included in tables available in the Final EIS. American ginseng (*Panax quinquefolius*) is not listed as federally threatened or endangered under the ESA, nor is it a state-listed threatened or endangered species in Oklahoma, Arkansas, Texas, or Tennessee. American ginseng has not been evaluated in this EIS as a special status plant species. However, this species does have commercial value, and as such, several states do require licensing and regulation for persons engaged in harvesting the plant. Additionally, the USFWS regulates the export of American ginseng under the Convention on International Trade in Endangered Species of Wild Fauna and Flora.*

- Commenter calculates that impacts to vegetation communities is underestimated. Disagrees that none of the routes have forested land cover. Where region 5 APR Link 1 crosses his property is all forested and managed for saw timber.

Response:

Land cover can be variable on a site-specific basis. Data used in the vegetation analysis were collected at the regional level as opposed to the site-specific level. Forested land cover was estimated using GIS for the Applicant Proposed Route and HVDC alternative routes. In terms of desktop analysis, these data are considered reliable. However, no ground surveys have been undertaken and no data in the EIS can approximate a private landowner's knowledge of resources on their own land. The EIS has documented that all seven regions of the Applicant Proposed Route and the HVDC alternative routes have some degree of forested land cover, with that cover being more pronounced in eastern Oklahoma, through Arkansas, and into western Tennessee. Section 3.17.5.5.1 of the EIS does mention that forested land cover is common in Region 5 of the Project. Both the Applicant Proposed Route (Section 3.17.6.2.3) and the HVDC alternative routes (3.17.6.3.2) would have varying degrees of impact to forested land cover types.

- Commenter would like to know what herbicides Clean Line intends to use under the lattice towers and near wetlands. Commenter would like to know if the herbicides are not toxic, what mitigation Clean Line has for keeping these out of the groundwater, streams, and rivers.

Response:

The TVMP would specifically discuss types of herbicides, pesticides, fungicides, and other chemicals that may be considered for use and will discuss appropriate conditions for that use. The TVMP will specifically discuss appropriate use of treatments near water resources. The TVMP may require additional analysis under NEPA depending on whether and under what conditions DOE decides to participate in the Project.

The Project will apply IVM principles that allow for an array of different treatment options to achieve desired management objectives and, while emphasizing biological controls, also encourages other treatment types, such as manual, mechanical, cultural and chemical. As with all potential control options consistent with IVM, the Applicant will evaluate herbicidal

treatment options in consideration of site-specific ecological conditions, surrounding and underlying land uses, and any environmental sensitivities before selecting and applying a control. During development of the TVMP, Clean Line has committed to DOE that it will solicit input from landowners or tenants (or other land managers as appropriate) as a key step when evaluating and selecting site-specific control methods for the TVMP. To accomplish this, Clean Line will utilize information obtained from landowners, tenants, and/or managers about specific land uses within their parcels to select control methods that best achieve the ROW management objectives at a specific site and address landowners' concerns. For example, if a certified organic farm prohibits the use of synthetic chemicals to maintain their certification, Clean Line would work with those landowners to identify vegetative control or treatment options on their property that would not affect their certified status. Clean Line has also committed to DOE that they will work with landowners to clarify expectations for management objectives and to communicate the need for, benefits of, and scientific principles of IVM.

- Commenter notes another objection to the Clean Line project is the environmental impact to the grassland and wildlife on the land with the possibility that trees may have to be removed in the pasture areas. We greatly value our trees as they increase the beauty of the land and are important to the wildlife. The cattle rest in their shade, the woodpeckers nest in them, the owls set in them to watch for prey. Removal of trees and disruption of the pasture grasses will cause erosion and may adversely affect the very fragile quail population that is returning.

Response:

The TVMP will discuss vegetation removal, vegetation management, and revegetation for the Project. EPMs, as described in Appendix F, may aid in protecting vegetation resources. EPM LU-5 pertains to making reasonable efforts, consistent with design criteria, to accommodate requests from individual landowners to adjust the siting of the ROW on their properties. EPM FVW-1 seeks to identify environmentally sensitive vegetation and avoid and/or minimize impacts to these areas. EPM FVW-3 requires the clear demarcation of boundaries of environmentally sensitive areas during construction to increase visibility to construction crews.

- Commenter asks, if the transmission line will be 200 feet above ground, why do all the trees within 100 feet on each side, and directly under the line have to be cleared? The trees will only grow to 40-60 feet.

Response:

Within or adjacent to the ROW, the Applicant may selectively remove vegetation for access during construction and to provide adequate electrical safety clearance. Present vegetation reliability rules issued by NERC require the removal of all tall-growing species that could grow into the conductors (wire zone) and adjacent tall-growing species that could fall into the conductors (see Figures 2-7 and 2-19 of the Project Description, Appendix F). The Applicant will also remove vegetation outside the wire zone, including beyond the limits of the ROW, which could fall into the conductors, as described in the TVMP developed for the Project. The TVMP may require additional analysis under NEPA depending on whether and under what conditions DOE decides to participate in the Project. Section 4.4 of the Project

Description (Appendix F of the Final EIS) describes use of the TVMP for maintenance. The TVMP will discuss vegetation removal, vegetation management, and revegetation for this Project. Details on width of clearing operations, allowable height of vegetation for safety and line reliability, and other issues pertaining to construction and maintenance will be specified.

- Commenter notes nine state or federally designated threatened/endangered plants potentially occur in Region 4 (Table 3.17-4), 13 in Region 5 (Table 3.17-6), two in Region 6, and two in Region 7. All plants within the right-of-way, not just those under special consideration, can be assumed to be affected or destroyed, through clearing, compaction by machinery, loss of acceptable growing conditions, encroachment by weeds due to habitat changes, chemical use/spills, and/or herbicide use. The DOE states that the Corporation will identify special status plants and try to minimize harm to them "to the extent possible" but if such plants are located within the area in which it is excavating, blasting, clearing, and defoliating it is unclear how impact would be minimized. There apparently exists, or will exist, a revegetation plan. It is unclear whether the special status plants will be amenable to replanting. The DOE states on page 3.17-39 that the 2,600 acres of vegetation that will be destroyed will potentially recover after the project is decommissioned, and the DOE predicts "...no irreversible or irretrievable commitment of vegetation resources." It seems optimistic for the DOE to predict that the area in question will revert to pre-disturbance conditions decades from now, when it will be subjected to disturbances that could be described as destruction during the building phase, and will be driven upon, walked upon, and defoliated during maintenance operations.

Response:

The vegetation resources assessment (Section 3.17) has considered and evaluated federal and state-listed plant species in the vicinity of the Project's Applicant Proposed Route and HVDC alternative routes. These species are included in tables available in the EIS document. No species-specific plant surveys have been conducted during the EIS, so the presence of and population sizes for special status plant species have not been precisely established. Species-specific surveys would be conducted prior to construction and maintenance operations as required in consultation with USFWS and state regulatory authorities. The TVMP and the EPMs would help to ensure that no irreversible or irretrievable commitment of vegetation resources would occur. The TVMP will provide for revegetation and vegetation monitoring, and the EPMs will protect areas of sensitive vegetation (FVW-3 and FVW-5) and vegetated areas landowners may wish to protect (LU-5). The TVMP may require additional analysis under NEPA depending on whether and under what conditions DOE decides to participate in the Project.

- Commenter is concerned about the loss of hardwoods along the route.

Response:

The vegetation resources assessment (Section 3.17) has considered the presence and significance of trees. It is assumed that micrositing of the line may aid in limiting the disturbance to mature trees and trees of significance to individual property owners. The TVMP will discuss vegetation removal, vegetation management, and revegetation for this

Project. The TVMP may require additional analysis under NEPA depending on whether and under what conditions DOE decides to participate in the Project.

29 Visual Resources

The following comments were received relative to Visual Resources:

- Several commenters urge the project proponent to use tubular pole structures when feasible, due to their reduced impact on aesthetic values, habitat disruption, and avian mortality.

Response:

Structures types would be selected based on aesthetic values, habitat disruption, and avian mortality as well as other factors: land use, engineering efficiency, and existing facilities. In addition, structure heights, span lengths, and vertical clearance would be determined in accordance with the NESC, the Applicant's design criteria, and applicable standards and laws as noted in Section 2.1.2.2.2 and Section 2.1.2.3.2 of the Final EIS. Visual simulations are included in Appendix K and demonstrate how the Project would look in the landscape from selected KOPs. Two simulations per KOP were developed, one showing lattice structures and the other showing monopole structures.

- Commenter notes, the proposed project would destroy the aesthetic value of the new city park in Mulberry, Arkansas.

Response:

Applicant Proposed Route Link 6 in Region 4 is located west of the city park in Mulberry, Arkansas. According to the contrast rating worksheet for the Mulberry Park KOP, Link 6 would be located approximately 0.3 mile west of the park boundary, and the overall visual contrast (as defined in Section 3.18.6.1.4 of the Final EIS) would be strong given the close proximity of Link 6 to the park, the introduction of vertical structures, and the lack of screening provided by existing vegetation. EPMs applicable to minimizing impacts on visual resources are described in Section 3.18.6.1.1 of the Final EIS, specifically GE-3 and LU-5, which address minimizing vegetation cleared within the Project ROW and working with individual landowners to accommodate requests to adjust the siting of the ROW on their properties, respectively. The Applicant will work with the city to provide visual screening along the park boundary to reduce visual impacts to park users. Visual impacts associated with Applicant Proposed Route Link 6, including impacts associated with the Mulberry Park KOP, are discussed in Section 3.18.6.2.3.2.7.5 of the Final EIS and the contrast rating worksheet for the Mulberry Park KOP is included in Appendix K of the Final EIS.

- Commenter notes that a drive on north Highway 23 North/Franklin County, known as “pigtrail” is a designated scenic byway that will have huge towers and lines crossing the highway.

Response:

Structure heights, span lengths, and vertical clearance would be determined in accordance with the NESC, the Applicant's design criteria, and applicable standards and laws as noted in Section 2.1.2.2.2 and Section 2.1.2.3.2 of the Final EIS. A representative sample of Project crossings of scenic highways and byways was used for the visual assessment. Although the Applicant Proposed Route Link 7 in Region 4, which crosses Highway 23 (designated as a scenic highway at this location), and HVDC Alternative Route 4-B, which crosses Highway

23 (designated as a scenic byway at this location), were not identified as KOPs, other KOPs were selected that represent views from scenic byways within the Project vicinity. These include the Interstate-40 Scenic Highway Rest Stop KOP, located approximately 1.5 miles southeast of the Highway 23/Applicant Proposed Route Link 7 crossing, and the Trail of Tears (Highway 352) KOP, located approximately 3.3 miles southeast of the Highway 23/HVDC Alternative Route 4-B crossing. Visual impacts associated with the Interstate-40 Scenic Highway Rest Stop KOP and the Trail of Tears (Highway 352) KOP, are included in Section 3.18.6.2.3.2.7.6 and Section 3.18.6.3.2.2.4.5, of the Final EIS, respectively. In addition, the contrast rating forms for each of these KOPs are included in Appendix K of the Final EIS.

- Commenter notes concern that the line will damage the natural beauty of a rural setting notes concern about unsightly towers, and the destruction of the beauty of the community and country. Commenter notes concern that the timber will be cut down and take away the unbelievable view. Commenter has concerns about the loss to aesthetic vistas in the area. Commenter is concerned about the adverse visual impact to their property. Landowners in the Association received letters in December of 2014 that the proposed transmission line would pass through the entire length of Paradise River Resort (Region 5 Applicant Proposed Route link 7). This would cause significant damage to the scenic views.

Response:

Visual impacts are anticipated as a result of the construction and operation and maintenance of the Project. Visual impacts will vary depending factors such as location, topography, vegetation, other existing features in the landscape, and distance a viewer is from the Project. In regard to the portion of the Project that would pass near the Paradise River Resort, Applicant Proposed Route Link 7 in Region 5, the majority of Link 7 would parallel an existing 500kV transmission line, including the portion of the existing line near the resort. The HVDC transmission line would be similar in size and scale to the existing transmission line. The existing landscape has been previously modified by the removal of vegetation for the construction and maintenance of the existing 500kV transmission line. These previous modifications have created long narrow strips and introduced vertical structures within the existing landscape. The Project would appear as a co-dominant feature in the landscape because it would be seen in the context of a similar existing high-voltage transmission line and would create similar modifications to the landscape setting. A general description of visual impacts for Region 5 are discussed in Section 3.18.6.2.3.2.9 and visual impacts by KOP specific to Applicant Proposed Route Link 7 are discussed in Section 3.18.6.2.3.2.9.7 of the Final EIS.

- Commenter states that the towers to be used are 2-4 times taller than typical towers and will have 4-16 times the visual impact on property values. The view will be permanently marred and irreplaceable scenic land will be damaged, along with property values with views of the towers. Commenter states that construction of the project will negatively, and permanently, impact the mile-long ridge and bluff situated SW of Lake Ludwig. Structures will impact the view, including of the lake and two mountain ranges beyond it. The homes that have been purchased for the view will experience a reduction in value.

Response:

The EIS analysis specifically evaluates potential impacts to scenic/visual resources and property values, and design measures would be undertaken to minimize impacts to important scenic/visual resources and related property values. Structure heights, span lengths, and vertical clearance would be determined in accordance with the NESC, the Applicant's design criteria, and applicable standards and laws as discussed in Chapter 2 of the Final EIS. Many factors were considered in the visual impact analysis, not solely the height of the towers. By using the basic design elements of form, line, color, and texture to describe and evaluate landscapes and Project components, objectivity and consistency in assessing scenic values can be increased. Accordingly, the methodology used to assess visual impacts for the Project was developed using concepts from the U.S. Bureau of Land Management (BLM) Visual Resource Management (VRM) system. The BLM VRM system outlines a systematic process for analyzing potential visual impacts of a project based on the visual contrast created between the existing landscape and the same landscape after a proposed project has been implemented. The methodology used to assess visual impacts are discussed in Sections 3.18.6.1 of the Final EIS.

In regards to the portion of the Project that crosses the bluff southwest of Lake Ludwig (Applicant Proposed Route Link 9 in Region 4), EPMs applicable to minimizing impacts on visual resources are included in Section 3.18.6.1.1 of the Final EIS, specifically GE-3 and LU-5, which address minimizing vegetation cleared within the Project ROW and working with individual landowners to accommodate requests to adjust the siting of the ROW on their properties, respectively.

In the Final EIS, impacts to property values are discussed in Section 3.13.6.2.5 and impacts to land uses are discussed in Section 3.10.6.

- Commenter notes, we have a beautiful state and there is a considerable population in the area of Van Buren and north. This is a beautiful part of Arkansas - the area north of Van Buren including Natural Dam and also Highway 540 north of Alma, as is the whole northern half of the state. We object to having the landscape marred by the tall, looming power lines that we will have to look at every day.

Response:

Visual impacts are anticipated as a result of the construction and operations and maintenance of the Project and will vary depending factors such as location, topography, vegetation, and distance a viewer is from the Project. Visual impacts were evaluated for the Applicant Proposed Route and each of the HVDC alternative routes and are discussed in Section 3.18.6 of the Final EIS. Specifically, Applicant Proposed Route Link 6 and HVDC Alternative Routes 4-A, 4-B, 4-C, and 4-D in Region 4 are proposed in the areas surrounding Van Buren and Alma. A general description of visual impacts for the Applicant Proposed Route in Region 4 are discussed in Section 3.18.6.2.3.2.7 and visual impacts by KOP specific to Applicant Proposed Route Link 6 are discussed in Section 3.18.6.2.3.2.7.5 of the Final EIS. A general description of visual impacts for HVDC alternative routes in Region 4 are discussed in Section 3.18.6.3.2.2.4 and visual impacts by KOP specific to HVDC Alternatives Routes 4-A, 4-B, 4-C, and 4-D are discussed in Sections 3.18.6.3.2.2.4.4–3.18.6.3.2.2.4.8 of

the Final EIS. EPMs applicable to minimizing impacts on visual resources are included in Section 3.18.6.1.1 of the Final EIS, specifically GE-3 and LU-5, which address minimizing vegetation cleared within the Project ROW and working with individual landowners to accommodate requests to adjust the siting of the ROW on their properties, respectively.

Highway 540 and U.S. Highway 71 (also known as the Boston Mountains Scenic Loop) was selected as a KOP. According to the contrast rating worksheet created for this KOP (referred to as Route 71 Scenic Byway), overall visual contrast would be strong and impacts high where the Project crosses the highway. The contrast rating worksheet for the Route 71 Scenic Byway KOP is included in Appendix K of the Final EIS. Natural Dam, to which the commenter refers, is located approximately 2.5 miles north of HVDC Alternative Route 4-B. Although Natural Dam was not selected as a viewing location, visual impacts are not anticipated given the distance of Natural Dam from the Project and the potential screening provided by the existing rolling terrain and dense forest areas surrounding Natural Dam.

- Commenter notes the loss of the views will lead to loss in tourism and property value.

Response:

Visual impacts to recreation areas are included in the visual resources assessment in Section 3.18 of the Final EIS. Several recreation areas were selected as KOPs that represent critical or representative viewpoints used to assess impacts. The visual impacts vary depending on factors such as location, topography, vegetation, other existing features in the landscape, and distance a viewer is from the Project. The visual resource assessment only addresses the level of impact on viewers that may visit a recreation area. Determining whether a viewer would or would not return to a recreation area based on construction and operations/maintenance of the Project would be speculative, and was therefore not included in the visual assessment. Impacts on recreation are discussed in Section 3.12.6 of the Final EIS. Impacts to property values are discussed in Section 3.13.6.2.5 of the Final EIS.

- Commenter notes the affected landowners will be able to see the towers from their property. Commenter notes the most valuable aspect of each property is the view, and that is largely why many people choose to live in a rural environment.

Response:

Visual impacts are anticipated as a result of the construction and operations and maintenance of the Project. Visual impacts will vary depending on factors such as location, topography, vegetation, other existing features in the landscape, and distance a viewer is from the Project. EPMs applicable to minimizing impacts on visual resources are included in Section 3.18.6.1.1 of the Final EIS, specifically GE-3 and LU-5, which address minimizing vegetation cleared within the Project ROW and working with individual landowners to accommodate requests to adjust the siting of the ROW on their properties, respectively.

- Commenter suggests that DOE review and expand the methodology discussion in Section 3.18.6.3.2.2.4.6 regarding the portion of HVDC Alternative Route 4-B that crosses the Ozark-St. Francis National Forest. The text covers the scenery classifications (from Scenic Class 1 (Extremely High) Areas to Scenic Class 3 (High) Areas) and impacts from the

HVDC Route Alternative, but does not fully explain the relevance of these classifications to the analysis and impact conclusions. Similarly, the text discusses the Forest Service's Scenic Integrity Objectives (SIOs), but does not fully explain why or how they apply to the HVDC Alternative or the basis on which the DOE concluded that the HVDC Alternative would not comply with several of the applicable SIO standards. Second, we suggest that DOE expand upon the sections comparing the impacts from the Applicant Proposed Route and the various DOE HVDC Route Alternatives. The Draft EIS includes extensive discussion regarding how each link and segment of the APR and DOE HVDC Alternatives may impact the visual environment, yet limits the comparison of their relative impacts to identifying the relative lengths of each HVDC route and the number of residences within 0.5 mile of each HVDC route. This information assists readers to understand the degree of viewer sensitivity relative to each HVDC route, and the comparative length of the impacts, but does not take advantage of the significant discussion of potential KOP impacts that make up the majority of the impact analysis in this Section. Third, we suggest clarifying for readers that the impact conclusions in Section 3.18 do not necessarily match the impact conclusions included with the visual contrast rating forms in Appendix K. This is likely due to the somewhat different visual resource methodologies used by Clean Line in preparing the visual contrast rating forms and DOE in preparing the EIS. Fourth, we suggest clarifying that DOE's use of the term “visual sensitivity” includes the concept of “viewer concern” explained in Section 3.18.6.1.3. Although this is clear from the definition of visual sensitivity on p. 3.18-9, in 12-18, it is less clear throughout Section 3.18.6 where the impacts of the Project and DOE Alternatives are discussed in detail. Also, it would be helpful to more clearly state how viewer concern applied in determining the visual impact conclusion for each KOP. The input of viewer concern is apparent in many, but not all, of the KOP discussions. Finally, we suggest that DOE expand upon the discussion of visual impacts likely to result from the wind farms that will connect to and support the Project. Because the Oklahoma panhandle region already includes a number of wind farms, this could be as simple as including photographs of the existing facilities and explaining how additional wind farms would likely be similar to or vary from existing examples.

Response:

1. *The USFS provided DOE with SIOs and the land management plan for the Ozark-St. Francis National Forest. No KOPs were chosen on USFS lands because no viewpoints were identified through consultation with the USFS or identified during the data collection field effort. The USFS reviewed the SIO compliance and agreed that the level of effort met USFS standards. Further discussion regarding SIO compliance is included in Section 3.18.6.3.2.2.4.6 of the Final EIS.*
2. *Section 3.18.6 of the Final EIS has been updated to add text further explaining the alternative comparisons as suggested by the commenter.*
3. *Section 3.18.6.1.4 of the Final EIS has been updated to include text explaining the reason for differences in the impacts noted in the analysis provided by DOE versus the analysis provided by Clean Line in the Contrast Rating Sheets.*

4. *The viewer concern impact matrix (Table 3.18-5 in the Draft EIS) clearly displays how impacts were derived from KOPs. Text has been added to Chapter 3.18.6 of the Final EIS to clearly define what the viewer concern rating was for each KOP discussion.*
 5. *Section 3.18.6.8.1 of the Final EIS discusses general potential impacts associated with wind farms in the landscape setting. A detailed discussion of impacts cannot be included because neither the location of the wind turbines nor the type of turbines to be used are known at this time. It cannot be stated, therefore, whether the proposed wind farms associated with the connected action would be similar to the existing wind farms in the region or whether they would be seen in the context of existing wind farms if the proposed locations are not determined.*
- Commenter notes the potential impact of the transmission line on aesthetics or visual quality is not adequately analyzed and discussed. The proposed line will cross largely rural, highly scenic areas of Arkansas. The visual impact of the lines and towers will change the character of the lands through which they cross for the foreseeable future. Further, clearing and maintaining a corridor of largely unvegetated land across the landscape from horizon to horizon will eliminate the natural appearance of the area. This has not only direct and indirect consequences, but cumulative impacts when taken together with other transmission line and pipeline rights of way.

Response:

Visual impacts are anticipated as a result of the construction and operations and maintenance of the Project and will vary depending on factors such as location, topography, vegetation and distance a viewer is from the Project. The methodology used to assess visual impacts was developed using concepts from the BLM VRM system. The BLM VRM system outlines a systematic process for analyzing potential visual impacts of a project based on the visual contrast created between the existing landscape and the same landscape after a proposed project has been implemented. Visual contrast introduced by the Project, including introduction of transmission lines and converter station facilities into the landscape setting, was considered in the visual impacts assessed. In addition, EPMs applicable to minimizing impacts on visual resources are included in Section 3.18.6.1.1 of the Final EIS, specifically GE-3 and LU-5, which address minimizing vegetation cleared within the Project ROW and working with individual landowners to accommodate requests to adjust the siting of the ROW on their properties, respectively. Visual impacts were identified based on the Project description (see Chapter 2 of the Final EIS) and EPMs. The primary effects to visual resources that are described in visual impact section are based upon the assumption that the EPMs would be implemented over time and they would reduce impacts to scenery and viewers. The methodology to assess impacts and visual impacts is discussed in Sections 3.18.6.1 and 3.18.6.2, respectively, of the Final EIS. In addition, cumulative impacts for visual resources were also evaluated and are included in Chapter 4, Section 4.3.18, of the Final EIS.

- Several commenters note concern that having a tower in the front yard is not desirable.

Commenter notes, every morning when we wake up we will be looking at that big ugly electric line. Farmers and ranchers love our land because it is our home but it is also our workplace and our recreation place. We love the sunrise and sunsets, the sky streaking with a hundred hues of color. We love watching the weather change causing the sky to turn to swirling grey and black. All this is ruined if you have a 200-foot-tall mammoth electric line running in the middle of it.

Response:

Visual impacts are anticipated as a result of the construction and operations and maintenance of the Project. Visual impacts will vary depending on factors such as location, topography, vegetation, other existing features in the landscape, and distance a viewer is from the Project. Visual impacts are disclosed in Section 3.18.6 of the Final EIS. In addition, EPMs applicable to minimizing impacts on visual resources are included in Section 3.18.6.1.1 of the Final EIS, specifically GE-3 and LU-5, which address minimizing vegetation cleared within the Project ROW and working with individual landowners to accommodate requests to adjust the siting of the ROW on their properties, respectively.

- Commenter notes parts of Arkansas region 5 APR Link 1 are not flat nor in agriculture. How can visual resources be analyzed and sensitive viewers be assessed if DOE never contacted at least 28 landowners in Arkansas region 5 APR link 1. The analysis is flawed if all of the impacted landowners weren't contacted for their visual quality preferences. In addition, there are no visual contrast rating sheets for the crossing of Highway 105, despite there being residences, a Trail of Tears interpretive sign, and an Arkansas Civil War interpretive sign within the 1,000-foot-wide corridor. If DOE missed this site, then due diligence wasn't exercised.

Response:

The method for determining visual sensitivity for viewing locations (defined as public and private areas within the landscape where the Project could be visible, and where concern for changes to the landscape exists) and for the selection of KOPs is discussed in Section 3.18.4 of the Final EIS. It is often not feasible to contact every viewer along the Project route; however, the KOPs, which represent a critical or representative viewpoint within or along an identified viewing location, are used to assess visual impacts of a proposed project. In regards to the Arkansas Civil War interpretive sign within the 1,000-foot-wide corridor, a review of available information reveals a sign marking Highway 105 as a “Heritage Trail” and “Civil War Trail” is located approximately 300 feet south of the Applicant Proposed Route crossing of Highway 105. This marker is within Applicant Proposed Route Region 5, Link 2, rather than Link 1 as noted in the comment. Routes marked with signs are not historic routes per se, but rather modern routes (i.e., “driving tours”). As denoted by the sign, a segment of the Civil War Heritage Trail crosses Applicant Proposed Route Region 5, Link 2. However, according to the available information, that portion of the heritage trail in Pope County is not a recognized Civil War era route for important actions, expeditions, or movements. Regarding the concern on the Trail of Tears near Highway 105 and Applicant Proposed Route Region 5, Link 2, the NPS data and the Footprints Across Arkansas Trail of

Tears route network provided by the Arkansas State Historic Preservation Office shows no known segments within 10 miles of that location. Although the Applicant Proposed Route crossing of Highway 105 (in Region 5, Applicant Proposed Route Link 2) was not selected as a KOP, two other KOPs represent views of the Project in the vicinity. These are Pope County Residential Cluster AR and PR KOP (located approximately 1.0 mile southwest of the SR 105/Applicant Proposed Route crossing) and Hector PR and AR KOP on Highway 105 (located approximately 3.3 miles northwest of the Highway 105/Applicant Proposed Route crossing). Visual impacts associated with these KOPs are included in Section 3.18.6.2.3.2.9 (Pope County Residential Cluster AR and PR KOP) and Section 3.18.6.3.2.2.5 (Hector PR and AR KOP) of the Final EIS. In addition, the contrast rating forms for each of these KOPs are included in Appendix K of the Final EIS.

- Commenter notes, the beauty of this valley located in the Arkansas River Valley has the Ozark Mountains to the north and the Arkansas River to the south. The old Wire Road runs the length of the Valley. Our location was once a stage stop for the Butterfield Stage. People travel every year to drive through this valley because of the picturesque beauty. Large transmission lines will destroy this.

Response:

Several KOPs were selected to represent views of the Project in the Arkansas River Valley area, which is located primarily in Region 4 and 5 of the Project. KOPs were used in the visual analysis to determine impacts along the Applicant Proposed Route and HVDC alternative routes. Visual impacts, including impacts from KOPs, for Region 4 are discussed in Section 3.18.6.2.3.2.7 (Applicant Proposed Route) and Section 3.18.6.3.2.2.4 (Alternative Routes) of the Final EIS; Region 5 impacts, including impacts to KOPs, are discussed in Section 3.18.6.2.3.2.9 (Applicant Proposed Route) and Section 3.18.6.3.2.2.5 (Alternative Routes) of the Final EIS. In addition, EPMs applicable to minimizing impacts on visual resources are described in Section 3.18.1.1 of the Final EIS.

A segment of the historic Butterfield Stage trail route and its contributing components is located approximately 0.1 mile south of HVDC Alternative Route 4-B, approximately 3 miles north of Cedarville Arkansas. Route 220 (Scenic Byway) KOP is located near the northern end of the historic trail location and provides a representative view of the Project in this area. In the Final EIS, visual impacts associated with the Route 220 KOP are discussed in Section 3.18.6.3.2.2.4.5; the KOP contrast rating worksheet is found in Appendix K.

- Commenter notes concern that the line will obstruct views in a sensitive area, such as the large area incorporating the Big Piney Creek. It contains eagles, wildlife, and a beauty that tourists and locals appreciate and do not want disturbed. The destruction the creation of this project would cause, with huge towers, lights and noise, would not be recoverable. Commenter feels this project is intolerable.

Response:

Applicant Proposed Route Link 9 in Region 4, which crosses Bullfrog Valley, the Big Piney Creek and the area north of Dover, would be parallel to or located within approximately 0.25 to 0.5 mile of an existing 138kV transmission line as described in Section 3.18.6.2.3.2.7

of the Final EIS. These previous modifications have created long narrow strips and introduced vertical structures within the existing landscape. Construction of the Project would create similar modifications to the landscape. Visual impacts for Applicant Proposed Route Link 9 in Region 4 are discussed in Section 3.18.6.2.3.2.7.8 of the Final EIS. The proposed transmission structures would typically range in height between 120 and 200 feet and therefore would not require FAA lighting. Although lights are not proposed on the transmission line structures, lighting would be required at construction yards and work areas during the construction of the Project, which would create temporary visual impacts to night skies. Project components are described in further detail in Chapter 2 of the Final EIS. Impacts related to noise are discussed in Section 3.11.6 of the Final EIS.

- Commenter notes, the analysis does not include the impact of a transmission line having extraordinarily tall structures on property values beyond the ROW as it correlates to the actual region where there is greater visual sensitivity (i.e., Western Arkansas). The height of the structures used in the project (up to 200 feet) dwarf typical transmission lines (50 feet to 100 feet) found along the proposed route in Arkansas and Oklahoma. The visual impact is not linear. While local forestation and topography may reduce or exacerbate negative visual impact, structures that are two times (2X) higher may have a four times (4X) greater impact. Likewise, structures that are four times (4X) higher may have a sixteen times (16X) greater impact.

Response:

The visual assessment does not address impacts on property values. Socioeconomic impacts are addressed in Section 3.13.6; impacts to property values are specifically discussed in Section 3.13.6.2.5 of the Final EIS.

Structure heights are determined in accordance with the NESC, the Applicant's design criteria, and applicable standards and laws as discussed in Chapter 2 of the Final EIS. In regard to the statement that two times (2X) higher towers may have a four times (4X) greater impacts and four (4X) higher towers may have 16 times (16X) greater impact, DOE understands the overall intention of the commenters' statement that taller towers will result in greater visual impacts. The visual impact analysis did consider the heights of the towers, although many other factors were also considered, including location, topography, vegetation, distance a viewer is from the Project and existing cultural modifications. Height alone was not the sole rating criteria for assessing visual impacts and would not be the sole indicator of an increase in visual impacts. As disclosed in Section 3.18.6 of the Final EIS, visual impacts ranged from low to high and were dependent on the factors noted above, taller towers did not necessarily result in exponentially higher impacts. For example, low impacts may result for a residential viewer who has unobstructed views of 50-foot-tall transmission towers located 0.5 mile away; if 200-foot-tall transmission towers were proposed instead (at the same distance), the visual impacts for that residential viewer would be high (low vs. high). As another example, if 50-foot-tall transmission towers were proposed 1 mile away from a residential viewer and they are entirely screened by vegetation, there would be no visual impact; however, 200-foot-tall transmission towers (at the same distance) would be visible extending above tree line and visual impacts for that residential viewer would be moderate (no impact vs. moderate).

The methodology used to assess visual impacts for the Project was developed using concepts from the BLM VRM system. The BLM VRM system outlines a systematic process for analyzing potential visual impacts of a project based on the visual contrast created between the existing landscape and the same landscape once the Project has been implemented. In addition, as the commenter noted, visual impacts are not linear; therefore, KOPs, which represent a critical or representative viewpoint along the transmission line routes (Applicant Proposed Route and Alternatives), were selected and used to assess visual impacts of the Project. The methodology used to assess visual impacts are discussed in Section 3.18.6.1 of the Final EIS. The KOP selection process and how they were used to evaluate visual impacts are discussed in Section 3.18.4 and Section 3.18.6.1.1, respectively, of the Final EIS.

30 Wetlands, Floodplains, and Riparian Areas

The following comments were received relative to wetlands, floodplains, and riparian areas:

- Commenter notes that property contains pond and wetland, is in the waterfowl migratory pattern, and contains large stocks of ducks and geese. Commenter is concerned over the impact to the waterfowl and wetland during construction and operation.

Response:

The Applicant would carefully microsite Project infrastructure to avoid and/or minimize impacts to specific wetlands and other waters of the United States. The Applicant would also employ EPMs (Section 3.19.6.1.1) and BMPs (Section 3.19.6.4) that will aid in avoidance and/or minimization of potential impacts to your pond and wetland.

- Commenter notes that the proposed route corresponding to HVDC Alternate Route 4-A crosses fewer floodplains.

Response:

HVDC Alternative Route 4-A does involve fewer crossings and less predicted acreage of impact to floodplains compared with the corresponding links within the Applicant Proposed Route. The Final EIS includes a Floodplain Determination (10 CFR Part 1022.11) and Floodplain Assessment (10 CFR Part 1022.13) as Appendix N of the Final EIS.

- Commenter notes that within the Frog Bayou WMA the areas outside the proposed centerline are enrolled in the NRCS WRP. Removing lands from WRP requires approval from NRCS.

Response:

DOE acknowledges that areas outside the representative ROW in Frog Bayou WMA are enrolled in the NRCS WRP. Removing lands from the WRP would require approval from NRCS.

- Commenter notes that in addition to "not placing structure foundations within the Ordinary High Water Mark of the United States," the U.S. Fish and Wildlife Service recommends spanning riparian zones at river and stream crossings when possible.

Response:

Comment noted.

- Commenter notes that the EIS states that the Arkansas Converter Station siting area includes 96 acres of palustrine wetlands, 76 acres of lacustrine wetlands and 191 acres of riverine wetlands. Also listed are the number of perennial and intermittent streams; however, there are no major waterbodies. Commenter feels this appears to be misleading or confusing.

Response:

It is agreed that the statement "no major waterbodies" may be somewhat confusing for readers in the context of the referenced sentence. Major waterbodies were defined in the Draft EIS as any surface water feature (perennial stream, lake, pond, etc.) for which a route

crossing distance is 100 feet or more (see Section 3.15.4 of the Final EIS). Using this definition, no major waterbodies were identified within the Arkansas Converter Station Alternative Siting Area.

- Commenter notes: to the extent that a final rule changing or clarifying the "Waters of the U.S." definition is issued and implemented prior to the Final EIS, we anticipate that DOE will reflect such change in its discussion of the regulatory environment in Section 3.19 (and in other relevant sections). However, Clean Line also urges DOE to clarify that such a change in the legal definition of "Waters of the U.S." does not affect the scope of the analysis undertaken for potential impacts to wetlands from the Project. In particular, for purposes of this analysis of impacts to wetlands, DOE primarily relied upon the USFWS NWI as well as the Cowardin classification system. Importantly, both the NWI and Cowardin classification are ecologically-based classifications systems that are not limited to wetlands meeting a particular legal definition. As such, the discussion of potential wetlands within the ROI using the NWI database and Cowardin classification system should not be misinterpreted to be a determination as to the presence of wetlands meeting the definition of "Waters of the U.S." under the CWA. We urge DOE to clarify this point in the Final EIS.

Response:

Section 3.19 of the Final EIS has been revised to include the latest clarifications for “waters of the United States.” It is correct that the EIS has relied solely on desktop analysis for evaluating wetlands, floodplains, and riparian areas. Prior to the permitting and construction of a project such as this one, formal wetland delineations using the latest USACE supplementary guidance would be required. This field work would collect specific data that would allow the USACE to determine which features crossed by the Project would constitute jurisdictional wetlands and other waters of the United States under the Clean Water Act, Section 404.

31 Wildlife, Fish, and Aquatic Invertebrates

The following comments were received relative to Wildlife, Fish, and Aquatic Invertebrates:

- Commenter notes that Audubon Arkansas has identified Frog Bayou WMA and the surrounding area as a waterbird concentration site. Audubon believes the area that includes Frog Bayou WMA and the low lying landscape between the Arkansas River and the towns of Van Buren, Alma, Dyer, and Mulberry may qualify for designation as IBAs. Commenter recommends incorporating APLIC guidelines to reduce the potential of avian/power line collisions. The Applicant should consider developing an avian collision monitoring protocol, particularly in areas such as Frog Bayou WMA, where waterbird concentrations are known to be high, as well as at river crossings. Commenter also recommends collaborating with agencies and nongovernmental organizations, including AGFC, USFWS, and Audubon Arkansas to develop a comprehensive Avian Protection Plan tailored for Arkansas.

Response:

It is outside the scope of DOE's authority to designate areas as IBAs. The Applicant has committed to developing an APP that is consistent with the APLIC guidelines. This plan would be developed in conjunction with guidance from the USFWS as well as other applicable agencies.

- The APR crosses Frog Bayou WMA. Here and all along the route, Audubon encourages avoidance of public lands. Public lands are there for the use and benefit of all people, and serve to protect valuable wildlife habitat that is largely missing from the surrounding landscape. Frog Bayou WMA in particular is a known waterbird concentration site. This area of restored emergent marsh along the Arkansas River is a magnet for hundreds of waterfowl, wading birds, marsh birds, shorebirds, gulls, and terns. These are all birds that are susceptible to transmission line collisions and electrocutions. Though the site has yet to be nominated, it may qualify as an IBA because of such bird concentrations. It may also qualify if it harbors significant populations of one or more of the following Arkansas Birds of Conservation Interest known to occur there: Pied-billed Grebe, American Bittern, Least Bittern, Little Blue Heron, Black-crowned Night-Heron, Yellow-crowned Night-Heron, White Ibis, Osprey, Mississippi Kite, Northern Harrier, King Rail, Buff-breasted Sandpiper, American Woodcock, Least Tern, Sedge Wren, and Marsh Wren. A transmission line in this area is not only a threat to these birds, but also potentially hems in the WMA, preventing future growth or setting up a situation where the WMA is intersected by the transmission line should additional land be purchased and restored. Further, much of the low-lying landscape between the Arkansas River and the towns of Van Buren, Alma, Dyer, and Mulberry are home to large concentrations of waterbirds.

Response:

It is outside the scope of DOE's authority to designate areas as IBAs. Impacts to avian species are addressed in Section 3.20 of the Final EIS. Impacts to WMAs are addressed in Sections 3.10 and 3.20 of the EIS. The Applicant would consult with USFWS to assess and minimize impacts of construction upon migratory bird populations during breeding season and may restrict construction (as required by EPM FVW-4). The Applicant would also develop an APP consistent with APLIC guidelines.

Regarding the avoidance of public lands over private lands: the Applicant Proposed Route was designed to minimize impacts to natural and sensitive resources that may be protected by public lands. HVDC alternative routes are evaluated in the Final EIS.

- Commenter notes the proposed route would cross into areas potentially indirectly impacting wildlife species. A variety of wildlife species common to both deciduous forests and pasture/hay land covers may occur in this area (thereby potentially exposing more wildlife species to Project-related impacts compared to the Applicant Alternate Route).

Response:

Both direct and indirect impacts to wildlife species and their habitats are addressed in Section 3.20 of the Final EIS. The Applicant plans to minimize the impacts of the Project on breeding or migrating wildlife species in environmentally sensitive areas by consulting with USFWS and possibly restricting construction as discussed in FVW-5.

- Commenter notes they do not like the windmills on the front end and how they kill birds, especially eagles. Commenter feels more press needs to be given to this issue after so much money has been spent to bring back the eagle population.

Response:

There are no specific wind farms associated with the Project (although the possibility of wind generation within generalized WDZs is considered in the Final EIS, it is not a part of the Proposed Action). Although wind generation is not part of the Proposed Action, the potential impacts that wind generation could have to avian species are addressed in Section 3.20.1.7.8.1 of the Final EIS.

- Commenter has concerns that the proposed alternative route will run through the property. Commenter notes a wide variety of migratory and local raptors (and other birds) may be on this property, as they implement wildlife management techniques for wildlife on the property. Commenter notes concern that the proposed alternative route transmission lines may adversely impact these birds.

Response:

Both direct and indirect impacts to wildlife species and their habitats are addressed in Section 3.20.1.7 of the EIS. Clean Line has committed to working with landowners to repair any damage to their property (including any damage to potential wildlife habitats on the property identified by the landowner) that is caused to by construction or operations and maintenance activities (see EPM GE-10 in Appendix F of the Final EIS).

- Commenter notes that their client has observed an abundance of wildlife on the ranch since management practices were implemented, including, but not limited to, mule deer, blue herons, Canadian geese, ducks, turkey, hawks, dung beetles, and horned toads. Commenter states that their property is in the direct flight path of a variety of ducks, geese, and waterfowl. Property also is home to deer, and other bird species; all of which would be impacted by changes in terrain and flight paths caused by the line. The Southern Hoyle Creek

Watershed, which includes commenter's property, provides nesting areas for many species of water bird.

Response:

Both direct and indirect impacts to wildlife species and their habitats are addressed in Section 3.20.1.7 of the Final EIS, to include impacts on birds (including waterbirds), mule deer, and other wildlife species that could result from the Project's construction and operations and maintenance phases.

- The Avian Power Line Action Committee states, "Power lines located between feeding and roosting areas of flocking birds may present an increased collision risk. This is especially true for lines near rivers, lakes, or wetlands where fog may be common, making lines less visible. Clean Line should identify environmentally sensitive areas (e.g. Mississippi River, Arkansas River, Cache River, Singer Forest, Important Bird Areas (IBAs)) in their APP that may pose higher risks of avian collisions and work with the U.S. Fish and Wildlife Service and/or other resource agencies for guidance on conducting proactive avian collision surveys in these areas. The development of an APP is voluntary; however, it does provide the framework necessary for Clean Line to comply with bird protection laws. "Despite the fact that APPs are generally initiated by utilities, a cooperative dialog between the utility and the USFWS is encouraged during development and implementation" (Reducing Avian Collisions 2012). Therefore, the U.S. Fish and Wildlife Service would like the opportunity to review and comment on Clean Line's APP. The U.S. Fish and Wildlife Service understands that while there will be permanent habitat conversion (e.g. upland forest converted to managed ROW) in the ROW, there may be vegetation management strategies that could benefit certain species of ground nesting birds (i.e., northern bobwhite quail).

Response:

The Applicant has committed to developing an APP that is consistent with the APLIC guidelines. This plan would be developed in conjunction with guidance from the USFWS.

- Commenter notes that the Cimarron River has a stock of migratory waterfowl, including eagle, and osprey in the wintertime.

Response:

Comment noted. Both direct and indirect impacts to wildlife species and their habitats (including waterfowl, eagles, and osprey) are addressed in Sections 3.14 and 3.20 of the Final EIS.

- Commenter states that the Project would destroy wildlife that live on her property, including deer, bats, owls, and birds.

Response:

Both direct and indirect impacts to wildlife species and their habitats are addressed in Sections 3.14 and 3.20 of the Final EIS.

- Commenter notes that six times more birds were killed by towers greater than 150 feet compared to shorter towers (less than 150 feet).

Response:

DOE has reviewed the studies referred to in this comment and noted they were related to communication and meteorological towers (i.e., met towers), not transmission line towers. Guy-wires are often used to support both communication and met towers, and taller met and communication towers often use more guy-wires compared to shorter met and communication towers (which is one of the factors that resulted in taller met and communication towers killing more birds than shorter towers). The studies this commenter is referring to found that use of guy-wires increases the risk of avian mortalities as a result of collisions with the wires. Although some transmission line towers use guy-wires, the number of wires used at a single tower is not comparable to the number used at a single met and communication towers (i.e., the rate of mortality measured at met or communication towers is not comparable to transmission line structure). The Applicant has indicated that guy-wires may be used to support some of the transmission line structures for the Project. Text was added to the Final EIS (Section 3.20.1.7.2) to indicate that use of these guy-wires would likely increase the risk of avian mortalities compared to un-guyed structures.

- Commenter is concerned about bees along the route.

Response:

These comments were related to concerns that bees would either collide with the line (resulting in mortality) or that the EMF field would adversely impact bees. There is little to no supported scientific evidence that the EMF will cause bees to collide with transmission lines (and furthermore, no scientific studies suggest bees would be injured by colliding with the line). The effects of the EMF on wildlife (including bees) is currently found in Section 3.4 of the EIS.

- Commenter states that the proposed alternate route AR 4E would negatively impact the large bat population that roosts, breeds, and feeds on their property, and in Pope/Johnson counties.

Response:

The Final EIS currently discloses the potential impacts that the Project could have to bats as a result of its proximity to local caves (see Sections 3.14 and 3.20). However, the DOE has decided not to disclose the exact location of local caves or roosting habitats in the EIS to minimize the ongoing risks that human interaction with these caves and roosting habitats can have to bat species.

- Commenter notes that the damage to wildlife populations are glossed over and basically dismissed.

Response:

Both direct and indirect impacts to wildlife species and their habitats are addressed in detail within Sections 3.14 and 3.20 of the Final EIS.

- Commenter is concerned about white-nose disease in bats, and that the Project's effect on bats is dismissed. Commenter concerned about Project's impact to bat habitat (caves).

Response:

White-nose syndrome and the effects it has had to bat populations is disclosed in Section 3.14 of the Final EIS. The EIS currently discloses the potential impacts that the Project could have to bats as a result of its proximity to local caves (see Sections 3.14 and 3.20). However, the DOE has decided not to disclose the exact location of local caves in the EIS to minimize the ongoing risks that human interactions with these caves can have to bat species.

Furthermore, the Final EIS contains a route variation in Region 4 (within Crawford County, Arkansas) that was developed to avoid potential impacts to the Ozark big-eared bat, Indiana bat, northern long-eared bat, and other bat species found in this area.

- Commenter states their property is similar to a wildlife refuge because there are hundreds of deer, turkey, and all kinds of birds that you would not normally see. It is over 5,000 acres. It is all wooded other than about 200 acres of farmland. Commenter notes that it is extremely important to them to have peace and harmony for the wildlife. Commenter loves the wildlife and wants to make sure they are protected. Commenter states concern for wildlife, as their property is privately managed for wildlife conservation, providing habitat for deer, rabbits, bobcats, raccoons, opossums, coyotes, beavers, and marmots. Commenter also notes the importance of the property for bird nesting habitats and migrating waterfowl. Commenter states the land provides pasture land to wildlife, and also provides cover for bedding, fawning, and raising young.

Response:

Both direct and indirect impacts to wildlife species and their habitats are addressed in detail within Sections 3.14 and 3.20 of the Final EIS.

- Commenter notes concern that the use of herbicides on the ROW could poison/affect wildlife.

Response:

Herbicides may be used during maintenance of the transmission line ROW and to control invasive species. The Applicant has committed to using all herbicides according to labeled instructions and any federal, state, and local regulations (see EPM GE-5), which would reduce the likelihood of impacting wildlife species through the miss-use of these chemicals. If the use of these chemicals does result in damage to private lands, Clean Line has committed to working with the landowner to repair or compensate for the damage (see EPM GE-10). To minimize impacts to waterbodies, Clean Line has committed to selectively apply herbicides within streamside management zones (see EPM W-4). EPMs are listed in Appendix F.

- Commenter states, Optima NWR is a major wintering and migration stopover for birds. In addition, there are several research papers on the sensitive and declining population, and the adverse impact of tall structures and wind farms on lesser prairie chickens. DOE has not done due diligence in its listing of potential wildlife species. First, there is no listing of birds, in any state, several of which are sensitive species. For Arkansas, the DOE list, at minimum is

missing: 4 species of shrew including Southern short-tailed; eastern mole; the University of Arkansas at Monticello (UAMont) site lists 15 species of bat including Eastern red bat, which is found on their land; however, the DOE has listed zero. One species each of pocket gopher, pocket mouse and jumping mouse; UAMont lists 4 species each of harvest mouse and deer mouse but DOE lists zero for either. There are 2 species of mouse versus zero. 1 cotton rat, 1 woodrat, 2 voles and 3 rat species, including Norway, versus DOE's list of zero for all. The final unlisted mammal: cougar.

Response:

The EIS is not required to and does not attempt to list every wildlife and fish species that could potentially occur in the area. Appendix L of the Final EIS lists the “common” species that are known to occur in the area. It should be noted that there is no requirement in NEPA or CEQ regulations that specifies that all lifeforms that can occur in the affected area be disclosed or listed. The federal and state ESA require that all federally and state listed species that could be impacted be disclosed and assessed; Section 3.14 lists the wildlife and fish species that are federally and state listed that could occur in the area and may be impacted; however, there is no such requirement for all general wildlife species.

- Commenter notes they are attempting to develop a Monarch butterfly migration habitat, and are cultivating and maintaining milkweed and other native plants on about 40 acres of pasture land that runs along the Garfield/Kingfisher County line.

Response:

DOE appreciates the significance of Monarch butterfly migration and the efforts made to add habitat for this important species. It is assumed that micro-siting of the line may aid in limiting the disturbance to this pasture land that includes the milkweed cultivation. Individual landowner consultations will be a part of the preconstruction efforts made for the Project.

- Commenter notes that they have made changes to improve the ecological stability and diversity of their land. These improvements include increased numbers of horned toads, dung beetles, wild turkey, quail, blue heron, and ducks. The commenter states that the transmission line would have an adverse impact on these things and would have a negative impact on the ecological system.

Response:

Both direct and indirect impacts to wildlife species and their habitats are addressed in detail within Sections 3.14 and 3.20 of the Final EIS. Clean Line has committed to working with landowners to repair any damage that is caused to by construction or operations or maintenance activities (see EPM GE-10, Appendix F).

- Commenter states that the transmission line could alter migratory bird flyway patterns, such as in the Mississippi Flyway. Additionally, states that wind farms and transmission lines can kill tens of thousands of birds through collisions and electrocutions.

Response:

Both direct and indirect impacts to wildlife species and their habitats are addressed in detail within Sections 3.14 and 3.20 of the Final EIS. The impact assessment for the Project and any windfarms that are eventually built in the WDZs includes the potential for avian species to be killed as a result of collisions. The risk of electrocutions is very low for this Project (see Section 3.20.1.7.2). In addition, wind energy developers would be expected to follow the Land-Based Wind Energy Guidelines and appropriate federal and state regulations in documenting and addressing the impact of windmills upon avian species.

- Commenter notes that, where most transmission lines travel across the forested areas, pasture like areas are created for all wildlife that graze. This also creates an avenue for wildlife to travel, without fences, through forested areas. These areas are not displeasing to look at.

Response:

Comment noted.

- Commenter has concern that the increase in sediment load will fill the cavities and holes found in the rocky substrate of the stream bottom. Commenter notes this will lead to the smothering of benthic animals that many fish rely on as a food source, and may, therefore, alter the food cycle. Commenter notes that this increase in sediment may also make it difficult for fish to breathe, as gills may become clogged with sediment. This would then reduce the fish's resistance to disease and lower growth rates. Commenter notes that an increase in sediment may also lead to an overall unhealthy stream ecosystem. Mitigation measures need to be taken to avoid contamination of high quality streams to avoid impact to the Louisiana Waterthrush.

Response:

The Final EIS addresses potential impacts to fish and aquatic resources in Section 3.14.2.7 and 3.20.2.7, including analysis associated with sedimentation of aquatic resources. Section 3.20.2.7.1 lists EPMs that would be implemented to avoid or minimize impacts to fish and aquatic resources. Detailed EPMs for both construction and ROW maintenance would be in place prior to construction, specifically designed to ensure slope stability, prevent excessive soil erosion, prevent other hazardous runoff to waters, retain low-growing near-stream vegetation, and reduce sedimentation in streams (see Appendix F for a complete list of EPMs). In addition, state permits will need to be obtained prior to construction that will require that Project actions not violate state water quality standards and further aid in the protection of aquatic resources, including food resources and spawning and rearing habitat. Furthermore, Clean Line would develop a SWPPP that would control sedimentation, erosion, and runoff and would be consistent with the state and federal regulations. Specifically regarding increased sediment load from vegetation clearing, Clean Line has committed to maintaining a streamside management zone of 50 feet on both sides of streams and waterbodies where removal of low-growing vegetation would be minimized (EPM W-3; see Sections 2.1.7 and 3.20.2.7.1 and Appendix F of the EIS), which would aid in protection of the stream environment and reduce the likelihood of excessive sediment loads reaching the streambed. Pursuant to NERC Reliability Standard FAC-003, Clean Line would develop a TVMP, which would address how vegetation is to be managed in the ROW. The TVMP may

require additional analysis under NEPA depending on whether and under what conditions DOE decides to participate in the Project. As previously described, EPMs for both construction and ROW maintenance would be in place prior to construction and for which the Applicant would seek approval through the state and federal permitting process. The approval process would ensure actions with the potential to impact water and aquatic resources would be avoided or minimized.

- Commenter notes that many deer and wild turkey live on the Pigeon Roost Mountain (overlooking the Ozark National Forest in St. Vincent, Arkansas), and there is concern for their safety.

Response:

Comment noted. Both direct and indirect impacts to wildlife species and their habitats are addressed in detail within Sections 3.14 and 3.20 of the EIS.

- Commenter notes that there are no waterbodies within "Resource-Wildlife and Fish Habitat" siting area.

Response:

Comment noted. Waterbodies are addressed in Section 3.7.

- Commenter is concerned about the potential impacts these lines may have on wildlife, particularly migratory birds, as this is near the Cimarron River. The Great Salt Plains are additionally just a few miles north. Commenter is concerned about the effects on other wildlife, as people in northwest Oklahoma are deep lovers of the wildlife that surrounds the community.

Response:

Comment noted. The Project could impact wildlife in these areas. Both direct and indirect impacts to wildlife species and their habitats are addressed in Sections 3.14 and 3.20 of the EIS.

- Commenter stated that any disturbance of the soil and removal of the timber would adversely affect this property and degrade its potential for wildlife.

Response:

Impacts to soils, and the measures that would be implemented to avoid, minimize, and mitigate for these impacts are addressed in Section 3.6 of the EIS. Both direct and indirect impacts to wildlife species and their habitats (including as a result of timber clearing, which can result in loss of habitat, and soil impacts, which can increase the rate of invasion by exotic species) are addressed in detail within Sections 3.14 and 3.20 of the EIS.

- Commenter notes that the project will disturb the flyway of numerous species of birds, including thousands of Sand Hill Cranes and White Pelicans. Commenter has contacted the Sierra Club and other organizations who are interested in this effects of this project, should

the alternate route be chosen. Commenter feels it is not fair that Oklahoma land be abused as well as the wildlife, so cities on the east coast can have electricity.

Response:

Comment noted.

- Commenter is concerned about bats and questions EIS (summary S61141, Line 34 and 35) that state that the project would not impact caves, the gray and Ozark big-eared habitat. He insists that caves exist, overhangs exist, waterfalls exist.

Response:

The commenter is correct that caves do exist. In fact, there are caves in the general vicinity of the Project. The DOE has decided not to disclose the exact location of local caves in the EIS to minimize the ongoing risks that human interactions with these caves can have to bat species. The EIS does not claim that there are no caves in the vicinity of the Project, only that the Project would not directly impact these caves (e.g., standard engineering practices are to not build transmission lines within or through caves, or atop caves). The EIS does disclose the potential impacts that the Project could have to bats species that utilize these local caves (e.g., when the bats leave their caves and may interact with the Project, or experience losses in foraging habitat as a result of cleared forest and disturbed grassland habitats).

- Commenter notes that many deer and wild turkey live on the Pigeon Roost Mountain (overlooking the Ozark National Forest in St. Vincent, Arkansas), and there is concern for their safety.

Response:

Comment noted. Both direct and indirect impacts to wildlife species and their habitats are addressed in detail within Sections 3.14 and 3.20 of the EIS.

- Comment expresses concern about impacts of the Project on wildlife, particularly in Region 5 AR 5B and APR Link 5.

Response:

Both direct and indirect impacts to wildlife species and their habitats are addressed in detail within Sections 3.14 and 3.20 of the EIS (including to Region 5 HVDC Applicant Proposed Route 5-B and Applicant Proposed Route Link 5).

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32 Cumulative Impacts

The following comments were received relative to Cumulative Impacts:

- Commenter notes that the property, the Baker-Casey Ranch LLC, has a lease agreement with E.ON Climate and Renewables for the development of a wind farm project on the property. Commenter notes concern that this property is located along the proposed route for the Clean Line Plains and Eastern HVDC Transmission Line. Commenter has concerns that this transmission line would create more drag and reduce wind energy on the property, thus negatively impacting the E.ON project, and killing the wind farm project on the property.

Response:

If a wind farm were to be laid out in the same area as a major transmission line, the configuration of the wind turbine layout would likely be affected and possibly result in a fewer number of wind turbines than would otherwise be accommodated in the land area. However, if the wind farm area was large, as is the case for most significant wind developments, the impacts of the transmission line would be expected to be minor. The spacing between wind turbines is an important factor in the layout of a wind farm because an operating wind turbine creates downwind air turbulence that can adversely impact the performance or efficiency of other wind turbines if they are too close. Downwind air turbulence would similarly be expected from transmission line structures, but it would be much less than from a wind turbine with rotating blades. It is likely that the transmission line ROW and the associated land use restrictions would have a greater effect on placement of wind turbines than the downwind air turbulence associated with the structures.

- Commenter notes that if any existing transmission facilities incur any damage as a result of the Project, Clean Line should be fully responsible for compensating the transmission facility owner for all losses incurred.

Response:

In many cases, development of the Applicant Proposed Route and HVDC alternative routes considered existing linear infrastructure (roads, transmission lines, or pipelines) and paralleled that infrastructure to minimize new environmental impacts to other, unaffected locations. As a result, the initial routing included an increased likelihood that the proposed transmission line would be near other existing infrastructure on affected properties. A land use-related EPM identified in Section 3.10.6.1, as well as other sections of the EIS, is the Applicant's commitment to work with landowners and operators of active oil and gas wells, utilities, and other infrastructure to identify and verify the location of facilities and to minimize adverse impacts. A complete list of EPMs that would be followed by the Applicant is presented in Appendix F of the EIS.

- Commenter notes that the proposed route, including all alternative routes under study in the Draft EIS, would run directly through the Fayetteville Shale region, resulting in substantial adverse impacts to natural gas production. Understates the full extent of natural gas infrastructure that will be adversely affected by the Plains and Eastern Project; Incorrectly concludes that impacts on natural gas development will be short-term and minimal; Exploration and production activities occur throughout the play, with well pads, construction

and production equipment, and an interconnecting web of gathering, intrastate and interstate natural gas pipelines densely deployed. As depicted in Figure 3, the number and density of wells in the Fayetteville region are substantial, with the ETA estimating a well count of over 3,200 as of May 31, 2011, in just the eastern part of the play.⁵ For each well, a significant amount of land, equipment and infrastructure is required, both to drill and set up a producing well and to connect that well to the pipeline network. Although the Draft EIS recognizes that the Plains and Eastern Project will directly pass through the Fayetteville Shale, the Project's potential impacts on natural gas exploration, production, and gathering are greatly understated. The Draft EIS also fails to identify and assess the adverse safety impacts the operation of a HVDC transmission line could have on pipeline and well infrastructure. The DOE should revise its analysis to incorporate the significant adverse environmental impacts that will likely result from the construction and operation of the proposed Project and assess the feasibility of routing the Plains and Eastern Project outside of the Fayetteville Shale play. As a threshold matter, the Draft EIS does not adequately identify the full extent of natural gas exploration, production, and gathering facilities that will be impacted by the Project. The Draft EIS states that: "[t]he Applicant Proposed Route in Region 4 would traverse 1,929 acres of shale gas plays and six oil and gas wells. Ten oil and gas wells and 2,630 acres of shale gas plays are traversed in the Applicant Proposed Route representative ROW of Region 5."⁸ This is a substantial understatement of the number of wells and associated infrastructure in proximity to the proposed transmission line. SWN-A has undertaken an analysis of its own well pads in proximity of the Applicant Proposed Route and determined that 15 existing well pads and one well pad planned to be constructed later in 2015 are located wholly or partly within the 200-foot-wide right of way for the proposed transmission line. SWN-A has drilled 33 wells on these pads and at present plans to drill another 13 wells in the near future. Another 46 well pads (one of which is planned for 2015) are within 700 feet of the Applicant Proposed Route.⁹ SWN-A has drilled 67 wells on those pads and at present plans to drill another 11 wells in 2015 and 2016. SWN-A has performed a similar analysis for the Project's alternate segments through the Fayetteville Shale play, and has found that 10 well pads (1 planned) and 23 wells (1 planned) are located within the 200-foot-wide right of way. The transmission line would directly cross five of these pads and the 15 wells currently located thereon. Furthermore, 45 well pads (1 planned) and 121 (17 planned) wells lie within 700 feet of the right-of-way through these alternate segments along the route. SWN-A's analysis above does not count either well pads leased or owned by other operators. It also does not include associated facilities such as ponds, impoundments, compressor stations, and telecommunication towers. For these additional reasons, the Draft EIS substantially understates the operations that will be impacted by the Project.' As explained above, each well pad is interconnected with a branched network of natural gas gathering and transmission pipelines, including compression facilities. The Draft EIS recognizes that "[o]il and gas wells and their appurtenant facilities are very common throughout the ROI in Regions 4 and 5" and that gas pipelines and electric transmission lines are located in or across the proposed right-of-way. These very generalized types of statements do not provide any meaningful assessment of the extent of gas pipeline infrastructure that will be impacted by the Project. In the Tier IV Routing Study prepared by Clean Line in November 2013 and provided with the Draft EIS, Clean Line estimates that, for Region 4, 5.53 miles of "transmission pipelines" are located in the 1,000-foot-wide right of way and that there will be 12 "transmission pipeline crossings" ¹² For Region 5, 24.73 miles of "transmission pipelines" and 47 "transmission

pipeline crossings" are identified.¹³ The dataset used by Clean Line (Ventyx 2013) is described as including interstate and intrastate transmission pipelines, but not gathering pipelines. DGC has undertaken an analysis of its gathering system and found that the proposed right-of-way for the Applicant Proposed Route would cross gathering pipelines 87 times. Over two miles of DGC's gathering pipelines would fall within the 200-foot-wide right-of-way. This analysis does not take into account re-routing of existing pipelines or the installation of new pipelines that may be required in the future. By failing to account for gathering pipelines, the Draft EIS substantially underrepresents the extent of natural gas infrastructure that will be impacted by the Project. While having an accurate count of natural gas infrastructure proximate to the proposed Project is critically important, an assessment of the proposed impacts of the Project on the operation of that infrastructure also is required. The Draft EIS lacks this analysis. The Draft EIS instead relies on a number of conclusory statements and open-ended and unenforceable "mitigation" measures to conclude that impacts on natural gas exploration and production operations will be minor. For example, the Draft EIS states that "[o]ther short-term and local impacts include the disruption to access to local land uses that may occur, such as agriculture, oil and gas development, and residences and businesses during construction. The short-term impacts would be minimized, however, because of multiple [Environmental Protection Measures (EPMs)] incorporated into the Project."¹⁴ These summary conclusions fall short of the level of analysis required by NEPA for three reasons. First, impacts to natural gas development operations are unlikely to be "short-term and local." Fifteen of SWN-A's current well pads and 33 existing wells (plus one planned well pad and another 13 planned wells) are located within 200 feet of the transmission line along the Applicant Proposed Route. Of these, the transmission line would directly cross over eight of these well pads, which have a total of 17 existing and 13 planned wells. The resulting impact would be permanent cessation of production of the 46 wells on these pads and also to render them useless for drilling future wells. Moreover, well pads located along the right of way can also be permanently affected. As explained above, construction and production activities are dynamic and involve use of the entire well pad tract. Equipment may be placed anywhere on the well pad depending on safety considerations, well locations, pit location, pipeline location, and road location. Siting a 3,500MW HVDC line next to a well pad will interfere with drilling rig and crane activities due to the height of the equipment and proximity to the line. Even "a minimum stand-off of 250 feet from the edge of the route [rights-of-way]"¹⁵ would not provide an adequate margin of safety for the operation of equipment, which can exceed 120 feet in height. It would also not provide an adequate space to conduct operations if, for example, the well were located closer to the edge of the well pad abutting the right-of-way. The Draft EIS also does not acknowledge impacts to natural gas operations from impacts to other infrastructure. For example, the Draft EIS indicates that the Project would cross or be located proximate to electric distribution lines and roads, but fails to analyze how this proximity will affect that infrastructure, including the extent that electric distribution lines and roads would need to be re-routed or blocked off. Further, the Draft EIS does not consider how these impacts could result in a loss of the electric power source and physical access to a well pad. SWN-A has identified 15 locations where the right-of-way would cross access roads for well pads. Electricity from the local grid will also follow roads going to SWN facilities and will be placed on 20-foot-tall poles, raising the potential for displacement or interference. Second, in support of the conclusion that disruption would be minimal, the Draft EIS assumes that: Oil

and gas resources would be less affected because recovery of the resources would be possible, even with a minimum stand-off of 250 feet from the edge of the route [rights-of-way] and converter station sites using a vertically installed well without the use of directional drilling. With directional drilling, such areas could be accessed at considerable distances from the Project? This conclusion is highly speculative. It assumes that there will be adjacent property available to move the well pad entirely or partly to a new location, or reconfigure the well on the existing well pad. However, many wells are currently sited in areas where the options for placement are constrained by existing development, protected wetlands, and Arkansas state regulatory requirements. Thus, moving or reconfiguring the well pad may be an impossibility or would result in unacceptable environmental, safety, or socioeconomic impacts. The Draft EIS addresses none of these issues. Further, even if wells could be moved, SWN-A and other operators would have to obtain agreements from landowners, which would involve a new lease and additional expenditures. For these reasons, the potential use of directional drilling does not support the broad conclusion that impacts to natural gas development will be minimal. Therefore, the final EIS should specifically identify and assess the impacts of the Plains and Eastern Project on Arkansas, with a specific focus on its proposed route through the Fayetteville Shale. Given the potential for the Project to adversely affect existing and planned shale play development activities, and the attendant socioeconomic impacts that will result from such effects, Arkansas-specific impacts must be analyzed in greater detail. The Draft EIS does not adequately assess how the Plains and Eastern Project could justify the potential harm to Arkansas and U.S. energy security interests if routed through the Fayetteville Shale. Further, as stated earlier, DOE's analysis of alternatives should include Project routes outside of the Fayetteville Shale.

Response:

The number of gas/oil wells at the regional level (4,000-foot-wide corridor along the HVDC transmission lines) are described in Section 3.6.1.5. The number of wells within the 200-foot-wide representative ROW are described in Section 3.6.1.6 as part of the discussion of potential impacts. These well counts were determined using GIS and best available data from the Arkansas Oil and Gas Commission (accessed July 1, 2014). Additionally, shale play acreage crossed was obtained from the U.S. Energy Information Administration maps published in 2011, and is also tabulated for 1,000-foot-wide and 200-foot-wide corridors. These data sources were supplemented by the Applicant's efforts to share information on the Project with owners and operators of existing oil and gas infrastructure or mineral or leasehold rights and, at the same time, to request information on well and infrastructure locations. Because of these efforts and as described in Section 3.6.1.6.2.3.1.7 of the Final EIS, the Applicant believes that micrositing of the transmission line can result in the representative ROW avoiding all existing oil and gas wells or well pads. It is recognized that areas along the transmission line, particularly in areas of Arkansas, have experienced and continue to experience significant growth in the production of natural gas and, in spite of it being a moving target, DOE believes the effort made to characterize the number of wells and associated infrastructure along the Applicant Proposed Route and the HVDC alternative routes was reasonable and appropriate.

Given the expanding nature of the industry, the measures that would be taken by the Applicant to work with landowners and utility operators are of particular importance in

identifying wells and infrastructure along the routes. As described in Section 3.6.1.6.1 of the Final EIS, the Applicant has developed and committed to implementing a list of EPMs, including numerous measures that would minimize the potential for adverse impacts to mineral resources such as including natural gas resources and natural gas operations. Specifically, EPMs GE-29, LU-1, and LU-4 will be in place. These measures state that Clean Line will work with landowners and operators of active oil and gas wells, utilities, and other infrastructure to identify and verify the location of facilities and to minimize adverse impacts (GE-29); the Project would be designed to avoid crossing existing operations (such as the well pads of any active oil and gas wells or impeding access to these resources (LU-1); and that Clean Line will work with landowners and operators to ensure that access is maintained as needed to existing operations (e.g., to oil/gas wells, private land, agricultural areas, pasture, hunting leases) (LU-4; Appendix F). Micrositing of the lines and towers can be employed when necessary to allow adequate access to existing infrastructure. DOE therefore does not anticipate that the transmission line would impede access to these resources. A complete list of EPMs that would be followed by the Applicant is presented in Appendix F of the Final EIS.

With regard to adverse impacts to future development of oil and gas wells, the Final EIS (Section 3.6.1.6.5) describes the use of directional drilling and other technologies as ways to minimize the potential for such impacts even if the drilling target (at depth) was directly below the transmission line ROW. The commenter argues that it is highly speculative to assume adjacent property would be available for drilling and a drill pad in such an instance. As a counter to that position, DOE believes it may be more speculative to assume that property outside the ROW would not be available, particularly considering the wide expanse (over 9,000 square miles) of the Fayetteville shale play and the relatively small size of the ROW. In any case, the Applicant's commitment above to work with landowners and operators to ensure access is maintained to existing operations would also apply to working with those same entities should new development be proposed in the area of the ROW.

- Commenter notes the scope of the cumulative impact analysis is limited to the geographic area that has the potential to be affected by implementation of any of the alternatives in the reasonably foreseeable future. It then states that for many of the resource categories considered, the cumulative impact geographic area of analysis is appropriately limited to lands within the project area boundaries. NEPA requires that the geographic area that may be affected by cumulative impacts of a project be defined and a rationale for the selection of that geographic area for the cumulative impact analysis be set forth in the environmental statement. There is no such rationale contained in the Draft EIS, and the scope contained in the Draft EIS as quoted above is illusory and fails to comply with the NEPA standard. To the extent that the Draft EIS defines the scope of the cumulative impact analysis as lands within the project area boundaries, that scope is entirely too limited for a project of this size and scope. While the scope of the analysis of cumulative impacts is inadequately defined in the Draft EIS, such analysis of cumulative impacts that does appear in the Draft EIS fails to provide any discussion of the impacts of the proposed project combined with the impacts of past, present and reasonably foreseeable future activities, whether by governmental or private entities. Instead, the discussion of cumulative impacts is a rehash of direct and indirect impacts of the proposed project. Direct and indirect impacts are not the same as cumulative

impacts, and while cumulative impacts may be more difficult to quantify, they must be identified and analyzed.

Response:

The geographic area, or ROI, that might be affected by cumulative impacts of the Project is addressed briefly in Section 4.1 and in more detail in Section 4.3 of the Final EIS.

For this EIS, DOE used resource-specific boundaries (as described in Section 3.1). For example, the ROI for the examination of air quality and climate change impacts (Section 3.3) of the Project goes beyond the project area boundaries to encompass residential areas and schools. DOE also used a resource-based geographic boundary to consider the cumulative effects of the Project combined with other projects. This clarification was added to Section 4.1.1.1 of the Final EIS.

As discussed in Chapter 4 of the Final EIS, it is the nature of the present and reasonably foreseeable future actions identified in Chapter 4 that there are limited, if any, quantitative data available on their potential impacts. As a result, only qualitative evaluations of potential cumulative impacts are presented in Chapter 4. These qualitative evaluations are primarily in the form of brief descriptions of the impacts associated with the Project that would then be cumulative with similar impacts from identified present and reasonably foreseeable future actions. Although this approach involves repeating potential impacts associated with the Project, the options would appear to be: (1) identifying the same potential impacts and attributing them to the present and reasonably foreseeable future actions or (2) simply saying the potential impacts of the present and reasonably foreseeable future action would be similar to those of the Project as described in Chapter 3 and, therefore, would be cumulative. DOE believes the current approach of reiterating the potential impacts of concern is easiest to follow for most readers.

- Commenter notes that there are past, present and reasonably foreseeable actions by governmental units and private owners that contribute to cumulative impacts, but that have not been discussed. Several major actions have been taken in the past, or are currently underway, or that are reasonably foreseeable, that, in connection with the proposed transmission line, could have cumulative impacts on the environment, and that are not discussed in the Draft EIS. Those actions are: 1. The proposed construction by Diamond Pipeline, LLC, of a \$900 million, 440 mile crude oil pipeline in an east-west direction across the state of Arkansas, following much the same route as the proposed Clean Lines transmission line. The Draft EIS does not mention this pipeline or discuss the cumulative effects of that pipeline and the transmission line proposed by Clean Lines. Comparing the proposed routes of the pipeline and the transmission line (as nearly as can be determined at present), it appears that there will be considerable overlap and crossing of the lines at numerous points. Aside from the question of whether the same right-of-way would be suitable for both the pipeline and the transmission line, serious questions arise about the cumulative impacts of two major rights-of-way criss-crossing or paralleling each other in close proximity for long distances. This is a subject that requires close study and analysis. 2. The Draft EIS fails to mention as past and current actions any other existing pipelines and electrical transmission lines that may be intersected or paralleled by the proposed

transmission line. Serious direct, indirect and cumulative impacts may be encountered by the intersection or location of rights-of-way in close proximity to each other. As additional pipelines and transmission lines are developed in the future, those impacts will only be increased, and their cumulative impacts need to be analyzed. 3. The aforementioned Entegra Power Group Plant near El Dorado in south Arkansas is a past and current action by private interests that may have a direct, indirect or cumulative impact on the proposed Clean Lines transmission line, aside from affecting the need for the latter. That plant is not mentioned in the Draft EIS nor its effect on the Clean Line's project discussed.

Response:

Plains All America Pipeline announced its plan to construct the Diamond Pipeline through a news release issued on August 21, 2014 (<http://ir.paalp.com/profiles/investor/ResLibraryView.asp?ResLibraryID=72064&GoTopage=4&Category=117&BzID=789&G=549>), after data collection and evaluation had been completed for the Draft of this EIS published in December 2014. As a result, the Diamond Pipeline Project was not included in the Draft EIS. Since much of its announced route goes through the same general area as the Project, it has been included as a new reasonably foreseeable future action in Chapter 4 of the Final EIS.

According to the Entegra Power Group (<http://www.entegrapower.com/UPP.htm>), its 2,200MW capacity Union Power Station (power plant) near El Dorado, Arkansas, has been in full commercial operation since 2003. As a result, the power plant's capacity and its associated affects should be well integrated into the region's electrical distribution system at the present time. The power plant certainly would have been an important component of the regional distribution system the Applicant evaluated in making its decision to pursue development of new transmission capacity via the Project. Further, the Union Power Station itself is some 140 miles south of the nearest element of the Project, and Entegra describes this power plant as primarily marketing services within MISO. MISO administers a wholesale electricity marketing area that includes all or parts of 15 U.S. states stretching from the Gulf and extending north into Canada. The MISO footprint includes most of Louisiana and Arkansas, but does not extend into either Oklahoma or Tennessee (<https://www.misoenergy.org>). So in addition to being outside the ROIs for the resource evaluations associated with the Project, Entegra's power plant in El Dorado serves an area that does not overlap with the primary function of the Project (i.e., moving power from wind energy from the Oklahoma-Texas-Kansas area to markets in the Tennessee area). Given these factors (long distance away and differing function), DOE does not see a basis for any specific discussion in the EIS of the Integra power plant near El Dorado.

- Commenter notes that, according to the maps in the Draft EIS, the Project crosses or parallels many of the Southwestern Power Administration's transmission lines, as well as many of SPRA members/customers of Southwestern. All construction work for this Project must be done in such a manner as to ensure there is not damage to any of these neighboring facilities or lines. If such damage occurs, full compensation for facility repair as well as losses due to outages must be paid to the owner of the lines from Clean Line.

Response:

In many cases, development of the Applicant Proposed Route and HVDC alternative routes considered existing linear infrastructure (roads, transmission lines, or pipelines) and paralleled that infrastructure to minimize new environmental impacts to other, unaffected locations. As a result, the initial routing included an increased likelihood that the HVDC transmission line would be near other existing infrastructure on affected properties. A land use-related EPM identified in Section 3.10.6.1, as well as other sections of the EIS, is the Applicant's commitment to work with landowners and operators of active oil and gas wells, utilities, and other infrastructure to identify and verify the location of facilities and to minimize adverse impacts. Such a commitment would include the Applicant working with SPP customers, as applicable, with transmission lines connected to the Administration's lines. With regard to the Administration's transmission lines, DOE would work to avoid or minimize impacts to its infrastructure. A complete list of EPMs that would be followed by the Applicant is presented in Appendix F of the EIS.

- Commenter states that wind farms capable of sustaining 4,000MW could require 5 times the number of generators described in the Draft EIS. Considering the environmental impact of these wind farms as only a cumulative impact makes the EIS inadequate in assessing the Proposed Action. Any future EIS based on Implementing Section 1222 as the Proposed Action would have to be cumulative with this EIS to satisfy NEPA.

Response:

It is not clear to which part of the EIS the comment is referring when indicating the number of generators described is too low. The wind farm development that is evaluated as a connected action in the Final EIS considers 12 different WDZs where wind farms might be developed. As stated in EIS Section 2.5.1 of the Final EIS, the evaluation is further based on the Applicant's expectation that the "actual wind capacity build-out" would need to be 4,000 to 4,550MW to supply the delivery capacity intended for the proposed new HVDC transmission line. The description of the Wind Energy Generation connected action (Section 2.5.1 of the Final EIS) does not present estimates of the number of wind turbines that would be needed to develop a 4,000 to 4,550MW build-out capacity because it would be up to the ultimate wind farm developers to determine what size wind turbines would be best for their site-specific applications. The Wind Generation Technical Report (Clean Line 2014) developed by the Applicant and utilized as a reference in preparation of the EIS similarly provides estimates of the wind energy capacity (in megawatts) for each of the WDZs based on meteorological and other physical conditions, but the report never attempts to estimate how many wind turbines might be installed in a WDZ. The Applicant's Wind Generation Technical Report does, however, include a prediction that wind turbine capacities ranging from 1.5 to 3.5MW are reasonably foreseeable for the wind farms that would be developed in the area.

The commenter's concern that the wind farms are only being evaluated as cumulative impacts is not correct. As described in Section 2.5, wind farm development in the region around the west terminus of the proposed HVDC transmission line is considered to be a connected action and is analyzed together with the Applicant Proposed Project and DOE Alternatives in the EIS.

- Several commenters note their properties are already impacted by transmission lines crossing the property, or have numerous gas wells and pipelines, or other utility infrastructure, and do not want additional lines.

Response:

In many cases, development of the Applicant Proposed Route and HVDC alternative routes considered existing linear infrastructure (roads, transmission lines, or pipelines) and paralleled that infrastructure to minimize new environmental impacts to other unaffected locations. As a result, the initial routing included an increased likelihood that the proposed transmission line would be near other existing infrastructure on affected properties. The EIS evaluates impacts to resources at a regional level and not at a level that would consider each individual landowner. However, a land use EPM identified in EIS Section 3.10.6.1 is that the Applicant would:

... make reasonable efforts, consistent with design criteria, to accommodate requests from individual landowners to adjust the siting of the ROW on their properties. These adjustments may include consideration of routes along or parallel to existing divisions of land (e.g., agricultural fields and parcel boundaries) and existing compatible linear infrastructure (e.g., roads, transmission lines, and pipelines), with the intent of reducing the impact of the ROW on private properties.

A complete list of EPMs that would be followed by the Applicant is presented in Appendix F of the EIS.

- Commenter notes the proposed route is in very close proximity to, if not touching, an underground gas storage cavern in the Lone Elm Gas Field. Commenter notes the Draft EIS failed to consider the impact and potential damage to this cavern.

Response:

Depleted oil and gas reservoirs are commonly used as underground storage sites. The Henson sand reservoir of the Lone Elm Gas Field in Franklin County is a depleted gas field that is now a well-established natural gas storage reservoir; its usage is tracked by the U.S. Energy Information Administration within the DOE. According to the Arkansas Oil and Gas Commission, the bottoms of gas wells in this area are generally in the range of about 2,500 to 4,500 feet below grade. With regard to the EIS, DOE believes there are no means by which the Project, with foundation footings typically extending only no deeper than about 44 feet outside the Mississippi floodplain (see Section 3.7.6.1.1 of the Final EIS), would impact the integrity of this gas storage reservoir. Hence the storage reservoir is not identified in the affected environment discussion as an element of potential concern. However, surface facilities, whether associated with active gas fields or storage reservoirs, have been tabulated in the EIS (see Section 3.6.1.4) and addressed on a regional basis.

- Commenter notes, the folks in Arkansas and Oklahoma have just endured an explosion of the gas boom. At times, damage has been so bad that the public was unable to get to their jobs our town due to the road conditions. It seems that the counties had no authority over the gas companies as far as a priority for a long term fix for these damaged transportation facilities. Again, the public was left with out of pocket repairs for long-term repairs. Even secondary

state highways suffered sufficient damage. Commenter notes that the project to control the flooding in the area of Lake Overcup is ongoing. This flooding has rendered Highway 95 totally impassable many times in the past. Commenter notes they are still awaiting increased public works benefits in many areas from this project.

Response:

The potential impacts of the Project to traffic on roadways are discussed in Section 3.16.6.1.1.1 of the Final EIS. Short duration delays or no delays are anticipated where lines would cross narrow roads with lower traffic volumes. There could be diversions at crossings of the wider federal and state highways, but these diversions, which might last from a few hours to a day, would typically involve closure of the road shoulder or possibly one lane of traffic; no complete closure of all lanes in one direction is anticipated. All these types of activities would be described in greater detail in the Transportation and Traffic Management Plan that would be prepared by the Applicant and implemented in accordance with the appropriate state DOT requirements and procedures. Per Section 3.16.6.1.2.2 of the Final EIS, the Applicant would be responsible for the repair of damage to roadways and structures caused by the Project.

At its closest point, Lake Overcup, north of Morrilton in Conway County, Arkansas, is roughly 7 miles south of any of the transmission line routes considered in the EIS. The Arkansas State Highway and Transportation Department “Status of Improvement” map for Conway County that was reviewed by DOE as part of the cumulative impacts evaluation included work both on Highway 95 on the western side of Lake Overcup and on Highway 9 on the eastern side (AHTD 2014). Neither project was included in the discussion of present and reasonably foreseeable future actions in Region 5 (EIS Section 4.2.5) because of their distance from Project elements and the improbability that impacts from the Project would be cumulative with those of either highway project. DOE believes impacts associated with the Project would not aggravate any flooding issues in the Lake Overcup area and would not be cumulative with any impacts associated with a flood control project at Lake Overcup.

- Commenter does not feel the EIS describes the cumulative impacts of the Project, particularly the impact from the wind farm build out, and the impact the turbines will have on Oklahoma, Kansas, and Texas.

Response:

The wind turbines that would be directly associated with the Project are considered to be a connected action and their potential impacts are addressed directly as part of the Project rather than as part of cumulative impacts. Potential impacts of wind farms being constructed and operated in the WDZs are discussed in each resource area (i.e., EIS Sections 3.2–3.20).

- Commenter does not believe a 40 mile radius is adequate for evaluating the cumulative impact of the Project.

Response:

The ROI used in the EIS Chapter 4 evaluation of cumulative impacts is discussed in Section 4.1.1.1 of the Final EIS, but it is not clear how the commenter’s “40-mile radius” is

associated with the discussions in that section. The most frequent discussion of a 40-mile radius in the EIS is in reference to the AC collection lines that are evaluated as part of the Project (Section 2.1.2.3) and the associated wind farm development (via the WDZs) that is evaluated as a connected action (Section 2.5.1). Both the AC collection lines and the WDZs are characterized as being within an approximate 40-mile radius of the Texas County Converter Station Siting Area. The 40-mile radius was selected to provide a bounding analysis of the potential environmental impacts of wind development that would ultimately use the proposed HVDC transmission line. Neither the Applicant nor DOE knows at this time the exact locations of wind farms or the associated AC collection lines that would be needed to connect to the Project. Nonetheless, evaluations have shown that there is sufficient wind capacity in the area characterized by the 40-mile radius to achieve full utilization of the delivery capacity of the proposed HVDC transmission line.

- Commenter has numerous gas wells on his property. These wells are monitored remotely by Southwestern Energy. Commenter is concerned that if there is an undetected gas leak and sparks were emitted by the power lines, this would result in an explosion, destruction, etc.

Response:

As identified in EPM GE-29 in Appendix F, the Applicant would work with landowners and operators of active oil and gas wells, utilities, and other infrastructure to identify and verify the location of facilities and to minimize adverse impacts. Electronic and communications equipment located in close proximity to many miles of transmission facilities in the United States continue to operate effectively for their intended purposes, and there is no reason to believe that such systems associated with nearby natural gas extraction and pipeline facilities would not operate effectively for their intended purposes. If electronic or communication equipment interruption or interference situations are identified, the Applicant will work with area operators to address and mitigate these issues.

A new section was added to the Final EIS, 3.4.11.2.1.2.2.10, Grounding and Stray Voltage, to discuss contact current impacts (or “stray voltage”) as a potential source of concern regarding health and safety. Typically high voltage overhead transmission lines do not create stray voltage problems. Various mitigation methods can be employed to eliminate stray voltage. Overhead canopies can be constructed to reduce the electric field locally within an area and reduce the possibility of sparking. Electric company engineers typically provide grounding guidelines for these types of objects.

- Commenter feels the Draft EIS fails to provide empirical data to support the impact to existing and undocumented natural gas transmission lines, equipment, and underground storage caverns both within and in close proximity to the proposed route.

Response:

As described in EIS Section 3.6.1.6.1, the Applicant has developed and committed to implementing a list of EPMS, including numerous measures that would minimize the potential for adverse impacts to mineral resources, including natural gas resources and natural gas operations. Specifically, EPMS GE-29, LU-1, and LU-4 (Appendix F) will be in place. These measures state that Clean Line will work with landowners and operators of active oil and gas wells, utilities, and other infrastructure to identify and verify the location

of facilities and to minimize adverse impacts (GE-29); that the Project will be designed to avoid crossing existing operations (such as the well pads of any active oil and gas wells or impeding access to these resources (LU-1); and that Clean Line will work with landowners and operators to ensure that access is maintained as needed to existing operations (e.g., to oil/gas wells, private land, agricultural areas, pasture, hunting leases)(LU-4). Micrositing of the lines and towers can be employed when necessary to allow adequate access to existing infrastructure. DOE therefore does not anticipate that the high voltage line/towers will impede access to these resources. A complete list of EPMs that would be followed by the Applicant is presented in Appendix F of the EIS.

With regard to undocumented natural gas infrastructure, if the Applicant cannot verify locations of such infrastructure by working with the area landowners and operators of active equipment/facilities, then DOE suspects there would be little likelihood of identifying such items. DOE also suspects that if such a condition were to arise, there is little likelihood that the items would be of particular importance.

33. EPMS/BMPS/Mitigation

The following comments were received regarding EPMs/BMPs/Mitigation:

- Commenters provide suggestions for mitigation measures:
 - Mitigating measures need to be addressed.

Response:

Section 3.1.2 of the Final EIS identifies EPMs that have been developed for the Project and that would be implemented to avoid or minimize potential adverse effects from construction, operations and maintenance, and decommissioning of the Project. These EPMs, which were developed by Clean Line and have been incorporated into the analysis, are listed in Appendix F. In addition, DOE has included BMPs in some resource areas that could further avoid or minimize potential adverse impacts. The ROD will identify conditions of approval that will include both EPMs and BMPs identified in the Final EIS. Additional mitigation measures may be required by federal, state, or local permits that are required by the Project.

- Because the largest quantity of impacts are associated with access road construction and maintenance, to the extent possible, the Project should encourage the usage of existing roadways. Using existing access roads, or upgrading existing roads for the purpose of accessing the Project, should further minimize impacts from the Project.

Response:

Comments are noted. According to Section 2.4 in Appendix F of the Final EIS, Clean Line intends to maximize the use of existing public and private roads to the extent practicable, improve some roads on private lands where they are insufficient, and build some new access roads. After construction, roads not needed for operations and maintenance will be restored according to EPM GE-7.

- Commenter states that they have seen no mitigation measures for the proposed construction of these roads other than BMPs. Only routine maintenance will control erosion and sediment. This would include balding, shaping, surface replacement, soil stabilization, maintenance of drainage structures, vegetation control, and erosion control. Commenter has seen no maintenance plan.

Response:

Comment noted. Specific locations for access roads have not been decided. As stated in Section 2.4 of Appendix F of the Final EIS, the Applicant's road construction standards will be in accordance with appropriate jurisdictions' (federal, state, or local) requirements. Improvement and maintenance requirements will also depend on applicable jurisdictional authorities' standards, guidance, regulations, or permit conditions and/or requirements. After construction, roads not needed for operations and maintenance will be restored according to EPM GE-7.

- Additionally, efforts should be made, when practical, to minimize the overall length of the Project route.

Response:

Comments are noted. Section 2.3.1 of the Final EIS discusses how the HVDC routes were developed. While minimizing the length of the HVDC routes is desirable, the Clean Line Routing Team applied additional guidelines to avoid conflicts with sensitive resources and to maximize opportunities for paralleling compatible infrastructure. These guidelines and the routing process are discussed in detail in Appendix G of the EIS.

- An additional consideration for mitigating the impacts associated with land use could be the establishment of a voluntary conservation easement program. Conservation easements have been used and encouraged by conservation-oriented nonprofit organizations, such as The Nature Conservancy, Ducks Unlimited, Trout Unlimited and The Wilderness Society as well as encouraged by agencies such as the United States Department of Agriculture and United States Fish and Wildlife Service (USFWS). If the DOE encourages further use of conservation easements, the Project participants should consult with local, state and federal governmental agencies, as well as nonprofit conservation organizations, in order to best prioritize specific conservation easement locations and practices.

Response:

EPM FVW-5 notes that Clean Line will consult with USFWS and/or other resource agencies for guidance on seasonal and/or spatial restrictions designed to avoid and/or minimize adverse effects to environmentally sensitive areas. If those agencies recommend establishment of conservation easements, that strategy will be considered with other mitigation strategies.

- Where adverse impacts to the Arkansas Game and Fish Wildlife areas as well as other major floodplains and wetlands are unavoidable, commenter requests that such impacts be functionally quantified and mitigated according to the Corps of Engineers Charleston method.

Response:

EPM FVW-5 notes that Clean Line will consult with USFWS and/or other resource agencies for guidance on seasonal and/or spatial restrictions designed to avoid and/or minimize adverse effects to environmentally sensitive areas. The Applicant would be required to comply with the Clean Water Act and obtain applicable permits through the USACE (33 USC 1344) (33 USC 1341). The Applicant will need to comply with mitigation measures that are determined by the USACE.

- Commenter recommends that the DOE encourage the maximum practical use of the monopole support structures, particularly in environmentally sensitive areas. The Monopole structure has a smaller permanent physical footprint, and would thus reduce predicted avian collision rates by reducing the overall surface area. Monopole structures also require less habitat disturbance and drilling during construction.

Response:

Comment noted. The Project currently plans to use a mix of lattice and monopole support structures. If minimizing footprint is important monopole structures may be considered.

However, other considerations include land use, engineering efficiency, ROW restrictions, and existing facilities (see Appendix F of the Final EIS). Lattice structures typically are used for longer span lengths and require fewer support structures per mile of transmission line. Where spans are shorter, monopole structures may be used.

- For hazardous materials handling, commenter recommends all hazardous material storage be placed in spill containment sites. This is also applicable to wastewater discharge from concrete batch plants.

Response:

As described in EIS Section 3.15.6.1.2, the Applicant would be required to obtain an NPDES stormwater construction permit and develop a SWPPP, and both the permit and the plan would require actions to ensure that no contaminants, including sediments, were released from the site during construction that could adversely impact surface water. The SWPPP would be required to include a list of construction site pollutants, locations of all potential pollutant-generating activities, and descriptions of the procedures that would be followed to prevent and respond to spills and leaks of site pollutants. Section 3.15.6.1.5 of the Final EIS identifies additional measures that would be taken by the Applicant to provide protection for surface water quality. These EPMs include (GE-28) transporting, storing, and disposing of hazardous materials and chemicals in accordance with federal, state, or local regulations or permit requirements; and (W-14) ensuring there is no off-site discharge of wastewater from temporary batch plant sites. As discussed in Section 3.15.6.1.1 of the Final EIS, measures to prevent spills and leaks of site pollutants may include items such as using secondary containment for onsite fueling tanks or containers; providing cover, containment, and protection for chemicals, liquid products, petroleum products, and other potentially hazardous materials; using spill prevention and control measures when conducting maintenance, fueling, and repair of equipment and vehicles; and providing immediate response to any spill incident. As noted in EIS Section 2.1, the Applicant would also develop and follow its own SPCCP to minimize the potential for accidental discharge of hazardous or controlled substances.

- Commenter notes concern that Clean Line has filed for a mitigation plan, but no details have been available.

Response:

Comment noted. A Mitigation Action Plan will be developed if DOE decides to participate in the Project. Section 3.1.2 of the Final EIS identifies EPMs that have been developed for the Project and that would be implemented to avoid or minimize potential adverse effects from construction, operations and maintenance, and decommissioning of the Project. These EPMs, which were developed by Clean Line and have been incorporated into the analysis, are listed in Appendix F. In addition, DOE has included BMPs in some resource areas that could further avoid or minimize potential adverse impacts. The ROD will identify conditions of approval that may include BMPs identified in the Final EIS, or additional BMPs if DOE decides to participate in the Project. Additional mitigation measures may be required by federal, state, or local permits that are required by the Project.

- Commenters request caution when crossing bodies of water:
 - Commenter requests that where the transmission line crosses the Cache River, the Applicant installs multiple types of collision deterrent devices and actively monitors this span for avian collisions.
 - Commenter requests that where the transmission line crosses the Mississippi River, the Applicant installs multiple types of collision deterrent devices and actively monitors this span for avian collisions.
 - Commenter requests that when crossings cannot be avoided the routing decisions follow the following guidelines. First, they should run perpendicular to the body of water being crossed to minimize impact. Second, they should seek to cross adjacent to existing infrastructure right-of-ways to minimize unnecessary habitat fragmentation. When that is not possible, they should cross at a narrow, high-banked area with the goal of spanning the water body without the need to erect structures in the riparian area.

Response:

The commenter's recommendations for waterbody crossings are noted and DOE believes they are consistent with the Applicant's planned approaches to such crossings. The Applicant has identified four typical crossing methods for access roads, which are described in Section 3.15.6.1.3 of the Final EIS, along with general application criteria for each type. The more ecologically sensitive the stream, the more emphasis would be placed on designing a crossing that would protect that sensitive resource. As indicated in the EIS discussion, the Project has not yet progressed to the stage of detailed location-specific design, so the specific manner in which drainage features would be crossed or the full extent of existing crossing routes are not yet available, but in all cases the ultimate intent at any crossing would be to minimize the length of the drainage feature that would be affected and to maintain existing flow characteristics through the disturbed section so that effects upstream or downstream would be minimized.

As described in Section 3.15.6.1.1 of the Final EIS, the Applicant would be required to obtain an NPDES stormwater construction permit and develop a SWPPP as required by the permit, and both the permit and the plan would require actions to ensure that no contaminants, including eroded soils or sediments, were released that could impact surface water. The state regulatory agency reviewing the SWPPP would expect to see the specific actions to be taken by the Applicant to protect surface waters and provide justification for why the selected actions would be expected to be effective. Once included in the final SWPPP as committed actions, the BMPs become terms of the NPDES permit. Site-specific mitigation measures for waterbody crossings will be reviewed and approved by other federal and state agencies (listed above) when permits are acquired prior to construction. Construction monitoring by these agencies and/or an independent contractor would ensure these mitigation measures are adhered to.

Clean Line has committed to developing and implementing an APP consistent with APLIC guidelines. The APP will describe a program of specific actions, which when implemented, would reduce risk of avian mortality. That plan would include collision deterrent devices at locations where they are deemed appropriate to mitigate potential impacts. The DOE, Clean Line, and USFWS are consulting under Section 7 of the ESA

regarding potential adverse effects on threatened or endangered species. Through this separate but parallel consultation process, DOE, Clean Line, and USFWS will identify any specific protection measures, possibly including collision deterrent devices, to avoid, reduce, or mitigate potential impacts to T&E avian species. Any relevant protection measures would be integrated into the APP.

- Commenter recommends that all permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of aquatic species. Commenter states the crossings should be constructed to withstand expected high flows. Recommendation is found as a BPM at Table 2.7-1.

Response:

The commenter's recommendations for waterbody crossings are noted and DOE believes they are consistent with the Applicant's planned approaches to such crossings. The Applicant has identified four typical crossing methods for access roads, which are described in Section 3.15.6.1.3 of the Final EIS, along with general application criteria for each type. The more ecologically sensitive the stream, the more emphasis would be placed on designing a crossing that would protect that sensitive resource. As indicated in the EIS discussion, the Project has not yet progressed to the stage of detailed location-specific design, so the specific manner in which drainage features would be crossed or the full extent of existing crossing routes are not yet available, but in all cases the ultimate intent at any crossing would be to minimize the length of the drainage feature that would be affected and to maintain flow characteristics through the disturbed section so that effects upstream or downstream would be minimized.

- Commenter states that the use of best management practices at all stream crossings should be employed and monitored to limit siltation and erosion.

Response:

As indicated in EIS Section 3.15.6.1.3 of the Final EIS, access roads are the component of the Project most likely to involve disturbance of streams and other drainage features. Section 3.15.6.1.3 also describes planned approaches for crossing such features if necessary. Section 3.15.6.1.5 identifies best management-like practices, EPMs, which the Applicant has already committed to that would minimize impacts at stream crossings. These include (W-1) avoid and/or minimize construction of access roads in special interest waters; (W-2) identify, avoid, and/or minimize adverse effects to wetlands and waterbodies; (W-5) construct access roads to minimize disruption of natural drainage patterns including perennial, intermittent, and ephemeral streams; and (W-6) not constructing counterpoise or fiber optic cable trenches across waterbodies. The Project has not progressed to the stage that detailed location-specific crossing routes are available and, as a result, the protective measures identified at this stage of the Project, such as those in the preceding sentence, are often general in nature. As described in Section 3.15.6.1.1 of the Final EIS, the Applicant would be required to obtain an NPDES stormwater construction permit and develop a SWPPP as required by the permit, and both the permit and the plan would require actions, including identification of specific

BMPs, to ensure that no contaminants, including eroded soils or sediments, were released that could impact surface water. The state regulatory agency reviewing the SWPPP would expect to see the specific actions to be taken by the Applicant to protect surface waters and justification for why the selected actions would be expected to be effective. Once in the final SWPPP as committed actions, the BMPs become terms of the NPDES permit.

- Commenters feel that the mitigation measures are not adequate:
 - GE-29: Clean Line will work with landowners and operators of active oil and gas wells, utilities, and other infrastructure to identify and verify the location of facilities and to minimize adverse impacts. Identification may include use of the One Call system and surveying of existing facilities. LU-1: Clean Line will work with landowners and operators to ensure that access is maintained as needed to existing operations (e.g., to oil/gas wells, private lands, agricultural areas, pastures, hunting leases). Requiring Clean Line to "work" with operators falls short of requiring Clean Line to avoid impacts to natural gas operations and ensure access to well pads. Therefore, these EPMs do not provide a basis to conclude that impacts can be avoided or minimized. Even if Clean Line works in good faith with SWN-A and other operators, it cannot be presumed that the transmission line could be re-routed locally to avoid impacts to natural gas operations, given the density of well pads and related infrastructure in the region.

Response:

Comment noted. Access restrictions and enforcement mechanisms will be worked out during final ROW easement negotiations with the landowner, and access restrictions would be implemented according to landowner agreements. To the extent that the DOE participates in the Project, the acquisition of easements and, in limited areas, land purchased in fee (such as for the converter stations), may be subject to applicable provisions of the Uniform Act, the purpose of which is to ensure that landowners are treated fairly and consistently. The Applicant intends to acquire all of the necessary ROW for the Project through voluntary negotiations and has developed a Code of Conduct for its negotiations with landowners, provided in Attachment 4 in Clean Line's comments on the Draft EIS (included in Chapter 2 of the CRD). This Code of Conduct requires that all communications with landowners be factually correct, in good faith, and respectful.

The ROD will identify conditions of approval that will include both EPMs and BMPs identified in the Final EIS. Additional mitigation measures may be required by federal, state, or local permits that are required by the Project.

- 40 CFR §1502.16(h) requires that the EIS include discussions of means to mitigate adverse environmental impacts, unless included in the discussion on alternatives. The failure to develop mitigation measures for the proposed action that the public can review and comment upon prior to the issuance of permits is a violation of the National Environmental Policy Act ("NEPA") and its implementing regulations issued by the White House Council on Environmental Quality ("the CEQ Regulations") that are applicable to all major federal actions with a potentially significant effect on the environment.

Response

Comment noted. In addition to specific mitigation measures discussed for individual resources, Section 3.1.2 of the Final EIS identifies EPMs that have been developed for the Project and that would be implemented to avoid or minimize potential adverse effects from construction, operations and maintenance, and decommissioning of the Project. These EPMs, which were developed by Clean Line and have been incorporated into the analysis, are listed in Appendix F of the Final EIS. In addition, DOE has included BMPs in some resource areas that could further avoid or minimize potential adverse impacts. The EPMs and BMPs are presented in the Final EIS for public comment. The ROD will identify conditions of approval that may include BMPs identified in the Final EIS or additional BMPs. Additional mitigation measures may be required by federal, state, or local permits that are required by the Project.

- Commenter notes concerns about the risks and/or liabilities associated with this project. Commenter feels that the Department of Energy and Clean Line need to develop a clear plan to mitigate these and any other risks or liabilities to both Southwestern Power Administration and its customers.

Response:

The Final EIS process evaluates risks and liabilities in terms of potential impacts to 19 categories of resources covered in the EIS. The Section 1222 application review by DOE will, in part, evaluate financial risks and how the Project is incorporated into the existing electrical grid. For further information, please see the Section 1222 Application (Part 2) materials at: <http://www.energy.gov/oe/downloads/plains-eastern-clean-line-transmission-line-part-2-application>.

- Commenter has concerns about the potential of disturbed ground entering water resources, and notes he has not yet seen a temporary Best Management Practice that can handle that situation.

Response:

The types of EPMs, BMPs, or mitigation measures identified in a document such as the EIS are often general in nature, particularly in the case of the very site-specific measures required for control of stormwater and associated erosion from ground disturbances. The Project is still in the early planning stage, too early to have developed specific plans and designs for such measures. As described in Section 3.15.6.1.1 of the EIS, the Applicant would be required to obtain an NPDES stormwater construction permit and develop a SWPPP as required by the permit, and both the permit and the plan would require actions, including identification of specific BMPs, to ensure that no contaminants, including eroded soils or sediments, were released that could impact surface water. In preparing the required SWPPP, the Applicant would have access to a multitude of BMPs identified in literature and by regulatory agencies, including EPA (<http://www.epa.gov/npdes/stormwater/menuofbmps/construction>). The state regulatory agency reviewing the SWPPP would expect to see the specific actions to be taken by the Applicant to control stormwater and justification for why the selected actions would be

expected to be effective. Once in the final SWPPP as committed actions, the BMPs become terms of the NPDES permit.

- Commenter hopes that, should the project be built, mitigation procedures are in place to help with the noise concerns, particularly planting trees and natural scenes and vegetation.

Response

EPMs that have been incorporated into the Project to minimize the potential for noise impacts are listed in Section 3.11.6.1. In addition, DOE is suggesting one BMP to further minimize the potential for noise impacts, described in Section 3.11.6.4 as investigating noise complaints from construction and/or operation of the Project via the Applicant's Communications Program. The Communications Program (described in Section 3.1.2) will provide a mechanism for receiving and addressing customer complaints regarding noise and other impacts. The methods for resolution of complaints will be decided on a case-by-case basis.

- Commenter states that EPM LU-3 fails to describe what the specific impacts will be to residential landscaping, nor does the Corporation list an approximate number of households that might be effected. Commenter also states that it is reasonable to assume that there will be other impacts to daily living for residents, given the proximity of the line being close enough to disturb landscaping.

Response:

LU-3 was written to encompass any impact to residential landscaping during all phases of the Project. Impacts to residential landscaping will most likely be limited to temporary vegetation removal or damage during construction of the AC collection system, HVDC transmission line, or access roads, or permanent tree removal within the ROW for the AC collection system HVDC transmission line in accordance with the forthcoming TVMP (see Section 4.4 of Appendix F in the Final EIS). The TVMP may require additional analysis under NEPA depending on whether and under what conditions DOE decides to participate in the Project. Impacts to residential landscaping are anticipated to be minimal because residential landscaping is typically located in close proximity to residences, and Clean Line has committed to work with landowners to avoid and minimize impacts to residential landscaping (EPM LU-3) and to make reasonable efforts to accommodate requests from landowners to adjust siting of the ROW on their properties (EPM LU-5). Furthermore, residential landscaping tends to be low-growing, and Clean Line has committed to minimize clearing vegetation within the ROW according to EPM GE-3. Residences that may be affected will be limited to those located within the ROW, but these will not be known until routes are selected and structure siting is complete. Section 3.10.5 identifies the number of residential structures in each Region's ROI. Section 3.10.6.2 identifies other impacts to residences from construction and operations and maintenance of the Project, including those associated with noise, dust, transportation, health and safety, and visual impacts; all of these are discussed in Sections 3.11, 3.3, 3.16, 3.8, and 3.18 of the Final EIS, respectively.

- Commenter provides several conservation actions designed to reduce disturbance to Lesser Prairie Chicken (LEPC) and to reduce impact to LEPC habitat. Commenter recommends that all development associated with the project that occurs within the Estimated Occupied Range of the LEPC in Oklahoma implement the following to the extent possible:
 - Construct new infrastructure in locations which avoid occupied and suitable LEPC habitat.
 - Maximize the use of existing and previously impacted corridors (i.e. transmission lines, substations, roads, fencing, etc., as identified in the SGPCHAT) for any new infrastructure.
 - Combine multiple operations at one site to minimize the disturbance/fragmentation of the LEPCs habitat.
 - Avoid conducting early morning activities between 3:00 am and 9:30 am during the mating/brood rearing season (March 1 to July 15) at sites near active leks.
 - Limit fencing to the extent possible. If necessary however, limit fencing to three strands, and limit the height of the top strand of fencing to below 40 inches. Install fence markers or other visually detectable avoidance mechanisms to new fencing within 2 miles of active leks.
 - Use native grasses and forbs where possible to promote natural habitat when reseeding disturbed areas in high importance habitat. After re-vegetation, apply annual herbicide treatment, as needed, to eradicate invasive weeds like Scotch thistle to aid in restoring native plant regimes.
 - Remove unnecessary equipment and infrastructure, and reclaim all portions of disturbed areas not needed for production operations and all portions of roads not needed for vehicles.
 - Use noise control devices to muffle or control exhaust noise from machinery (cranes, bulldozers, tractors, chain saws, concrete mixers, compressors, etc.) near active leks, to the extent possible.
 - Remove unneeded equipment, infrastructure, trash, and debris from construction sites.

Response:

Clean Line has committed to multiple EPMs, several of which address the suggested conservation measures. EPMs GE-3 and GE-7 address minimizing vegetation clearing and the restoration of vegetation on disturbed areas. GE-15 addresses the removal of waste and trash. GE-20 addresses the hours of construction (limited to daylight hours) and GE-22–GE-24 address equipment operation and sensitive receptors. FVW-4 addresses construction activity in relation to migratory birds (breeding and nesting) and conducting preconstruction surveys. FVW-5 addresses construction activities during important time periods (breeding, nesting, and migration) and maintaining distances from environmentally sensitive locations and possibly seasonal restrictions on activity. The DOE, Clean Line, and USFWS are consulting under Section 7 of the ESA regarding potential adverse effects on threatened or endangered species. Through this separate but parallel consultation process, DOE, Clean Line, and USFWS will identify any specific protection measures as needed for the LEPC.

- Commenter notes the following on Section 3.2.6.7 which includes several impacts which had not been previously introduced. Commenter questions the impacts and the EPMs used to mitigate the impacts:
 - Clean Line proposes that it will "minimize clearing vegetation" within the right-of-way (EPM GE-3). What are the specific standards for clearing vs. not clearing vegetation? Apparently Clean Line has filed a Transmission Vegetation Management Plan with the North American Electric Reliability Corporation. Is it incumbent upon landowners to obtain this filing to determine which vegetation will or will not be cleared?

Response:

Pursuant to the NERC Reliability Standard FAC-003, prior to operation Clean Line is required to create and implement a documented vegetation management strategy for the Project's permanent ROW to prevent vegetation-caused outages on the transmission system. Clean Line will develop a Vegetation Management Program (Vegetation Program) that will provide the framework for implementing treatments prescribed in the Project's TVMP. The TVMP may require additional analysis under NEPA depending on whether and under what conditions DOE decides to participate in the Project.

The Vegetation Program will be based on established principles of IVM for promoting and managing sustainable plant communities within transmission line rights-of-way (ROWs) that are compatible with safe, reliable operations and maintenance of the Project. The Project Description (Section 4.4 of Appendix F) describes how Clean Line will use management objectives described in the Vegetation Program to inform the Project's TVMP. The TVMP will define site-specific standards and action thresholds, measurable objectives and metrics; and prescribe controls or treatment options to achieve defined management objectives that support the Vegetation Program's overall goals of maintaining desirable plant communities and system reliability.

During development of the TVMP, Clean Line has committed to DOE that it will solicit input from landowners or tenants (or other land managers as appropriate) as a key step when evaluating and selecting site-specific control methods for the TVMP. To accomplish this, Clean Line will utilize information obtained from landowners, tenants, and/or managers about specific land uses within their parcels to select control methods that best achieve the ROW management objectives at a specific site and address landowners' concerns. For example, if a certified organic farm prohibits the use of synthetic chemicals to maintain their certification, Clean Line would work with those landowners to identify vegetative control or treatment options on their property that would not affect their certified status. Clean Line has also committed to DOE that they will work with landowners to clarify expectations for management objectives and to communicate the need for, benefits of, and scientific principles of IVM.

The Vegetation Program's goals, broad management objectives, and periodic progress reports are intended to be available and accessible to the general public or interested stakeholders upon request and/or through a Project or corporate website. Opportunities for accessing these resources may include public or community education materials focused on IVM's objectives and its benefits. Consistent with common utility practice, the

TVMP is a detailed plan and living document that will contain site-specific treatment measures that will be coordinated with a landowner. The TVMP may contain sensitive information that could be considered Critical Energy Infrastructure Information (as defined by FERC Order 630) and or personally identifiable information for landowners (such as name, address, or property maps), and therefore general circulation may be limited in whole or in part.

Clean Line proposes that it will "work with landowners to avoid and minimize impacts to residential landscaping" (EPM LU-3). How, specifically, will residential landscaping be affected by the high voltage line/towers? The Clean Line gives no specifics about how it expects the Project to disturb, destroy, or otherwise affect residential landscaping; it also does not list an approximate number of households it expects to be affected. If the DOE/Clean Line expect the high voltage line/towers to be in such close proximity to residences that the landscaping would be disturbed, what other impacts to daily living do they expect for such residents?

Response:

EPM LU-3 was written to encompass any impact to residential landscaping during all phases of the Project. Impacts to residential landscaping will most likely be limited to temporary vegetation removal or damage during construction of the AC collection system, HVDC transmission line, or access roads, or permanent tree removal within the ROW for the AC collection system HVDC transmission line in accordance with the forthcoming TVMP (see Section 4.4 of Appendix F in the Final EIS). The TVMP may require additional analysis under NEPA depending on whether and under what conditions DOE decides to participate in the Project. Impacts to residential landscaping are anticipated to be minimal because residential landscaping is typically located in close proximity to residences and Clean Line has committed to work with landowners to avoid and minimize impacts to residential landscaping (EPM LU-3) and to make reasonable efforts to accommodate requests from landowners to adjust siting of the ROW on their properties (EPM LU-5). Furthermore, residential landscaping tends to be low-growing, and Clean Line has committed to minimize clearing vegetation within the ROW according to EPM GE-3. Residences that may be affected will be limited to those located within the ROI for each region, but will not be known until routes are selected and structure siting is complete. In the Final EIS, Section 3.10.5 identifies the number of residential structures in each region's ROI. Section 3.10.6.2 identifies other impacts to residences from construction and operations and maintenance of the Project, including those associated with noise, dust, transportation, health and safety, and visual impacts; all of these are discussed in Sections 3.11, 3.3, 3.16, 3.8, and 3.18, respectively.

- Clean Line proposes that it will "work with landowners to ensure that access is maintained as needed to existing operations (e.g., to oil/gas wells, private lands, agricultural areas, pastures, hunting leases)" (EPM LU-1). The Corporation does not specify who is the arbiter of "as needed." Can circumstances arise where landowners are denied access to their private property, where workers from oil/gas companies are denied access to their facilities, where hunters are denied access to their customary hunting

areas, etc.? How does Clean Line propose to communicate and enforce whether or not it allows access?

Response:

Access restrictions and enforcement mechanisms will be worked out during final ROW easement negotiations with the landowner, and access restrictions would be implemented according to landowner agreements. To the extent that the DOE participates in the Project, the acquisition of easements and, in limited areas, land purchased in fee (such as for the converter stations), may be subject to applicable provisions of the Uniform Act, the purpose of which is to ensure that landowners are treated fairly and consistently. The Applicant intends to acquire all of the necessary ROW for the Project through voluntary negotiations, and has developed a Code of Conduct for its negotiations with landowners, provided in Attachment 4 of Clean Line's comments on the Draft EIS (included in Chapter 2 of the CRD and discussed in Section 2.1.3 of the Final EIS). This Code of Conduct requires that all communications with landowners be factually correct, in good faith, and respectful.

The ROD will identify conditions of approval that would include both EPMs and BMPs identified in the final EIS. Additional mitigation measures may be required by federal, state, or local permits that are required by the Project.

- Clean Line proposes to restore agricultural soils to pre-activity conditions (EPM AG-2). How much time will elapse between soil damage and soil remediation?

Response:

The Applicant would replace any disturbed top soil (with original top soil) and begin the restoration of agricultural soils to pre-activity conditions immediately following the completion of construction activities. Specific restoration of certain soils might require additional follow-up activities and time to ensure that soils are restored to pre-activity conditions. Such activities would be coordinated with individual landowners.

- Clean Line proposes that it will "work with landowners" to minimize impacts to specialty crops (e.g., organic crops). If land is not currently used for specialty production, but such use could occur in the future, would installation of the high voltage line/towers mean that the land could not be considered for specialty use? If landowners wish to convert their land to specialty use after construction of the high voltage line/towers, would the Corporation "work with landowners" under this scenario, or will it only "work with landowners" whose land is already in specialty production?

Response:

The operation of a transmission line in proximity to specialty agriculture does not reduce eligibility for organic farm certification. Actions such as spraying herbicide for weed control along a transmission line ROW could affect organic farms if fields of organic crops are sprayed inadvertently. As stated in EPM AG-4, the Applicant will work with landowners and/or tenants to identify specialty agricultural crops or lands that require protection during construction and operations and maintenance (e.g., certified organic

crops or products that require special practices, techniques, or standards). This commitment to working with landowners who grow specialty crops is further described in the Applicant's Agricultural Impact Mitigation Policy provided in Appendix J of the Final EIS. Conversion of land to specialty agriculture would not be precluded following completion of construction of the transmission line because the presence of a transmission line does not reduce eligibility for organic farm certification. Limitations on land uses would be described in the easement agreement; these limitations could be modified in the easement based on site-specific conditions and/or coordination with landowners.

- Clean Line provides the following specific comments on the Draft EIS:
 - Commenter notes that the Summary explains that the EPMs that Clean Line has adopted and integrated into the Project would avoid or minimize the potential for "major environmental effects" to affected resources. The use of the term "major" should be clarified in this context. Based on the context of the overall discussion, we believe that DOE was seeking to explain the relative magnitude or significance of adverse impacts (direct, indirect or cumulative, including unavoidable impacts or irretrievable and irreversible impacts) identified with the Draft EIS. Rather than a general discussion of "major" impacts or effects, Clean Line encourages DOE to discuss potential impacts in terms of the magnitude or significance that warrant identification as key findings.

Response

Discussion of "major conclusions" in the EIS summary is a requirement of CEQ regulations (40 CFR 1502.12) and is included in Section S.7.1. To clarify the nature of environmental impacts in the Draft EIS Summary, the term "major" has been removed as a descriptor of impacts from the Final EIS Summary Section S.7.1. Section 3.1.3 of the EIS provides details about how impacts are characterized in terms of direct, indirect, temporary, short-term, long-term, and permanent impacts and their severity to the affected resource.

- Clean Line notes they are committed to constructing and operating all phases of the Project in a manner that protects the quality of the environment. This means not only complying with all applicable federal, state, and local laws, regulations, permits, and ordinances related to environmental protection, but also voluntarily adopting other measures to avoid and/or minimize the potential effects of the Project. Specifically, Clean Line has developed a series of avoidance and minimization measures designated as EPMs for the Project. These EPMs are further detailed in the Project Description (Appendix F) to the Draft EIS (Plains & Eastern Clean Line Project Description, Appendix B) and will be implemented as part of the Project. Clean Line notes that under NEPA, the protective measures adopted by the Project proponent, such as Clean Line's EPMs, must be discussed in sufficient detail to ensure that environmental consequences can be fully evaluated. Consistent with this requirement, the Draft EIS makes the full text of the EPMs available as an Appendix to the Project Description in the Draft EIS, includes an overall description of the EPMs in Section 2.1.7, and incorporates analyses of the EPMs into each of the resource-specific analyses in Chapter 3, Affected Environment and Environmental Impacts. This approach to the identification and analysis of protective

measures meets the requirements of NEPA. Clean Line states that as part of the Draft EIS, DOE also provides further recommendations on measures, i.e., BMPs that may be adopted to provide further protections. DOE notes in the Draft EIS that the BMPs are only recommendations at this time and have not been adopted. Clean Line agrees with the overall approach taken by DOE in its discussion and analysis of the Clean Line EPMs, as well as its process for identifying and recommending BMPs that may be adopted. However, clarifications to discussions of the Clean Line EPMs and DOE-proposed BMPs remain warranted. Clean Line provides clarification of the Scope of EPMs developed: Clean Line encourages DOE to clarify its description of the scope and coverage of the Clean Line EPMs in Section 2.1.7. For example, the Draft EIS summarizes the EPMs as intended to "...protect land use; soils and agriculture; fish, vegetation and wildlife; and waters, wetlands, and floodplains." Section 2.1.7, p. 2-20, ln 21-22. However, this statement appears to be merely a recitation of the general categories used to group the EPMs as part of Clean Line's Project Description. Moreover, even this initial listing of categories appears to ignore the thirty-one (31) EPMs classified as "General Measures" (GE-1 through GE-31), many of which have much broader application than implied in the discussion set forth in Section 2.1.7. For example, GE-1 covers the training of all personnel on health, safety and environmental matters. EPM GE-10 ensures that Clean Line will work with landowners to repair damage caused by construction, operation, or maintenance activities of the Project. Other EPMs address minimization of noise and traffic, hazardous materials handling and other measures to avoid and minimize effects to landowners, as well as environmental resources. Thus, the description of the Clean Line EPMs in Section 2.1.7 should be revised to better reflect their actual scope and coverage.

Response

DOE has clarified the description of scope and coverage of the EPMs in Section 2.1.7.

- Clean Line provides clarification of BMPs as Post-Analysis Recommendations: In Section 2.7 of the Draft EIS, DOE explains that it has identified best management practices or BMPs in those instances where it concluded that implementation of Clean Line's EPMs would not be able to completely avoid or minimize all potential adverse effects resulting from construction, operations and maintenance, and decommissioning of the Project. NEPA does not require that all adverse effects identified in an EIS be completely avoided or minimized. Rather, NEPA requires that the EIS identify and evaluate the potential environmental impacts of a proposed federal agency action at a level of detail and scope that allows for a "hard look" at the potential effects of the Project. Thus, as noted above, it is important that adopted protective measures, such as the Clean Line EPMs, are appropriately analyzed within the EIS. However, BMPs serve as post-analysis recommendations and should not be assumed to be implemented for purposes of the impact analyses.

In most instances, DOE appears to properly treat BMPs as recommendations that may be adopted, but did not assume implementation of such measures for purposes of the evaluation of Project impacts. However, in certain discussions, this treatment is not clearly expressed. For example, in Section 2.8.1, the introduction to the summary of unavoidable impacts refers to identification of unavoidable impacts "after implementation of the EPMs

and those BMPs that DOE includes in a ROD or participation agreement." Section 2.8.1, p. 2-73, ln 5-6 (emphasis added). However, since the ROD and participation agreement will be finalized after the Final EIS, DOE should clarify that the identification of unavoidable impacts is based upon evaluation of the Project, including the implementation of the EPMs. While the BMPs may further avoid and minimize such impacts, the adoption and implementation of BMPs cannot be assumed for purposes of conclusions reached in the Final EIS.

We encourage DOE to further review and confirm its discussions within Chapters 2 and 3 to ensure consistent treatment of EPMs and BMPs. For example, the discussion of noise impacts in Section 2.9.11 also should be revised to assume only adoption of the EPMs. Moreover, to avoid any confusion as to this matter, Clean Line recommends that DOE confirm and explicitly state within the Final EIS that all BMPs were identified as post-analysis recommendations and that their adoption was not assumed for purposes of evaluating the effects of the Project and DOE alternatives.

Response

DOE has reviewed and clarified where appropriate the evaluation of impacts with respect to EPMs and BMPs in Chapters 2 and 3 of the Final EIS. Section 3.1.2 further explains the relationship between EPMs and BMPs. If DOE decides to participate in the Applicant Proposed Project, the ROD will include EPMs, BMPs, and where necessary, site-specific mitigation measures. Implementation of any EPMs, BMPs, and site-specific mitigation measures that are included in the ROD will be conditions of DOE's participation.

- Finally, with regard to the particular BMPs suggested by DOE, Clean Line recommends specific clarifications and revisions to the BMPs as part of its comments table as shown in Attachment 1. Clean Line urges DOE's consideration of these specific BMP comments in its preparation of the Final EIS.

Response

DOE has considered the specific BMP comments in the Final EIS.

Regarding the comment in Attachment 1 of Clean Line's comments about noise complaints and the BMP identified that would implement a Communications Program: The text identified in Section 2.8.1 of the Draft EIS is accurate with respect to its description of how EPMs and BMPs are incorporated into the Final EIS. The EPMs and BMPs that are included in Final EIS are considered in conclusions regarding environmental impacts in that document. If DOE decides to participate in the Applicant Proposed Project, the ROD will incorporate the EPMs, any required BMPs, and any site-specific mitigation measures. EPMs and BMPs that are included in the ROD will be conditions of DOE's participation.

Regarding the comment in Attachment 1 of Clean Line's comments regarding Section S.6.1.14.2, the Final EIS Summary text has been edited to remove reference to restoration of disturbed habitats.

Regarding the comment in Attachment 1 of Clean Line's comments regarding Section 1.5.2 of the Draft EIS, Table 1.5-1 is included to summarize issues identified through the scoping process. The purpose of scoping is stated in Section 1.5.2 of the Final EIS: to request and receive comments on the scope of the EIS and alternatives from interested parties. In this context, the use of the term "best management practices" is appropriate because it is recording comments received from the public during scoping. No changes have been made to the text in this section.

- Clean Line provides discussion on the process for considering additional protective measures, including potential adoption or clarification of BMPs: In Section 2.7 of the Draft EIS, DOE notes that the identified BMPs have not been adopted, but that certain BMPs may be required through the ROD or agreements detailing the scope of DOE/Southwestern's participation in the Project. Moreover, the Draft EIS also correctly notes that additional protective measures may be identified as part of ongoing consultations and permitting matters, such as the formal consultation with USFWS regarding effects of the Project on endangered and threatened species pursuant to Section 7 of the ESA.

An important clarification to the discussion of the BMP recommendations or additional protective measures arising from other consultations or permitting is that the means for adoption and implementation may take several forms, and not merely through participation agreements that are approved as part of the ROD. The other federal, state or local permitting decisions may include enforceable permit terms and conditions that identify protective measures to be undertaken by the Project. The ROD would establish whether and under what terms and conditions the DOE and Southwestern would participate in the Project, including the adoption and implementation of appropriate protective measures. However, the discussion of such adoption and implementation of protective measures should not be so narrowly described as only occurring through the ROD and Participation Agreement. We encourage DOE to make appropriate revisions to the Final EIS to recognize the full suite of means by which adoption and implementation of protective measures may occur.

Response:

Section 2.7 of the Final EIS has been edited to clarify that in addition to BMPs identified in the ROD or Participation Agreements, additional protective measures may be identified and required as part of ongoing consultation and permitting with federal, state, and local agencies.

- This comment applies to the environmental protection measures discussed in this section, as well as others that are discussed elsewhere. Clean Line proposes ways in which it plans to lessen the environmental impact of the project. Who will hold Clean Line accountable if it does not fulfill these pledges? For example, GE-6 states that "Clean Line will restrict vehicular travel to the ROW [right-of-way] and other established areas within the construction, access, or maintenance easement(s)." Will landowners have recourse if the Corporation travels elsewhere on their land, establishes shortcut routes, etc.? The same questions can be asked of any of the environmental protection measures. When Clean Line

assures the reader in GE-5 that "herbicides used during construction and operations and maintenance will be applied according to label instructions and any federal, state, and local regulations," will it be held accountable, for example, if defoliation occurs in areas not sanctioned for such herbicide use, or if there are other unintended adverse effects from defoliation?

Response:

Clean Line must abide by Southwestern and DOE policies during all phases of the Project. If DOE agrees to participate in the Project. EPMs and other approval criteria will be enforced by monitoring as specified in a monitoring plan specified in the ROD or Participation Agreement. Clean Line will also be required to comply with all federal, state, and local laws, regulations, and guidance as well as permit conditions specified through the various permitting authorities in implementing the Project. An initial list of federal and state permits required (as well as the laws, regulations and guidance related to these permits) that Clean Line must comply with is provided in Appendix C of the Final EIS.

Regarding the specific question about herbicides and unintentional defoliation: herbicide spraying is one method utilized to control vegetation growth through IVM. As discussed in Section 4.4 of Appendix F of the Final EIS, herbicide application will be evaluated against other vegetation management options by consideration of site-specific ecological conditions, surrounding and underlying land uses, and any environmental sensitivities before selecting and applying a control. This careful method of application will likely avoid unintentional adverse effects associated with herbicide application. If unintentional adverse effects occur, Clean Line would comply with federal, state, and local laws, regulations, and guidance as well as permit conditions to address these impacts.

- Commenter states the proposed EPM's outlined throughout the Draft EIS and Appendix F should greatly reduce, mitigate or eliminate the likelihood of potential negative impacts associated with the Project. SACE supports the inclusion of the EPM's outlined.

Response:

Comment noted.

- Commenter notes that the EIS identifies a number of federally listed species potentially affected by either the construction or the operation of the Clean Line. Within Arkansas, this includes potential impacts to Piping Plover and Interior Least Tern, federally listed species with threatened and endangered status, respectively. It is incumbent upon DOE to make the permitting of this project contingent upon the successful completion of a satisfactory APP. The determination of the adequacy of the APP must be made by the agencies holding the management obligations, USFWS, and AGFC. In addition to addressing impacts to state and federally listed species, the APP should also address Arkansas's Species of Greatest Conservation Need, those species whose populations are disproportionately dependent upon management actions within the state. In addition, Commenter believes that species for which the Cache-Lower White River was designated as a Global Important Bird Area should be considered in the APP as well. Because the permitting of this project assumes that compensatory mitigation will offset adverse project impacts, it is essential that mitigation

actions be rigorously monitored and enforced. DOE must require documentation of specific mitigation obligations to be fulfilled by the project applicant, with monitoring and enforcement provisions also explicitly described in a mitigation plan. Mitigation obligations stipulated in the conditions of the permit will need to be of commensurate duration as the project impacts, with remedies specified for underperformance and/or failures of the mitigation actions.

Response:

Clean Line has committed to developing and implementing an APP consistent with APLIC guidelines. The APP will describe a program of specific actions, which when implemented, would reduce risk of avian mortality. The DOE, Clean Line, and USFWS are consulting under Section 7 of the ESA regarding potential adverse effects on threatened or endangered species. Through this separate but parallel consultation process, DOE, Clean Line, and USFWS will identify any specific protection measures to avoid, reduce, or mitigate potential impacts to avian species. Any protection measures included as terms and conditions of the Biological Opinion would be enforceable requirements. Any relevant protection measures identified during the consultation process would be integrated into the APP.

- Commenter suggests that DOE require an IVM Plan to be incorporated into the TVM Plan. The IVM Plan should follow the standards provided by the Right-of-Way Stewardship Council. Furthermore, Audubon recommends that the Applicant become accredited by this Council.

Response:

Pursuant to the NERC Reliability Standard FAC-003, Clean Line is required to create and implement a documented vegetation management program for the Project's permanent ROW to prevent vegetation-caused outages on the transmission system. The TVMP may require additional analysis under NEPA depending on whether and under what conditions DOE decides to participate in the Project. Clean Line would develop and implement a Vegetation Management Program (Vegetation Program) that would provide the framework for the Project's TVMP. As described in the Project Description (Appendix F), Clean Line would develop a Vegetation Program and TVMP using principles of IVM following the guidelines presented in the American National Standards for Tree Care Operations—Tree, Shrub, and Other Woody Plant Management—Standard Practices (Integrated Vegetation Management a. Utility Rights-of-Way) (ANSI A300, Part 7) and Best Management Practices (Second Edition; 2014) and subsequent versions or similar future guidance documents, as appropriate. A discussion of the TVMP and IVM are included in Appendix F, Section 4.4, Project Description.

- The conditions of the permit for Clean Line need to be established in a manner that will document success or failure and include remedies for failure to be executed in a timely fashion. The determinations of mitigation success or failure should be made by the pertinent state and federal agencies with management responsibilities for the species and ecological communities that are being protected. Monitoring and enforcement criteria, resources, and enforcement remedies need to be specified for listed species protections as well as habitat conservation. The lack of protections provided at this juncture for listed species such as the

Interior Least Tern and the Piping Plover creates management uncertainty and risk. Potential adverse impacts to these species and others need close scrutiny and strong protections as the APP is developed for this project. DOE must not permit the Clean Line project until an APP for these species and others is approved by USFWS and AGFC. Clear adaptive management provisions for addressing unexpected outcomes should be included in the APP; management and mitigation requirements must be durable, lasting for the duration of adverse impacts created by the project.

Response:

Clean Line has committed to developing and implementing an APP consistent with APLIC guidelines. The APP will describe a program of specific actions, which when implemented, reduce risk of avian mortality. The DOE, Clean Line, and USFWS are consulting under Section 7 of the ESA regarding potential adverse effects on threatened or endangered species. Through this separate but parallel consultation process, DOE, Clean Line, and USFWS will identify any specific protection measures to avoid, reduce, or mitigate potential impacts to avian species. Any protection measures included as term and conditions of the Biological Opinion would be enforceable requirements. Any relevant protection measures identified during the consultation process would be integrated into the APP. Although avoidance of high risk sites is the more certain means of minimizing adverse impacts, compensatory mitigation for specific listed species, if needed, would be negotiated through the ESA consultation process to offset adverse impacts. The Biological Opinion will specify those conditions under which the Project would have to re-enter consultation if particular conditions (e.g., take limits) are not met. The ROD for the EIS would reference any commitments in the Biological Opinion.

- Specific mitigation measures such as letters of credit and insurance policies should be required.

Response:

Letters of credit and insurance policies are not required for NEPA compliance. In addition to NEPA, DOE is also conducting due diligence on non-NEPA factors such as the Project's technical and financial feasibility, whether the Project is in the public interest, whether the Project will be operated in conformance with prudent utility practice, and whether the project complies with other provisions of Section 1222 of the EPAct. For further information, please see the Section 1222 application (Part 2) materials at:

<http://www.energy.gov/oe/downloads/plains-eastern-clean-line-transmission-line-part-2-application>.

- The Draft EIS and significant background papers rely on unproven and often unwritten environmental protection measures. Throughout the text of the Draft EIS and the many significant supportive documents, it is assumed that the Project's impacts will be mitigated by certain environmental protection measures and project plans developed by the Applicant. There is no doubt that some potential resource impacts can be mitigated by implementation of protective measures; however, DOE's analysis of Project's impacts improperly relies on unproven and often unwritten environmental protection measures and project plans. Because the environmental protection measures and project plans inform DOE's analysis, the

measures should also be reviewed in detail to determine their applicability, relevance and standard for success. How are the protection measures implemented? Evaluated? How are they enforced? The absence of further review and analysis of the environmental protection measures and project plans renders DOE's broader analysis of the Project impacts ineffective.

Response:

EPMs are listed in Appendix F of the Draft EIS. These EPMs are typical of transmission projects, and are applied widely to transmission projects nationwide to reduce environmental impacts. The last paragraph of Section 3.1.2 describes how EPMs and other BMPs may be included in the ROD, which is a binding federal document, and enforced by a monitoring plan to ensure conditions of approval are met.

- Please specify the exact hazardous materials and chemicals that will be used if different from the list in Table 3.8-3 in Section 3.8.

Response:

Table 3.8-3 in Section 3.8.4.1 of the Final EIS identifies typical products used for transmission line construction activities that may contain hazardous constituents. While many of the products identified in the table will be used during construction and operations and maintenance activities, an exact list of chemical products does not exist. If the Project is implemented, the Applicant will identify the products necessary for Project activities and manage the procurement, storage, use, and disposal of the materials according to regulatory requirements and applicable EPMs identified in the EIS (i.e., GE-28).

- Commenter notes that as part of DOE's comprehensive participation in the Project, DOE should include meaningful environmental mitigation. The potential environmental impacts of the Project do not justify its abandonment so long as DOE agrees to mitigate these impacts. As part of mitigation, DOE should include a draft Mitigation Action Plan (MAP) in the Final EIS, although DOE's regulations do not require preparation of a MAP until after a ROD has been issued, DOE stands to benefit from including a draft MAP in its Final EIS. DOE should also incorporate Clean Line's Environmental Protection Measures and DOE's Best Management Practices into the MAP.

Response:

Comment noted. The DOE has not yet made the decision to develop a Mitigation Action Plan. Section 3.1.2 of the Final EIS identifies EPMs that have been developed for the Project and that would be implemented to avoid or minimize potential adverse effects from construction, operations and maintenance, and decommissioning of the Project. These EPMs, which were developed by Clean Line and have been incorporated into the analysis, are listed in Appendix F. In addition, DOE has included BMPs in some resource areas that could further avoid or minimize potential adverse impacts. The ROD and Participation Agreement would identify conditions of approval that may include BMPs identified in the Final EIS, if DOE decides to participate in the Project. Additional mitigation measures may be required by federal, state, or local permits that are required for all phases of the Project.

- Commenter questions how EPMs will be met by the Corporation, as this was not described in the Draft EIS. Specific example is given related to EMP GE-8: would regulation outrank road authority? Would either of those outrank a landowner's wishes?

Response:

The last paragraph of Section 3.1.2 of the Final EIS describes how EPMs and other BMPs may be included in the ROD, which is a binding federal document enforced by a monitoring plan. As stated in Section 3.1.2, Clean Line would follow all applicable federal, state, and local laws, regulations and permits in implementation of the Project. In the example given for EPM GE-8, jurisdiction would be decided by a review of federal, state, and local laws, regulations, and permit conditions for the location in question before a decision is made.

- Will an independent monitor or other neutral party be appointed to ensure that the Corporation complies with all of the EPMs it has promised to implement?

Response:

As stated in Section 3.1.2 of the Final EIS, a ROD would require a monitoring plan to ensure implementation of the conditions of approval. Monitoring processes and procedures will be identified in the monitoring plan.

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34. General Opposition Comments

The following comments were received in opposition to the Project:

- Commenters are opposed to the project because there is no clearly identified purpose and need.

Response:

As stated in Section 1.1 the DOE's purpose and need for agency action is to implement Section 1222 of the EAct. To that end, DOE needs to decide whether and under what conditions it would participate in the Applicant Proposed Project. Prior to making a decision as to whether and under what conditions to participate in the Applicant Proposed Project, DOE must fully evaluate the Applicant Proposed Project. This EIS provides the evaluation of the environmental impacts of the Applicant Proposed Project. That evaluation, together with other information such as whether the Project is consistent with transmission needs as required by Section 1222, will inform DOE's decision on whether to participate in the Applicant Proposed Project.

- Commenters are opposed to the project because the EIS was lacking in the consideration of other alternatives.

Response:

Alternatives are addressed in Section 2.4 of the Final EIS. This included the No Action Alternative.

- Commenters are opposed to the project because it is being planned outside of the regional transmission planning process.

Response:

Clean Line and DOE are not required to enter into regional transmission planning with the Southeastern Regional Transmission Planning. The Applicant's Section 1222 application, Part 1 and Part 2 (<http://www.energy.gov/oe/services/electricity-policy-coordination-and-implementation/transmission-planning/section-1222-0>), which is being reviewed by DOE, contains information on how the Project was developed using analyses and steps consistent with Regional Transmission Organization planning and how regional transmission plans show the need for west-east transmission lines, including HVDC transmission lines, similar to the Project.

- Commenters are opposed to the project because of the failure to consider the use of federal/public lands to route the transmission line.

Response:

The Applicant Proposed Route and HVDC alternative routes cross public lands in multiple locations. These are described in Chapter 3, Section 3.10, Land Use Resources. The Project used detailed routing process to determine the best route that met routing criteria. The routing process is described in Appendix G of the EIS.

- Commenters oppose the project due to the perceived conflict of interest in Jimmy Glotfelty's role in authoring Section 1222 and now serving as an officer of Clean Line.

Response:

Section 1222 was enacted by Congress as part of the EPAct, and signed into law by President George W. Bush on August 8, 2005. DOE and Clean Line conducted a conflict of interest analysis regarding Jimmy Glotfelty and found no basis for conflict.

- Commenters oppose the project because they feel resources should be directed to other sources of renewable energy, including solar. Others stated that efforts should be focused on local renewable energy projects, including individual windmills that tie directly to the grid.

Response:

Alternatives to the Project are analyzed and summarized in Section 2.4 of the Final EIS. Alternatives that were not determined to be viable or meet the goals of the Project were eliminated from consideration and are discussed in Section 2.4.4. The Project does not preclude the use of solar energy or other renewable sources to produce the electricity that could be transmitted on the proposed HVDC transmission line. The Project is designed to provide a method of transmitting renewable energy anticipated to come from wind farms in the Oklahoma Panhandle to load centers in the Mid-South and Southeast regions of the United States.

The HVDC transmission line would allow the tremendous additional wind resources in western Oklahoma (which are not currently being used to their potential) to generate electricity and transmit it to load centers (areas of higher population) in the Mid-South and Southeast regions. The graphic of the United States presented at the scoping meetings and public hearings on the Draft EIS (<http://plainsandeasterneis.com/public-scoping-materials.html?download=22;display-boards>; page 8 of 11) shows that the average wind speeds in the Oklahoma Panhandle are more than twice those of Tennessee. Given the wind speeds that occur in the Mid-South and Southeast, wind energy is not as prevalent in these areas as compared to Oklahoma.

- Commenters oppose the project because the project is speculative in nature, they don't think it is viable, technology is outdated, and there are no actual wind farms or customers identified.

Response:

DOE is evaluating the technical viability of Clean Line's Project in a separate and parallel process, which began with making the application available for public review (80 FR 23520, April 28, 2015). DOE will consider comments received in response to this notice, along with information included in the Final EIS, in making its determination of whether to participate in the Project.

Wind resources in the Oklahoma Panhandle have been studied by DOE's National Renewable Energy Laboratory and these studies have been incorporated in Clean Line's Wind Generation Technical Report (Clean Line 2014). The commenter is correct that no

wind farms have been built yet to specifically provide energy for the HVDC transmission line. The Wind Generation Technical Report indicates that there are resources and interest available to develop more than four times the capacity of the proposed HVDC transmission line.

- Commenters oppose the project because it will not benefit residents of Arkansas and will have negative impacts on the natural resources in the state. Others oppose the route through Cleburne, Conway, Crawford, Franklin, Jackson, Johnson, Pope, and White counties and the proposed converter station in Pope County, Arkansas.

Response:

The Project route development process, including the siting of the Arkansas converter station is included in Appendix G of the Final EIS. During the scoping period, DOE received comments from stakeholders in Arkansas who were concerned that the state would endure impacts from the Project without receiving any of the benefits (e.g., ability to accept increased amounts of renewable energy, tax revenues from property and ad valorem taxes associated with new facilities, and increased number of jobs). Based on these comments, DOE requested that Clean Line evaluate the feasibility of an alternative that would add a converter station in Arkansas.

- Commenters oppose the line crossing specific areas, including the Cherokee Nation; Sequoyah County, Oklahoma; Vian, Oklahoma; Mulberry, Arkansas; Bond Special Community in Van Buren, Arkansas; and Tipton County, Tennessee.

Response:

The Project route development process is described in Appendix G of the Final EIS.

- Commenters are opposed to moving energy from Oklahoma to other states or markets.

Response:

As stated in Section 1.1 the DOE's purpose and need for agency action is to implement Section 1222 of the EPAct. To that end, DOE needs to decide whether and under what conditions it would participate in the Applicant Proposed Project. Prior to making a decision as to whether and under what conditions to participate in the Applicant Proposed Project, DOE must fully evaluate the Applicant Proposed Project. This EIS provides the evaluation of the environmental impacts of the Applicant Proposed Project. That evaluation, together with other information such as whether the Project is consistent with transmission needs as required by Section 1222, will inform DOE's decision on whether to participate in the Applicant Proposed Project.

- Commenters do not believe the project will result in reductions in water use, pollution or carbon emissions.

Response:

Surface water and potential Project uses are addressed in Section 3.15 of the Final EIS. Ground water and potential Project uses are addressed in Section 3.7 of the Final EIS. Air

quality concerns, and specifically the anticipated reduction of emissions are addressed in Section 3.3 of the Final EIS. Environmental impacts (both positive and negative) from the Project have been evaluated and disclosed for 19 different resources. Section 3.3 describes the use of a commercially available simulation model (PROMOD version 10.1) to determine a best estimate of which power sources would be displaced, including coal and natural gas) and what the corresponding emissions reduction would be.

- Commenters are opposed to the project because they already have existing transmission lines and gas activities on their properties.

Response:

Cumulative impacts are discussed in Chapter 4 of the Final EIS.

- Commenter opposes the project because it cannot be sited, constructed, and operated in Jackson, Poinsett, Cross and Mississippi counties without severely impacting agriculture operations.

Response:

Potential impacts to agricultural operations are addressed in Section 3.2 of the Final EIS.

- Comments expressed opposition to specific routes, including: Region 5, Section I-4; AR 3-C, AR 4-E; AR 5-B; OK D-2.

Response:

Impacts to Region 5 are discussed by resource in Chapter 3 of the Final EIS. The Project route development process is described in Appendix G of the Final EIS.

35. General Supporting Comments

The following comments were received in support of the Project:

- Commenters provide support for the proposed project:
 - For its use of renewable energy resources.
 - Better access to wind energy will also help southeastern states comply with EPA's Clean Power Plan more quickly and at lower cost, with less need to build new natural gas generation.
 - Due to the job opportunities it would provide.
 - The project is critical to continuing the nation's leadership in clean energy production. Commenter feels the project and new wind farms made possible by the transmission line will create demand for manufacturers of wind turbine and transmission components in Oklahoma. Commenter states that this project is an unprecedented opportunity to bring together private investment, proven technology, and government leadership to add substantial new renewable generation to the country's energy mix.
 - Increase economic development and provide thousands of jobs. The project is critical in continuing the nation's leadership in clean energy production. In addition, the project would help to connect renewable resources to distant load centers.
 - The project will use HVDC technology, which is the most efficient means of moving large amounts of electric energy over long distances. The direct controllability of HVDC technology is an especially helpful characteristic for integrating large amounts of variable generation while maintaining the reliability of the bulk electric transmission system.
 - Providing low-cost renewable energy, conserving energy resources, and utilizing local supplies and local labor, economically benefit the overlapping communities and their commitment to acknowledging landowner concerns along with adequate compensation for their own use.
 - Commenter supports the project as well as its contribution to pollution reduction.
 - Modernize an aging electrical system to accommodate a growing diversity of energy resources.

Response:

Comment noted.

- The Sierra Club supports the proposed project. Commenter states that the project will allow states across the southeast to embrace low-cost renewable energy and shift away from coal power plants allowing for reduced use of fossil fuel generation. The project will also allow for more wind development in Oklahoma with economic benefits.

Response:

Comment noted.

- Arkansas Wildlife Federation strongly supports this project as a remarkable opportunity to capture wind energy and lower Arkansas dependency on non-renewable coal and other fossil fuels, and whereas Clean Line's preferred route avoids intensively managed Arkansas Game and Fish wildlife areas as well as other major floodplains and wetlands to the extent practicable.

Response:

Comment noted.

- Commenter is the Executive Director of the Millington Industrial Development Board and provides support of the project.

Response:

Comment noted.

- The CEO of the Panhandle Telephone Cooperative, Inc. (PTCI) provides support of the Plains & Eastern Clean Line and states it is good for Oklahoma and good for our country to have more clean wind energy.

Response:

Comment noted.

- Commenter supports the project, on behalf of Millington (Tennessee) Industrial Development Board, for job and other economic development opportunities it will create in the area.

Response:

Comment noted.

- Commenter writes on behalf of the State Chamber of Oklahoma in support of the Plains & Eastern Clean Line transmission project. The State Chamber represents over 1,000 Oklahoma businesses and like-minded organizations and 350,000 employees in Oklahoma. The Plains & Eastern Clean Line Project is an important part of the state's efforts to continue its booming economy and diversify its energy sources.

Response:

Comment noted.

- Commenter supports the project and provides a letter from the Southeastern Wind Coalition, which supports the project.

Response:

Comment noted.

- Commenter is the manufacturing manager for General Cable in Malvern, Arkansas, and on behalf of General Cable and the 328 employees we have here in the great state of Arkansas, I'm here to be in favor of this.

Response:

Comment noted.

- Commenter represents the International Brotherhood of Electrical Workers, Local 1002. Local 1002 represents over 1,000 lineman and electrical workers throughout the state of Oklahoma and we are in support of this project.

Response:

Comment noted.

- Commenter states that the Plains and Eastern Clean Line is a unique opportunity to bring together private investment, proven technology, public benefits, and government leadership to add substantial new renewable generation to the country's energy mix. Commenter urges the Department of Energy to provide regulatory approvals required to move the project forward.

Response:

Comment noted. A separate and parallel process was used to review Clean Line's application, which began with making the application available for public review (80 FR 23520, April 28, 2015). DOE will consider comments received in response to this notice, along with information included in the Final EIS, in making their determination of whether to participate in the Project.

- Commenter discusses how sparsely settled the area is and lacks industry and transmission lines and supports the project to bring wind resources to the market.

Response:

Comment noted.

- Commenter states that it is extremely important then for Clean Line to work together with landowners to reach a fair agreement and to treat them with the respect they deserve. All things considered, I believe that the Plains & Eastern Clean Line is a significant step in the right direction for Arkansas, a step toward a more stable climate, cleaner air and improved health and a more sustainable future.

Response:

Comment noted.

- Commenter notes that we need to understand the interdependence that we have for resources. Products are brought in from the northeast to the south from the south to the northwest; what this project is trying to do is move a product from the Midwest to the East Coast. Commenter asks the stakeholders give DOE/Clean Line a shot, hear them out and see what they can offer.

Response:

Comment noted.

- Commenter notes that the Clean Line project has been in development over several years and the people that he's worked with have been first-class. Commenter notes the time frame has been long, partially because of the regulations that are in place to protect the public and

private good, but he feels that Clean Line has worked hard to be open and transparent in the process and in their plans for the project. Clean Line has been open in all their dealings with landowners, local county and state officials, and in local communities. Commenter notes that Clean Line has implemented a landowners' Code of Conduct that requires all of their employees and their representatives and their subcontractors to treat every landowner with consideration and respect. These efforts speak to the integrity and the honesty of Clean Line and their people. Commenter feels that Clean Line is the best company to make this project a reality. This project benefits landowners, local citizens, communities, schools, cities, state, and county government. It diversifies the energy resources so it benefits the state as well.

Response:

Comment noted.

- Commenters have found the people at Clean Line to be professional in the way that they have approached this project.

Response:

Comment noted.

- Commenter states that the cost of electricity from wind has dropped from 25 cents per kilowatt-hour in 1981 to nearly 4 cents in 2008. Even so, the prices of the wind turbines have increased. The wind power is cost competitive in regards to coal and natural gas plants. Wind power will improve the air and water quality for future generations and will have less fluctuation than fossil fuel prices.

Response:

Comment noted.

36 Outside the Scope of the EIS

A number of comments were received that are outside the scope of the Plains and Eastern EIS because the comments have no bearing on the project or this EIS, including:

- Several commenters provide a list of quotes from the Public Service Commission staff’s Conclusion of Law Brief and the Missouri Farm Bureau regarding Clean Line’s Grain Belt Express Project.
- Commenters provide comments on Clean Line’s Rock Island Project in Illinois and the Grain Belt Express Project.
- Commenter provides a link and excerpt from a Bloomberg.com article regarding National Grid with no additional text or comment.
- Commenter lists events of the week including: Arkansas Joint Energy Committee Letter to DOE, Missouri Public Service Commission’s request to Clean Line, Approval Bill introduced to the Senate, Arkansas County Quorum Court Resolution passed, and Iowa says no to Clean Line request with no additional text or comment.
- Commenter believes the project needs to be voted on.
- Commenter asks how the non-NEPA review will occur and how will the public be notified.
- Commenter asks what the Docket Number is for the proposed Plains and Eastern Project.
- Commenters question the involvement of Jimmy Glotfelty with Clean Line and his previous position at DOE.
- Commenter provides a link to the following site: <http://www.eenews.net/stories/1059958529>. Commenter includes this additional link to a video: <http://www.c-span.org/video/?179200-1%2Fnortheast-blackout>.
- Commenter states that the survey crew he signed up for, which he has now rescinded, never showed up as scheduled. No one ever came to survey his property so they have no clue where his house is located.
- Commenter believes that the use of coal-fired plants is more of a health hazard than the proposed transmission lines. Pollutants from coal fired plants are proven to cause autism and child development problems. Stop burning coal.
- Commenter submitted an article describing Entergy Arkansas’ proposed 81-megawatt solar power facility.
- Commenter includes a list of several requests made of Clean Line by the “MO Public Service Commission” that are generally outside of the scope of the EIS, such as details regarding easement acquisition, interconnection agreements, blueprints, completed (presumably as-built) engineering drawings, and copies of vendor agreements. It is not clear whether the commenter is referring to the Missouri or Arkansas Public Service Commission (“MO Public Service Commission” is cited, but comments appear to relate to Arkansas). For that reason and because of the reference to a “substation” in Pope County, Arkansas (not an AC/DC converter station), it is unclear whether the comment refers to requests made of Clean Line for the Plains & Eastern project, or another project. Regardless, these requests are outside the scope of the EIS.
- Commenter includes a quote from Mark N. Cooper (Director of Research for the Consumer Federation of America) at a congressional hearing. Quote addresses a conflict between the Federal Energy Regulatory Commission and the Department of Energy.
- Commenter is displeased that no public officials were at the meeting representing them and questions where they are.

- Commenter questions the way Mr. Mario Hurtado of Clean Line answered his questions at the local county commissioners meeting.
- Commenter has a complaint against the federal government and questions why they would subsidize wind and solar objectives, but do nothing to support or subsidize the construction of nuclear power plants which are the cleanest and probably the safest way to produce energy in the country.
- Commenter states that wind energy can be developed much closer to the eastern seaboard at less cost than transmitting it more than half way across the country, especially when unwanted effects and conditions of doing so are considered.
- Commenter states that the power line will be turned over for others to take the fall for whatever happens.
- Commenter addresses concerns about a pipeline (potential pollution to water sources).
- Commenter feels the idea of clean green energy is a myth. Commenter also feels that at different times the electricity in the lines might be produced by coal, natural gas, etc. instead of wind.
- Commenters express concern that the project is primarily for profit and that the project is privately owned.
- Commenter states that she has read that three-quarters of the power is lost in the transmission and would like clarification as to how much power is actually lost.
- Commenter wonders if there have been any formal, substantial, and substantive comments submitted by industry interests, national environmental groups, or other competent organizations. Commenter has been perusing the submissions under the EIS website's "Other groups and members of the public" folder, but is finding mostly individuals' brief personal comments and duplicative form comments. If there are more useful comments of the type described above, commenter requests she be directed to them?
- Commenter states that National Grid is an investor involved in this project and they pulled out of a project in the northeast because it took too long. Where does that leave this project?
- Commenter discusses information found in a recent magazine article. This article mentions that fossil fuel generation will be needed to meet the needs of the consumers in order to accommodate 100 percent output of energy.
- Commenter believes that dirty politics is involved in the project.
- Commenter feels the Department of Energy should look to European nations to find out how they are creating renewable energy.
- Commenter asks where the petition is for citizens against the Plains and Eastern Clean Line.
- Commenter has seen increased campaign promises over the past few months. Commenter feels that Clean Line is just a private business getting the transmission line set up for a utility company. Commenter questions who is going to hold Clean Line responsible for their promises.
- Commenter mentions a possible bias that Clean Line contributed money to advertise in the Arkansas Wildlife Federation's publication.
- Commenter feels this project needs to be thought out differently, as the method of wind energy is obsolete. Commenter notes advances in turbine and offshore technology, with the potential for development off the East Coast and Southeast.
- Commenters state that encounters with Clean Line personnel have been argumentative.
- Commenter notes that, with all the natural gas in Arkansas, the TVA could build a gas power plant and produce all of the power it needs cheaply and efficiently.

- Commenter notes the spending of DOE officials. DOE officials spent \$21 million in one year hosting 329 government employee conferences that included such lavish events as a casino night, a Super Bowl party and a banquet on a dinner cruise boat. The department also used tax dollars to fund a golf tournament, a dinner at the NASCAR Hall of Fame and a tour and dinner at an aquarium, according to an Energy Department inspector general report. Sixteen of the 329 conferences each cost \$100,000 or more, with the remaining 313 all costing \$20,000 or more each. The conferences were held between April 2013 and September 2014.
- Commenter asks four rhetorical questions: (1) On whose back will \$100 million or more of uncompensated property damages fall? (2) Who will make financial gain off landowners losses? (3) Is the transfer of wealth from the poor to the rich acceptable to you? (4) For those who support Clean Line, will you demand just outcomes for your friends and neighbors?
- Commenter attaches pages from the Tennessee Valley Authority Integrated Resource Plan.

Response:

DOE notes these comments and thanks the commenters for the time and effort that was spent making comments and attending public hearings as part of the NEPA process. The comments are outside the scope of the Final EIS, meaning that they have no bearing on the analysis in the Final EIS. No further response will be provided.

DOE's purpose and need is to implement Section 1222 of the EPCA and, to that end, DOE needs to decide whether and under what conditions it would participate in the Applicant Proposed Project. This EIS, therefore, considers the Applicant Proposed Project and the range of reasonable alternatives that are variations to that Project. Alternatives that involve wholly different sources of energy or electricity delivery methods from what the Applicant proposed are outside the scope of the purpose and need.

The Applicant Proposed Project is described in Section 2.1 of the Final EIS to include "an overhead ± 600 kV HVDC electric transmission system and associated facilities with the capacity to deliver approximately 3,500MW primarily from renewable energy generation facilities in the Oklahoma and Texas Panhandle regions to load-serving entities in the Mid-South and Southeast United States via an interconnection with TVA in Tennessee." The power source for the Project would be primarily wind power, located in high-quality wind resource areas in the Oklahoma and Texas Panhandle regions, and Project facilities were specifically sited to serve this wind resource. Analysis of using hydropower to provide energy is therefore outside the scope of the Project and DOE's analysis.

The Applicant's Section 1222 Application, submitted July 2010, (<http://www.energy.gov/sites/prod/files/Plains%20%26%20Eastern%20Clean%20Line%20Transmission%20Project%20Application.pdf>), identifies the target customers for the power as those in the Southeast, defined on page 1 as Arkansas, Tennessee, Mississippi, Alabama, Georgia, Kentucky, Florida, Virginia, South Carolina, and North Carolina. This geographic area does not include Massachusetts or other northeastern states. Analysis of transmission line construction in this area is therefore outside the scope of the Project and DOE's analysis.

DOE's non-NEPA evaluation of the Applicant Proposed Project occurred separately and parallel to the NEPA process. DOE performed its Section 1222 due diligence on other factors, including technical and economic feasibility, and whether the project is in the public interest. In December 2014, DOE requested additional information from the Applicant to supplement and update its original application. The updated Part 2 application and other documentation were made available for public review on April 28, 2015 (<http://www.energy.gov/oe/downloads/plains-eastern-clean-line-transmission-line-part-2-application>) for an initial 45-day public comment period (80 FR 23520, April 28, 2015). As a result of public and Congressional requests, DOE extended the public comment period an additional 31 days to July 13, 2015 (80 FR 34626). DOE accepted comments on whether the Applicant Proposed Project meets the statutory criteria listed in Section 1222 of the EPAct, as well as all factors included in DOE's 2010 Request for Proposals. DOE will consider comments received in response to this notice, along with information included in the Final EIS, in making its determination of whether to participate in the Applicant Proposed Project.

Some of the issues noted in this comment response document category are addressed in detail other categories including:

- Commenter attaches pages from the Tennessee Valley Authority Integrated Resource Plan. Comments regarding the Tennessee Valley Authority Integrated Resource Plan are discussed in the Comment Response Document for Issue 1, Policy/Purpose and Need/Scope.
- Commenters question the involvement of Jimmy Glotfelty with Clean Line and his previous position at DOE. Comments regarding the involvement of Jimmy Glotfelty with Clean Line and his position at DOE are discussed in the Comment Response Document for Issue 34, General Opposition Comment).
- Commenter states that she has read that three-quarters of the power is lost in the transmission and would like clarification as to how much power is actually lost. Clean Line's Section 1222 Application—Part 2, submitted in January 2015 (<http://www.energy.gov/sites/prod/files/2015/04/f22/Clean%20Line%20Part%202%20Application%20-%20Final%203-6%20version.pdf>), describes line loss in Section 2.2.2, subpart 4.

37 Decommissioning

The following comments were received relative to decommissioning:

- Several commenters expressed concern regarding the responsibility of decommissioning if the line is deactivated. Specifically, commenters note that on Page 3.2-22 of the Draft EIS that land could be returned to its previous uses, if/when the line is deactivated. However, the Draft EIS does not state under whose authority the decision rests as to whether or not to restore land or who would be financially responsible for such restoration.

Response:

General details regarding decommissioning of the Project are described in Section 2.1.6 of the EIS; potential resource-specific impacts related to decommissioning are described in Chapter 3. Decommissioning will be the responsibility of the owner and operator of the Project and components.

DOE's Proposed Action is to participate, acting through the Administrator of Southwestern, in the Applicant Proposed Project in one or more of the following ways: designing, developing, constructing, operating, maintaining, or owning a new electric power transmission facility and related facilities located within certain states in which Southwestern operates, namely Oklahoma, Arkansas, and possibly Texas. In Tennessee, where DOE and Southwestern are not considering participating, because these areas are outside Southwestern's service territory, Clean Line, or the owner and operator of the Project will be responsible for decommissioning. DOE and Southwestern's decision to participate and in what capacity will be included in the ROD, which will be released after the Final EIS.

- Commenter asks what would be the requirements for removal of the concrete substructures for the towers during decommissioning and if this activity would require blasting.

Response:

General details regarding decommissioning of the Project are described in Section 2.1.6 of the EIS; potential resource-specific impacts related to decommissioning are described in Chapter 3. The towers' concrete substructures would likely be left in place after decommissioning of the Project; however, they can be removed with a jack hammer or blasting, depending on site-specific conditions and landowner preferences and requests. The details of these activities would be developed at the time and documented in a Decommissioning Plan.

- Commenter asks for the status of the Abandonment and Decommissioning Program Plan that was supposed to be available 60 days after Clean Line was granted utility status.

Response:

Clean Line has not been granted utility status in all states. The Abandonment and Decommissioning Program Plan would be prepared if DOE decides to participate and would be addressed in DOE's Participation Agreement if applicable.

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4 PUBLIC COMMENT PROCESS

- 10 CFR Part 1021. “National Environmental Policy Act Implementing Procedures.” *Energy*. U.S. Department of Energy. <<http://www.ecfr.gov/cgi-bin/text-idx?SID=a8b986ac7dd2766009e1453a422532c7&node=pt10.4.1021&rgn=div5>>.
- 10 CFR Part 1022. “Compliance With Floodplain and Wetland Environmental Review Requirements.” *Energy*. U.S. Department of Energy. <<http://www.ecfr.gov/cgi-bin/text-idx?SID=534623173a9c8a2d128a6caa401b245e&node=pt10.4.1022&rgn=div5>>.
- 36 CFR Part 800. “Protection of Historic Properties.” *Parks, Forests, and Public Property*. Advisory Council on Historic Preservation. <<http://www.ecfr.gov/cgi-bin/text-idx?SID=a8b986ac7dd2766009e1453a422532c7&node=pt36.3.800&rgn=div5>>.
- 40 CFR Part 1500. “Purpose, Policy, and Mandate.” *Protection of Environment*. Council on Environmental Quality. <<http://www.ecfr.gov/cgi-bin/text-idx?SID=a8b986ac7dd2766009e1453a422532c7&node=pt40.33.1500&rgn=div5>>.
- 40 CFR Part 1501. “NEPA and Agency Planning.” *Protection of Environment*. Council on Environmental Quality. <<http://www.ecfr.gov/cgi-bin/text-idx?SID=a8b986ac7dd2766009e1453a422532c7&node=pt40.33.1501&rgn=div5>>.
- 40 CFR Part 1502. “Environmental Impact Statement.” *Protection of Environment*. Council on Environmental Quality. <<http://www.ecfr.gov/cgi-bin/text-idx?SID=a8b986ac7dd2766009e1453a422532c7&node=pt40.33.1502&rgn=div5>>.
- 40 CFR Part 1503. “Commenting.” *Protection of Environment*. Council on Environmental Quality. <<http://www.ecfr.gov/cgi-bin/text-idx?SID=a8b986ac7dd2766009e1453a422532c7&node=pt40.33.1503&rgn=div5>>.
- 40 CFR Part 1504. “Predecision Referrals to the Council of Proposed Federal Actions Determined to be Environmentally Unsatisfactory.” *Protection of Environment*. Council on Environmental Quality. <<http://www.ecfr.gov/cgi-bin/text-idx?SID=a8b986ac7dd2766009e1453a422532c7&node=pt40.33.1504&rgn=div5>>.
- 40 CFR Part 1505. “NEPA and Agency Decisionmaking.” *Protection of Environment*. Council on Environmental Quality. <<http://www.ecfr.gov/cgi-bin/text-idx?SID=a8b986ac7dd2766009e1453a422532c7&node=pt40.33.1505&rgn=div5>>.
- 40 CFR Part 1506. “Other Requirements of NEPA.” *Protection of Environment*. Council on Environmental Quality. <<http://www.ecfr.gov/cgi-bin/text-idx?SID=a8b986ac7dd2766009e1453a422532c7&node=pt40.33.1506&rgn=div5>>.
- 40 CFR Part 1507. “Agency Compliance.” *Protection of Environment*. Council on Environmental Quality. <<http://www.ecfr.gov/cgi-bin/text-idx?SID=a8b986ac7dd2766009e1453a422532c7&node=pt40.33.1507&rgn=div5>>.

- 40 CFR Part 1508. “Terminology and Index.” *Protection of Environment*. Council on Environmental Quality. <<http://www.ecfr.gov/cgi-bin/text-idx?SID=a8b986ac7dd2766009e1453a422532c7&node=pt40.33.1508&rgn=div5>>.
- 49 CFR Part 24, Subpart B, “Real Property Acquisition. *Uniform Relocation Assistance and Real Property Acquisition for Federal and Federally-Assisted Programs*. Office of the Secretary of Transportation. <<http://www.ecfr.gov/cgi-bin/text-idx?SID=8247d7f55948a843628b304c7870df90&mc=true&node=pt49.1.24&rgn=div5#sp49.1.24.b>>.
- 75 FR 41886. Recovery Plan for the Ivory-billed Woodpecker (*Campephilus principalis*). U.S. Fish and Wildlife Service. July 19, 2010. <<http://www.gpo.gov/fdsys/pkg/FR-2010-07-19/pdf/2010-17486.pdf#page=1>>.
- 79 FR 77801. “Revised Draft Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in NEPA Reviews.” Council on Environmental Quality. December 24, 2014. <<http://www.gpo.gov/fdsys/pkg/FR-2014-12-24/pdf/2014-30035.pdf#page=1>>.
- 80 FR 23520. “Application for Proposed Project for Clean Line Plains & Eastern Transmission Line.” U.S. Department of Energy, April 28, 2015. <<http://www.gpo.gov/fdsys/pkg/FR-2015-04-28/pdf/2015-09941.pdf#page=1>>.
- 119 Stat. 952. “Energy Policy Act of 2005, Section 1222” (Pub. L. 109-58, title XII, § 1222) Aug. 8, 2005. <<http://www.gpo.gov/fdsys/pkg/USCODE-2010-title42/html/USCODE-2010-title42-chap149-subchapXII-partA-sec16421.htm>>.
- 16 USC § 470f. “National Historic Preservation Act of 1966, Section 106” (Pub. L. 89-665) <<http://www.law.cornell.edu/uscode/text/16/chapter-1A/subchapter-II>>.
- 16 USC §§ 668-668d. “Bald and Golden Eagle Protection Act” (Pub. L. 86-70) <<http://www.law.cornell.edu/uscode/text/16/chapter-5A/subchapter-II>>.
- 16 USC §§ 703-712. “Migratory Bird Treaty Act of 1918” (40 Stat. 755) <<http://www.law.cornell.edu/uscode/text/16/chapter-7/subchapter-II>>.
- 16 USC § 824p(a). “Siting of interstate electric transmission facilities: Designation of national interest electric transmission corridors” (Federal Power Act) <https://www.law.cornell.edu/uscode/pdf/uscode16/lii_usc_TI_16_CH_12_SC_II_SE_824p.pdf>.
- 16 USC § 1531 *et seq.* “Endangered Species Act of 1973” (Pub. L. 93-205) <http://www.law.cornell.edu/uscode/pdf/lii_usc_TI_16_CH_35.pdf>.
- 33 USC § 1251 *et seq.* “Clean Water Act of 1972” (Pub. L. 92-500) <http://www.law.cornell.edu/uscode/pdf/lii_usc_TI_33_CH_26.pdf>.

- 33 USC § 1341. “Certification.” *Water Pollution Prevention and Control*.
<<http://www.law.cornell.edu/uscode/text/33/1341>>
- 33 USC § 1344. “Permits for dredged or fill material.” *Water Pollution Prevention and Control*.
<<http://www.law.cornell.edu/uscode/text/33/1344>>.
- 42 USC § 4601. “Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970” (Pub. L. 91-646).
<<https://www.law.cornell.edu/uscode/pdf/uscode42/lii usc TI 42 CH 61 SC I SE 46 01.pdf>>.
- ACS (American Cancer Society) 2015a. “Childhood Leukemia.”
<http://www.cancer.org/cancer/leukemiainchildren/detailedguide/childhood-leukemia-key-statistics>. Accessed July 29, 2015.
- . 2015b. “Brain and Spinal Cord Tumors in Adults.”
<<http://www.cancer.org/cancer/braincnstumorsinadults/detailedguide/brain-and-spinal-cord-tumors-in-adults-risk-factors>>. Accessed July 22, 2015.
- Adams, J.A. 2014. Email from J.A. Adams, Cartographer, USDA Natural Resources Conservation Service. Stillwater, OK, to J. Chester, Tetra Tech, and others. May 28.
<<http://www.plainsandeasterneis.com/draft-eis/category/20-reference-cd.html>>.
- AGFC (Arkansas Game and Fish Commission). 2011a. “Wildlife Management Area – Cherokee.” <<http://www.agfc.com/hunting/Pages/wmaDetails.aspx?show=128>>. Accessed February 14, 2014.
- . 2011b. “Wildlife Management Area – Frog Bayou.”
<<http://www.agfc.com/hunting/pages/wmadetails.aspx?show=235>>. Accessed February 14, 2014.
- . 2011c. “Wildlife Management Area – Ozark Lake.”
<<http://www.agfc.com/hunting/Pages/wmaDetails.aspx?show=500>>. Accessed February 14, 2014.
- . 2011d. “Wildlife Management Area – Rainey.”
<<http://www.agfc.com/hunting/Pages/wmaDetails.aspx?show=540>>. Accessed February 14, 2014.
- AHTD (Arkansas State Highway and Transportation Department). 2014. “District 8 Construction Projects by County.” Individual county maps dated March 10.
<<http://www.arkansashighways.com/district8.aspx>>. Accessed May 7, 2014.
- AOGC (Arkansas Oil and Gas Commission) 2014. Arkansas Oil and Natural Gas Well Map.
<<http://www.aogc.state.ar.us/Maps.htm>>. Accessed July 1, 2014.
- APLIC and USFWS (Avian Power Line Interaction Committee and U.S. Fish and Wildlife Service). 2005. *Avian Protection Plan Guidelines*. A joint document prepared by The

- Edison Electric Institute's Avian Power Line Interaction Committee and U.S. Fish and Wildlife Service.
<<http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/APP/AVIAN%20PROTECTION%20PLAN%20FINAL%204%2019%2005.pdf>>.
- Arkansas Wildlife Code Section 20.06. "Structures and Personal Property on WMAs." *Arkansas State Game and Fish Commission Code Book*.
<http://www.agfc.com/enforcement/Documents/agfc_code_of_regulations.pdf>
- Barker T.; Bashmakov, I.; Bernstein, L.; Bogner, J.E.; Bosch, P.R.; Dave, R.; Davidson, O.R.; Fisher, B.S.; Gupta, S.; Halsnæs, K.; Heij, G.J.; Kahn Ribeiro, S.; Kobayashi, S.; Levine, M.D.; Martino, D.L.; Masera, O.; Metz, B.; Meyer, L.A.; Nabuurs, G.-J.; Najam, A.; Nakicenovic, N.; Rogner, H.-H.; Roy, J.; Sathaye, J.; Schock, R.; Shukla, P.; Sims, R.E.H.; Smith, P.; Tirpak, D.A.; Urge-Vorsatz, D.; and Zhou, D. 2007. "Technical Summary." In: *Climate Change 2007: Mitigation. Contribution of Working group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* [B. Metz, O. R. Davdison, P. R. Bosch, R. Dave, L. A. Meyer (eds)], Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA. pp. 67-68. <http://www.ipcc.ch/publications_and_data/ar4/wg3/en/ts.html>. Accessed July 30, 2015.
- BioInitiative. 2007. *BioInitiative Report: A Rationale for a Biologically-based Public Exposure Standard for Electromagnetic Fields (ELF and RF)*. Participants: Carpenter, D.; Davanipour, Z.; Gee, D.; Hardell, L.; Johansson, O.; Lai, H.; Hansson Mild, K.; Sobel, E.; Xu, Z.; Chen, G.; and Sage, A. August 31.
<<http://www.plainsandeasterneis.com/draft-eis/category/20-reference-cd.html>>. Accessed July 30, 2015.
- Bottemiller, S.C.; Cahill, J.M.; and Cowger, J.R. 2000. "Impacts on Residential Property Values along Transmission Lines. An Update of Three Pacific Northwest Metropolitan Areas." *Right of Way*. July/August. <<https://www.irwaonline.org/EWEB/upload/0700c.pdf>>. Accessed July 8, 2014.
- Burchard, J.F.; Nguyen, D.H.; and Block, E. 1998. "Effects of electric and magnetic fields on nocturnal melatonin concentrations in dairy cows." *Journal of Dairy Science* 81(3):722-7. <<http://www.sciencedirect.com/science/article/pii/S0022030298756280>>. Accessed August 18, 2014.
- Burchard, J.F.; Nguyen, D.H.; Monardes, H.G.; and Petitclerc, D. 2004. "Lack of effect of 10kV/m 60Hz electric field exposure on pregnant dairy heifer hormones." *Bioelectromagnetics* 25(4):308-12.
<<http://onlinelibrary.wiley.com/doi/10.1002/bem.20020/abstract>>. Accessed September 24, 2014.
- Burchard, J.F.; Nguyen, D.H.; Richard, L.; and Block, E. 1996. "Biological Effects of Electric and Magnetic Fields on Productivity of Dairy Cows." *Journal of Dairy Science* 79:1549-1554. <<http://www.sciencedirect.com/science/article/pii/S0022030296765165>>. Accessed September 24, 2014.

- CEQ (Council on Environmental Quality). 1997. “Considering Cumulative Effects Under the National Environmental Policy Act.” <http://ceq.hss.doe.gov/nepa/ccenepa/ccenepa.htm>. Accessed May 12, 2014.
- CEQ and ACHP (Council on Environmental Quality and Advisory Council on Historic Preservation). 2013. NEPA and NHPA: A Handbook for Integrating NEPA and Section 106. <http://energy.gov/nepa/downloads/nepa-and-nhpa-handbook-integrating-nepa-and-section-106>. Accessed July 7, 2015.
- Chalmers, J.A. 2012. “High-Voltage Transmission Lines and Rural, Western Real Estate Values.” *The Appraisal Journal*. Winter. 30-45. http://www.concernedcitizensmontana.net/Publish/AU_TAJ_WI12_Feature_HighVoltage_Lines.pdf. Accessed July 22, 2015.
- Cinar N.; Sahin S.; and Erdinc. O.O. 2013. “What is the Impact of Electromagnetic Waves on Epileptic Seizures?” *Medical Science Monitor Basic Research* 19: 141–145. May 10. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3659130/>. Accessed July 21, 2015.
- Clean Line 2014a. *Responses to Department of Energy Data Request (dated February 5, 2014) Comments on Noise Technical Report*. December 21. Prepared for the Department of Energy pursuant to 10 CFR 1021.215(b)(2). <http://www.plainsandeasterneis.com/draft-eis/category/20-reference-cd.html>.
- . 2014b. *Wind Generation Technical Report for the Plains and Eastern Transmission Line Project*. March. Prepared for the Department of Energy pursuant to 10 CFR 1021.215(b)(2). <http://www.plainsandeasterneis.com/draft-eis/category/20-reference-cd.html>.
- Council of the Cherokee Nation. 2014. A Resolution Opposing the Establishment of an Energy Line Route by the Plains and Eastern Clean Line in Sequoyah County, Oklahoma Located within the Cherokee Nation Jurisdictional Area. Enactment Resolution Number R-003-15. (Available on the FEIS Reference CD)
- Cowger, J.R.; Bottemiller, S.C.; and Cahill, J.M. 1996. “Transmission Line Impact on Residential Property Values. A Study of Three Pacific Northwest Metropolitan Areas.” *Right of Way*. September/October. <http://www.irwaonline.org/eweb/upload/0996c.pdf>. Accessed July 8, 2014.
- DOE (U.S. Department of Energy). 2015. “Council of the Cherokee Nation Resolution 03-15 Opposing the Establishment of an Energy Line Route by the Plains and Eastern Clean Line in Sequoyah County, Oklahoma Located Within the Cherokee Nation Jurisdictional Area.” Letter from J. Summerson, DOE NEPA Document Manager, to the Council of the Cherokee Nation, March 17, 2015. (Available on the FEIS Reference CD)
- . 2001. *Department of Energy Management of Cultural Resources*. DOE Policy P 141.1. May 2. http://energy.gov/sites/prod/files/nepapub/nepa_documents/RedDont/G-DOE-DOEP1411_cult_resource.pdf. Accessed July 30, 2015.

- EPA (U.S. Environmental Protection Agency). 2013. *Fact Sheet: Social Cost of Carbon*. November. <http://www.epa.gov/climatechange/Downloads/EPAactivities/scc-fact-sheet.pdf>>. Accessed July 30, 2015.
- . 1998. *Final Guidance for Incorporating Environmental Justice Concerns in EPA’s NEPA Compliance Analyses*. <http://www.epa.gov/compliance/ej/resources/policy/ej_guidance_nepa_ceq1297.pdf>. Accessed July 22, 2015.
- . 1992. *Questions and Answers about Electric and Magnetic Fields (EMFs)*. 402-R-92-009, December. (Available on FEIS Reference CD)
- EPRI (Electric Power Research Institute). 2010. *Electrical Effects of HVDC Transmission Lines*. Product ID #1020118. December 23. <<http://www.epri.com/abstracts/Pages/ProductAbstract.aspx?ProductId=000000003002000860>>. Accessed June 18, 2014.
- Executive Order 12898. “Federal Action to Address Environmental Justice in Minority Populations and Low-Income Populations.” February 11, 1994 (59 FR 7629). <<http://www.archives.gov/federal-register/executive-orders/pdf/12898.pdf>>.
- FERC (U.S. Federal Energy Regulatory Commission). 2015. Order Denying Hearing, 151 FERC ¶61,098, Corpus Christi Liquefaction, LLC and Cheniere Corpus Christi Pipeline, L.P. Docket Nos. CP12-507-001 & CP12-508-001, May 6. <<http://www.ferc.gov/CalendarFiles/20150506170216-CP12-507-001.pdf>>. Accessed July 30, 2015.
- HCN (Health Council of the Netherlands). 2008. “BioInitiative Report.” Memo from Prof M. de Visser, Vice-President of HCN, to the Minister of Housing, Spatial Planning and the Environment dated September 8. http://www.gezondheidsraad.nl/sites/default/files/200817E_0.pdf>. Accessed July 22, 2015.
- Henschen, M., Demchak, K., Herrholtz, B., Rudkin, M., Rhudy, L., Larson, E., Doogs, B., Holland, J., and J. Martin (2011). Do wind turbines affect weather conditions? A case study in Indiana. *Journal of Purdue Undergraduate Research*, 1, 22–29. <<http://docs.lib.purdue.edu/jpur/vol1/iss1/5/>>. Accessed July 30, 2015.
- IARC (International Agency for Research on Cancer) 2002. “IARC Monographs on the evaluation of carcinogenic risks to humans.” Volume 80: *Static and Extremely Low-Frequency (ELF) Electric and Magnetic Fields*. IARC Press. Lyon, France. <<http://monographs.iarc.fr/ENG/Monographs/vol80/mono80.pdf>>. Accessed September 24, 2014.
- Jackson, T. 2010. “Electric Transmission Lines: Is there an Impact on Rural Land Values?” *Right of Way*. November/December, pp 32-35. <<http://www.real->

- analytics.com/Transmission%20Lines%20and%20Rural%20Land.pdf>. Accessed October 3, 2014.
- Keith, D.W.; DeCarolis, J.F.; Denkenberger, D.C.; Lenschow, D.H.; Malyshev, S.L.; Pacala, S.; and Rasch, P.J. 2004. “The influence of large-scale wind power on global climate.” In *Proceedings of the National Academy of Sciences of the United States of America*, vol. 101, No. 46, November 16. <<http://www.pnas.org/content/101/46/16115.full>>. Accessed July 30, 2015.
- Kroll, C. and Priestley, T. 1992. *The Effects of Overhead Transmission Lines on Property Values*. Prepared for the Edison Electric Institute Siting and Environmental Planning Task Force. Washington DC. July. 101 pp.<<http://staff.haas.berkeley.edu/kroll/pubs/tranline.pdf>>. Accessed July 8, 2014.
- Kielisch, K.C. 2015. *Valuation Guidelines for Properties with Electric Transmission Lines*. <<http://headwaterseconomics.org/library/files/appraisalgroupone;valuationguidelines.pdf>>. Accessed July 30, 2015.
- Morrison, J. 2014. “Electronics’ Noise Disorients Migratory Birds,” *Nature News*. May 7. <<http://www.nature.com/news/electronics-noise-disorients-migratory-birds-1.15176>>. Accessed July 27, 2015.
- NERC (North American Electric Reliability Code) 2015. “Reliability Standard FAC-003-02.” <<http://www.nerc.com/pa/Stand/Pages/FAC0032RI.aspx>>. Accessed July 30, 2015.
- OKSHPO (Oklahoma State Historic Preservation Office) and Oklahoma Archaeological Survey. 2013. *Guidelines for Developing Archeological Survey Reports in Oklahoma and Report Components*. Fact Sheet 16. November. <<http://www.okhistory.org/shpo/factsheets/fs16archreports.pdf>>. Accessed July 27, 2015.
- Presidential Policy Directive 21. “Critical Infrastructure Security and Resilience.” (February 12, 2013) <<http://fas.org/irp/offdocs/ppd/ppd-21.pdf>>. Accessed July 30, 2015.
- Priestley, T. 2015. *Transmission Lines and Property Values: Briefing Paper*. Prepared for Clean Line Energy Partners LLC. Houston, Texas. CH2MHill. Los Angeles, California. April. <http://www.plainsandeasterncleanline.com/sites/plains_eastern/media/docs/Transmission_Lines_and_Property_Values_Briefing_Paper_041715_Final.pdf>. Accessed July 22, 2015.
- Sagona, F. 2014. “FPPA regulation and Assessment Criteria.” Email from F. Sagona, Biologist/Environmental Liaison for the USDA Natural Resources Conservation Service. Chattanooga, TN, to M. Ardis, U.S. Department of Energy, and J. Chester, Tetra Tech. July 16. <<http://www.plainsandeasterneis.com/draft-eis/category/20-reference-cd.html>>.
- Smith P.; Bustamante, M.; Ahammad, H.; Clark, H.; Dong, H.; Elsiddig, E.A.; Haberl, H.; Harper, R.; House, J.; Jafari, M.; Masera, O.; Mbow, C.; Ravindranath, N. H.; Rice, C. W.; Robledo Abad, C.; Romanovskaya, A.; Sperling, F.; and Tubiello, F. 2014.

- “Agriculture, Forestry and Other Land Use (AFOLU).” In: *Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Edenhofer, O., R. Pichs-Madruga, Y. Sokona, E. Farahani, S. Kadner, K. Seyboth, A. Adler, I. Baum, S. Brunner, P. Eickemeier, B. Kriemann, J. Savolainen, S. Schlömer, C. von Stechow, T. Zwickel and J.C. Minx (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA. p. 845. <http://ipcc.ch/pdf/assessment-report/ar5/wg3/ipcc_wg3_ar5_chapter11.pdf>. Accessed July 30, 2015.
- Smith, J.E.; Heath, L.S.; Skog, K.E.; and Birdsey, R.A. 2006. *Methods for Calculating Forest Ecosystem and Harvested Carbon with Standard Estimates for Forest Types of the United States*. USDA Forest Service General Technical Report NE-343, Appendix A. April. <http://www.nrs.fs.fed.us/pubs/gtr/ne_gtr343.pdf>. Accessed July 30, 2015.
- Thomason, P. and Parker, S. 2003. *Historic and Historical Archaeological Resources of the Cherokee Trail of Tears*. National Register of Historic Places Multiple Property Documentation Form. <<http://www.nps.gov/trte/parkmgmt/upload/Trailword.pdf>>. Accessed February 24, 2014.
- Vautard, R.; Thais, F.; Tobin, I.; Bréon, F-M.; Devezeaux de Lavergne, J-G.; Colette, A.; Yiou, P.; and Ruti, P.M. 2014. “Regional climate model simulations indicate limited climatic impacts by operational and planned European wind farms.” *Nature Communications* 5, Article number: 3196, February 11. <<http://www.nature.com/ncomms/2014/140211/ncomms4196/full/ncomms4196.html>>. Accessed July 30, 2015.
- Zhou, L.; Tian, Y.; Roy, S.B.; Dai, Y.; and Chen, H. 2013. “Diurnal and seasonal variations of wind farm impacts on land surface temperature over western Texas.” *Climate Dynamics* Volume 41, Issue 2, pp 307-326, July. <<https://www.wind-watch.org/documents/diurnal-and-seasonal-variations-of-wind-farm-impacts-on-land-surface-temperature-over-western-texas/>>. Accessed July 30, 2015.
- USCB (U.S. Census Bureau). 2011. “Hispanic or Latino Origin by Race.” <<http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>>
- USDA (U.S. Department of Agriculture). 2015. “Honey Bee Health and Colony Collapse Disorder.” Agriculture Research Services. <<http://www.ars.usda.gov/News/docs.htm?docid=15572>>. Accessed July 29, 2015.
- Ventyx 2014. PROMOD version 10.1. <<http://www.ventyx.com/en/solutions/business-operations/business-products/promod-iv>>. Accessed July 22, 2014.
- WHO (World Health Organization). 2005. *Electromagnetic Fields and Public Health - Electromagnetic Hypersensitivity*. December. <<http://www.who.int/peh-emf/publications/facts/fs296/en/>>. Accessed July 30, 2015.