

DEPARTMENT OF ENERGY

Record of Decision and Floodplain Statement of Findings for the Lake Charles Exports, LLC Application to Export Liquefied Natural Gas to Non-Free Trade Agreement Countries

AGENCY: Office of Fossil Energy, Department of Energy.

ACTION: Record of decision.

SUMMARY: The U.S. Department of Energy (DOE) announces its decision in Lake Charles Exports, LLC (LCE), DOE/FE Docket No. 11-59-LNG, to issue DOE/FE Order No. 3324-A, granting final long-term, multi contract authorization for LCE to engage in the export of domestically produced liquefied natural gas (LNG) from the Lake Charles Terminal located in Lake Charles, Calcasieu Parish, Louisiana (Terminal), in a volume equivalent to 730 Bcf/yr of natural gas for a term of 20 years. LCE is seeking to export LNG from the Terminal to countries with which the United States has not entered into a free trade agreement (FTA) that requires national treatment for trade in natural gas, and with which trade is not prohibited by U.S. law or policy (non-FTA countries). Order No. 3324-A is issued under section 3 of the Natural Gas Act (NGA)¹ and 10 CFR Part 590 of DOE's regulations.² DOE participated as a cooperating agency with the Federal Energy Regulatory Commission (FERC) in preparing an environmental impact statement (EIS)³ analyzing the potential environmental impacts resulting from modification of the existing facilities at the Terminal.

¹ The authority to regulate the imports and exports of natural gas, including liquefied natural gas, under section 3 of the NGA (15 U.S.C. § 717b) has been delegated to the Assistant Secretary for FE in Redlegation Order No. 00-006.02 issued on November 17, 2014.

² 10 CFR part 590 (2012).

³ Federal Energy Regulatory Commission, Final Environmental Impact Statement for the Lake Charles Liquefaction Project, Docket Nos. CP14-119-000, CP14-120-000, and CP14-122-000 (Aug. 2015).

ADDRESSES:

The EIS and this Record of Decision (ROD) are available on DOE's National Environmental Policy Act (NEPA) website at: <http://energy.gov/nepa/nepa-documents>.

Order No. 3324-A is available on DOE/FE's website at:

http://www.fossil.energy.gov/programs/gasregulation/authorizations/2011_applications/la_ke_charles_exports.html. For additional information about the docket in these proceedings, contact Larine Moore, U.S. Department of Energy, Office of Regulation and International Engagement, Office of Oil and Natural Gas, Office of Fossil Energy, Room 3E-042, 1000 Independence Avenue, SW, Washington, DC 20585.

FOR FURTHER INFORMATION CONTACT:

To obtain additional information about the EIS or the ROD, contact Mr. Kyle W. Moorman, U.S. Department of Energy (FE-34), Office of Regulation and International Engagement, Office of Oil and Natural Gas, Office of Fossil Energy, Room 3E-042, 1000 Independence Avenue, SW, Washington, DC 20585, (202) 586-5600, or Mr. Edward Le Duc, U.S. Department of Energy (GC-51), Office of the Assistant General Counsel for Environment, 1000 Independence Avenue, SW, Washington, DC 20585.

SUPPLEMENTARY INFORMATION:

DOE prepared this ROD and Floodplain Statement of Findings pursuant to the National Environmental Policy Act of 1969 (42 United States Code [U.S.C.] 4321, et seq.), and in compliance with the Council on Environmental Quality (CEQ) implementing regulations for NEPA (40 Code of Federal Regulations [CFR] parts 1500 through 1508), DOE's implementing procedures for NEPA (10 CFR part 1021), and

DOE's "Compliance with Floodplain and Wetland Environmental Review Requirements" (10 CFR part 1022).

Background

LCE is a Delaware limited liability company with its principal place of business in Houston, Texas. In a Notice of Change in Control recently submitted to DOE/FE,⁴ LCE states that, on February 15, 2016, Royal Dutch Shell, plc (Shell) acquired all of the share capital of BG Group plc (BG). Prior to the transaction, LCE was owned by subsidiaries of BG and Energy Transfer Equity, L.P. (ETE), and LCE's affiliate, BG LNG Services, LLC (BGLS), was an indirect subsidiary of BG. As a result of the transaction, LCE is now owned by subsidiaries of Shell and ETE⁵ and BGLS is now an indirect wholly-owned subsidiary of Shell. According to LCE, LCE will remain the authorization holder for its existing DOE/FE authorizations and/or the applicant in its pending DOE/FE proceedings.

On May 6, 2011, LCE filed the application (Application) with DOE/FE seeking authorization to export domestically produced LNG from proposed liquefaction facilities (Liquefaction Project) to be located at the existing Terminal in Lake Charles, Louisiana. LCE proposes to export this LNG to non-FTA countries in a total volume equivalent to 730 billion cubic feet per year (Bcf/yr) of natural gas.

⁴ See Lake Charles Exports, LLC, Notice of Change in Control (Feb. 17, 2016) and DOE/FE letter responding to Notice (July 26, 2016) in DOE/FE Docket No. 11-59-LNG.

⁵ DOE/FE takes administrative notice that Shell is a public limited company incorporated in the United Kingdom and headquartered in the Netherlands. ETE is a Delaware master limited partnership with its principal place of business in Dallas, Texas.

The Terminal is owned and operated by Lake Charles LNG Company, LLC (Lake Charles LNG, formerly Trunkline LNG Company, LLC), a corporate affiliate of LCE.⁶ The Liquefaction Project will be owned by Lake Charles LNG Export Company, LLC (formerly Trunkline LNG Export, LLC), another corporate affiliate of LCE which is separately pursuing an authorization to export the same volume of LNG to non-FTA countries in DOE/FE Docket No. 13-04-LNG.⁷ Lake Charles LNG and Lake Charles LNG Export Company are both owned by Energy Transfer Equity, L.P. and Energy Transfer Partners, L.P.

On August 7, 2013, DOE/FE issued Order No. 3324 (Conditional Order) to LCE, conditionally granting the portion of LCE's Application that requested long-term, multi-contract authority to export domestically produced LNG to non-FTA countries. Under the terms of that Conditional Order, LCE is conditionally authorized to export up to 15 mtpa, which LCE states is equivalent to approximately 730 billion Bcf/yr of natural gas (2.0 Bcf/d), by vessel from the Terminal for a term of 20 years. The Conditional Order reviewed the record evidence and entered findings on all non-environmental issues considered under NGA section 3(a), including the economic impacts, international impacts, and security of natural gas supply associated with LCE's proposed exports. Because DOE must also consider environmental issues, DOE/FE conditioned the order on: (i) FERC's satisfactory completion of the NEPA environmental review process, and

⁶ In September 2014, Trunkline LNG Company, LLC changed its name to Lake Charles LNG Company, LLC. *See, Lake Charles LNG Export Co. LLC*, DOE/FE Order No. 3252-A, FE Docket No. 13-04-LNG, Order Granting Request to Amend DOE/FE Order No. 3252 and Pending Application to Reflect Corporate Name Change (Mar. 18, 2015).

⁷ On Oct. 10, 2014, Trunkline LNG Export, LLC filed a request in DOE/FE Dkt. No. 13-04-LNG to change its corporate name to Lake Charles Export Company, LLC. Order 3252-A granted the name change.

(ii) DOE/FE's own issuance of a finding of No Significant Impact (FONSI) or a Record of Decision (ROD) under NEPA.⁸

LCE states that FERC certificated the Terminal in 1977 and the original construction was completed in 1981.⁹ LCE states that Lake Charles LNG has expanded and enhanced the Terminal through the construction of additional storage capacity, additional gas-fired vaporization capacity, an additional marine berth, ambient air vaporization equipment, and natural gas liquids extraction capability.

According to LCE, the Terminal currently has a firm sustained sendout capacity of 1.8 Bcf/d and a peak sendout capacity of 2.1 Bcf/day. The Terminal has four LNG storage tanks with a combined capacity of approximately 425,000 cubic meters of LNG, or approximately 9.0 Bcf of natural gas. The Terminal's natural gas liquids processing facilities allow the extraction of ethane and other heavier hydrocarbons from the LNG stream.

Project Description

Among other features, the Liquefaction Project will include a new liquefaction facility consisting of three liquefaction trains, modifications and upgrades at the existing Terminal, and approximately 0.5 miles of 48-inch diameter feed gas line in Calcasieu Parish, Louisiana, to supply natural gas to the liquefaction facility from existing gas transmission pipelines.¹⁰

⁸ LCE Conditional Order, DOE/FE No. 3324, at 133-34 (Term and Condition Para. H).

⁹ *Trunkline LNG Co., et al.*, 58 FPC 726 (Opinion No. 796), *order on reh'g* 58 FPC 2935 (1977) (Opinion No. 796-A).

¹⁰ See *Trunkline LNG Company, LLC et al.*, Supplemental Notice of Intent to Prepare an Environmental Impact Statement for the Planned Lake Charles Liquefaction Project and Request for Comments on Environmental Issues, FERC Docket No. PF12-8-000, at 2 (Mar. 21, 2013), *available at* <http://energy.gov/sites/prod/files/EIS-0491-FERC-SNOI-2013.pdf>.

LCE states that, following completion of the Liquefaction Project, the Terminal will be bi-directional, meaning it will be capable of importing or exporting LNG, and its peak and sustained sendout capabilities will not be affected.

EIS Process

FERC was the lead federal agency and initiated the NEPA process by publishing a Notice of Intent (NOI) to prepare an EIS in the Federal Register (FR) on September 20, 2012 (77 FR 58373); DOE was a cooperating agency. FERC issued the draft EIS for the Liquefaction Project on April 10, 2015 (80 FR 20489), and the final EIS on August 20, 2015 (80 FR 50622). The final EIS addresses comments received on the draft EIS. Among other resource areas, the final EIS addresses geology, soils, water, wetlands, wildlife, air quality and noise, cumulative impacts and alternatives.¹¹

The final EIS recommended that FERC subject any approval of LCE's proposed Liquefaction Project to 96 conditions to reduce the environmental impacts that would otherwise result from the construction and operation of the project. On December 17, 2015, FERC issued an Order Granting Section 3 and Section 7 Authorizations and Approving Abandonment (FERC Order),¹² which authorized Lake Charles LNG to site, construct, and operate the Lake Charles Liquefaction Project, subject to 95 of the 96 environmental conditions in Appendix B of that Order.

In accordance with 40 CFR 1506.3, after an independent review of FERC's final EIS, DOE/FE adopted FERC's final EIS for the Lake Charles Liquefaction Project

¹¹ See Final EIS at 1-10, Table 1.3-1 *Key Environmental Concerns Identified During the Scoping Process for the Lake Charles Liquefaction Project*.

¹² *Trunkline Gas Co., LLC, et al.*, Order Granting Section 3 and Section 7 Authorizations and Approving Abandonment, 153 FERC ¶ 61,300 (Dec. 17, 2015).

(DOE/EIS-0491), and the U.S. Environmental Protection Agency published a notice of the adoption on July 15, 2016 (81 FR 46077).

Addendum to Environmental Review Documents Concerning Exports of Natural Gas From the United States (Addendum)

On June 4, 2014, DOE/FE published the Draft Addendum to Environmental Review Documents Concerning Exports of Natural Gas From the United States (Draft Addendum) for public comment (79 FR 32258). The purpose of this review was to provide additional information to the public concerning the potential environmental impacts of unconventional natural gas exploration and production activities, including hydraulic fracturing. Although not required by NEPA, DOE/FE prepared the Addendum in an effort to be responsive to the public and to provide the best information available on a subject that had been raised by commenters in this and other LNG export proceedings.

The 45-day comment period on the Draft Addendum closed on July 21, 2014. DOE/FE received 40,745 comments in 18 separate submissions, and considered those comments in issuing the Final Addendum on August 15, 2014. DOE provided a summary of the comments received and responses to substantive comments in Appendix B of the Addendum. DOE/FE has incorporated the Draft Addendum, comments, and Final Addendum into the record in this proceeding.

Alternatives

The EIS assessed alternatives that could achieve the Liquefaction Project objectives. The range of alternatives analyzed included the No-Action Alternative, system alternatives, pipeline system alternatives, alternative liquefaction facility sites, alternative terminal configurations, alternative aboveground facility sites for pipeline

expansion, and alternative power sources. Alternatives were evaluated and compared to the Lake Charles Liquefaction Project to determine if the alternatives were environmentally preferable.

Under the No-Action Alternative, the Liquefaction Project would not be developed. Additionally, the potential adverse and beneficial environmental impacts discussed within the EIS would not occur. Furthermore, this alternative could also require that potential end-users make different arrangements to obtain natural gas services, use other fossil fuel energy sources (e.g. coal or fuel oil), or possibly use traditional long-term energy sources (e.g. nuclear power) and/or renewable energy sources to compensate for lack of natural gas that would otherwise come from the supplies produced by the Liquefaction Project.

The EIS evaluated system alternatives for the Liquefaction Project, including six operating LNG import terminals in the Gulf of Mexico area, and several proposed or planned export projects along the Gulf Coast. All of the system alternatives were eliminated from further consideration for reasons that include the need for substantial construction beyond that currently proposed, production volume limitations, in-service dates scheduled significantly beyond LCE's commitments to its customers, and potential environmental impacts that were considered comparable to or greater than those of the Liquefaction Project.

The EIS evaluated three pipeline system alternatives for the Liquefaction Project. In order to be a viable pipeline system alternative, the alternative system would have to transport all or a part of the volume of natural gas required for liquefaction at the

proposed new facility and cause significantly less impact on the environment.

Additionally, a legitimate pipeline alternative must either connect directly to the proposed facility or to the existing pipeline system. Each of the three alternative pipeline systems considered would require significant expansions in their looping and compression capabilities to achieve the necessary delivery capacity and require the construction of new segments to connect directly with the liquefaction facility. The construction associated with the alternatives, including significantly increasing pipeline looping capability or expansion, would result in environmental impacts equal to or greater than the proposed pipeline system. As a result, none of the three proposed pipeline alternatives would provide a significant environmental advantage over the existing and proposed pipeline system.

The EIS evaluated five Liquefaction Project sites (including the current proposed site), all within relative close proximity to the existing Terminal. Construction of the Terminal at each of the alternative sites would have greater environmental impacts when compared to the proposed Terminal site; therefore, none of the four other sites evaluated were determined to be environmentally preferred.

For the Liquefaction Project configuration (e.g. siting for components such as liquefaction trains, pretreatment units and pipeline connections), the EIS considered the use, design, and configuration subject to the requirements of 49 CFR 193 and other industry or engineering standards. The EIS evaluated factors such as locations of interconnecting LNG transfer piping, operational noise, vapor dispersion requirements, and site evaluation associated with impacts on surrounding wetlands. Regulatory requirements associated with thermal exclusion and vapor dispersion zones would require

additional fill material to increase elevation at the site that will likely cause further wetland losses on the site. As a result, the proposed configuration was determined to be environmentally preferred.

The EIS evaluated several alternative sites for the proposed above-ground facilities (e.g. one new compressor (Compressor Station 203-A) station and five new metering stations) for pipeline expansion. In each of the alternative sites analyzed for the facilities, the environmental impacts from construction and operational activities (e.g., increased noise and air emissions) would not be environmentally preferred to the proposed sites.

Environmentally Preferred Alternative

When compared against the other action alternatives assessed in the EIS, as discussed above, the Lake Charles Liquefaction Project is the environmentally preferred alternative. While the No-Action Alternative would avoid the environmental impacts identified in the EIS, adoption of this alternative would not meet the Liquefaction Project objectives.

Decision

DOE has decided to issue Order No. 3324-A authorizing LCE to export domestically produced LNG by vessel from the Terminal located in Lake Charles, Calcasieu Parish, Louisiana, in a volume up to the equivalent to 730 Bcf/yr of natural gas for a term of 20 years to commence on the earlier of the date of first export or seven years from the date that the Order is issued.

Concurrently with this Record of Decision, DOE is issuing Order No. 3324-A in which it finds that the requested authorization has not been shown to be inconsistent with the public interest, and the Application should be granted subject to compliance with the terms and conditions set forth in the Order, including the environmental conditions recommended in the EIS and adopted in the FERC Order at Appendix B. Additionally, this authorization is conditioned on LCE's compliance with any other preventative and mitigative measures imposed by other Federal or state agencies.

Basis of Decision

DOE's decision is based upon the analysis of potential environmental impacts presented in the EIS, and DOE's determination in Order No. 3324-A that the opponents of LCE's Application have failed to overcome the statutory presumption that the proposed export authorization is not inconsistent with the public interest. Although not required by NEPA, DOE/FE also considered the Addendum, which summarizes available information on potential upstream impacts associated with unconventional natural gas activities, such as hydraulic fracturing.

Mitigation

As a condition of its decision to issue Order No. 3324-A authorizing LCE to export LNG to non-FTA countries, DOE is imposing requirements that will avoid or minimize the environmental impacts of the project. These conditions include the environmental conditions recommended in the EIS and adopted in the FERC Order at Appendix B. Mitigation measures beyond those included in Order No. 3324-A that are enforceable by other Federal and state agencies are additional conditions of Order No.

3324-A. With these conditions, DOE/FE has determined that all practicable means to avoid or minimize environmental harm from the Liquefaction Project have been adopted.

Floodplain Statement of Findings

DOE prepared this Floodplain Statement of Findings in accordance with DOE's regulations, entitled "Compliance with Floodplain and Wetland Environmental Review Requirements" (10 CFR part 1022). The required floodplain assessment was conducted during development and preparation of the EIS (see Sections 3.3.1, 3.3.2, 4.1.3.4, and 4.13.2.1 of the EIS). DOE determined that the placement of some project components within floodplains would be unavoidable. However, the current design for the Lake Charles Liquefaction Project minimizes floodplain impacts to the extent practicable.

Issued in Washington, D.C. on July 29, 2016.



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