

# Final Environmental Impact Statement

## Volume IV - Public Comments

June 2009

## Big Stone II Power Plant and Transmission Project



Prepared for:

Lead Agency:  
Western Area Power Administration



Cooperating Agency:  
U.S. Army Corps of Engineers

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# 1.0 Introduction

This volume of the Final Environmental Impact Statement (EIS) on the Big Stone II Power Plant and Transmission Project contains public comments received on both the Draft EIS and Supplemental Draft EIS. Public comments were received via mail, through the Internet at Western's web site, and received in oral and written formats at the public hearings.

## 1.1 Comment Numbering Methodology

As discussed in detail in Volume II, document identification numbers were given to each submission (e.g., a letter, email, public comment form, or oral comments given in a single public hearing). The document identification number consists of an alphabetic character to identify the type of entity (e.g., Federal government, individual, public hearing), followed by a dash, and then a number. The submissions are numbered sequentially from 1 upward to the last comment.

Submissions are presented within the following source categories:

- Governmental agencies (F=Federal government, T=Tribal governments, S=State government, L=local government)
- Non-governmental organizations (O)
- Businesses (B)
- Individual commenters (I)
- Form letters (FL)
- Public hearings (PH). PH1 (the public hearing at Big Stone City); PH2 (Morris); PH3 (Granite Falls); and PH4 (Benson).

Next, each category source was assigned a sequential number to differentiate sources within a category. For example, the USEPA submission is F-1 and the U.S. Fish and Wildlife Service submission is F-2.

Finally, each individual bracketed comment within a document was bracketed and assigned a lower case alphabetical character, in sequential order. For example, the USEPA's first bracketed comment was assigned F-1a and the second comment in the same submission was assigned as F-1b.

In developing the bracketed comment numbers for public comments to the Supplemental Draft EIS, the naming process was repeated, except that comments submitted in response to the Supplemental Draft EIS are prefaced with the letter "S" prior to the letter and number. For example, the USEPA's first bracketed comment in response to the Supplemental Draft EIS was assigned SF-1a.

To facilitate designation of specific comments on each submission, all submissions were scanned into a computer-editable text using optical character recognition software. Typical accuracy rates of typewritten text exceed 99 percent, however in some cases, the formatting process of some individual documents created occasional distortion and mis-reading of characters. Additional effort was made to manually correct these distortions and incorrectly read characters, however, in some cases distortion from the original letter may still occur. All original comment submissions have been added to the administrative record for the EIS.

**DEIS PUBLIC COMMENTS**

## **FEDERAL AGENCIES**

F-1. United States Environmental Protection Agency

F-2. U.S. Department of the Interior, Fish and Wildlife Service

F-3. U.S. Department of the Interior, Office of Environmental Policy and Compliance

F-4. U.S. Department of Health & Human Services, Centers for Disease Control and Prevention



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 8

999 18<sup>TH</sup> STREET- SUITE 300  
DENVER, CO 80202-2466 Phone  
800-227-8917

<http://www.epa.gov/region08>

Ref: 8EPR-N

Ms. Nancy Werdel  
Western Area Power Administration  
P.O. Box 281213  
Lakewood, CO 80228-8213

AUG 07 2006

RE: Comments on Big Stone II Power  
Plant and Transmission Project  
Draft Environmental Impact Statement  
CEQ #20060178

Dear Ms. Werdel:

The Environmental Protection Agency (EPA) Region 8 and Region 5 have reviewed the Big Stone II Power Plant and Transmission Project Draft Environmental Impact Statement (DEIS). Our comments are provided in accordance with our authorities under the National Environmental Policy Act (NEPA), 42 U.S.C. 4231, and Section 309 of the Clean Air Act. The applicant for this project (Missouri River Energy Services, on behalf of seven energy entities known collectively as Co-owners) proposes to construct and operate the Big Stone II coal-fired power plant in Big Stone City, South Dakota. The Co-owners propose to connect transmission lines to the Western Area Power Administration (WAPA) power transmission system, and to the Big Stone II coal-fired power plant. The federal action is WAPA's decision to approve the connection of these transmission lines to the WAPA power grid. The project would require the addition of new, and modification of existing, transmission lines in Minnesota and South Dakota, and modification of existing substations in Minnesota.

The proposed Big Stone II power plant would be located adjacent to the existing Big Stone plant. Other major construction associated with the Big Stone II plant includes a cooling tower blow down pond, cooling tower and make-up water storage pond. The Big Stone II plant would use pulverized coal-fired super-critical boiler technology and would burn low-sulfur Powder River Basin coal. Air emissions from both the existing Big Stone plant and the proposed Big Stone II plant would be controlled with a baghouse particulate filter and wet-flue gas desulfurization system. Under separate cover, EPA has sent comments on the draft air permit (June 26, 2006 to the State of South Dakota) and 404 permit application (June 27, 2006 to the U.S. Army Corps of Engineers) for this project. The comments herein are intended to be consistent with the previous letters and to assist WAPA in preparing the final EIS (FEIS) on this project.

The project's power customers are located mainly in Minnesota. The DEIS analyzes two alternative transmission corridors with new and upgraded transmission lines rated at 230 kilovolts. Existing substations in Minnesota would require modification or reconstruction to accept the interconnections to transfer the power from the proposed plant to the transmission system.

Alternative A would total approximately 136 miles of new or modified transmission lines, and Alternative B would total approximately 177 miles. [The DEIS does not identify either as the preferred alternative.]

F-1a

EPA recognizes the complexity of the proposed project and the applicant's need to develop a project that will help meet the demand for energy in the area to be served. EPA has reviewed the DEIS analysis of potential environmental impacts from the proposed project and the adequacy of the information presented in the document. We provide the following recommendations in two general areas, which are discussed in more detail in the enclosed comments: [1] the DEIS indicates potentially significant impacts to wetlands. The FEIS should provide the additional necessary information on wetland impacts for both the power plant site and transmission lines, including a demonstration of the least environmentally damaging practicable alternative (LEDPA) for wetland impacts, and mitigation of those impacts;] and [2] the FEIS should include additional information related to the project's potential mercury emissions.]

F-1b

F-1c

Regarding wetland concerns, the DEIS estimates that the new plant and associated storage pond facilities will directly impact 65 acres of wetlands. We recommend that the FEIS provide additional information to determine, consistent with CWA 404(b)(1) guidelines, whether this proposed project is the LEDPA for wetland impacts, and to analyze the means to mitigate these potential impacts. We also recommend that the FEIS include a detailed assessment of the wetland and stream-crossing impacts of the transmission line corridors, including an estimated footprint for transmission towers and access roads for power line construction and maintenance.

F-1d

The DEIS states that the U.S. Army Corps of Engineers (Corps) will use this document to support its decisions on the CWA Section 404 permit application from the Co-owners. The CWA 404(b)(1) guidelines require that the applicant demonstrate that the proposed action is the LEDPA, which includes an analysis of avoidance, minimization, and mitigation of impacts to wetlands (See 40 CFR 230 Subpart B). EPA recommends that the FEIS provide additional information to demonstrate whether this proposed project is the LEDPA, including: a description as to why alternate site locations were rejected; the criteria used; more specific information on alternate facility configurations at the site; alternate design options for the cooling pond; and a detailed description of proposed mitigation of wetland impacts. EPA recommended in a letter to the Corps dated June 27, 2006 that the wetlands permit application for the power plant be denied because a clear demonstration of the LEDPA was not made by the applicant.

F-1e

The DEIS projects that the two Big Stone units together would have mercury emissions of 399 pounds per year in the year 2012 and a goal of 144 pounds or lower. This is based on the assumption that South Dakota submits an approvable State plan allowing emissions trading. Should South Dakota finalize a mercury rule to meet the requirements of the Clean Air Mercury Rule (CAMR) that does not allow interstate emission trading, the facility would have to reduce emissions to be in compliance with that rule as South Dakota's mercury allocation is only 144

pounds in 2010 and 58 pounds in 2018 under CAMR. The FEIS should provide information on mercury reduction technologies beyond those already proposed in case additional reductions are required by the State plan.

F-1f

The DEIS states that "[a]irborne plant emissions could cause local and regional surface water quality impacts such as acidification or increases in mercury concentration." (DEIS at 4-15). The DEIS provides, however, no analysis in support of this statement. We note that EPA conducted national modeling in support of the Section 112(n) Revision Rule and the Clean Air Mercury Rule (CAMR) that analyzed the impact of utility mercury emissions on deposition patterns and fish tissue concentrations. This analysis supported our conclusion that utility mercury emissions after CAMR are not reasonably anticipated to present a hazard to public health. See 70 Fed. Reg. 16004. That said, the FEIS should discuss the potential impacts of these emissions identified in the DEIS as part of its site-specific analysis of the project.

F-1g

Based on the procedures EPA uses to evaluate the adequacy of the information and the potential environmental impacts of the proposed action and alternatives in an EIS, EPA is rating this DEIS as EO-2 (Environmental Objections-Insufficient Information). An "EO" signifies that EPA's review of the DEIS has identified potential significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may involve substantial changes to the project. A "2" rating signifies that the DEIS does not contain sufficient information for the EPA to

F-1h

fully assess environmental impacts that should be avoided in order to fully protect the environment. [In this case, the DEIS does not fully analyze wetland alternatives,] [nor does it fully explain mercury emissions controls and costs.] Because the DEIS does not identify a preferred alternative, this rating applies to both alternatives. A copy of EPA's rating criteria is attached.

Enclosed are EPA's detailed comments. These comments are intended to help ensure a comprehensive assessment of the project's environmental impacts, adequate public disclosure and an informed decision-making process for alternative selection. If you would like to discuss our comments, please feel free to contact Larry Svoboda of my staff at (303) 312-6004.

Sincerely,



Kerrigan G. Clough  
Deputy Regional Administrator

Enclosures: Detailed Comments  
EPA's Rating System Criteria

cc: Ken Westlake, EPA Region 5  
Anna Miller, EPA Region 5

## **EPA's Detailed Comments Big Stone II Power Plant DEIS**

### **General Comments**

#### **Wetland Impacts**

The DEIS states that the U.S. Army Corps of Engineers (Corps) will use this EIS to support its decisions on the CWA Section 404 permit applications from the Co-owners (DEIS page ES-4). The Corps is a cooperating agency on this DEIS.

- 1) *Wetland impacts at the Power Plant site: The FEIS should provide sufficient information to determine whether the proposed power plant site is the Least Environmentally Damaging Practicable Alternative (LEDPA), as required by the 404(b)(1) Guidelines (40 CFR Part 230), and mitigation for the impacts.*

The DEIS discloses impacts from the new plant to 65 acres of wetlands. The document states that 38 potential sites were identified for the power plant, and that many were eliminated due to limited water supply and residential development. The remaining six were screened using 17 criteria (see DEIS page ES-9), but it is not clear from the document whether one of those criteria was impacts to waters of the US, and whether the plant site is the LEDPA, as required by Section 404 of the CWA. The CWA Section 404(b)(1) Guidelines require that the applicant demonstrate that wetland impacts have been avoided and minimized to the maximum extent practicable. EPA recommends that the FEIS contain a thorough evaluation of the alternative sites considered, explaining how the CWA Section 404(b)(1) Guidelines were met when considering the alternative locations and configurations for the power plant. The discussion should include a description of why these alternatives were not practicable from a Section 404(b)(1) perspective, which would include a detailed description of cost, existing technology, and logistics. The document should identify the LEDPA for the power plant for this to be a document the Corps can use to support its decisions. It should be noted that, in a letter to the Corps dated June 27, 2006, EPA has recommended denial of the permit application for this project because it is not clear that the applicant's preferred alternative for the project, as proposed, represents the LEDPA.

Concerning the storage pond location, the document indicates, on page 4-60, that a site to the west of the existing Big Stone facility was evaluated as an alternative makeup storage pond location. The DEIS states that "direct wetland impacts at this site are lower than at any other options considered (Barr, 2006; Barr, 2004a)." However, this option was eliminated from further consideration because of topography, excavation costs and infringement on US Fish and Wildlife Service Native Grassland and Wetland Easement Program sites on two parcels. While these may be sufficient reasons, the document does not provide adequate information to understand the rejection of the site and to demonstrate that it is not a practicable alternative that minimizes impacts to wetlands. As stated above, Section 404(b)(1) of the CWA requires a detailed description of cost, technology, and logistics of the alternatives.

EPA is also concerned that the guidelines analysis in the CWA Section 404 permit application (included by reference, DEIS page 4-60) indicates that the cooling pond must be a rectangular

F-1i



diked pond. We recommend that the applicant investigate whether other pond reconfigurations combined with using the site to the west could minimize wetland impacts. The FEIS should include documentation clearly demonstrating that other less damaging alternatives were adequately considered and determined to be not practicable.

The DEIS and permit application discuss the plans for mitigation. The applicant is offering to provide restoration of existing wetlands at a 1 to 1.5 ratio, with locations to be determined prior to issuance of the CWA Section 404 permit. The applicant should identify the areas as soon as possible to allow a better assessment of compliance with the guidelines. Sufficient surrogate acreage may be difficult to find to fully satisfy the mitigation requirements within a reasonable distance of the facility. If this is the case, an alternative mitigation plan may be required, and would need to be in place prior to the issuance of the 404 permit. Mitigation commitments should be fulfilled prior to impacts to existing wetlands to avoid lag times and delays in wetlands function. Conservation easements should be in place prior to wetland construction activities to ensure wetlands remain for the life of the project.

*2) Wetlands impacts from the transmission lines: The FEIS should also include a detailed assessment of the wetland and stream crossing impacts of the transmission line corridors, including an estimated footprint for transmission towers and access roads for power line construction and maintenance.*

The DEIS describes general impacts to wetlands, riparian areas and vegetation in the transmission line areas, but not in sufficient site-specific detail. In particular, the corridors appear to be several miles wide and the actual pathways of the power lines are undefined, such that the acreage impacts appear to be a best-guess by the applicant. More detail on the actual pathways for the two alternatives and their potential impacts is needed to determine whether the proposed construction of new and modification of existing transmission lines and associated facilities would require an individual CWA Section 404 permit, or whether such work could proceed under a Corps general permit. If an individual permit is required, a CWA Section 404(b)(1) Guidelines evaluation will be necessary. EPA recommends that the FEIS address regulation under CWA Section 404 for the transmission lines. This would assist in streamlining the CWA Section 404 permitting process.

We recommend that the FEIS explain how the power line structures would be constructed, the typical footprint, and maintenance of the structure, whether roads to structures would have to be developed and maintained, or whether the rights-of-way would be returned to the previous state. It also states that impacts from the transmission lines are negligible due to mitigation, but it has deferred wetland characterization till later in the process. Supporting evidence for this statement is missing. The document should include: a full characterization of the wetlands within the Alternative A and B corridors (including precise location and a discussion of functions and values); a better description of potential pathways within the corridors; a description of impacts from power lines that includes construction and maintenance; and a specific discussion of wetlands mitigation, including selection of pathways within the corridor to avoid especially sensitive vegetation communities and wetlands and a discussion of mitigation strategies, in the event wetlands are permanently removed. Opportunities to re-use or upgrade existing power

F-1j

lines are mentioned in the document, and if feasible, we encourage the use of existing lines if it avoids or minimizes wetland impacts.

### Mercury Control

*The FEIS should provide information on mercury reduction technologies beyond those already proposed and explain the basis for the information in the DEIS concerning mercury emissions impacts.*

F-1k

The DEIS states that the two Big Stone units together are projected to emit 399 pounds per year of mercury. The project's estimated emissions for the year 2012 of 399 pounds per year were based on current emissions plus New Source Performance Standards allowable emissions rate. Subsequent to the publishing of the DEIS, we are aware that the plant operators committed to cap emissions from the expanded facility at the 189.6 pounds per year level (letter from Terry Graumann, Manager, Environmental Manager for Big Stone to Kyrik Rombough, South Dakota Department of Environmental and Natural Resources, May 31, 2006). The DEIS also suggests that the goal for mercury emissions is 144 pounds per year or lower. We suggest that the FEIS clarify its projected mercury emissions by estimating future emissions based on actual projections, not just allowable emissions, and by discussing the goal set in the letter to South Dakota, and the goal of 144 pounds mentioned in the DEIS.

F-1l

The DEIS states that if the proposed mercury control equipment cannot meet the Clean Air Mercury Rule (CAMR) allowance, the Co-owners would have to either consider other mercury emission reduction measures or purchase mercury allowances from the EPA's national cap-and-trade program in an amount equal to the excess emissions. This is based on the assumption that South Dakota submits an approvable State plan allowing emissions trading. Should South Dakota finalize a mercury rule to meet the requirements of the CAMR that does not allow interstate emissions trading, the facility would have to further reduce emissions to be in compliance with that rule as South Dakota's mercury allocation is 144 pounds in 2010 and 58 pounds in 2018 under CAMR. Thus, the FEIS should provide information on mercury reduction technologies beyond those already proposed in case additional reductions are required by the State plan.

F-1m

The DEIS states that "[a]irborne plant emissions could cause local and regional surface water quality impacts such as acidification or increases in mercury concentration." (DEIS at 4-15). The DEIS provides, however, no analysis in support of this statement. We note that EPA conducted national modeling in support of the Section 112(n) Revision Rule and the Clean Air Mercury Rule (CAMR) that analyzed the impact of utility mercury emissions on deposition patterns and fish tissue concentrations. This analysis supported our conclusion that utility mercury emissions after CAMR are not reasonably anticipated to present a hazard to public health. See 70 Fed. Reg. 16004. That said, the FEIS should discuss the potential impacts of these emissions identified in the DEIS as part of its site-specific analysis of the project.

### Alternatives considered but eliminated from detailed analysis

*The FEIS should include additional information on why power generation alternatives were*

*eliminated early in the analysis. WAPA should also consider joint preparation of the FEIS with the State of Minnesota's EIS, which is considering alternate power generation options.*

F-1n The State of Minnesota is also preparing an EIS on the Big Stone II power plant and transmission project. The State DEIS is expected to be out for public comment in August 2006. We suggest, in the interest of elimination of duplication, that WAPA consider joint preparation of the FEIS with the State of Minnesota, consistent with NEPA regulations Sec. 1500.5 Reducing delay and Sec. 1506.2 (Elimination of duplication with State and local procedures.)

**Additional Comments Specific to the DEIS text:**

Air quality impacts

F-1o Page 3-4, Figure 3.1-1: The key for the diagram is not correct. The "Percent of Time" label should read "Velocity" with units such as "meters/sec" or possibly "miles/hour."

F-1p Page 4-4, *Significance Criteria*: The significance criteria listed visibility but omitted criteria for acid neutralizing capacity in sensitive lakes and deposition of sulfur and nitrogen compounds in Class I areas. Please include the significance criteria for sensitive lakes in the FEIS.

F-1q Page 4-5, Section 4.1.2: This section describes the Advanced Hybrid™ system used to control particulate emissions from the existing plant. According to the document, "the technology has encountered operational problems unrelated to particulate emissions and, as a result, the viability of the technology is under review." Actually, discussion elsewhere in the DEIS, including tables of projected emissions, show that the analysts assumed no use of the Advanced Hybrid system. For example, the control of mercury emissions discussed on page 4-9 involves only the proposed baghouse and wet fuel gas desulfurization. Projected emissions, especially those of particulate matter and mercury, would likely be lower if the proposed action were to include this technology. In the FEIS, please note that the projections of potential future emissions assumed no use of the Advanced Hybrid™ system.

F-1r Page 4-5, Section 4.1.2: *Reasonably foreseeable future emissions*: The DEIS includes air dispersion modeling results for CO and PM<sub>10</sub>. EPA understands that this modeling includes emissions associated with the existing Big Stone plant as well as those associated with the proposed Big Stone II facility. However, the modeling results do not include reasonably foreseeable future actions. We recommend that the FEIS either provide cumulative air dispersion modeling analysis for CO and PM<sub>10</sub> including reasonably foreseeable future developments (such as major air emission sources in the vicinity of Big Stone) or provide justification explaining why a cumulative effects air dispersion modeling analysis is not necessary. EPA does note that the Mid-continent Area Power Pool has completed a survey showing a 2,500 megawatt deficit by 2014 of which Big Stone II would offset only a portion (600 megawatt) of the MAPP capacity deficit, therefore other power plants may be needed in the next eight years.

F-1s Page 4-6, Table 4.1-2: Please provide more detail and show the calculations for the "2012

Projected" emissions for NO<sub>x</sub>, SO<sub>2</sub>, and PM<sub>10</sub>. In the calculations, indicate the control efficiencies associated with the baghouse and the wet flue gas desulfurization unit. Explain the "Goals" listed in the table, and how they might be obtained. Please provide a column in the table showing "2012 Projected" actual emissions. The current table is showing maximum potential emissions for the year 2012, which does not appear sufficient for disclosure of actual impacts.

F-1t

Page 4-6, Table 4.1 - 3: Please provide an example to show how the "Change in Emission" column is calculated. For instance, the PM<sub>10</sub> change in emission is 932.91 tons/yr and yet, Table 4.1-2 shows no PM<sub>10</sub> emissions greater than 348 tons/yr. For the NO<sub>x</sub> and SO<sub>2</sub> changes in emissions, please explain how the zero change in emissions is calculated.

F-1u

Page 4-7: According to section 4.1.2, the analysts conducted dispersion modeling with Version 02035 of ISCST3 and visibility modeling with VISCREEN. The DEIS has no appendix or technical support document showing the results of the modeling. Please include a support document or appendix with the FEIS.

#### Wetlands and vegetation impacts

F-1v

Page 3-56 and 3-65, Section 3.4.3: Transmission Corridors and Substations - Figures 3.4-4 and 3.4-5 illustrate the location of wetlands and State management areas or priority areas. Clearly, the corridors traverse numerous wetlands, water bodies, and, in particular, areas managed by the State of Minnesota for their unique features or as game or priority vegetation areas. These are large scale maps, however, that do not depict the actual potential pathways of the power lines within the corridors. At this stage in the project's development, the FEIS should give a more precise analysis of the corridors and the actual location of the power lines and their impacts. Otherwise, the DEIS alternatives are difficult to compare.

F-1w

Page 4-4, Section 4.4-1: The DEIS lists "Issues related to wetland/riparian areas due to constructing and operating Big Stone II" are related solely to air emissions. There are likely to be impacts to wetlands and riparian areas due to the construction and maintenance of power lines in the Prairie Pothole Eco-region. This section should be expanded.

F-1x

Page 4-74, Section 4.4.35: Wetland/Riparian Areas - The acreage of impacted wetlands was calculated as a percentage of wetlands within each corridor. Because acreages are estimated, this section does not present an accurate analysis of actual impacts to wetlands. Furthermore, this tabulation takes into account only wetlands acreage, and not functions and values. EPA recommends that the follow-up information include a more precise accounting for wetlands in the alternative corridors, including actual acreage impacted by lines, functions and values.

F-1y

The FEIS should discuss the proposed centerlines for each alternative and demonstrate how these centerlines either avoid or minimize impacts. For impacts that are not avoided, the applicant should provide at the very least a partial mitigation plan that explores available mitigation options.



IN REPLY REFER TO:  
FWS/AFWE-TCFO

United States Department of the Interior  
**RECEIVED**

FISH AND WILDLIFE SERVICE

APR 03 2006

Twin Cities Field Office  
4101 East 80th Street

Bloomington, Minnesota 55425-1665

U.S. FISH & WILDLIFE SERVICE

MAR 22 2006



Mr. Nicholas Stas  
Environmental Manager  
Department of Energy  
Western Area Power Authority  
Upper Great Plain Customer Service Region  
P.O. Box 35800  
Billings, Montana 59107

Dear Mr. Stas:

We have reviewed the January 25, 2006, draft Environmental Impact Statement (EIS) for the Big Stone II Power Plant and Transmission Project, South Dakota and Minnesota. Otter Tail Power proposes to construct a coal-fired power plant in eastern South Dakota and to develop new connecting and upgraded transmission lines in South Dakota and Minnesota. The proposed corridors are located in Big Stone, Stevens, Swift, Kandiyohi, Lac Qui Parle, Yellow Medicine, and Chippewa Counties in Minnesota, and Grant and Deuel Counties in South Dakota.

As you are aware, the U.S. Fish and Wildlife Service (Service) has provided wildlife and habitat information to Otter Tail Power and their consultant, HDR, beginning with letters dated May 13 and May 20, 2005, and at a June 14, 2005, meeting held at the Big Stone National Wildlife Refuge (NWR) in Odessa, Minnesota. The proposed transmission line corridors include lands managed by three wetland management districts and two national wildlife refuges; project planning is coordinated through two Ecological Services Field Offices, one located in each state affected by the project. To date, comments regarding the transmission line have been coordinated through the Twin Cities Ecological Services Field Office (ESFO), while comments specific to the power plant have been coordinated through the Pierre ESFO. This letter includes coordinated review of the EIS and reflects the Service's assessment of project-related adverse impacts to fish and wildlife resources and on lands for which the Service has jurisdiction. The Pierre ESFO may have additional comments specific to the proposed power plant that are not included here.

Although preferred routes within each corridor have been identified by Otter Tail Power, the EIS addresses all resources located within corridor boundaries. To aid Western Area Power Authority (WAPA), our comments address both general resource issues associated with the overall project as well as project-specific issues as they relate to unresolved route-specific resource concerns.

## GENERAL RESOURCE ISSUES

- For the proposed Morris route, should Federal Aviation Administration regulations prohibit construction of the alternative route that we previously recommended, we are willing to explore the option of an expanded right-of-way across the Twin Lakes Waterfowl Production Area (WPA) in Big Stone County (T122N, R36W, Sections 25 and 36) and the Schultz WPA in Stevens County (T124N, R43W, Section 12). Any such right-of-way would require a compatibility determination that would examine the effects of such a right-of-way on the purposes for which the unit was acquired, the purposes of the national wildlife refuge system, and the biological integrity of refuge system lands. If such a compatibility determination found the expanded right-of-way to be compatible, we may allow the use; if it is not found compatible, we are prohibited from allowing the use.

F-2a

Any finding of compatibility could be expected to contain conditions to minimize harm. Such conditions might include: a) minimizing raptor perches in pole design; b) installation of bird deflectors; c) continued allowance of prescribed burning and other routine land management under the utility lines; d) minimizing damage to native prairie during construction and maintenance; e) avoiding disturbance during the primary nesting season and; f) other conditions. No decision on compatibility has been made yet but we are willing to consider the compatibility in a formal compatibility determination. Determining the compatibility of a proposed new use requires public input and multiple levels of agency approval and the process should be expected to require several months. Should a right-of-way be granted, mitigation requirements would result in no net loss of refuge system resources. Required mitigation would be expected to replace lost habitat with similar habitat; in this case, mitigation is likely to include native prairie and wetlands.

F-2b

- Although planners have stated that the transmission lines will not cross the Big Stone NWR, a portion of the refuge (276 acres) is in Corridor B and Corridor C, Variation 1 (553 acres). Any future project modifications should not include Big Stone NWR land since it is unlikely that the Service would issue a new right-of-way across federal land where no right-of-way previously existed.

F-2c

- As we have discussed with project planners, if a route crosses Service-administered wetland easements, poles cannot be placed within any wetlands covered by the terms of the easement. Service easements prohibit draining, burning, leveling, and filling of wetlands. Pole installation would be a form of wetland fill. Wetland easements would not restrict placing poles on uplands sites.

F-2d

- For the corridor extending to Willmar, the Service prefers the W-15/W-16 route as it requires the least amount of transmission line and would avoid all the WPA's and easements in Kandiyohi County by a minimum of 0.5 miles.

- F-2e [
  - The proposed Canby and Willmar transmission line routes should avoid all WPA's and habitat easements. It is unlikely that the Service would issue a new right-of-way across federal land where no right-of-way previously existed.
- F-2f [
  - On the proposed Canby route, the Morris Wetland Management District has provided the project team with the location of a number of native prairie remnants in Yellow Medicine County being actively pursued for protection through the Northern Tallgrass Prairie NWR. The transmission line route should avoid crossing these native prairie remnants. Fragmentation and damage can be minimized by routing the line only along the exterior rather than the interior of the grasslands.
- F-2g [
  - On all routes, the transmission line right-of-way and structural design should accommodate future restoration of drained wetlands that contain a segment of the line right-of-way. Many agencies and individuals are actively restoring drained wetlands on private and public land across Minnesota. Just as the presence of wetlands should not eliminate the option for line construction, the presence of a line should not eliminate the option for wetland restoration.
- F-2h [
  - For all routes adjacent to or crossing likely bird concentration areas (e.g. large wetlands, riparian areas, lakes, and conservation lands), bird deflectors and/or other devices to minimize bird strikes should be incorporated in project design.
- F-2i [
  - Long-term maintenance issues associated with transmission line right-of-ways should be addressed as having potential for adverse impacts on habitat and wildlife. Suggested measures include: a) avoid clearing vegetation during the avian breeding season (May – July) or postpone maintenance until late summer, fall or winter; b) apply Best Management Practices when working in riparian zones (e.g. replacing vegetation by reseeding and/or replanting elsewhere, avoiding sedimentation, and avoiding stream work during fish spawning season. Other minimization measures may be appropriate as determined through future discussion of maintenance activities).
- F-2j [
  - A more detailed discussion regarding the need for Corridor C, a new transmission line in South Dakota, is necessary to explain why upgrade or improvements to existing transmission lines in Corridor C, Variation I, is not feasible.
- F-2k [
  - There should be expanded discussion of cumulative, interrelated and/or interdependent impacts to fish and wildlife resources.

**SPECIFIC COMMENTS**

Pages 2-28 and 2-29 - Standard Mitigation Measures (SMM):

- F-2l [
  - Water-8 and Water-9 – Bridges typically result in less impacts to stream systems than culverts. Culverts can become perched, can block fish passage, may become

- blocked with debris, may cause constriction in flow, and result in increased scour and/or sediment deposition downstream. We recommend bridges (e.g. Water 10) be included as standard practice instead of culverts and request further clarification regarding the determination between appropriate structures at any particular site. Replacing culverts with bridges could be considered mitigation for some project-related impacts on riparian habitat.
- F-2m Bio-1 – Surveys are mentioned but nothing is said about what will be done with survey information. We suggest including information about appropriate permits or consulting further with agencies. This is similarly mentioned in other areas of document.
- F-2n Bio-3 – Clarification is needed to determine if all wetland impacts will be mitigated. The Service recommends avoidance, minimization, and replacement of all wetlands (jurisdictional and non-jurisdictional) impacted by the project. A wetland mitigation plan should be developed and made available for agency review.
- F-2o Bio-4 – Mitigation of impacts to riparian areas should address replanting shrubs/trees, reseeding with grasses/forbs/wetland plants, location of mitigation areas and replacement ratios.
- F-2p Bio-5 – The document needs to address invasive species control on disturbed lands that are identified in a condition to facilitate natural revegetation.
- F-2q Bio-9 – Further information is needed to determine how shrubs will be reestablished.
- F-2r Bio-10 and Bio-12 – We recommend development of an avian protection plan to address collisions/electrocutions. See [www.aplic.org](http://www.aplic.org)
- F-2s Bio-13 – We recommend inclusion of a reference to future consultation with the Service’s Migratory Birds office regarding potential impacts to migratory birds during the nesting season.
- F-2t Page 2-32. Dust control measures will be applied during road construction. We recommend inclusion of measures to avoid environmental impacts (e.g. use of non toxic substances for dust control and ensuring adequate buffer zones between application site and wetland areas). If pumping water from streams/lakes, measures should be taken to avoid extraction during low water levels; particularly during primary spawning season (April, May, June), as well as implementing measures to preclude entrainment of fish/eggs in pumping apparatus.
- F-2u Page 3.1-7. The EIS states that, of the two states directly affected by the project, Minnesota is the only state included in the Clean Air Interstate Rule (CAIR). The EIS states that “... CAIR would significantly reduce the majority of coal-fired power plant



mercury emissions that deposit in the US.” The Service is concerned that this statement does not reflect the local impact emissions will have on natural resources as prevailing winds are most likely to bring the bulk of plant emissions into the Big Stone NWR.

Page 2.1-7 and 4.1-9. We request clarification regarding the discussion of mercury impacts under the Clean Air Mercury Rule standards. One reference discusses the impact in terms of tons while the other refers to pounds emitted. In addition, page 4.1-9 states that power plants are required to either reduce mercury emissions to less than 144 lbs/yr (South Dakota standard) or purchase mercury allowances from the Environmental Protection Agency’s cap-and-trade program.

F-2v

Page 2.1-9 and Table 4.1-4. This section should include discussion of where the allowance would be purchased so as to offset adverse effects of mercury on South Dakota and Minnesota resources. In fact, it appears that the justification for the ability to reduce future mercury emissions is solely based upon a comparison of historical output to the increased emissions expected in 2012 from the existing and proposed plants. We do not believe this to be an accurate depiction of effects because the project will be implemented under existing conditions (i.e., at levels reduced to less than half the historical emissions). It is unclear how the emissions of the existing and proposed plants in 2012 (399 lbs/yr) will meet emission standards set for either Minnesota or South Dakota or how purchase of allowances on a national basis will off set impacts to adjacent NWR fish and wildlife resources.

F-2w

The EIS should include a more in-depth discussion of the landscape effects of the increase of mercury emissions on the locally affected landscape as this discussion is the most pertinent to actual on-the-ground impacts to natural resources.

F-2x

Page 3.4-40. In this section, the description of palustrine and lacustrine wetlands are reversed; this should be corrected to accurately reflect that lacustrine wetlands are associated with lakes while palustrine wetlands are isolated wetlands with vegetation such as cattails.

F-2y

Page 4.1-13. The EIS states that there is no Class I air quality area within 300 kilometers of the proposed project. It later states that Pipestone National Monument is a Class II sensitive area. While this designation may provide a statutory standard that should be addressed, the document should also recognize the contiguous series of federal and state lands directly downstream on the Minnesota River and immediately southeast of the project with equally valuable resources, including air quality. In fact, these lands are much closer to the influence of project-related mercury levels than is Pipestone National Monument, located approximately 90 miles from the proposed plant. Lands within the affected area that fit this description include:

- Big Stone NWR, 11,586 acres approximately 7 miles in length
- Lac qui Parle State Wildlife Management Area, 31,000 acres and approximately 25 miles in length
- Lac qui Parle State Park, 1,057 acres and adjacent to the WMA.

F-2z

Page 3-4-1. The word "Waterfowl" should be exchanged for "Wildlife" in the term "Wildlife Production Areas (WPA's)". This section should further discuss the enabling legislation for which these federal and state lands were purchased. Including this discussion would provide a more thorough understanding of the background that supports management activities for these lands.

F-2aa

Page 4.4-11. After much discussion about possible impacts to raptors, a statement is included that says raptor nests located north of the plant in 2005 will not be affected. This statement requires clarification. We suggest consultation with the Service's Migratory Bird Management Office may be able helpful in providing further technical assistance pertinent to this section.

F-2ab

Page 4.4-11. The fifth paragraph mentions implementation of the SSM's and additional mitigation. Clarification is needed regarding the term "additional mitigation".

F-2ac

Page 4.4-16. There is an existing bald eagle nest 1.3 miles from the power plant. This distance and current acceptance by eagles of existing disturbance levels is used to justify no impacts from new plant construction/operations. However, the EIS also states that additional disturbance is anticipated with the new power plant. One recommendation to address this issue is to limit traffic in certain areas (143<sup>rd</sup> Street east of 485<sup>th</sup> Avenue, SD Hwy 109 north of 143<sup>rd</sup> Street, and 485<sup>th</sup> Avenue between 143<sup>rd</sup> and 142<sup>nd</sup> Streets) during the construction phase if work occurs during the bald eagle nesting season. It may also be necessary to develop a plan to limit disturbance to roosting areas. We recommend further discussion be included in the document regarding what will be done if a new eagle nest is found closer to the power plant as well as preconstruction surveys to locate nests.

F-2ad

Page 4.4-17. This section should include measures that may be applied if Dakota skippers are located.

F-2ae

Page 4.4-19. All riparian areas expected to be impacted should be included in a mitigation plan. Riverine and associated riparian areas are priority resources for the Service.

F-2af

4.4-20. The last paragraph states that non agricultural lands will be "reclaimed and reseeded, where appropriate". Further clarification is needed to understand what is meant by "where appropriate".

F-2ag

4.4-23. This section does not mention avian electrocution issues at substations. If electrocution issues have not already been addressed elsewhere, upgrades discussed in this section represent a good opportunity to do so. This information could be included in the avian protection plan. We recommend application of measures outlined in Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 1996.

F-2ah

4.4-30. This section refers to variables affecting the likelihood of avian collisions with power lines. Details are needed as to who will determine where flight diverters may be most appropriate (Bio-12) as well as when transmission lines will be monitored to detect future avian collision mortality. We recommend that this information be detailed in an avian protection plan (see [www.aplic.org](http://www.aplic.org)).

F-2ai

Page 4.4-30. Additional mitigation measure W-2 (requiring no work January-August) is mentioned for transmission line construction. A similar effort should be made to avoid impacts to nesting bald eagles in association with power plant construction.

F-2aj

Page 4.4-31. WL-1 involves wildlife surveys which are mentioned as a means of mitigation. There should be an explanation of how the surveys will be used to attain appropriate mitigation.

F-2ak

Page 4.4-31. A discussion should be included regarding the impacts of construction on invertebrates and measures that could be used to minimize impacts.

We appreciate the opportunity to provide preliminary comments on the draft EIS. If you have questions regarding our comments, please contact Ms. Laurie Fairchild, project biologist, at (612) 725-3548, extension 214.

Sincerely,



Dan P. Stinnett  
Field Supervisor

cc: Nancy Werdel, WAPA  
John Bridges, WAPA  
Alice Hanley, Big Stone NWR  
Steve Delehanty, Morris WMD  
Scott Glup, Litchfield WMD  
Jarrod Lee, Waubay NWR  
Tom Tornow, Madison WMD  
Natalie Gates, Pierre ESFO  
Michelle Bissonnette, HDR

# United States Department of the Interior



OFFICE OF THE SECRETARY  
Office of Environmental Policy and Compliance  
Denver Federal Center, Building 56, Room 1003  
Post Office Box 25007 (D-108) Denver, Colorado  
80225-0007



July 20, 2006

9043.1  
ER 06/0566

Ms. Nancy Werdel  
Western Area Power Administration  
PO Box 281213  
Lakewood, CO 80228

Dear Ms. Werdel:

The Department of the Interior (Department) has reviewed the Draft Environmental Impact Statement (DEIS) for the Big Stone II Power Plant and Transmission Project, Northeastern South Dakota and Southwestern Minnesota, Big Stone City, and offers the following comments.

## General Comments

U.S. Fish and Wildlife Service (USFWS) comments on the Big Stone II project were previously sent to the Western Area Power Administration (WAPA) in response to a request for review of the Administrative Draft Environmental Impact Statement (ADEIS). The Twin Cities Field Office, in coordination with the South Dakota Field Office, sent a comment letter to the WAPA dated March 22, 2006 (copy enclosed).

F-3a

An examination of the current Draft Environmental Impact Statement (DEIS) document as part of our Environmental Review process reveals that the WAPA incorporated many of the USFWS's previous comments. However, a few items from the USFWS's March 22, 2006, letter, under the heading "SPECIFIC COMMENTS," are restated below. Additionally, we reiterate the majority of the concerns outlined under the heading "GENERAL RESOURCE ISSUES" of the March 22, 2006, letter, with exception of the 8<sup>th</sup> and 9<sup>th</sup> bulleted items since the DEIS commits to development of an Avian Protection Plan (APP) addressing those items. We commend the WAPA's commitment to formulation of an APP; as this is an appropriate avenue to deal with immediate and future migratory bird concerns related to the Big Stone II Project such as electrocution, collision, and habitat impacts.

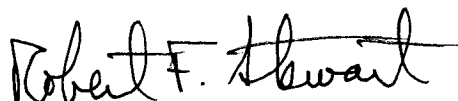
## Specific Comments

- F-3b
- Regarding the proposed Morris route, should the Federal Aviation Administration's (FAA) regulations prohibit construction of the alternative route which the USFWS previously recommended, it may be possible to explore the option of an expanded right-of-way (ROW) across the Twin Lakes Waterfowl Production Area in Big Stone County (Township 122 North, Range 36 West, Sections 25 and 36) and the Schultz Waterfowl Production Area in Stevens County (Township 124 North, Range 43 West, Section 12), Minnesota. Any such ROW would require a formal compatibility determination that would examine the effects of the ROW related to: a) the purposes for which the unit was acquired; b) the purposes of the National Wildlife Refuge System; and c) the biological integrity of refuge system lands. If the expanded ROW is found to be compatible, the use may be appropriate; if it is not found compatible, the USFWS is prohibited from allowing the use. Any finding of compatibility may contain conditions to minimize harm which may include: a) minimizing raptor perches in pole design; b) installation of bird deflectors; c) continued allowance of prescribed burning and other routine land management under the utility lines; d) minimization of damage to native prairie during construction and maintenance; e) avoiding disturbance during the primary nesting season; and f) other conditions. Determining the compatibility of a proposed new use requires public input and multiple levels of agency approval; thus, we anticipate that the process would require several months. Should a ROW be granted, mitigation requirements would be in-kind (in this case, likely native prairie and wetlands) and result in no net loss of refuge system resources.
- F-3c
- Although planners for this project have stated that the transmission lines will not cross the Big Stone National Wildlife Refuge (NWR), a portion of the refuge (276 acres) is in Corridor B and in Corridor C, Variation 1 (553 acres). Any future project modifications should not enter the Big Stone NWR since it is extremely unlikely that the USFWS would be able to issue a new ROW across Federal lands.
- F-3d
- As previously discussed with project planners, if a route crosses USFWS-administered wetland easements, poles cannot be placed within any wetlands covered by the terms of the easement. USFWS easements prohibit draining, burning, leveling, and filling of wetlands. Pole installation would be considered a form of wetland fill. Wetland easements would not restrict placing poles on upland sites. However, restrictions would apply in USFWS grassland easements.
- F-3e
- For the corridor extending to Willmar, the USFWS prefers the W-15/W-16 route as it requires the least amount of transmission line and would avoid all the Wetland Production Areas (WPAs) and easements in Kandiyohi County by a minimum of 0.5 miles.
- F-3f
- The proposed Canby and Willmar transmission line routes should avoid all WPAs and habitat easements. It is extremely unlikely that the USFWS would be able to issue a new ROW across Federal land.

- F-3g
- In regard to the proposed Canby route, the Morris Wetland Management District has provided the project team with the location of a number of native prairie remnants in Yellow Medicine County, Minnesota, which are being actively pursued for protection through the Northern Tallgrass Prairie NWR. The transmission line should avoid crossing these native prairie remnants. Fragmentation and damage can be minimized by routing the line only along the exterior, rather than the interior, of the grasslands.
- F-3h
- On all routes, the transmission line ROW and structural design should accommodate future restoration of drained wetlands that contain a segment of the line ROW. Many agencies and individuals are actively restoring drained wetlands on private and public lands in the region. Just as the presence of wetlands should not eliminate the option for line construction, the presence of a line should not eliminate the option for wetland restoration.
- F-3i
- The USFWS recommends a more detailed discussion regarding why Corridor C, a new transmission line in South Dakota, is being considered in the Environmental Impact Statement (EIS) when upgrades/improvements to existing transmission lines in Corridor C, Variation 1, Minnesota, are possible.
- F-3j
- We recommend an expanded discussion of cumulative, interrelated and/or interdependent impacts to fish and wildlife resources.
- F-3k
- On page 2-31 of the DEIS, Table 2.2-9, Standard Mitigation Measure (SSM) Air-4 states that oil and other petroleum derivatives will not be utilized for dust control. We reiterate the need for avoidance of all potentially toxic substances and advocate vegetative buffer zones between application areas and wetlands. If surface water is utilized (i.e., stream, lake, or wetland withdrawals), we recommend avoidance of the fish spawning periods (primarily April through June, species dependent) and application of measures to prevent entrainment of fish/larvae/eggs.
- F-3l
- Also in Table 2.2-9, page 2-32, SMMs Water-8 and Water-9, please include descriptions of measures to be applied to water crossings that include the use of culverts. Depending on design, some culverts may become perched and may block fish passage. They may also more readily become blocked with debris, cause flow constriction, and result in increased scour and/or sedimentation compared to bridges. Because bridges typically result in fewer impacts to stream systems than culverts, we recommend bridges be used to span waterways and associated floodplains.
- F-3m
- On page 3-92 in Table 3.7-4, the word "Wildlife" in the phrase "Wildlife Production Area" should be replaced with "Waterfowl"; clarification should be provided if this section refers to anything other than USFWS WPAs.

We appreciate the opportunity to provide these comments. If you need further assistance, please contact Natalie Gates, Fish and Wildlife Biologist, at the USFWS South Dakota Field Office at (605) 224-8693, extension 34.

Sincerely,

A handwritten signature in black ink that reads "Robert F. Stewart". The signature is written in a cursive style with a horizontal line extending from the end of the name.

Robert F. Stewart  
Regional Environmental Officer



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Centers for Disease Control  
and Prevention (CDC)  
Atlanta GA 30333

July 12, 2006

Ms. Nancy Werdel  
Western Area Power Administration  
PO Box 281213  
Lakewood, Colorado 80228

Dear Ms. Werdel:

We have completed our review of the Draft Environmental Impact Statement (DEIS) for the proposed Big Stone II Power Plant, Big Stone City, South Dakota. We are responding on behalf of the U.S. Public Health Service, Department of Health and Human Services.

F-4a

Generally, we believe this DEIS has addressed our potential concerns. It was noted that the power plant project will be constructed and operated in full compliance with all Federal and state regulations. We understand that both the South Dakota DENR and the Minnesota DNR will issue the necessary environmental permits and will conduct appropriate monitoring activities to ensure compliance. If the proposed mitigation measures are followed, there should be very minimal effect on human health.

Thank you for the opportunity to review and comment on this DEIS. Please send us a copy of the Final DEIS, and any future environmental impact statements which may indicate potential public health impact and are developed under the National Environmental Policy Act (NEPA).

Sincerely,

Paul Joe, DO, MPH  
Medical Officer  
National Center for Environmental Health (F16)  
Centers for Disease Control & Prevention



## TRIBES

- T-1. Sisseton-Wahpeton Oyate, Lake Traverse Reservation, Office of Environmental Protection



# Sisseton-Wahpeton Oyate

## Lake Traverse Reservation

Office of Environmental Protection  
Old Agency Box 509, Agency Village, SD 57262-0509  
PHONE: (605) 698-4998 FAX: (605) 698-4999

July 24, 2006

Ms. Nancy Werdel  
Western Area Power Administration  
P.O. Box 281213  
Lakewood, CO 80228  
Email: [BigStoneEIS@wapa.gov](mailto:BigStoneEIS@wapa.gov)

Dear Ms. Werdel:

I am hereby submitting my comments in regard to the Big Stone II Power Plant and Transmission Project Draft Environmental Impact Statement.

- T-1a [ First of all, on September 13, 2005, the SWO Air Quality Coordinator attended a public hearing in Milbank, SD. At that time, it was noted that you wanted to have a consultation with the tribes and would contact me to schedule that meeting with the SWO Tribal Council. However, that did not occur. As the Office Administrator of the Office of Environmental Protection, I can not officially speak on behalf of the Sisseton-Wahpeton Oyate Tribal Leaders, but unofficially I will take the following position opposing the DEIS on BSII:
- T-1b [
  - No Tribal Consultation has occurred;
  - Air Quality will be impacted and will most likely be detrimental to the health & safety of tribal members;
 ] T-1c
- T-1d [
  - [The fish in the lakes within the original boundaries of the Lake Traverse Reservation could become contaminated. This contamination could result in fish that will be unsafe to eat.] [For many tribal people, fish is the sustenance of their traditional lifeways;]
 ] T-1e
- T-1f [
  - Unsafe fish will result in loss of revenue to the tribe. The Tribal Fish & Wildlife program will be negatively impacted economically;
- T-1g [
  - There are many roots, berries, medicinal plants & herbs that could become contaminated due to the increased source of air pollution; as well as water, which is considered the source of all Life, considered most Sacred to the traditional lifeways of our people;
- T-1h [
  - There are unknowns regarding the long-term environmental impacts which will threaten the health & well-being of our people for generations to come;
- T-1j [
  - [Health benefits to people, animals, plant life, and water need to be considered with utmost importance] and [look at alternative renewable energy options, i.e., wind energy.]
 ] T-1i

Thank you for the opportunity to comment. I look forward to hearing from you.

Sincerely,

Myrna Thompson, Office Administrator  
Cc: SWO Tribal Executives & Council

## STATE AGENCIES

S-1. Minnesota Pollution Control Agency

S-2. South Dakota Public Utilities Commission

S-3. South Dakota Department of Environment and Natural Resources



# **Minnesota Pollution Control Agency**

## ***Office of the Commissioner***

July 5, 2006

Ms. Nancy Werdel  
Western Area Power Administration  
PO Box 281213  
Lakewood, CO 80228

RE: Comments on the draft Environmental Impact Statement for Big Stone II Power Plant and Transmission Project

Dear Ms. Werdel:

The Minnesota Pollution Control Agency (MPCA) thanks you for the opportunity to comment on the draft Environmental Impact Statement (EIS) for the Big Stone II Power Plant and Transmission Project. A new power plant project on Minnesota's western border is of both interest and concern to Minnesotans. While we want to ensure an adequate regional power supply, we want to make sure that new facilities are environmentally responsible.

Our agency commented on the scope of the EIS. Comments made in that document pertaining to calculating criteria pollutant ambient air impacts from increased emissions have been largely resolved as a result of the project proposers' decision to improve the air pollution control system on Big Stone Unit 1. However, we have two concerns that we believe merit further consideration.

**We asked for an evaluation of the feasibility of reducing or offsetting carbon dioxide (CO<sub>2</sub>) emissions, including the use of carbon sequestration technologies.**

S-1a

We wish the assessment of addressing CO<sub>2</sub> emissions had been more rigorous. Because the CO<sub>2</sub> concentration in the flue gas stream from a pulverized coal plant is likely to be too low to use CO<sub>2</sub> capture technology, even when the capture technology is fully developed, the most feasible means of addressing CO<sub>2</sub> emissions from this facility is to offset CO<sub>2</sub> emissions, use biological sequestration or a combination of both. Neither of these CO<sub>2</sub> mitigation methods is identified in the list of potential means for dealing with CO<sub>2</sub> (p. 4-11). Both means are technically feasible. It would have been desirable to have the EIS address the feasibility of using these approaches.

**Mercury emissions capture is left as a "goal" to maintain emissions within Clean Air Mercury Rule (CAMR) allowances.**

S-1b

The MPCA supports cap and trade programs to achieve economic efficiencies in meeting important environmental goals. However, the MPCA believes the cap for mercury emissions from power plants in EPA's CAMR were set too high. Minnesota has recognized the significant

Ms. Nancy Werdel  
Page 2

contribution that power plants make to the inventory of mercury releases in the United States, and recently adopted state law mandating that mercury be reduced by 90% at existing, large power plants. In order to help eliminate fish consumption advisories for mercury from Minnesota's lakes, we need substantial mercury reductions from sources outside of Minnesota's borders - including the Big Stone power plant - reductions even greater than CAMR would secure.

S-1c

The MPCA would be very pleased if the proposed project resulted in mercury emissions from the entire expanded Big Stone generating facility being lower than current emission levels from Unit 1. However, the EIS offers little evidence that the project is being designed to affirmatively achieve this mercury emissions rate. The EIS does not reference performance data for fabric filter/flue gas desulfurization where the claim of its use for achieving the goal can be demonstrated.

S-1d

The MPCA believes that the project proposer should include in its analysis of alternatives, the use of activated carbon injection. The technology is demonstrated to achieve mercury removal greater than 90% at subbituminous coal plants and is easily incorporated into new construction.

If you have questions about these comments, please contact Susan Heffron at 651-297-1766 or Anne Jackson at 651-296-7949.

Sincerely,



J. David Thornton  
Assistant Commissioner

JDT:blt:cmbg

JDT:bltcmbg



# SOUTH DAKOTA PUBLIC UTILITIES COMMISSION

500 East Capitol Avenue  
Pierre, South Dakota 57501-5070  
[www.puc.sd.gov](http://www.puc.sd.gov)

Capitol Office  
(605) 773-3201  
(605) 773-3809 fax

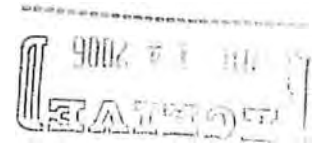
Transportation/Warehouse  
(605) 773-5280  
(605) 773-3215 fax

Consumer Hotline  
1-800-332-1782

Bob Sahr, Chair  
Dustin Johnson, Vice-Chair  
Gary Hanson, Commissioner

July 7, 2006

Ms. Nancy Werdel  
Western Area Power Administration  
PO Box 281213  
Lakewood, CO 80228



RE: Comments on Draft EIS for Big Stone II Power Plant and Transmission Project.

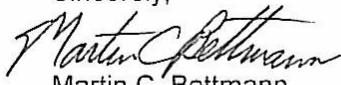
Dear Ms. Werdel:

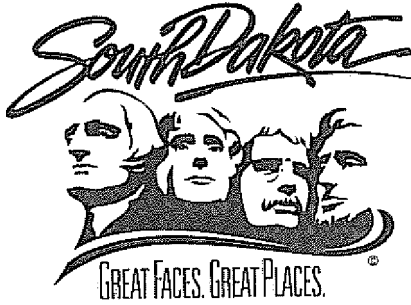
The following are the comments from the Staff of the South Dakota Public Utilities Commission.

- S-2a 1. In Table 1.4-1 Environmental Regulatory Requirements, on Page 1-13, in the section that lists the Permits for the State of South Dakota Public Utilities Commission, the permit for the transmission line facility in South Dakota listed as the Energy Conversion Facility Transmission Line Permit should be referenced more accurately as the Energy Facility Large Transmission Facility Permit.
- S-2b 2. In Section 4.8.2.3 - Hazardous Materials and Waste Management, there is no mention of exposure of employees at the adjacent ethanol plant to hazardous substances and wastes that will be present at the proposed Big Stone II Power Plant.
- S-2c 3. In Section 4.9.1 in the fourth bullet point under Identification of Issues, the state in which Granite Falls is located is Minnesota, not South Dakota.

Please call if you have any questions.

Sincerely,

  
Martin C. Bettmann  
Staff Engineer  
605.773.6347



DEPARTMENT of ENVIRONMENT  
and NATURAL RESOURCES

PMB 2020  
JOE FOSS BUILDING  
523 EAST CAPITOL  
PIERRE, SOUTH DAKOTA 57501-3182  
[www.state.sd.us/denr](http://www.state.sd.us/denr)

August 17, 2006

Ms. Nancy Werdel  
Western Area Power Administration  
PO Box 281213  
Lakewood, CO 80228

Re: Draft Environmental Impact Statement - Big Stone II Power Plant and Transmission Project

Dear Ms. Werdel:

S-3a

In compliance with 40 Code of Federal Regulations § 52.21 (s), the South Dakota Department of Environment and Natural Resources' Air Quality Program reviewed the Draft Environmental Impact Statement and agrees that the Big Stone II power plant must comply with the federal Clean Air Act.

S-3b

Otter Tail Power Company submitted an air quality permit application for the Big Stone II power plant in compliance with the state's Administrative Rules of South Dakota Article 74:36 - Air Pollution Control Program. We are reviewing the air quality application and drafting an air quality permit for the Big Stone II power plant that ensures the power plant will meet both state and federal air quality requirements; including the protection of the National Ambient Air Quality Standards and Prevention of Significant Deterioration increments.


S-3c

The air quality permit will ensure that the Big Stone II power plant complies with the Clean Air Mercury Rules. In addition to the proposed air pollution control devices, Otter Tail Power Company voluntarily agreed to limit its mercury emissions from Big Stone I and Big Stone II to the mercury levels emitted in 2004 of 189 pounds per year. As proposed, the addition of Big Stone II will not increase mercury, sulfur dioxide, or nitrogen oxide emissions.

I apologize for not submitting our comments within the timeframe established for the "Draft Environmental Impact Statement" for the Big Stone II Power Plant and Transmission Project. I hope you will consider them as you finalize the document.

Thank you for your consideration.

Sincerely,

  
Brian Gustafson  
Administrator  
Air Quality Program

## **LOCAL AGENCIES**

L-1. Yellow Medicine Soil and Water Conservation District





1000 10th Avenue  
P.O. Box 545  
Clarkfield, Minnesota 56223  
Telephone: 320-669-4442, Ext. 3  
Fax: 320-669-7525

## SOIL AND WATER CONSERVATION DISTRICT

June 29, 2006

Mr. Nicholas J. Stas  
Environmental Manager  
Western Area Power Administration  
PO Box 35800  
Billings MT 59107-5800

Dear Mr. Stas,

On behalf of the Yellow Medicine Soil and Water Conservation District, we would like to make the following comments on the April 2006 Draft Environmental Impact Statement for the Big Stone II Power Plant Transmission Project:

L-1a

The SWCD does not object to the project. However, we feel that it would be best to stay adjacent to the original route. We have a huge concern with the alternative route along County Road 3 east of St. Leo. There are sixteen permanent easements located along this stretch. (Seven Conservation Reserve Enhancement Program Easements and ten Reinvest in Minnesota Easements.) These easements total 800.3 acres. These permanent easements require vegetative cover to be established in these areas. We are concerned about the destruction of these vegetated areas. If these areas are distributed than an amendment will be needed to the landowner's conservation plan and the area will need to be reseeded at the landowner's expense.

L-1b

There are also a number of wetlands that run parallel to this road that may be adversely impacted and the proposed line would need to cross over Spring Creek at several locations.

Thank you for taking our comments into consideration.

Sincerely,

Lou Ann Nagel  
Yellow Medicine SWCD Manager

## **ORGANIZATIONS**

O-1. Clean Water Action, Midwest Regional Office

O-2. Sierra Club, North Star Chapter

O-3. Izaak Walton League of America – Midwest Office, Fresh Energy, Union of Concerned Scientists, and the Minnesota Center of Environmental Advocacy

O-4. Minnesota Renewable Energy Society, Inc



# CLEAN WATER ACTION

July 19,2006

Nancy Werdel  
Western Area Power Administration  
Natural Resource Office, Big Stone II EIS, A 7400  
P.O. Box 281213  
Lakewood, CO 80228-8213

RE: DOE/EIS-0377, Draft Environmental Impact Statement for Big Stone II Power Plant and Transmission Project

Dear Ms. Werdel:

On behalf of the 8,000 South Dakotans, 8,300 North Dakotans, and 60,000 Minnesotans who are Clean Water Action (CWA) members, I am submitting comments on the draft Environmental Impact Statement (EIS) that was prepared for the proposed Big Stone II power plant and transmission project. Since this coal-fired power plant could produce adverse health, environmental, and economic impacts for more than forty years, this proposal must be analyzed carefully. CWA is concerned about the following:

O-1a {

- The draft EIS does not fully analyze the alternatives to coal-based electricity generation. Instead, WAPA accepts the co-owners' conclusion that a new coal-fired power plant adjacent to the existing plant is the *only* project that will meet their needs. In the draft EIS, WAPA simply summarizes the co-owners' site selection process rather than analyzing the sufficiency of that process. WAPA and Big Stone's co-owners must not engage in such unilateral decision-making.

O-1b {

WAPA should have provided detailed analyses of renewable energy such as wind power and demand-side conservation. Instead, alternative technologies were introduced within the draft EIS only to quickly be eliminated from full consideration. Technologies eliminated from analysis include wind and solar energies, fluidized bed coal technology, IGCC, and demand-side management. According to the Council on Environmental Quality (CEQ) regulations, WAPA must "rigorously explore and objectively evaluate all reasonable alternatives." 40 C.F.R. § 1502.14. Case law on this issue makes it clear that agencies must not define a project "so narrowly that it forecloses a reasonable consideration of alternatives." *Colorado Environmental Coalition v. Domback*, 185 F.3d 1162, 1174-75 (10th.Cir. 1988); *Simmons v. U.S.Army Corps of Engineers*, 120 F.3d 664,669 (7th.Cir. 1997).

O-1c {

Although WAPA does not have jurisdiction over the siting of Big Stone II, CEQ regulations require WAPA (as the lead agency) to analyze alternatives not within its jurisdiction if they are reasonable. 40 C.F.R. § 1502.14(c). WAPA should prepare a supplemental EIS to rigorously explore and objectively evaluate all reasonable alternative plant locations and electric power technologies that would meet the project purpose.

O-1d

The EIS must compare the true costs of coal energy versus alternatives, such as wind power. WAPA should have taken into account environmental externalities when estimating the cost of generating electricity. As a coal-fired power plant, Big Stone II will contribute to increased healthcare needs from air pollution, environmental decline from acid rain, mercury contamination, and the loss of rare species and habitats. [The EIS should also discuss externalities associated with coal mining and transportation, surface reclamation, disposal of ash and other wastes, and future land-use requirements.] Reliance on inaccurate market prices, which do not account for environmental externalities, impacts public health and social welfare.

O-1e

Because South Dakota has a high renewable energy potential, the draft EIS should have shown conclusively that building a new coal-fired power plant is really less costly in health, environmental, and economic terms, than developing renewable energy. In addition to considering the costs of coal-based energy to the co-owners, the draft EIS must address the costs to energy consumers and the general public. CWA is concerned that by failing to fully assess reasonable alternatives to coal-based power, the draft EIS does not accurately reflect the true costs of coal-based energy.

O-1f

CWA is particularly dismayed at the limited consideration of wind power in the draft EIS. Big Stone II proposes economic growth in a manner inconsistent with the preservation of existing clean air resources. Limiting Big Stone's pollution output will not decrease our nationwide pollution or ensure that our clean air resources are preserved. Wind energy, however, preserves our clean air resources because it generates electricity with no air emissions; no fuel to mine, transport, or store; no cooling water; and no pollution.

According to NEPA, agencies must reasonably "enhance the quality of renewable resources and approach the maximum attainable recycling of depleteable resources." § 101 (b)(6). Since coal is not renewable or recyclable, the draft EIS should have fully discussed all renewable energy options. However, the draft EIS quickly dismissed wind energy as an alternative to a coal plant. Renewable energy was considered according to the "needs and objectives" of the co-owners, but not according to the needs of energy consumers. Most of the cursory (two paragraphs) discussion of wind energy as an alternative to coal-based power repeats verbatim information provided by the co-owners (in the applicant's exhibits). This does not constitute a good faith attempt to examine wind energy as an alternative to coal-based power. CWA believes that WAPA should not assist Big Stone in eliminating renewable energy alternatives until all feasible options have been given a thorough evaluation. The needs of energy consumers must be addressed, including the need for a safe and healthy environment. Under NEPA, Congress recognizes that "each person should enjoy a healthful environment." § 101(c).

There are several benefits of switching from coal to wind: reduced air and water pollution, reduced toxic wastes, health benefits from less pollution (fewer deaths, fewer illnesses, increased productivity), improved electricity reliability due to a diversified energy portfolio, economic development and job growth. There is also a growing body of evidence that wind is reliable, will meet customers' needs, and is not prohibitively expensive. CWA believes that all costs associated with wind power must be weighed against the public health and environmental costs associated with

coal-based power. Wind farms that are well-designed have predictable and reliable output with seasonal and daily variations that can be matched to utility load requirements. South Dakota ranks fourth in the U.S. in renewable energy potential, with a potential power output equivalent to 195 power plants with the capacity of Big Stone II. In addition, many wind sites can be combined to create a stable power supply curve. The draft EIS fails to fully consider the possibilities of wind power.

O-1g

- CWA believes the EIS should be clear with regard to Big Stone II's mercury pollution. Will Big Stone I and II emit the projected 399 lbs/yr of mercury or the "goal" of 144 lbs/yr, according to the draft EIS? Or will Big Stone I and II emit the recently proposed 189 lbs/yr of mercury? If Big Stone I and II do not achieve the goal of 144 lbs/yr (notably, the co-owners have made no formal or binding commitment to this end), will they be able to buy the mercury allowances necessary to operate the plants? The Clean Air Mercury Rule (CAMR) is unsettled and currently allows the entire state of South Dakota only 144lb/yr of mercury. How will Big Stone I and II reduce emissions to meet not only these current requirements but also stricter requirements in the future? What if CAMR does not allow for mercury trading in the future? What if CAMR is rejected? Nearly half of the states in the country has voted, or will soon act, on state plans rejecting CAMR. CWA believes that the EIS must address the economic risks that energy consumers will face from the co-owners' reliance on assumptions based on CAMR. According to the EPA, there are cost-effective ways of substantially reducing mercury emissions. The public needs a commitment from Big Stone's co-owners to use one of these mercury reduction methods to minimize economic risks associated with mercury.

O-1h

The draft EIS fails to adequately address mercury reduction technologies that are reasonably available, such as Activated Carbon Injection (ACI). The Environmental Protection Agency has indicated that ACT technology should be readily available by 2011. Big Stone II is scheduled to come on line in 2011. CEQ requirements specify that agencies must analyze appropriate mitigation measures not already included in the proposed action or alternatives. 40 C.F.R. § 1502.14(h). Since ACI is a mercury control technology suitable for commercial application that will be available prior to the operation of Big Stone II, the EIS should consider it along with any other reasonable technologies."

O-1i

- CWA believes that the EIS needs to fully consider not only the economic consequences of Big Stone's mercury pollution, but also the environmental consequences. The draft EIS states that Big Stone's mercury pollution will be "insignificant." This conclusion is debatable and warrants more careful analysis than what was provided in the draft EIS. It is common scientific knowledge that when mercury is released into the air, it settles downwind of power plants where it contaminates lakes, rivers and the fish we eat. Mercury interferes with the development of the nervous system and leads to various neurological problems. Mercury exposure costs the public billions of dollars each year due to reductions in IQ, poverty, low-weight births, welfare reciprocity, lost education, special education costs, etc. A recent Mt. Sinai Medical School study ("Public Health and Economic Consequences of Methyl mercury Toxicity to the Developing Brain") estimated the

annual economic impacts of mercury exposure to be \$1.3 billion from U.S. power plants alone. Big Stone I and II would be responsible for a measurable portion of such damages.

O-1j

Airborne mercury from Big Stone II would affect regional as well as worldwide water bodies. Big Stone Lake is known for fishing, recreation, and camping. Big Stone Lake and the Upper Minnesota River (including numerous tributaries) are already under a fish consumption advisory for mercury. Therefore, any amount of mercury added to these impaired waters is biologically significant. The draft EIS inappropriately assumes that mercury pollution does not significantly impact local water bodies. However, recent studies strongly suggest that local sources of mercury negatively impact local water bodies to a greater extent than previously thought. Recognizing this problem, the Office of the Inspector General recently reported ("Monitoring Needed to Assess Impact of EPA's Clean Air Mercury Rule on Potential Hotspots") that the EPA may have underestimated the extent to which local sources contribute to mercury deposition.

O-1k

CWA believes that the EIS must provide a thorough analysis of the impact that Big Stone II's mercury pollution will have on the aquatic ecosystems (including vegetation, fish, and birds) of Big Stone Lake, the Minnesota River, and its tributaries. [The EIS should also examine the more widespread effects of mercury pollution. CWA is concerned by the rationale used in the draft EIS, which is that the problem of mercury is so large that Big Stone II cannot be held responsible for its contribution to the problem. Under NEPA, agencies must "recognize the worldwide and long-range character of environmental problems." § 102(f). The limited discussion of mercury in the draft EIS is clearly not in keeping with this policy.]

- Big Stone II's operations will release 4.7 million tons of carbon dioxide into the air each year, significantly contributing to greenhouse gas emission over the expected 30-year life of the facility. Carbon dioxide is the main greenhouse gas contributing to global warming. A near unanimity of scientists and all increasing majority of policymakers worldwide recognize that rising global temperatures will have a profound effect on the earth's wildlife and people. Based on policy trends in other industrialized countries (including Japan and the United Kingdom), carbon dioxide emissions are likely to be regulated in the U.S. very soon. At least ten states are currently making efforts to regulate carbon dioxide emitted from power plants. Further, President Bush has established a national goal of reducing carbon intensity (the ratio of carbon emissions to economic activity). In February 2002, the President specifically committed the U.S. to reducing greenhouse gas emission intensity of the American economy by 18 percent by 2012. At the same time, the President affirmed his commitment to the United Nations Framework Convention on Climate Change and its central goal of stabilizing atmospheric greenhouse gas concentrations at a level that would "prevent dangerous anthropogenic interference with the climate system." [(President's Council on Environmental Quality, <http://www.whitehouse.gov/ceq/global-change.html#2>). Constructing and operating Big Stone II would delay meeting the President's directives to reduce carbon intensity and the United Nations' goal to stabilize greenhouse gas emissions.]

O-11

O-1m

The risk of future carbon constraints must be examined in the EIS because the

costs of meeting such constraints will increase the cost of Big Stone II. Notably, these risks are not associated with wind energy, which mitigates the release of global climate change gases. According to NEPA, the government has a duty to "fulfill the responsibilities of each generation as trustee of the environment for succeeding generations." § 101 (b)(1). W AP A must act in the best interest of future generations by considering the global impact of Big Stone II's carbon dioxide emissions. The draft EIS does not provide a full analysis of the alternatives that would offset or control anticipated carbon dioxide emissions from the proposed Big Stone II power plant. CWA believes that the EIS needs to examine the effects of carbon dioxide emissions in the forward-looking manner envisioned by NEPA.

O-1n • Big Stone II will emit thousands of tons of nitrogen oxides, sulfur dioxide, and particulate matter into the air each year. Nitrogen oxides are the main constituents of ozone, which irritates the lungs, exacerbates respiratory problems, and leads to increased healthcare costs. As the main component of soot, sulfur dioxide is dangerous for those with lung diseases. Small particulate matter has also been linked with thousands of premature deaths annually from heart and lung diseases.

O-1o [According to the draft EIS, one scrubber will control the emissions from Big Stone I and II collectively because it is less costly than two scrubbers. How much additional emissions reduction would result if there were an additional scrubber?] [Are the health and environmental benefits associated with reduced emissions really outweighed by the immediate economic cost of another scrubber?]

O-1p [Are the health and environmental benefits associated with reduced emissions really outweighed by the immediate economic cost of another scrubber?]

O-1q [Tall exhaust stacks reduce local pollution at Big Stone II, but they export pollution problems far downwind. The nitrogenous and sulfurous pollutants from fuel combustion can drift hundreds of miles before falling as acid rain precipitation. Acid precipitation erodes important cultural and historical monuments, and harms aquatic and terrestrial ecosystems. Ecologists have observed lakes dying as far away as eastern Canada due to acid rain from the Midwest's air pollution. Since these air pollutants travel hundreds of miles from their source, the draft EIS should have analyzed the health and environmental costs of air pollution from a geographically broad perspective.] [The EIS should consider wind energy as a healthy alternative to coal-based energy that results in fewer deaths and illnesses caused by coal pollution.] [CWA is concerned that by dismissing widespread effects of air pollution from Big Stone II, the draft EIS does not attempt to "preven[t] a decline in the quality of mankind's world environment" as required by NEPA, § 102(f).]

O-1r

O-1s [CWA is concerned that by dismissing widespread effects of air pollution from Big Stone II, the draft EIS does not attempt to "preven[t] a decline in the quality of mankind's world environment" as required by NEPA, § 102(f).]

O-1t • [CWA believes that the draft EIS should have fully discussed the consequences of long-term wetland/riparian habitat loss associated with Big Stone II.] Natural wetlands can save millions of dollars spent annually on artificial flood management structures and flood insurance. Each acre of wetland habitat provides a measurable benefit in terms of flood damage protection for agricultural land. South Dakota wetlands are included in the Northern Glaciated Plains region that produces about half of North America's waterfowl population. The loss of wetlands associated with Big Stone II will impact waterfowl as well as the songbirds and shorebirds that visit South Dakota's wetlands each year. What is the economic impact of these lost wetlands and declining bird populations? [How will declining waterfowl populations

O-1u

affect hunters?] According to Northern State University, wetland habitat in South Dakota generated about \$24 million from hunting-related revenues in 1982 alone. CWA believes that the draft EIS needs to consider the myriad of economic and non-economic benefits of wetlands. What are the true consequences of 65 acres of wetland loss? The draft EIS is unclear on this issue.

O-1v

The proposed plant and its associated cooling ponds would result in the loss of approximately 56.5 acres of jurisdictional wetlands, but mitigation measures could minimize Big Stone II's impact on these waters. WAPA did not analyze available mitigation measures pursuant to NEPA and section 404 of the Clean Water Act. Wetlands will be filled during the construction of Big Stone II, especially for the proposed cooling pond. This requires the Army Corps of Engineers to issue a permit pursuant to section 404 of the Clean Water Act. Therefore, WAPA's analysis of alternatives should be adequate to support both WAPA's and the Corps' permitting decisions. 40 C.F.R. § 1500.4(n), § 1506.2(b) and § 1506.2(d). The Clean Water Act states that "no discharge of dredged or filled material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem." § 404(b)(1). The range of reasonable or practicable alternatives analyzed in the EIS should be sufficiently broad to satisfy section 404 requirements of the Clean Water Act; otherwise duplicative NEPA documents may be needed.

O-1w

CWA believes that WAPA needs to further examine Big Stone II's impacts on wildlife and vegetation. The draft EIS states that although Big Stone II will cause a net loss of 532 acres of wildlife habitat, there will be "no loss of individuals that will result in [a] species being listed or proposed for listing as threatened or endangered." This conclusion is dubious because most of the federally listed species in South Dakota depend on rapidly disappearing wetlands and prairies (including those that will be destroyed by Big Stone II). Approximately how much wildlife will be lost due to both habitat loss and habitat fragmentation?

O-1x

[Much of the additional short-term vegetative impact will likely result in long-term impact (habitat loss) because re-vegetation efforts are likely to be unsuccessful for some sensitive species on which wildlife depends. What will happen to the 25 special status plant species that "may occur" within the project site? Regardless of mitigation efforts, anthropogenic disturbance to native plant communities often introduces longterm or permanent change to the plant community and also to wildlife. What will be the associated economic and biological impacts of wildlife and vegetation loss?] [How will wildlife be affected by mercury contamination?

O-1y

According to information provided by the EPA, mercury harms plants by causing plant senescence, growth inhibition, decreased chlorophyll content, leaf injury, root damage, and inhibited root growth and function. Fish that eat mercury-contaminated aquatic plants exhibit reduced reproductive success, impaired growth, developmental and behavioral abnormalities, and even death. Exposure to mercury can also cause adverse effects in birds and mammals (including humans). The draft EIS denies that any "constituents would be introduced into any water body that would cause an adverse effect on wildlife." However, recent studies in Massachusetts, Florida, Ohio, and the Great Lakes show that local sources of mercury do have a significant negative



impact on local water bodies. According to current research, all aquatic and bird species that are exposed to mercury are likely to be affected by the contamination.]

O-1z

Aside from mercury-related consequences, how will Big Stone II's contribution to global warming impact vegetation and wildlife? Changes in plant and animal distributions and increased extinction rates are already being observed as species "migrate" higher in elevation to cope with a warmer climate.

O-1aa

What impact will Big Stone II really have on wildlife (including the 27 special status terrestrial and fish species that "may exist" within the project area)? At the very least, the draft EIS should have estimated the economic effect that Big Stone II will have on wildlife protection areas, state parks, wildlife management areas, and scientific and natural areas due to wildlife and vegetation loss.

The EIS should address the mercury-related environmental justice issues. According to the draft EIS, the only environmental effects that must be analyzed are "those that are truly meaningful." Current science, policy, and public concern demonstrate that mercury is a real and meaningful environmental issue. In 2004, the Office of the Inspector-General (OIG) recognized that mercury often has a disproportionate affect on minority and low-income populations. The OIG continues to express concerns about mercury. In May of 2006, the OIG reported ("Monitoring Needed to Assess Impact of EPA's Clean Air Mercury Rule on Potential Hotspots") that the EPA's analysis of mercury may have improperly underestimated the contribution of local sources on U.S. mercury deposition. Recent studies (not considered in the Clean Air Mercury Rule) indicate that mercury pollution can accumulate near emission points and affect local communities.

O-1ab

Since these "hotspots" are unevenly distributed around the country, they have a strong potential to become associated with disadvantaged communities. This correlation of poor and minority communities with mercury pollution (and pollution in general) can be driven by prejudice, lower land costs, and weak political opposition to coal-fired power plants. Only those who can afford to move away from a mercury hotspot will do so.

Furthermore, many of the poorest Americans (including Native Americans) depend on fish for nutrition. Since fish are a pathway for mercury contamination, people who fish for food would have difficulty avoiding mercury contaminated food. The poorest Americans do not have the wealth, political power, and social networks that would enable them to handle mercury contamination.

CWA believes the EIS needs to examine the documented environmental justice issues related to mercury. Mercury contamination causes well-known social and economic impacts in the U.S. The draft EIS states, "[a] ssessing the economic opportunities lost due to [Big Stone II] is beyond the scope of the EIS." The tragic social and economic consequences of mercury should have been addressed in the EIS because the federal government has recognized that mercury is an environmental justice issue with social and economic impacts."

O-1ac

CWA believes that the EIS must discuss Big Stone's current coal supply issues. The entire draft EIS assumes that Big Stone II will burn sub-bituminous Powder River Basin coal. This cleaner-burning type of coal, unfortunately, is only mined in about a

half-dozen western states and needs to be transported to power plants via rail. Thus, the availability of sub-bituminous coal to Big Stone II is fully dependent on the railroad (specifically, Burlington Northern Santa Fe). Recently, it has come to the public's attention that changes in railroad schedules have caused the coal supply at Big Stone to dwindle. Will the Big Stone partners be able to buy or lease enough trains to carry coal to Big Stone I and II? How will Burlington Northern Santa Fe affect Big Stone II's ability to "reliably meet customer baseload energy and demand requirements"? These supply issues pose substantial economic risks to the Big Stone II's energy consumers.] [These risks are unacceptable in light of the consistent availability of wind energy. South Dakota ranks fourth in the nation in renewable energy potential, with a potential power output of 117,200 MW. CWA believes the EIS must discuss how coal-based power presents supply problems that could be mitigated or eliminated by the use of renewable energy.]

O-1ad

In addition to general comments and questions, CWA believes that WAPA should withdraw the draft EIS and prepare a supplemental EIS that answers specific questions not answered in the draft EIS:

Questions

O-1ae

1.

a) What are the true costs of coal-based energy versus renewable energy (e.g. wind energy) including environmental externalities and risks to energy consumers?

O-1af

b)

What will be the environmental impacts associated with Big Stone II from coal mining and transportation, surface reclamation, disposal of ash and other wastes, and future land-use requirements?

O-1ag

2.

a) What are the environmental and economic benefits that the Big Stone partners would achieve by investing in wind energy?

O-1ah

b)

When consequences to the environment and human health are considered, is coal-based energy really, a better choice than wind power?

O-1ai

3.

a) Exactly how much mercury will be emitted by Big Stone I and II?

O-1ak

b)

Which mercury control technologies will be available to the co-owners?

O-1aj

O-1am

c)

Which of these technologies will the co-owners use to control mercury?

O-1an

4.

d) How will Big Stone respond to changing mercury regulations in a manner that minimizes risks to energy consumers?

O-1al

e)

Will these responses be more cost effective than investing in wind energy from the outset?

a)

What will be the economic impact of Big Stone II's air pollution from increased healthcare needs, environmental decline from acid rain, mercury contamination, and the loss of rare species and habitats?

b)


What will be the economic and environmental consequences of mercury pollution on local and non-local aquatic ecosystems?

O-1ao

- O-1ap [ 5. a) How will Big Stone respond to future carbon regulations in a manner that minimizes risks to energy consumers?  
b) Will these responses be more cost effective than investing in wind energy from the outset? ] O-1aq
- O-1ar [ c) How will Big Stone II's carbon dioxide emissions contribute to global warming and what will be the economic and social impacts of this contribution? ]
- O-1as [ 6. a) What would be the economic and environmental benefits of Big Stone reducing pollution by using one scrubber per plant rather than using one scrubber for both plants?  
b) From a geographically broad perspective, what are the economic and environmental consequences of the air pollution that Big Stone II will export to other regions? ]
- O-1at [ ]
- O-1au [ 7. What will be the environmental and economic consequences of wetland loss associated with Big Stone II (including lost flood protection, impacts on fishing and hunting revenues, etc.)? ]
- O-1av [ 8. a) How much wildlife will be lost due to both habitat loss and fragmentation?  
b) How will Big Stone II's contribution to mercury contamination and global warming impact local and non-local wildlife and vegetation? ] O-1aw
- O-1ax [ 9. a) What will be the widespread impact on human health from Big Stone's mercury emissions?  
b) How will Big Stone recognize the worldwide problem of mercury contamination? ] O-1ay
- O-1az [ c) How will Big Stone II's mercury emissions contribute to environmental injustice? ]
- O-1ba [ 10. a) How will Big Stone handle its ongoing coal supply problems?  
b) How will Big Stone minimize the coal supply-related economic risks to its energy consumers? ] O-1bb

Thank you for your consideration of these concerns and questions.

Sincerely,



Erin Jordahl-Redlin  
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**VIA FACSIMILE AND FIRST CLASS MAIL -**

Ms. Nancy Werdel  
Western Area Power Administration  
P.O. Box 281213  
Lakewood, CO 80228

Monday, July 24, 2006

**Re: Big Stone II Expansion Proposal, DEIS Comments**

Dear Ms. Werdel:

The North Star Chapter of the Sierra Club submits these comments in response to the Draft Environmental Impact Statement (DEIS) of May, 2006, by the Western Area Power Administration (WAPA) for the proposed construction of Big Stone II (BSII), a 600-megawatt coal-fired electric generating plant and associated transmission facilities.

Please include these comments as part of the official record for this project and please add the North Star Chapter of the Sierra Club to your mailing list (at the address above) to receive copies of all future notices, announcements, and documents related to this project including the final environmental impact statement.

The North Star Chapter of the Sierra Club is a non-profit environmental organization with over 25,000 members in Minnesota and over 900 in members in South Dakota. It is on behalf of these citizens that the North Star Chapter of The Sierra Club is participating in the administrative process.

We appreciate the considerable amount of time and work that WAPA has devoted to this DEIS. However, we notice that the DEIS omits discussion of several crucial environmental impacts and fails to adequately consider alternative options. The Council on Environmental Quality (CEQ) has issued regulations detailing how agencies should fulfill their obligations pursuant to the National Environmental Policy Act (NEPA). The DEIS fails to meet standards set forth in those regulations.

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**I. The DEIS Fails to Comply with CEQ Regulations by Not Addressing the Environmental Impacts of Carbon Dioxide Emissions from BSII**

**A. The DEIS Fails to Include Within its Scope the Impact of Carbon Dioxide Emissions from BSII**

NEPA dictates that all agencies of the federal government, shall “recognize the worldwide and long-range character of environmental problems . . .” 42 U.S.C. §4332(F). Under 40 C.F.R. §1508.25, the scope of an EIS shall include impacts which are direct, indirect, and cumulative. The DEIS fails to meet this standard by failing to address the indirect and cumulative impacts of carbon dioxide emissions from BSII.

Indirect impacts are those impacts or effects which are caused by the action and are later in time or farther removed in distance from the action, but are still reasonably foreseeable. 40 C.F.R. §1508.8(b). (Impacts and effects are used synonymously in the CEQ regulations. 40 C.F.R. §1508.8.) Case law has clarified that “[a]n impact [or effect] is reasonably foreseeable if it is sufficiently likely to occur that a person of ordinary prudence would take it into account.” *Ark. Wildlife Fed’n v. United States Army Corps of Eng’rs*, 431 F.3d 1096, 1102 (8th Cir., 2005) (citing *United States v. Dubois*, 102 F.3d 1273, 1287 (1st Cir. 1996), internal quotations omitted). Indirect effects may include related effects on air and water and other natural systems, including ecosystems. 40 C.F.R. §1508.8(b).

Cumulative impacts are those which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. 40 C.F.R. §1508.7. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. 40 C.F.R. §1508.7.

The planned project, Big Stone II, will emit 4.7 million tons of carbon dioxide annually, over an expected lifetime of 30 to 50 years. DEIS 1-5, 4-10. These emissions will have indirect and cumulative impacts on the global environment, and more specifically on the environment of the upper Midwest region where BSII would be situated. In addition to many authoritative scientific reports stating the existence and damaging impacts of global climate change caused by carbon dioxide and other greenhouse gas emissions, recent studies have provided scientifically sound predictions regarding the localized effects of continued global climate change. The work of hundreds of international climate experts, compiled in the 2001 report of the International Panel on Climate Change (IPCC), predicts significant negative impacts in regions of North America. The 2003 report by the Union of Concerned Scientists (UCS) provides more localized predictions for residents of Minnesota and other areas in the Great Lakes region. Both reports predict substantial harms to the Great Lakes Region, including but not limited to such impacts as decreasing summer precipitation by up to 15 percent, drought, declines in crop yields, economic losses to the hunting, fishing, and winter recreation industries, and severe loss of wetlands. The wetland losses create subsequent impacts, in that their removal not only decreases habitat for animal species but also removes natural flood buffers and water filters, resulting in increased incidence and severity of flooding and reduced water quality, respectively. Intergovernmental Panel on Climate Change *Third Assessment Report, Working Group II, Summary for Policymakers* (2001); The Union of Concerned Scientists and The Ecological Society of America, *Confronting Climate Change in the Great Lakes Region* (2003), Minnesota findings.

O-2a  
cont'd

Despite this, the DEIS prepared by WAPA fails to consider these effects. Instead, the DEIS inaccurately substitutes regulatory compliance for lack of environmental impact. The DEIS states that “any short-term and long-term residual impacts [from air emissions] would meet regulatory requirements and would be less than significant.” DEIS Exec.Sum.-29, 4-13, 4-138. There is no mention of the indirect or cumulative impact of increased carbon dioxide emissions. The DEIS states that Big Stone and Big Stone II “would not exceed significance criteria for air resources and would not conflict with or obstruct implementation of any applicable air quality plan.” DEIS 4-138. Further the DEIS states that “the proposed Big Stone II Project, when added to past, present and reasonably foreseeable future actions, would not exceed the significance criteria for air quality; therefore, there would be no significant cumulative impacts.” DEIS 4-139. The DEIS does provide any substantive analysis to support this conclusion. The fact that carbon dioxide has not yet been regulated under the Clean Air Act does not render unnecessary a consideration of its impacts upon the environment. The CEQ regulations do provide that an EIS “shall include discussions of possible conflicts between the proposed action and the objectives of Federal, regional, State, and local . . . land use plans, policies and controls for the area concerned” (40 C.F.R. §1502.16(c)). However, an EIS must also include discussions of direct and indirect impacts and their significance. 40 C.F.R. §1502.16(a). The purpose of an EIS is not solely to determine whether a project meets regulatory standards, but to provide, among other things, a “detailed statement . . . on any adverse environmental effects which cannot be avoided should the proposal be implemented.” 42 U.S.C. §4332(C). WAPA’s DEIS failed to do this.

To comply with CEQ regulations, therefore, WAPA must include within the scope of its Final EIS a discussion of the impact of carbon dioxide emissions on the environment.

**B. The DEIS Fails to Address Incomplete or Unavailable Information Regarding the Environmental Impacts of Carbon Dioxide Emissions from BSII**

Where information on the reasonably foreseeable significant adverse impacts of an action are incomplete or unavailable, agencies must clearly state that such information is lacking, and include at least a summary of what is missing. 40 C.F.R. §1502.22. The DEIS fails to meet this standard.

**(1) The Environmental Impacts of Carbon Dioxide Emissions from BSII are Reasonably Foreseeable**

O-2b

The CEQ regulations provide that “[f]or the purposes of this section, ‘reasonably foreseeable’ includes impacts which have catastrophic consequences, even if their probability of occurrence is low, provided that the analysis of the impacts is supported by credible scientific evidence, is not based on pure conjecture, and is within the rule of reason.” 40 C.F.R. §1502.22(b)(1).

These adverse impacts are supported by credible scientific evidence, are not based on pure conjecture, and are within the rule of reason. IPCC *Third Assessment Report*, (2001); UCS, *Confronting Climate Change* (2003), Minnesota findings. The impacts of the carbon dioxide emissions from BSII are therefore reasonably foreseeable for the purpose of the analysis required in the DEIS under 40 C.F.R. §1502.22.

**(2) The Environmental Impacts of Carbon Dioxide Emissions from BSII are Significant**

To determine the significance of the impacts of carbon dioxide emissions on the environment, both context and intensity must be considered. 40 C.F.R. §1508.27. When considering context,

the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole. Both short- and long-term effects are relevant.

40 C.F.R. §1508.27(a).

The carbon dioxide emissions from BSII significantly affect several contexts, including society as a whole, the affected region, the affected interests, and the locality. IPCC *Third Assessment Report*, (2001); UCS, *Confronting Climate Change* (2003), Minnesota findings. Large-scale emission of carbon dioxide into the atmosphere is not a site-specific action. It is an action having both short- and long-term effects upon the region and to society as a whole.

When considering intensity, six factors are involved. The most important of these factors when considering carbon dioxide emissions is that

[s]ignificance exists if it is reasonable to anticipate a cumulatively significant impact on the environment.

40 C.F.R. §1508.27(b)(7). Other considerations involved include “the degree to which the effects on the quality of the human environment are likely to be highly controversial.” 40 C.F.R. §1508.27(b)(4).

O-2b  
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Scientific studies conclude that carbon dioxide and other greenhouse gases have altered and will continue to alter the atmosphere in ways that affect global climate. IPCC *Third Assessment Report*, (2001); UCS, *Confronting Climate Change* (2003), Minnesota findings. Accordingly, it is reasonable to anticipate that large scale emissions of carbon dioxide from BSII will have a cumulatively significant impact on the environment.

Although a great majority of scientists agree that such large-scale carbon dioxide emissions have detrimental effects upon the environment, *Id.*, there is a substantial split in public opinion regarding the validity of human-caused global climate change. Joel Achenbach, *The Tempest*, Washington Post, May 28, 2006 (discussing skeptics of climate change). See also Jeffrey Kluger, *The Tipping Point*, Time, April 3, 2006 (discussing climate change crisis), and Editorial, *Hockey Stick Hokum*, Wall Street Journal, July 14, 2006 (discussing criticisms of the validity of a scientific study showing dramatic increases in global temperature during the past century, as represented by a graph resembling a hockey stick). The controversial character of global climate change is further evidenced by WAPA’s belief that the emission of 4.7 million tons of carbon dioxide per year for 30 to 50 years will not have any significant effect at all upon the human environment, DEIS Exec.Sum.-29, 4-13, 4-138, 4-139, despite this belief being contrary to overwhelming scientific scholarship, IPCC *Third Assessment Report*, (2001); UCS, *Confronting Climate Change* (2003), Minnesota findings, and in conflict with regulations as detailed in these comments. Accordingly, the effects that large-scale carbon dioxide emissions from BSII would have on the human environment are highly controversial.

In summary, the effects of large-scale carbon dioxide emissions are both significant and reasonably foreseeable for the purpose of this DEIS. The DEIS therefore has an obligation to discuss those effects even if it cannot provide direct information about those effects.



To the extent that the effects of carbon dioxide emissions from BSII on the environment may be unknown or unreasonably difficult to quantify, the DEIS has an obligation to address them under 40 C.F.R. §1502.22. That section provides that the agency shall either 1) include the information (if the costs of doing so are not exorbitant) or 2) include, among other things, a summary of existing credible scientific evidence relevant to evaluating the reasonably foreseeable significant adverse impacts on the human environment” and include “[an] evaluation of such impacts based upon theoretical approaches or research methods generally accepted in the scientific community” (if the costs of including direct information on the impacts are exorbitant or the means to obtain that information are not known). 40 C.F.R. §1502.22.

O-2b  
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It is worth noting that the requirement to adequately address unavailable or incomplete information is in fact a lower standard than the “worst-case” analysis previously required by the CEQ. See *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 354 (U.S., 1989). The less strict standard “retains the duty to describe the consequences of a remote, but potentially severe impact, but grounds the duty in evaluation of scientific opinion rather than in the framework of a conjectural ‘worst case analysis.’” 50 Fed. Reg. 32237 (1985). Under the current regulations, WAPA is not required to speculate as to the worst possible effects of the carbon-dioxide emissions from BSII. WAPA is merely to provide some information about those effects. In providing this information, WAPA is not required to engage in conjecture or conduct research independently. A wealth of credible scientific evidence is available to assist WAPA in evaluating the effects of the carbon dioxide emissions from BSII. The requirement to either include or summarize that evidence is not an undue burden upon the agency. The Eighth Circuit Court of Appeals highlighted the importance of this requirement, noting that “[w]hen the nature of the effect is reasonably foreseeable but its extent is not, we think that the agency may not simply ignore the effect.” *Mid States Coalition for Progress v. Surface Transp. Bd.*, 345 F.3d 520, 549 (8th Cir. 2003).

O-2c

The DEIS does not comply with these regulations. The DEIS discusses current research into capture and sequestration of carbon dioxide, at DEIS 4-11, but includes neither scientific information on the effects of carbon dioxide emissions nor a summary of existing scientific evidence relevant to the impacts of those emissions. To comply with CEQ regulations, therefore, WAPA must submit a Final EIS which discusses incomplete or unavailable information regarding the impact of BSII’s carbon dioxide emissions.

### **C. The DEIS Fails to Adequately Analyze Mitigation of the Environmental Impacts of Carbon Dioxide Emissions from BSII**

O-2d

In addition to considering the impacts of carbon dioxide emissions, the DEIS must also analyze possible mitigation of these impacts. The EIS “shall include discussions of means to mitigate adverse environmental impacts.” 40 C.F.R. §1502.16(h). Under 40 C.F.R. §1508.25(b), the scope of an EIS must include mitigation measures. Those mitigation measures necessary to be discussed include “minimizing impacts by limiting the degree or magnitude of the action and its implementation” and “reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.” 40 C.F.R. §1508.20.

In *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332 (U.S. 1989), the Supreme Court stressed the importance of discussing mitigation of environmental impacts in an EIS. The Court stated that the “requirement that an EIS contain a detailed discussion of possible mitigation measures flows both from the language of [NEPA] and, more expressly, from CEQ’s implementing regulations” and that the

"omission of a reasonably complete discussion of possible mitigation measures would undermine the action-forcing' function of NEPA." *Robertson*, 490 U.S. at 352.

O-2d

Yet the DEIS states that “[a]n evaluation of the costs associated with reducing carbon dioxide emissions, including the costs of retrofitting both plants and capture and sequestration is beyond the scope of this EIS.” DEIS 4-123. In failing to include this discussion of the mitigation of carbon dioxide emissions, WAPA fails to comply with the clear mandate from the Supreme Court in the *Robertson* case. *Id.* To comply with CEQ regulations, therefore, WAPA must submit a Final EIS which includes an analysis of possible mitigation of the effects of BSII’s carbon dioxide emissions.

## **II. The DEIS Fails to Comply with CEQ Regulations by Not Addressing the Environmental Impacts of Mercury Emissions from BSII**

### **A. The DEIS Fails to Recognize the Significance of Mercury Emissions from BSII**

If Big Stone II is built, the two plants together would emit up to 399 pounds of mercury per year. DEIS 4-10. Only a fraction of an ounce of mercury is necessary to contaminate the ecosystem and fish of a 20-acre lake such that a health warning would be issued to not eat the fish. *Mercury in the Environment: The Waste Connection*, Minnesota Pollution Control Agency, Michigan Department of Natural Resources, Wisconsin Department of Natural Resources (1995). A Mt. Sinai Medical School study has quantified the economic impacts of mercury exposure, specifically on lost productivity due to reductions in IQ. *Protecting Children from Mercury Exposure Is Cost Effective*, Kathleen Schuler, MPH, and Christopher S. Williams, MD, Institute for Agriculture and Trade Policy, March 8, 2005, available online at [http://www.iatp.org/iatp/library/admin/uploadedfiles/Protecting\\_Children\\_From\\_Mercury\\_Exposure\\_is\\_C.pdf](http://www.iatp.org/iatp/library/admin/uploadedfiles/Protecting_Children_From_Mercury_Exposure_is_C.pdf). The cost in lost productivity from methyl mercury exposure (largely through the consumption of contaminated fish) is estimated to be \$8.7 billion annually with \$1.3 billion of this cost attributable to U.S. power plants. *Id.*

O-2e

The large-scale emission of mercury into the atmosphere is not a site-specific action. It is an action having both short- and long-term effects upon the region and upon society as a whole. Any awareness of scientific studies of the environmental effects of mercury emissions and their deposition and conversion to methyl mercury would make it reasonable to anticipate a cumulatively significant impact on the environment from large-scale emissions of mercury. The DEIS demonstrates its awareness of these processes by summarizing the deposition process. DEIS 4-8. The DEIS demonstrates its awareness of the cumulative significance of the emissions by noting the vast quantity already being emitted. DEIS 4-9 (“Approximately 75 tons of mercury are found in the coal delivered to U.S. power plants each year. About two-thirds of this mercury is emitted to the air, resulting in about 50 tons being emitted annually.”) Such effects are therefore significant for the purpose of this DEIS. See *supra* Part I.B.2.

That the 399 pounds which could be emitted annually by BSII is a small fraction of 50 tons is not an argument against the significance of those emissions. While quantification of the individual impact of BSII’s mercury emissions might be difficult, WAPA has a duty under 40 C.F.R. §1502.22 to summarize existing information it cannot reasonably obtain directly. See *infra* Part II.B. That the 399 pounds which could be emitted annually by BSII is within regulatory standards is not an argument against the significance of those emissions. The purpose of an EIS is not solely to determine whether a project meets regulatory standards, but to provide, among other things, a “detailed statement . . . on any adverse

environmental effects which cannot be avoided should the proposal be implemented.” 42 U.S.C. §4332(C).

O-2f

Despite this, the DEIS fails to recognize the significance of the planned mercury emissions. The DEIS admits that “[e]levated mercury concentrations in Minnesota streams and lakes are a documented water quality concern,” but goes on to conclude that “long-term impacts to water resources due to air emissions [including mercury] from the proposed plant would not be significant.” DEIS 4-26. The DEIS provides no basis for this conclusion that mercury emissions would not be significant to water resources. To comply with CEQ regulations, therefore, WAPA must submit a Final EIS which includes a thorough analysis of the impact of BSII’s mercury emissions on the environment.

**B. The DEIS Fails to Address Incomplete or Unavailable Information Regarding the Environmental Impacts of Mercury Emissions from BSII**

Difficulty quantifying or analyzing an effect does not preclude consideration of that effect. When information on the reasonably foreseeable significant adverse effects of an action are incomplete or unavailable, agencies must clearly state that such information is lacking, and include at least a summary of what is missing. 40 C.F.R. §1502.22, see *supra* Part I.B. The DEIS fails to meet this standard.

The adverse effect of large-scale emission of mercury into the atmosphere is sufficiently likely to occur that a person of ordinary prudence would take it into account. These adverse effects are supported by credible scientific evidence, are not based on pure conjecture, and are within the rule of reason. Such effects are therefore reasonably foreseeable for the purpose of this DEIS. See *supra* I.B.1.

The effect of large-scale emission of mercury into the atmosphere is significant for the purpose of this DEIS. See *supra* Part II.A and I.B.2.

O-2g

Reasonably foreseeable significant adverse effects on the human environment which this DEIS was obligated to evaluate therefore include the effects of large-scale mercury emissions. Depending on the difficulty of obtaining that information, the agency shall in such a situation either 1) include the information (if the costs are not exorbitant) or 2) include, among other things, a “summary of existing credible scientific evidence relevant to evaluating the reasonably foreseeable significant adverse impacts on the human environment” and “[an] evaluation of such impacts based upon theoretical approaches or research methods generally accepted in the scientific community” (if the costs are exorbitant or the means to obtain it are not known). 40 C.F.R. §1502.22. This requirement is even easier to satisfy than it has been in the past. See *Robertson*, 490 U.S. 354. And the Eighth Circuit Court of Appeals highlighted its importance, noting that “[w]hen the *nature* of the effect is reasonably foreseeable but its *extent* is not, we think that the agency may not simply ignore the effect.” *Mid States*, 345 F.3d at 549.

Yet the DEIS, despite being over 600 pages in length, failed to meet this standard. It discusses mercury control technology, but includes neither scientific information on the effects of mercury emissions nor a summary of existing scientific evidence relevant to the impacts of those emissions. DEIS 4-11. Rather than summarizing the extent to which science does understand the environmental impact of mercury deposition and conversion to methyl-mercury, the DEIS states that “as it cycles between the atmosphere, land and water, mercury undergoes a series of complex chemical and physical transformations, many of which are not completely understood,” DEIS 4-8, and that “health effects that could be associated with mercury emissions from the proposed Big Stone II plant would be difficult to quantify, particularly in regard to the world wide presence of mercury and emissions that far surpass those predicted from the Big Stone II plant operations.” DEIS 4-128. To comply with CEQ regulations,

therefore, WAPA must submit a Final EIS which discusses incomplete or unavailable information regarding the environmental impact of BSII's mercury emissions.

**C. The DEIS Fails to Adequately Analyze Mitigation of the Environmental Impacts of Mercury Emissions from BSII**

O-2h

South Dakota has established a goal pursuant to EPA Clean Air Mercury Rule (CAMR) that mercury emissions from this plant should be less than 144 pounds per year (lbs/yr) until 2017, and 56 lbs/yr after 2017. According to the DEIS, the expected mercury emissions from BSII and the existing power plant will be 399 lbs/yr. DEIS 4-10. In May 2006, the Co-Owners agreed to voluntarily limit mercury emissions to 189 lbs/yr, which is the amount of current mercury emissions from the existing Big Stone 450 MW plant. (Letter from Terry Graumann, Big Stone II Co-Owners representative, to Kyrik Dombough, South Dakota Department of Natural Resources, May 31, 2006) The Co-Owners expect to purchase mercury offsets from other mercury-emitting sources under EPA's mercury "cap and trade" program in order to achieve South Dakota's goal of less than 144 lbs/yr until 2017 and less than 56 lbs/yr after 2017. 40 C.F.R. §1502.16(h).

[The DEIS fails to assess additional mercury control technologies that are reasonably available such as Activated Carbon Injection (ACI). The EPA has indicated that ACI technology is 3 to 5 years from commercial for coal-fired utility boilers, and the BSII plant is to come on line in 2011. DEIS 2-17. Further, Otter Tail Power Corporation had previously indicated on its website that ACI mercury control would be installed at BSII, but has since retreated from that commitment.]

O-2i

CEQ requirements specify that agencies must analyze appropriate mitigation measures not already included in the proposed action or alternatives. 40 C.F.R. §1502.16(h). ACI is an appropriate mercury control technology suitable for commercial application prior to the proposed operation of the BSII plant. To comply with CEQ regulations, therefore, WAPA must submit a Final EIS which analyzes mitigation methods to reduce mercury to meet the state of South Dakota's mercury goal.

**III. The DEIS Fails to Comply with CEQ Regulations and Clean Water Act Guidelines by Not Adequately Analyzing Mitigation of Wetland Displacement**

The proposed power plant location and its associated cooling ponds would result in the loss of approximately 65 acres of wetlands (approximately 58 acres of jurisdictional wetlands plus approximately 7 acres of non-jurisdictional wetlands, which may or may not be protected under state laws). DEIS 4-57. Pursuant to Section 404 of the Clean Water Act, filling of wetlands requires the issuance of an individual permit from the Army Corps of Engineers (The Corps). Therefore, the alternatives analysis in the DEIS should be adequate to support both WAPA's and The Corps' permitting decisions.

**A. The DEIS Fails to Comply with CEQ Regulations by Not Adequately Analyzing Mitigation Options**

O-2j

The CEQ section on alternatives is "the heart of the environmental impact statement." "[I]t should present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public." 40 C.F.R. §1502.14. Mitigation according to CEQ guidelines entails "minimizing impacts by limiting the degree or magnitude of the action and its implementation..." 40 C.F.R. §1508.20. The DEIS fails in two ways to adequately discuss such mitigation via minimizing impacts.

**(1) The DEIS Fails to Adequately Consider Mitigation of Wetland Displacement by the Implementation of the Action**

The makeup water storage pond of BSII is the principal reason for the need to displace wetlands. DEIS 4-57. The DEIS considers several alternative sites for its makeup water storage pond. The DEIS identifies but fails to thoroughly discuss an alternative site to the west. This site would result in less wetland displacement than any other site, yet the DEIS devotes only two sentences of its 600-plus pages to considering this alternative. DEIS 4-60. This analysis fails to meet the CEQ standards of intense consideration of alternatives. Agencies must “[r]igorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.” 40 C.F.R. §1502.14. The DEIS very briefly states a few drawbacks of the alternative site to the west, but fails to include a discussion of the reasoning by which these drawbacks are or are not outweighed by the benefits in reduced wetland impact.

**(2) The DEIS Fails to Adequately Consider Mitigation of Wetland Displacement by Limiting the Degree or Magnitude of the Action**

The size of the makeup water storage pond is directly related to the power generation capability of the proposed power plant. A makeup water storage pond of smaller size would be sufficient for a power plant of less power generation capability. Therefore, the issue of wetland displacement is connected to the issue of the need for 600 MW of power. To the extent that the stated need for 600 MW of power is based on a single study not included in the DEIS, and founded upon a failure to adequately consider demand-side alternatives which may have reduced that need, see *infra* Part VI, the DEIS fails to adequately consider limiting the magnitude of the action to avoid wetland displacement. To comply with CEQ regulations, therefore, WAPA must submit a Final EIS which includes a thorough discussion of the alternatives that could minimize wetland displacement. In particular, the additional costs and benefits of the alternate site to the west should be discussed in detail, and the need for 600 MW of power should be justified within the EIS itself rather than by reference to an outside document.

**B. The DEIS Fails to Comply with Clean Water Act Section 404 Guidelines by Not Adequately Analyzing Less Damaging Practicable Alternatives**

Guidelines under CWA Section 404 dictate that:

“...no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem... An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes. If it is otherwise a practicable alternative, an area not presently owned by the applicant which is reasonably obtained, utilized, expanded, or managed in order to fulfill the basic purpose of the purposed activity may be considered.”

The proposed action results in the loss of 58 acres of jurisdictional wetlands and 7 acres of non-jurisdictional wetlands. The DEIS fails to fully analyze less damaging practicable alternatives to the proposed action, as required under the CWA. The range of reasonable or practicable alternatives to be analyzed in the DEIS should have been sufficiently broad to satisfy these CWA Section 404 requirements, otherwise two duplicative NEPA documents may be needed. To comply with CEQ regulations, therefore, WAPA must submit a Final EIS which includes an analysis of wetland displacement alternatives sufficient under CWA Section 404.

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O-2k

#### **IV. The DEIS Fails to Comply with CEQ Regulations by Not Adequately Analyzing Alternatives to the Proposed Project, BSII**

WAPA has violated NEPA EIS requirements because it has failed to consider 1) alternative power plant sites and 2) alternative power plant technologies. The Council on Environmental Quality (CEQ) regulations pursuant to NEPA, require that WAPA produces an EIS which analyzes alternatives and “rigorously explore[s] and objectively evaluate[s] all reasonable alternatives.” 40 C.F.R. §1502.14. Rather, WAPA accepts, without analysis in any detail, the Co-Owners conclusions that a 600MW coal-fired power plant is necessary and that this plant must be located adjacent to the existing coal plant.

Key case law on this issue makes it clear that agencies are precluded from “defining a project so narrowly that it forecloses a reasonable consideration of alternatives.” *Colorado Environmental Coalition v. Domback*, 185 F.3d 1162, 1174-75 (10<sup>th</sup> Cir. 1988), and *Simmons v. U.S. Army Corps of Engineers*, 120 F.3d 664, 669 (7<sup>th</sup> Cir. 1997). While WAPA acknowledges that the purpose is to supply power to the Co-Owners service area, it fails to assess reasonable alternative to meet this purpose. Even though WAPA has no jurisdiction over the power plant siting, CEQ regulations specify that the lead agency shall analyze alternatives not within the jurisdiction of the lead agency if they are reasonable. 40 C.F.R. §1502.14(c)

The purpose of the EIS is to provide a framework for the agency decision-making process. Without adequate analysis of power plant site and technology alternatives the decision-making process is short-circuited and the EIS does not meet the legal requirements of NEPA.

##### **A. The DEIS Fails to Adequately Consider Site Alternatives**

WAPA’s discussion of site alternatives does not provide information that adequately allows for the decision maker and the public to form a clear basis for choice. *See* 40 C.F.R. §1502.14. The Co-Owners analyzed 38 potential plant locations within South Dakota, North Dakota, and Minnesota. Of these potential sites the Co-Owners selected the existing Big Stone site as the best location, and WAPA accepted this selection without any further investigation.

O-21

According to Appendix B, the existing Big Stone plant site was initially identified by the Co-Owners as the preferred site. Once identified, the Co-Owners commenced a siting study to determine the feasibility of other potential sites. DEIS Appendix B 2.0-2.2. This feasibility study used six categories where each of the six potential sites were assigned a score. There is no explanation as to how these scores were assigned, and the DEIS fails to discuss this apparent arbitrary assignment. Instead of investigating these potential alternatives, as required under NEPA, WAPA merely reiterates the Co-Owners’ contention that Big Stone is the preferred site for the project.

Mere summary of study that the Co-Owners commenced to justify selection of their existing site is a gross failure of WAPA’s duty to adequately investigate possible site alternatives.

##### **B. The DEIS Fails to Adequately Consider Technology Alternatives**

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Under the 9<sup>th</sup> Circuit’s analysis of NEPA, “The adequacy of the EIS itself is to be judged solely by the information contained in that document. Documents not incorporated in the EIS by reference or contained in a supplemental EIS cannot be used to bolster an inadequate discussion in the EIS.” *Village of False Pass v. Watt*, 735 F.2d 605 (9th Cir. 1984). For both site selection and generation technologies WAPA merely cited the findings of the Co-Owners and did not independently discuss or include evidence

of an investigation within the EIS document. The discussion of alternative generation technologies within the document is inadequate as mere reference to a study conducted by the Co-Owners does nothing to supplement the adequacy of the discussion.

WAPA accepted the Co-Owners selection of a 600MW pulverized coal super-critical boiler technology without analyzing in detail: renewable energy technology such as wind power; cleaner energy technology such as integrated gasification combined cycle (IGCC); carbon sequestration technologies; or any demand-side management or conservation strategies. While WAPA acknowledges that the purpose of the project is to supply power to the Co-Owners service area, it fails to assess any reasonable alternatives to meet this purpose.

The Co-Owners selected pulverized coal as the preferred alternative, conducted studies to confirm that this was the choice that best met their needs, and WAPA simply accepted the Co-Owners' reasoning and justification for utilizing this old technology. DEIS 2-39. By statute WAPA is directed to "rigorously explore and objectively evaluate all reasonable alternatives." 40 C.F.R. §1502.14. There is no evidence of rigorous exploration in the DEIS, instead WAPA merely defers to the Co-Owners' claim that pulverized coal super-critical boiler technology is the most appropriate means to meet the stated need of providing power to their customers.

Section 2.5.1 of the DEIS does explain several power generation technologies that are available to meet the alleged need of the Co-Owners, but there is no detailed explanation of the costs, benefits, or feasibility of the alternatives. This overview of alternatives does not "provide a clear basis for choice among options by the decision maker and the public," as is a requirement of the EIS. *Id.* This detailed alternatives analysis is required to ensure that no major federal project or action will be undertaken without intense consideration of other more ecologically sound courses of action, including shelving the entire project, or of accomplishing the same result by entirely different means. *Methow Valley Citizens Council v. Regional Forester*, 833 F.2d 810 (9<sup>th</sup> Cir. 1987). The extent of the alternatives discussion within the DEIS does not provide adequate information or research to make fully informed conclusions as to the feasibility of alternative technologies.

As part of the alternatives analysis in section 2.5.1 of the DEIS there is a detailed discussion of Demand Side Management (DSM), but there is no meaningful explanation of why DSM cannot be utilized to offset the demand that the Co-Owners are claiming. There is no estimate of the impact that aggressive DSM would have, and there is no comparison of the total cost to society that Big Stone II would have compared with DSM. Without a detailed discussion of the feasibility of DSM the EIS cannot adequately provide the information necessary for an informed decision.

Finally, any discussion of the effect that future carbon dioxide allowance costs would have on the price of coal powered generating facilities is conspicuously absent from the discussion. Carbon regulations are becoming a reality, and those regulations will increase the cost of energy that is generated with the production of greenhouse gas emissions. (In 2003, Xcel Energy's Vice President of Resource Planning and Acquisition testified before the Colorado Public Utilities Commission that carbon regulations should be considered by utilities purchasing the power rather than the generation owner to avoid double payment by the utility and its customers.) In determining the feasibility of Big Stone II these costs must be considered by running an analysis with carbon regulations at four levels: \$8/ton with a 9% and 10.5% annual increase and \$20/ton with a 9% and 10.5% annual increase. McFarland, James R. et al., "The Future of Coal Consumption in a Carbon Constrained World," 4/29/2004, M.I.T., <http://web.mit.edu/10.391J/www/proceedings/McFarland2004.pdf>.

**C. Particular Technological Alternatives that the DEIS Failed to Consider:**

**(1) Wind + Biomass + DSM**

By failing to discuss the various technology combinations that are available, WAPA's restatement of the Co-Owners' "studies" did not adequately analyze alternatives that may be more economically and environmentally feasible.

**(2) Wind + IGCC with Carbon Capture Technology**

Orlando Public Utilities is in the process of demonstrating an IGCC plant using sub-bituminous coal. Otter Tail and others' proposed Big Stone II facility will likely be in operation for at least forty years. The EIS fails to include an analysis and discussion of an alternative to Big Stone II which incorporates the maximum wind energy potential with an IGCC plant that utilizes carbon capture technology.

**(3) IGCC with Carbon Capture Technology**

Unlike pulverized coal plants, IGCC plants allow more efficient and effective capture of most coal plant pollutants, including mercury, and even offer the opportunity to capture and sequester carbon dioxide. IGCC plants are the only coal plants that would have the possibility of meeting future carbon dioxide emission standards. Other utilities in the region, such as Cash Creek Generation LLC, are shifting to IGCC proposals in order to avoid increased regulatory costs and permitting delays and to provide certainty to their customers with respect to the delivery and price of their electricity. Further, the captured carbon dioxide may be sold to the petroleum extraction industry. The EIS needs to include analysis and discussion of an alternative to Big Stone II that relies on an IGCC plant that utilizes carbon capture technology.

**(4) Lignite Coal with Carbon Capture and State-of-the-Art Pollution Controls**

Vattenfall, a Swedish company, plans to start construction of a lignite coal plant with carbon capture technology utilizing an Oxyfuel process in Swchwarze-Pumpe, Germany. The DEIS needs to include an analysis and discussion of an alternative to Big Stone II which incorporates the use of the Oxyfuel process and state-of-the-art pollution controls for criteria pollutants and mercury.

In summary, WAPA's reliance on "studies" by the Co-Owners and its mere adoption of the conclusions asserted by the Co-Owners as the only acceptable option is of grossly inadequate analysis. The DEIS does not contain adequate information to meet its statutory requirement of providing "a clear basis for choice among options by the decision maker and the public." 40 C.F.R. §1502.14. To comply with CEQ regulations, therefore, WAPA must submit a Final EIS which rigorously explores and objectively evaluates all reasonable alternatives for alternative plant locations and alternative electric power technologies, including demand side management that would meet the project purpose.

**V. The DEIS Fails to Comply with CEQ Regulations by Not Providing a Joint EIS to Meet Minnesota Environmental Policy Act (MEPA) Requirements**

Minnesota has its own version of NEPA, sometimes referred to as a 'little-NEPA' which requires the preparation of an EIS by a state agency for certain state decisions. The State decisions subject to the

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Minnesota Environmental Policy Act (MEPA) are the issuance of a certificate of need and a route approval for the proposed transmission lines from the Minnesota Department of Commerce (MDOC). MDOC is now preparing a State EIS pursuant to MEPA, which is separate from, and independent of, the WAPA EIS process. The Minnesota EIS for the Big Stone transmission lines in Minnesota includes analysis of alternative power plant sites and technologies to generate the needed electric power. The alternative power plant sites are within the State of Minnesota. The alternative technologies that will be assessed in the MDOC EIS include wind energy, gas turbine technology, and demand side management. (Minnesota Department of Commerce, Environmental Impact Statement Scoping Decision, In the Matter of an Otter Tail Power Company and Partners Application for the Big Stone 230kV and 345kV Transmissions Lines Project in Southwest Minnesota, February 26, 2006. See: <http://energyfacilities.puc.state.mn.us/Docket.html?Id=18215>.)

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WAPA's EIS fails to meet CEQ regulations that agencies shall reduce unnecessary paperwork by eliminating duplication with State procedures by filing joint statements to the maximum extent possible, unless the agencies are specifically barred from doing so by some law. To better integrate environmental impact statements into State or local planning processes, federal environmental impact statements must discuss any inconsistency of a proposed action with any approved State or local plan and laws (whether or not federally sanctioned). Where an inconsistency exists, the statement should describe the extent to which the agency would reconcile its proposed action with the plan or law. 40 C.F.R. §§1500.4(n), 1506.2(b) and 1506.2(d).

Because the State of Minnesota EIS is assessing reasonable alternatives for power plant locations and power generation technologies, this is additional evidence that there are reasonable alternative plant sites and power generation technologies which should have been assessed in WAPA's Draft EIS. To comply with CEQ regulations, therefore, WAPA must submit a Final EIS in coordination with the State of Minnesota's MEPA EIS requirements in order to meet the requirements of NEPA to prepare joint State/Federal EISs.

## **VI. The DEIS Fails to Comply with CEQ Regulations by Not Adequately Discussing the Actual Need for Power**

In determining the actual need for power generation demand WAPA merely accepts the estimates that are provided by Project Co-owners. The Co-Owners are obviously an interested party in this proceeding, as they are interested in forecasting the greatest quantity of future energy needs to justify their proposal to build this new coal plant. However, WAPA's role as independent government agency precludes their wholesale acceptance of assertions made by an interested party.

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WAPA must ask whether the energy needed at all, or whether greater investment in demand side management (DSM) could meet the Co-Owners' needs without any of the environmental or health impacts of this coal plant. These questions are not addressed in any detail. There is no discussion of conservation, or DSM measures available to reduce the demand that is quoted by the Co-Owners. There is no discussion of studies that have shown how improvements to efficiency can yield demand reductions at a lower cost than construction of new plants, nor is there discussion regarding the reasonableness of the Co-Owners demand estimates.

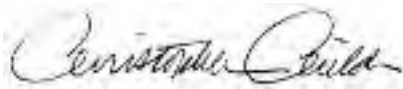
Through WAPA's arbitrary acceptance of the Co-Owners' claimed power demand estimates this DEIS is inadequate on its face. By failing to independently consider and discuss the power demand, or available conservation measures that can alleviate demand, the DEIS does not adequately provide information that is necessary to the agency decision-making process. To comply with CEQ regulations,

therefore, WAPA must submit a Final EIS which rigorously explores and objectively evaluates the actual demand for energy, taking into account the increasing cost of energy and aggressive Demand Side Management and energy efficiency investments.

## **VII. Conclusion**

Due to the many omissions in the DEIS, the Final EIS must include substantial additional information, as detailed in these comments. Failure to include this information in the Final EIS will be a violation of NEPA. The North Star Chapter of the Sierra Club looks forward to working with WAPA as this project progresses.

Sincerely,



Christopher Childs  
Conservation Chair  
Sierra Club North Star Chapter

Michael Brakke  
Co-Chair Clean Air Committee  
Sierra Club North Star Chapter

Michael Mattocks  
Legal Intern  
Sierra Club North Star Chapter

July 24, 2006

**·VIA ELECTRONIC :MAIL**

Ms. Nancy Werdel  
Big Stone II EIS  
Western Area Power Administration  
P.O. Box 281213  
Lakewood, CO 80228

**Re: Comments on Draft Environmental Impact Statement for Construction and Operation of Big Stone II Power Plant and Transmission Project, South Dakota and Minnesota**

Dear Ms. Werdel:

O-3a [ These comments are submitted on behalf of the Izaak Walton League of America - Midwest Office, Fresh Energy, the Union of Concerned Scientists and the Minnesota Center for Environmental Advocacy ("Joint Commenters"). For multiple independent reasons, Western Area Power Administration ("WAPA") should withdraw the Draft Environmental Impact Statement ("DEIS") for the Big Stone II Power Plant and Transmission Project ("Project"), and re-issue a revised draft environmental review document.

O-3b [ First, very recent factual developments pertaining to the Project undermine the entire basis for the WAPA DEIS. On July 20,2006, the lead developer for the Project. Otter Tail Power Company, stated at a hearing before the Minnesota Public Utilities Commission ("MPUC"), that projected capital cost estimates for the Project have escalated thus far by about 50 percent. This updated information prompted the MPUC to order Otter Tail Power to update all of its modeling regarding the Project that evaluated the cost-effectiveness of alternatives to it recognizing that such a major Project cost escalation could shift the economics in favor of other alternatives. Similarly, on the same day, Great River Energy, another Project co-owner,

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committed to updating the modeling it submitted in Minnesota contested hearing proceedings to evaluate the Project to account for the 50 percent capital cost escalations. The now-obsolete capital cost assumptions for the Project permeate every single study that has been presented to every single regulatory agency reviewing the Project, including WMA. This reason alone justifies withdrawal of the current DEIS to await the updated analyses by the Project proponents, and based on corrected information, re-issue another DEIS for the project.

O-3c

[A second reason to withdraw the current DEIS is its entirely inadequate analysis of alternatives to the Project, an analysis that conflicts with applicable National Environmental Policy Act ("NEPA") regulations.] [We describe in detail herein the significant shortcomings of the DEIS alternatives analysis. A third independent reason to withdraw the current DEIS is the

O-3d

statement's failure to analyze the most obvious environmental impacts associated with the Project, namely the nearly 5 million tons per year of additional uncontrolled carbon dioxide emissions for the life of the power plant; and the 330 pounds of additional mercury the Project will emit per year, at least during the first three years of the Project's projected commercial operation.<sup>1</sup> We provide additional information concerning the magnitude of these impacts and the necessary analysis NEPA would require herein.]

**I. BACKGROUND**

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[On or about August 29, 2005, these Joint Commenters submitted comments concerning the necessary scope of the EIS for the Project. Those scoping comments, which are incorporated herein by reference, have been ignored by WAPA in the preparation of the DEIS.] In particular, our scoping comments requested that the scope of the DEIS include the following:

<sup>1</sup> See, South Dakota Public Utilities Commission ("SDPUC"), Final Decision and Order in Docket EL05-022, at 20 (July 21, 2006), *available at* <http://www.state.sd.us/puc/commission/orders/electric/2005/el05-022fdo.pdf>.

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1) The EIS should address the cumulative impact on the climate of the proposed project and other similar plants, and

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2) The EIS should examine various combinations of alternatives that utilize the outstanding wind power potential in the geographic area of the proposed Project, including along the transmission corridor and within the service territories of the Big Stone II co-owners and their customers.

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Joint Commenters are now in an unusual position for parties commenting on a draft EIS. Normally, an EIS should precede agency consideration of a proposed permit. However, because the South Dakota Public Utilities Commission ("SDPUC") proceeded to a hearing concerning the application by Project proponents for a siting permit for the project from that agency<sup>2</sup>, without the benefit of a final EIS, these Joint Commenters have already developed and presented extensive testimony from experts on some of the precise subjects that must now be addressed in the WAPA EIS. Much of our testimony and briefing during the SDPUC proceeding addresses the two issues set forth above, i.e., wind alternatives and global warming impact.

The following comments first address the DEIS' failure to adequately address alternatives to Big Stone II, particularly wind generation alternatives. The comments then proceed to address problems with the DEIS's consideration of environmental impacts. Most notably, the DEIS failed to consider the impacts of carbon dioxide pollution.

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**II. THE DEIS FAILS TO ADEQUATELY CONSIDER ALTERNATIVES TO BIG STONE II.**

The determination of whether the DEIS adequately discusses reasonable alternatives must be made in light of the Council on Environmental Quality (CEQ) regulations for NEPA, requiring the lead agency, in this case WAPA, to produce an EIS that analyzes alternatives as "the heart of the environment impact statement" process so that agencies "rigorously explore and

<sup>2</sup> In the Matter of the Application by Otter Tail Power Company on behalf of the Big Stone II Co-owners foran Energy Conversion Facility Siting Permit for the Construction of the Big Stone II Project. Case No EL05-022.

O-3i  
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objectively evaluate all reasonable alternatives.<sup>3</sup>" While the judicial cases are fact specific, an agency may not define a "project so narrowly that it forecloses a reasonable consideration of alternatives."<sup>4</sup> The *Domback* case<sup>5</sup> discusses the general principles:

As noted, the National Environmental Policy Act and Council on Environmental Quality Regulations require the Forest Service to study in detail all "reasonable" alternatives. 42 U.S.C. §§ 4332(2)(C)(iii) and (E), 40 C.F.R. §§ 1502.1, 1502.14(a). The Seventh Circuit, and other courts, have interpreted this requirement to preclude agencies from defining the objectives of their actions in terms so unreasonably narrow they can be accomplished by only one alternative (*i.e.*, the applicant's proposed project). *See, e.g., Simmons*, 120 F.3d at 669; *cf. Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 195-96 (D.C.CiL), *cert. denied*, 502 U.S. 994, 112 S.Ct. 616, 116 L.Ed.2d 638 (1991). Agencies also are precluded from completely ignoring a private applicant's objectives. *See Busey*, 938 F.2d at 196; *Louisiana Wildlife Fed'n, Inc. v. York*, 761 F.2d 1044, 1048 (5th Cir. 1985); *Guidance Regarding NEPA Regulations*, 48 Fed.Reg. 34263, 34267 (July 28, 1983). We do not perceive these authorities as mutually exclusive or conflicting. They simply instruct agencies to take responsibility for defining the objectives of an action and then provide legitimate consideration to alternatives that fall between the obvious extremes.<sup>6</sup>

WAPA acknowledges that the project proponents' purpose is to supply power to the Big Stone II utilities' service areas at a reasonable cost, but the DEIS fails to assess *any* reasonable alternative to meet this purpose through alternative means of generation. WAPA has simply not met this legal requirement.<sup>7</sup> The DEIS has generally defined a project purpose, but has not discussed any reasonable alternatives to meet the purpose of providing power at reasonable costs. As the following discussion will demonstrate, there are reasonable, less costly, and less polluting alternatives to the proposed 600 MW pulverized coal plant.

<sup>3</sup> 40 CFR 1502.14

<sup>4</sup> *Colorado Environmental Coalition v. Domback*, 185 F.3d 1162, 1174-75 (10<sup>th</sup> Cir. 1988), and *Simmons v. U.S. Army Corps of Engineers*, 120 F.3d 664, 669 (7<sup>th</sup> Cir. 1997).

<sup>5</sup> *Id.*

<sup>6</sup> 180 F.3d 1174.

<sup>7</sup> Although WAPA has no jurisdiction over the siting of the power plant itself, CEQ regulations provide that the lead agency must analyze alternatives not within the jurisdiction of the lead agency if they are reasonable. 40 CFR 1502.14(c)

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The Minnesota Department of Commerce (MDOC) is now preparing an EIS pursuant to applicable Minnesota environmental laws. The alternative technologies examined will include an assessment of wind energy, gas turbine technology, and demand side management.<sup>8</sup> Because the Minnesota EIS is assessing reasonable alternatives for power plant locations and power generation technologies to inform the Minnesota agencies' decisions regarding the Project, this is additional evidence that there are reasonable alternative plant sites and power generation technologies that should have been assessed in WAPA's DEIS.

**A. The DEIS Inappropriately Parrots The Biased Conclusions Of The Utilities That Wind Power Cannot Fulfill Even a Portion of the Needs in Question.**

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The general approach of the DEIS on the critical issue of alternative sources of energy generation is simply to adopt, without independent analysis, the Project utilities' determination that a pulverized coal fired boiler is the only way to meet their various needs. *DEIS, p. ES -15*. Aside from the fact that WAPA is not applying the proper legal standard here by narrowly limiting alternatives to those the project proponents prefer, the DEIS includes no explanation or discussion of WAPA's "determination" that the proposed project is the only one that meets the Co-Owners needs and objectives."

WAPA's acceptance of the Project proponents' analyses of alternatives is further problematic due to the limited scope of and technical flaws contained within the Project proponents' analyses. The three jointly sponsored analyses done by the Project proponents include the July 2005 Phase I Report that was prepared for Otter Tail Power Company by Bums & McDonnell; the September 2005 Analysis of Baseload Generation Alternatives, also prepared

<sup>8</sup> Minnesota Department of Commerce, Environmental Impact Statement Scoping Decision, In the Matter of an Otter Tail Power Company and Partners Application for the Big Stone 230kV and 345kV Transmissions Lines Project in Southwest Minnesota, February 26, 2006. See: <http://energyfacilities.puc.state.mn.us/Docket.html?Id=18215>

<sup>9</sup> See, n. 3 above.

by Burns & McDonnell; and finally, an economic analysis that was submitted to the MPUC in February 28, 2006. Co-Owners' Supplemental Information Required by Commission's Order of December 19, 2005.<sup>10</sup> [None of these analyses compared Big Stone II to renewable alternatives in a complete and unbiased manner. Consequently, their results are not credible, and should not have been relied upon by WAPA in the DEIS. [Neither did the Project proponents maximize their potential for cost-effective demand-side management ("DSM"). ]

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Renewable alternatives were not even considered in the July 2005 Burns & McDonnell Phase I Report. Seven power generation alternatives were considered in the economic evaluation of the Phase I Report. Six of the seven generation alternatives were coal-fired. One was a natural gas-fired combined cycle facility.

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The Phase I Report did not consider wind turbines as an alternative to the Project despite the fact that the "American Wind Energy Association ranks North Dakota, South Dakota and Minnesota rank 1, 3 and 9, respectively, among the states with the best wind resource."<sup>11</sup> The Phase I Report went on to dismiss wind turbines in one sentence:

But even in this relatively windy region, wind turbines typically generate electricity only 30 to 40 percent of the time. Additionally, it is not possible to schedule the dispatch of wind turbines, as their operation is as unpredictable as the wind. Base load capacity must be reliable and able to provide virtually continuous output (with only scheduled short-term outages). In conclusion, wind turbines are not recommended.<sup>11</sup>

<sup>10</sup> DEIS at ES-16, 4-6, 4-7, 4-8, 4-10, 4-12, 8-2, B-8, B-9, and Greeter, Inc. & Venerts Investments, Inc., BSII Final Report on the Social and Economic Assessment 8 (Dec. 14 2005).

<sup>11</sup> American Wind Energy Association, *State Wind Assessments*, (2004) at

<http://www.awea.org/smallwind/northdakota.html>;

<http://www.awea.org/smallwind/southdakota.html>;

[http://www.awea.org/smallwind/minnesota\\_sw.html](http://www.awea.org/smallwind/minnesota_sw.html).

<sup>12</sup> Direct Testimony of Jeffrey Grieg, SD PUC Docket EL05-022, p. 13, 1. 13-18 (March 15, 2006), available at <http://www.state.sd.us/puc/commission/dockets/electric/2005/el05-022/CoownersEX23.pdf>.



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In DEIS Section 2.5 "Alternatives Considered but Eliminated from Detailed Analysis" the DEIS states, in language that is copied almost verbatim from the Project proponents' Phase I report:

Several comments received during project scoping expressed an interest in wind energy as the primary source for power generation. According to the American Wind Energy Association, North Dakota, South Dakota and Minnesota rank 1, 4 and 9 respectively, among the states with the best wind resource. But even in such a relatively windy region, wind turbines generate electricity only 30 to 40 percent of the time. Additionally, it is not possible to schedule the dispatch of wind turbines to match load, as their day-to-day operation is as unpredictable as the wind. The economics of using wind generation and compensating for the lack of dispatch ability is cost specific to each utility. Therefore, each utility addresses the economics of wind on its own and it is not part of this project.

In the recent hearings concerning the Big Stone II siting permit before the SDPUC, the testimony of Joint Commenters' expert witnesses David A. Schlissel and Anna Sommer, of Synapse Energy Economics, addressed the deficiencies in the Project proponents' three jointly sponsored analyses of power generation alternatives. In particular, their testimony is directly applicable to the deficiencies of the DEIS in its failure to discuss wind power alternatives. Though we describe it in further detail below, we incorporate herein by reference the Schlissel/Sommer testimony, which is available online at <http://www.state.sd.us/puc/commission/dockets/electric/2005/EL05-022/EL05-022.htm>.<sup>13</sup>

As Schlissel and Sommer point out, the arguments raised against wind power in the Phase I Report, and repeated in the DEIS, merely rehash the same tired, old and discredited arguments against reliance on wind power. As the 2004 Wind Integration Study - Final Report prepared for Xcel Energy and the Minnesota Department of Commerce has noted:

Many of the earlier concerns and issues related to the possible impacts of large wind generation facilities on the transmission grid have been shown to be exaggerated or unfounded by a growing body of research studies and empirical

<sup>13</sup> Testimony is available on this page via four hyperlinks: Joint Intervenors' Exhibit 1, Joint Intervenors' Exhibit 4, Joint Intervenors' Exhibit 5, and Joint Intervenors' Exhibit 6.

understanding gained from the installation and operation of over 6000 MW of wind generation in the United States.<sup>14</sup>

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Contrary to the findings of the Phase I Report and the DEIS, wind power can reduce the need for other capacity and provide low cost energy. One Project proponent, Great River Energy, even agrees, stating in discovery in the Minnesota Certificate of Need proceeding for the Big Stone II Project that "GRE believes that renewables and conservation could serve at least a portion of future baseload power needs."<sup>15</sup>) In fact, when combined with other energy resources, "wind can produce energy in patterns comparable to a baseload generation facility. At the same time, the effects of short term wind variability can be mitigated by building a larger number of wind turbines and by siting the wind turbines in different geographic locations."<sup>16</sup>] [Studies and actual operating experience have actually shown that fairly high penetrations of wind generation can be integrated into the electricity system (up to 20% of system peak demand<sup>17</sup> or more) without having adverse impacts on the reliability or stability of the electric grid. Some additional regulation or load following support may be needed if large amounts of wind are added to the grid, but that can often be provided by existing

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<sup>14</sup> Wind Integration Study-Final Report, prepared for Xcel Energy and the Minnesota Department of Commerce by EnerNex Corporation and Wind Logics, Inc., dated September 28, 2004. *available at* [http://www.state.mn.us/mn/externalDocs/Commerce/Wind\\_Integration\\_Study\\_092804022437\\_WindIntegrationStudyFinal.pdf](http://www.state.mn.us/mn/externalDocs/Commerce/Wind_Integration_Study_092804022437_WindIntegrationStudyFinal.pdf).

<sup>15</sup> Response to MCEA Information Request No. 73 in MPUC Docket No. CN-05-619.

<sup>16</sup> Testimony of David Schlissel and Anna Sommer, SDPUC Docket EL05-022, p. 10 (May 26, 2006), *available at* <http://www.state.sd.us/puc/commission/dockets/electric/2005/el05022/hearing/exhibitji4.pdf>.

<sup>17</sup> "Utility Wind Integration State of the Art" report prepared by Utility Wind Integration Group in cooperation with American Public Power Association, Edison Electric Institute and National Rural Electric Cooperative Association, dated May 2006, *available at* <http://www.uwig.org/UWIGWindIntegration052006.pdf>.

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regional facilities.<sup>18</sup> Otter Tail Power Company witness Mark Rolfes has admitted the same, saying,

The [Balancing Area Authority] simply must have enough generation available to handle variations between expected and actual generating level of wind on a second-by-second basis. Presuming some type of pre-scheduling was performed based upon wind forecasts, this amount can be a relatively small fraction of the nameplate capacity of the wind.<sup>19</sup>

Schlissel and Sommer made two comments regarding the claim regarding Project proponents' stated need for a fully dispatchable facility. First, the electric grid and, indeed, many of the Project proponents, already have fully dispatchable facilities. They have not shown any evidence why new generation also must be fully dispatchable. Second, none of the Co-owners' economic studies reflected any dispatching of the proposed Big Stone II facility, in response to changes in demand or any other factor(s). Instead, these studies have assumed that Big Stone II will operate "flat out" at an 88 percent average annual capacity.<sup>20</sup>

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A separate study commissioned by the Project proponents, the September:2005 Generation Alternatives Study<sup>21</sup>, also critically biased the economic analysis against wind based alternatives:

<sup>18</sup> "Grid Impacts of Wind Power Variability: Recent Assessments from a Variety of Utilities in the United States," Parson, Mulligan, et al., presented at the 2006 European Wind Energy Conference, attached as an exhibit to Schlissel/Sommer testimony, *available at* <http://www.uwig.org/ewec06gridpaper.pdf>.

<sup>19</sup> Response to Interrogatory 33 of the Joint Intervenors' Sixth Set of Interrogatories and Combined Set of Request for Production of Documents, in SDPUC Docket EL05-022.

<sup>20</sup> Testimony of David Schlissel and Anna Sommer, SDPUC Docket EL05-02:2, p. 11, (May 26. 2 006), *available at* <http://www.state.sd.us/puc/commission/dockets/electric/2005/e105022/hearing/exhibitji4.pdf>.

<sup>21</sup> Analysis of Baseload Generation Alternatives, also prepared by Bums & McDonnell, SDPUC Docket EL05-022 (September 2005), *available at* <http://www.state.sd.us/puc/commission/dockets/electric/2005/e105-022/Co-ownersEX23A.pdf>.

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First, the *Generation Alternatives Study* assumed that the wind resources had no capacity value and, therefore, required a 600 MW backup natural gas-fired combined cycle facility. Second, the Study limited the amount of wind in the alternative to 600 MW which meant that substantially more than half of the energy provided by the alternative would be produced by the more expensive combined cycle facility. These two errors significantly increased the cost of the wind-gas alternative in the *Generation Alternatives* study.<sup>22</sup>

The testimony of the Project's own witnesses in the SDPUC proceeding directly contradict the *Generation Alternatives Study*'s outdated assumption that that wind facilities have no capacity value, and consequently require 100 percent backup. Project Co-owner Heartland Consumer Power District ("Heartland") witness McDowell testified that wind generation is accredited to be available 20 percent of the time for MAPP load and capability planning purposes.<sup>23</sup> SMMPA witness Geschwind suggested that a 20 percent capacity value for would be appropriate for wind in his testimony that "SMMPA would have to install approximately 5 MW of nameplate wind capacity for every 1 MW of nameplate capacity from Big Stone Unit II to arrive at the same level of MAPP accredited capacity."<sup>24</sup> In addition, the most recent Integrated Resource Plans filed by the Big Stone II Co-owners do assign a capacity value for wind. MRES' recent Supplement to its Minnesota 2006-2020 Resource Plan filing assigns wind a 15 percent capacity value.<sup>25</sup> Similarly, the capacity tables in Otter Tail Power's 2006-2020

<sup>22</sup> Testimony of David Schlissel and Anna Sommer, SDPUC Docket EL05-022, p. 11-12 (May 26, 2006), available at <http://www.state.sd.us/puc/commission/dockets/electric/2005/e105022/hearing/exhibitji4.pdf>.

<sup>23</sup> Direct Testimony of Mike McDowell in SDPUC Docket EL05-022, p. 8, 1. 7-8 (March 15, 2006), available at <http://www.state.sd.us/puc/commission/dockets/electric/2005/e105-022/CoownersEX04.pdf>.

<sup>24</sup> Testimony of David Geschwind, SDPUC Docket EL05-022 pp. 10-11 (March 15, 2006), available at <http://www.state.sd.us/puc/commission/dockets/electric/2005/e105-022/CoownersEX05.pdf>.

<sup>25</sup> MRES Supplement to 2006-2020 Resource Plan, dated May 8, 2006, at page 69.

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Resource Plan credit wind with a capacity value of approximately 15 percent in the summer and approximately 20 percent in the winter.<sup>26</sup> Project proponents' refusal to grant wind power any capacity value in the sole instance where their consultants compare Big Stone II to wind, runs counter to MAPP accreditation policies, to empirical studies, and to some of their own planning protocols.

Other studies and operating experience have shown that the electricity system can handle fairly high penetrations of wind generation (20% of system peak demand or more) without adverse impacts on the reliability of the grid.<sup>27</sup> The Xcel Energy *Wind Integration Study*, referenced above, conducted detailed modeling of wind resources in the same general geographic area as South Dakota. In contrast to the Bums and McDonnell Report's assumption of zero capacity value, the Xcel wind integration study found the wind resource to have capacity values of between 27 and 34%.<sup>28</sup> Already, wind power is accredited to be available 20% of the time for MAPP load and capability planning purposes, and it is reasonable to expect MAPP to eventually respond to empirical studies by accrediting wind power in the best areas with an even higher

<sup>26</sup> Otter Tail Power Company's 2006-2020 Resource Plan, dated June 28, 2005, Table 4-B, at page 4-9.

<sup>27</sup> See e.g., Testimony of Schlissel and Sommer, SD PUC Docket EL05-022, p. 2 (May 26, 2006), available at <http://www.state.sd.us/puc/commission/dockets/electric/2005/el05022/hearing/exhibitji4.pdf>.

<sup>28</sup> Wind Integration Study-Final Report. *supra*, note 14.

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capacity value.<sup>29</sup> Failure to grant wind any capacity value when comparing it to Big Stone II represents a wholly unfounded devaluation of wind, and it does ratepayers a disservice by depriving them of a clean and affordable source of energy.

Finally, the third study relied upon by Project proposers is the Project proponents' attempt to show their "next best" resource scenarios to Big Stone II. There is no evidence to support the claim that the individual utility alternatives to Big Stone II reflected in this economic analysis represent what would be their "next best" resource scenarios. Indeed, there is no evidence that in their development of their purported "next best" resource scenarios, any of the Project co-owners, perhaps other than Otter Tail Power, examined additional wind projects in place of Big Stone II. In addition, other than Otter Tail Power, none of the other Co-owners appears to have considered any hydro purchases. None of the Co-owners considered additional demand-side management efforts in place of Big Stone II. Consequently, there is no evidence that these so-called "next best" plans have lower costs than alternative plans that would include more wind, more aggressive implementation of cost-effective demand side measures and increased purchases of hydro capacity and energy.

In fact, the so-called "next best alternative" to Big Stone II can be characterized as, other than for Otter Tail Power, a highly risky plan that depends almost exclusively on coal-fired and natural gas-fired generation and on purchases of power that probably also would be generated at coal-fired or natural-gas fired facilities. The alternative plan is highly risky because it depends to

<sup>29</sup> Testimony of Schlissel and Sommer, SDPUC EL05-022 p. 6, 1. 3-12 (June 22, 2006), *available at* <http://www.state.sd.us/puc/commission/dockets/electric/2005/e105-022/hearing/exhibitji6.pdf>

a very substantial extent on coal-fired generation which almost certainly will be subject to greenhouse gas regulations in the near future, and on natural gas-fired generation which is likely to be subject to high fuel price levels and volatility. Wind, at a minimum, significantly reduces fuel price and environmental risks.

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WAPA's uncritical acceptance of the Project proponents' conclusions is irresponsible, biased, and avoids the duty of the federal agency to think and act independently. In fact, predominantly wind-based alternatives can provide energy of comparable reliability as Big Stone II, as discussed below. Thus, WAPA's reliance on the analysis by the Project proposers has been demonstrated to be inappropriate.

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**B. A Wind-Based Alternative Would Almost Certainly Cost Ratepayers Less Than The Proposed Project, And Deserves To Be Discussed In The EIS.**

The record developed by the Joint Commenters in the SDPUC siting proceeding shows that Big Stone II would actually cost ratepayers more than cleaner alternatives and provide significantly fewer economic development benefits. By failing to compare Big Stone II to cleaner alternatives, and indeed, simply *assuming* that Big Stone II is the Project proponents' least cost alternative, the conclusion of the DEIS, that the Big Stone II plant is the *only* alternative that meets the Co-Owners objective of production of base load power at reasonable costs, is totally without foundation and must be abandoned.

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The Project proponents and the WAPA DEIS would suggest that the plant's environmental damages (many of which are not discussed) are necessary to obtain the benefits the Project promises. In fact, the record in the SDPUC administrative proceeding shows that the environmental damages caused by Big Stone II are wholly avoidable. Although Joint

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Commenters strongly disagree that the Project proponents have shown need for a new baseload resource, that level of sought-after power can be obtained more cheaply by following a cleaner

technology path. Moreover, building predominantly wind-based alternatives would result in even greater economic development benefits to the region.<sup>30</sup>

1 **Wind Power Would Actually Cost Less - and Perhaps Much Less --Than Big Stone II in the Carbon-Constrained World Ahead.**

O-3v In pricing Big Stone II, Project proponents (and consequently the authors of the DEIS) make the reckless assumption that throughout the many decades of its future operation it will be allowed to emit its 4.7 million annual tons of heat-trapping CO<sub>2</sub> for free, despite increasing policy efforts to battle global warming. As a result, the price of Big Stone II is severely underestimated.<sup>31</sup> When realistic estimates of future CO<sub>2</sub> costs are factored into the price of Big Stone II, it becomes even more expensive, and under some scenarios dramatically more expensive, than wind-based alternatives. Because ratepayers could obtain the same power for less money by rejecting Big Stone II in favor of cleaner options, it is illogical for Co-Owners to justify Big Stone II's environmental damage by pointing to the economic benefits derived from Big Stone II's allegedly low electric rate increases. Thus, the DEIS is incorrect in eliminating the consideration of a wind based alternative simply because the Project proponents' concluded that the Project cost would be reasonable.

O-3w Federal climate regulations are coming, and they will increase the cost of Big Stone II. Policy responses to global warming are emerging throughout the U.S., as they have already in the rest of the developed world. Mainstream figures such as U.S. Senator John McCain. R-AZ,

<sup>30</sup> See generally, Direct Testimony of Marshall Goldberg, SDPUC EL05-022 (May 19, 2006) <http://www.state.sd.us/puc/commission/dockets/electric/2005/el05022/hearing/exhibitji3.pdf>.

<sup>31</sup> Indeed, the project costs are underestimated in the analyses even without consideration of carbon dioxide regulatory cost risk due to current rising capital costs of the project that were made public on July 20, 2006 at the Minnesota Public Utilities Commission.



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forecast the coming global warming policies; just several weeks ago, he stated, "the culmination of evidence is going to force us to act - the question is if we will act soon enough."

Synapse Energy Economics conducted and submitted into the SDPUC record an analysis of the likelihood of future federal climate policies affecting power plants. They concluded that "[s]cientific developments, policy initiatives at the local, state, and federal level, and actions of corporate leaders, all indicate that climate change policy will affect the electric sector - the question is not "whether" but "when" and "in what magnitude."<sup>32</sup> Synapse's detailed analysis of the accelerating policy response at every level of government -- and of the growth in scientific concern driving these policies - amply supports this conclusion.

In June of 2005, the U.S. Senate passed a Sense of the Senate resolution calling for mandatory, market-based limits on emissions of greenhouse gases, and the House Appropriations Committee adopted similar language in 2006. Several proposals that would impose such mandatory, market-based limits on CO<sub>2</sub> emissions have been proposed in Congress. These proposals would employ a cap-and-trade regulatory technique that would require power plant operators to own an allowance for each ton of CO<sub>2</sub> emitted. Allowances would be tradable among emitters, and market forces would set the price of the allowances. Legislators are increasingly educating themselves on the impact of such proposals, laying the groundwork for a national regulatory program.

The federal Energy Information Administration and others have conducted computer modeling to project how much CO<sub>2</sub> allowances would cost under various federal regulatory proposals. After reviewing several such studies, and based on their larger review of climate science and policy and the risk-management practices of a growing number of utilities, Synapse

<sup>32</sup> See, Testimony of Schlissel and Sommer, SDPUC EL05-022, p. 1 (May 19, 2006), available at <http://www.state.sd.us/puc/commission/dockets/electric/2005/e105-022/hearing/exhibitji1.pdf>.

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prepared low-, mid-, and high-case forecasts of likely future CO<sub>2</sub> costs.<sup>33</sup> Synapse's forecasts not only reflect studies of existing federal proposals, but are in line with CO<sub>2</sub> cost projections used in planning by other utilities.<sup>34</sup>

Clearly, the costs of future CO<sub>2</sub> allowances is subject to considerable regulatory uncertainty, but that uncertainty does not justify the now reckless assumption that such costs will remain at zero for the operating lifetime of a new coal plant. As Synapse notes, "the challenge, as with any unknown future cost, is to forecast a reasonable range of costs based on analysis of the information available."<sup>35</sup> Synapse's extensive analysis of the climate issue contrasts sharply with the unstudied approach taken by Project proponents. Synapse's forecasts of future CO<sub>2</sub> costs would add significantly to the cost of Big Stone II on a megawatt/hour (MWh) basis. The lowest cost trajectory would add \$7.60 to the cost of energy from the plant, the mid-case costs would add \$18.61 per MWh, and the high-case costs would add \$29.72 per MWh.<sup>36</sup> In percentage terms, the mid-case costs, which Synapse considers most likely, would increase the plant's cost by 37-46%.<sup>37</sup> Such regulatory costs affect the relative cost-effectiveness of alternatives to Big Stone II, and should be taken into account in the DEIS.

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**2. Even if Project proponents did need 600 MW of baseload power, the record shows that a predominantly wind-based alternative can reliably provide that power.**

Joint Commenters' witnesses in the SDPUC proceeding, Schlissel and Sommer, provided a detailed cost analysis comparing Big Stone II to four wind-based alternatives, an analysis that

<sup>33</sup> *Id.* at 39-42.

<sup>34</sup> *See Id.* at 30.

<sup>35</sup> *Id.* at 44.

<sup>36</sup> *Id.* at 23.

<sup>37</sup> *Id.*

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factored in the likely costs of future carbon dioxide regulation.<sup>38</sup> The analysis looked at each option with and without the extension of the Production Tax Credit (PTC) for wind.<sup>39</sup> It also compared how each option would fare under its three projected cost estimates of future CO<sub>2</sub> allowance prices. Finally, it compared the results against the prices faced by investor-owned utilities and by those faced by publicly-owned utilities. Their analysis corrected the Project proponents' extreme underestimate of wind's capacity value and lifted the artificial cap on wind imposed in the Project comparison of Big Stone II to alternatives.<sup>40</sup>

Synapse alternatives three and four, which assume 1200 MW of wind and between 300 and 420 MW of Combined Cycle Gas Turbines (CCOT), under low, mid, and high-case assumptions about future CO<sub>2</sub> allowance prices, clearly show that an alternative that maximizes wind power and minimizes natural gas will be far more economical in the carbon-regulated world ahead than Big Stone II will be. Even in most of the comparisons assuming the lowest CO<sub>2</sub> allowances prices, the wind/gas combination still comes out ahead. In only one of the low-CO<sub>2</sub> cost scenarios Synapse analyzed does Big Stone II come out cheaper than the wind/gas option, and then only barely so (assuming Public Power ownership, 420 MW CCOT, no PTC). In all the mid-case CO<sub>2</sub> cost scenarios, Big Stone II is more expensive. In fact, Big Stone II is up

<sup>38</sup> Testimony of Schlissel and Sommer, SDPUC Docket EL05-022, p. 14-18 (May 26, 2006), available at <http://www.state.sd.us/puc/commission/dockets/electric/2005/e105-022/hearing/exhibitji4.pdf>.

<sup>39</sup> It is reasonable, however, to assume that Congress will renew the PTC "given (1) its history, (2) increasing concern over U.S. dependence on foreign sources of energy, and (3) mounting concern over global warming ...." *Id.* at 18, l. 18-24.

<sup>40</sup> Moreover, Synapse's analysis accepted Co-owners' assumptions that tend to overstate the reliability of Big Stone II. The Big Stone II claimed capacity factor of 88% is clearly a "best case scenario", since it ignores facts that the plant operator could be required to cut back production to comply with its post 2014 mercury commitment, because of drought conditions, or because of coal delivery problems.

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to 71% more expensive for investor-owned utilities and 61 % more expensive for public utilities than the wind/gas option. Under the high CO<sub>2</sub> costs analyzed, the cost difference is of course even more dramatic: Big Stone II would cost roughly twice as much as the best wind/gas option.<sup>41</sup>

It is important to realize that the Synapse analysis overestimates the cost of the wind-gas alternative in several significant ways, including:

- The benefits of low-cost financing for public utilities is reflected in the costs of Big Stone II, but this benefit is not reflected in the price of wind power, which is assumed to be the same for public utilities as for investor-owned ones.
- Capacity values for wind are assumed to be only 15% and 25%, despite evidence that wind power in the region actually achieves capacity values of 27-34%.
- The analyses accepted the unrealistic assumption that dedicated natural gas plants would be built to support the wind power, an assumption that increases the cost of the wind/gas options. In reality, the wind power would be integrated into and receive backup from the entire regional system, and not depend on dedicated backup plants.

Based upon the foregoing, WAPA is legally required to prepare an EIS that fully discusses wind based power generation alternatives to the Big Stone II proposed plant. We have here demonstrated that such an alternative is reasonable and feasible. It is the Agency's responsibility under NEPA to produce an EIS that discusses it.

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**C. The DEIS failed to adequately consider alternative emissions control technology for mercury emissions.**

The scoping comments, previously submitted by Joint Commentors, requested that WAPA seriously consider the impacts of mercury emissions from the Big Stone II Project and consider alternatives to the Project proponents' proposed emissions control system, a fabric filter (baghouse) followed by a wet FGD [flue gas desulphurization]<sup>42</sup> Joint Commenters also noted that the process

<sup>41</sup> *Id.*

<sup>42</sup> Big Stone II Facility Siting Permit Application, SDPUC Docket No. EL05-022, p. 14-15.

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that currently appears to accomplish the highest degree of mercury removal from exhaust gases of coal plants, is brominated carbon injection. That process has been demonstrated at multiple sites to achieve 80 to 90 percent mercury removal with western coal, and is commercially available today. The abstract of a recent presentation at an industry symposium states:

The injection of brominated powdered activated carbon (B-PAC TNI) into powerplant flue gases for mercury removal has now been tested at seven different power plants. These plants have burned bituminous, subbituminous, lignite coals, and blends and include testing with cold-side ESPs, hot-side ESPs, spray dryers, and fabric filters. Mercury-removal performance at these sites has varied between 70% and 98% at sorbent consumption costs of approximately \$2,000 to \$20,000 per-lb.-of-mercury-removed, considerably less than previous technologies.<sup>f</sup>

Joint Commenters specifically requested that WAPA A consider the "availability of brominated carbon injection technology, or any other technologies, that can achieve the highest rates of mercury removal from a coal plant." The DEIS fails to make one mention of brominated carbon injection technology. This technology should have been considered under any meaningful review of existing alternatives and mitigation measures, and should have been considered pursuant to Minn. Rule 4410.7055 (2006), a rule which WAPA set out to follow in the first place. Instead of performing a meaningful review of alternative emissions control equipment, the DEIS flatly accepts the Co-Owners proposal of a baghouse filter and WFGD .<sup>44</sup>

<sup>43</sup> Sid Nelson Jr., Ronald Landreth, Ph.D., Qunhui Zhou, Ph.D., and Jon Miller, Sorbent Technologies Corporation, 1664 E. Highland Rd., Twinsburg, OH 44087, "Accumulated Power-Plant Mercury-Removal Experience with Brominated PAC Injection", presented at the Combined Power Plant Air Pollutant Control Mega Symposium, Washington, DC, Aug. 30 - Sept. 2, 2004.

<sup>44</sup> DEIS at ES-29 and 2-8.

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WAPA also failed to consider alternatives, such as IGCC, which would more effectively limit the amount of mercury that would be expected to be emitted from a coal-based project. WAPA dismissed IGCC based on very little analysis, other than statements that the technology does not yet have a solid foothold in the market, and is therefore still prone to uncertain reliability.<sup>45</sup> However, in the same breath, WAPA noted three IGCC projects currently in development.<sup>46</sup> WAPA described these projects as being five or six years away from being commercially available, and therefore not an option for the Project co-owners. However, WAPA bases this assumption that the Project proponents need 600 MW of baseload capacity now, and not five years from now. This is a very large and unsupported assumption. The majority of the Project proponents have difficulty making a case for this need, and there is very little evidence to suggest that much of the short-term forecasted need could not be fulfilled by demand-side management. The time constraints presented by IGCC should not be so quickly dismissed by WAPA - it is WAPA's job to meaningfully consider the alternatives and not flatly accept the wish lists of regulated parties. Moreover, Basin Electric Cooperative recently announced a proposal to build an IGCC power plant in South Dakota, using Powder River Basin Coal.<sup>47</sup> If the market is considering IGCC a viable electricity-generating option, so should WAPA, especially in an EIS.

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Finally, the DEIS only considered the no action alternative from the skewed perspective of the Co-Owners. That is, WAPA considered an unimproved Big Stone I to be the no action

<sup>45</sup> DEIS at 2-56 and 2-57.

<sup>46</sup> DEIS at 2-57.

<sup>47</sup> *Basin Electric Explores Using IGCC Technology*, available at [http://www.basinelectric.com/NewsCenter/News/NewsReleases/Basin\\_Electric\\_explo.html](http://www.basinelectric.com/NewsCenter/News/NewsReleases/Basin_Electric_explo.html) (last visited July 21, 2006).

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alternative and it considered an improved Big Stone I + Big Stone II to be the comparison. This is not a fair comparison because it disguises Big Stone II's contribution to mercury emissions, and ignores the more than doubling of South Dakota's electric sector carbon dioxide emissions that Big Stone II would contribute.

A fair comparison of Big Stone II with the no action alternative would actually address the fact that Big Stone II would be permitted to emit 330 pounds of mercury per year.<sup>48</sup> This is 330 pounds of mercury more than are currently being emitted into the air. Therefore, the no action alternative would result in a benefit to the atmosphere of less mercury emissions in the amount of 330 pounds of mercury per year, for the first three years of commercial operation of the Project.<sup>49</sup> The unfair comparison, described above, disguises these increased emissions and allows W AP A to make the unrealistic finding that the no action alternative would provide no benefit in decreased mercury emissions.<sup>50</sup>

The bottom line is that benefits derived from improvements to BSI should be a separate issue, The Project proponents promise to retrofit Big Stone I with emissions control technology should not be contingent upon approval to build Big Stone II - *they should be improving Big Stone I anyway*. The Project co-owners could easily retrofit BSI right now, if they chose to be responsible citizens and neighbors. Moreover, the federal government will shortly force Big Stone I to reduce its emissions under CMAR, or purchase credits from other mercury reductions

<sup>48</sup> Supra note 1.

<sup>49</sup> Although the Big Stone II Co-owners have agreed to accept a PSD permit condition that limits the mercury emissions from Big Stone I and II to Big Stone I 2004 emission levels, this commitment would not be present during the first three years of commercial operation of Big Stone II.

<sup>50</sup> DEIS at 4-13 and 4-26.

that other companies make. The fact is that Big Stone II *will add mercury emissions into the atmosphere*. The Project proponents are simply trying to disguise that fact by promising future efforts to keep current mercury reductions the same. We should be aiming to reduce mercury emissions, not stay at a level that is currently producing detrimental pollution throughout the , region, nation and world, and not rest easy that after three years of increasing mercury pollution, the co-owners promise not to make mercury emissions at the site worse than they were in 2004.

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**III. THE DEIS FAILED TO ADEQUATELY CONSIDER THE ENVIRONMENTAL IMPACTS OF BIG STONE II.**

The EIS must assess the impacts of the project as proposed, and compare them to the impacts of each reasonable alternative to the project.<sup>51</sup> It must "present the environmental impacts of the proposal and the alternatives in a comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision-maker and the public."<sup>52</sup> The DEIS failed to follow these mandates.

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**A. The Impact Upon The Environment Of the Emissions of Carbon Dioxide From Big Stone II, As A Major Contribution to Global Warming, Must Be Discussed In The EIS.**

The DEIS contains no discussion of global warming, or impacts of carbon dioxide emissions from the Project; the final EIS must do so. Ezra D. Hausman testified in the SDPUC proceeding to the causes and effects of global warming and the contribution of coal fired power plants, and the Project in particular, to the adverse impact of carbon dioxide emissions. Though we describe his analysis further below, we incorporate his testimony in the SDPUC proceeding

<sup>51</sup> 40 C.F.R., Secs. 1502.14, 1502.16.

<sup>52</sup> *Id.* Sec. 1502.14.



herein by reference, available online at

<http://www.state.sd.us/puc/commission/dockets/electric/2005/EL05-022/EL05-022.htm>.<sup>53</sup>

**1. Global warming poses a threat of serious injury to the environment.**

Dr. Hausman, who holds a Ph.D. in Atmospheric Science from Harvard University, summarized his testimony as follows:

Human induced climate change is a grave and increasing threat to the environment and to human societies around the globe. Its early effects, which are already observable and documented in the scientific literature, are consistent with those predicted by computer models of the global climate, and these same models predict much more severe effects to come. Indeed, we are on a path that, if unchanged, is likely to bring about a climate well outside the range of anything ever experienced by our species, with the potential for severe and irreversible changes that will forever alter our environment, our economies and our way of life.

While some level of climate change is already a fact, computer models tell us that we can still avoid the most dangerous impacts by limiting the further buildup of CO<sub>2</sub> in the atmosphere. Perhaps the most important way to achieve this is by limiting the burning of fossil fuels in the decades ahead. In contrast, if the Big Stone Unit II is built, it would inject enormous amounts of CO<sub>2</sub> into the atmosphere for decades to come and would contribute to the dangerous atmospheric buildup of this gas. Thus, the proposed unit would exacerbate a problem that is likely to cause dramatic environmental and economic harm to societies around the globe, including to the communities in South Dakota.

As Joint Commenters' witness Dr. Ezra Hausman testified in the SDPUC proceeding, if trends continue, global warming is "likely to bring about a climate well outside the range of anything ever experienced by our species, with the potential for severe and irreversible changes that will forever alter our environment, our economies and our way of life."<sup>54</sup>

<sup>53</sup> Dr. Hausman's testimony can be accessed at the above address through the hyperlinks to Joint Interveners' Exhibit 2 and Joint Interveners' Exhibit 7.

<sup>54</sup> See Testimony of Dr. Hausman, SD PUC EL05-022, p. 3, l. 9-12 (May 19, 2006), available at <http://www.state.sd.us/puc/commission/dockets/electric/2005/e105-022/hearing/exhibitji2.pdf>

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Dr. Hausman's conclusion reflects the consensus among the world's preeminent scientists, who have concluded that global warming is a very serious threat meriting the immediate attention of the world's policymakers.<sup>55</sup> For example, the scientific academies of 11 nations, including the National Academy of Sciences in the U.S., recently issued a joint statement urging all nations "to acknowledge that the threat of climate change is clear and increasing" and to "take prompt action to reduce the causes of climate change."<sup>56</sup>

The record of the SDPUC proceeding also included the conclusions of the Intergovernmental Panel on Climate Change (IPCC), representing the world's leading researchers in the field of climate science, brought together to assess the science and advise the world's policymakers.<sup>57</sup> The IPCC finds that the planet is currently experiencing unnatural warming, predicts much more serious warming ahead if current energy trends continue, and identifies a range of likely harmful consequences.<sup>58</sup>

The cause of global warming is the buildup in the atmosphere of heat trapping gases, known as "greenhouse gases," due to human activity.<sup>59</sup> Carbon dioxide (CO<sub>2</sub>), a heat-trapping gas of particular concern, is emitted when we burn fossil fuels, and particularly coal because it

<sup>55</sup> *See id.* at 6-11.

<sup>56</sup> Joint Science Academies Statement, SD PUC EL05-022, *available at* <http://www.state.sd.us/puc/commission/dockets/electric/2005/el05-022/hausmanexhibitd.pdf>.

<sup>57</sup> *See* Testimony of Dr. Hausman, *supra* note 53, at 6-9.

<sup>58</sup> Testimony of Dr. Hausman, *supra* note 53; IPCC Working Group I Summary for Policymakers, SD PUC EL05-022, *available at* <http://www.state.sd.us/puc/commission/dockets/electric/2005/el05-022/hausmanexhibitb.pdf>; IPCC Working Group II Summary for Policymakers (2001), *available at* <http://www.state.sd.us/puc/commission/dockets/electric/2005/el05-022/hausmanexhibitc.pdf>.

<sup>59</sup> Testimony of Dr. Hausman, *supra* note 53, at 4, 1. 15-24.

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has such a high carbon content.<sup>60</sup> Already, humans have increased background levels of CO<sub>2</sub> by roughly one-third above pre-industrial levels, which is considerably higher than it has been in 400,000 years (over four ice-age cycles), and probably higher than it has been in tens of millions of years.<sup>61</sup> With the continued "business as usual" path of fossil fuel use, CO<sub>2</sub> levels will continue rising steeply, increasing the likelihood that the earth will experience dangerous or even catastrophic warming.<sup>62</sup>

The global average surface temperature of the earth rose by 0.6°C over the twentieth century, with additional record-breaking warming in the first few years of the twenty-first century; four of the five hottest years on record have occurred since 2000, with the ten hottest years since 1990.<sup>63</sup> This warming is consistent with predictions by computer models of the climate response to today's elevated CO<sub>2</sub> concentrations.<sup>64</sup> The IPCC predicts that warming in the twenty-first century will be from 1.5 to 5.8° C - or 2.5 to 9.7 times greater than in the past century.<sup>65</sup> To put this in geo-historical context, the average surface temperature differential between the last ice age and today was only about 5°C.<sup>66</sup>

Among the serious negative impacts associated with this predicted warming are rising sea levels, damaged or lost ecosystems, greater species extinction, expansion of disease and pest

<sup>60</sup> *Id.* at 5, 1. 4-9.

<sup>61</sup> *Id.* at 13-14.

<sup>62</sup> *Id.* at 14, 1. 10-17.

<sup>63</sup> *Id.* at 15-17.

<sup>64</sup> *Id.* at 17.

<sup>65</sup> *Id.* at 17, 1. 11-14.

<sup>66</sup> *Id.* at 18, 1. 3-5.

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vectors, greater heat waves, more intense precipitation causing more flooding, landslides and erosion, and in continental interiors like South Dakota, increased summer drying causing more droughts, reduced crop yields, and reduced water availability and quality.<sup>67</sup> The more CO<sub>2</sub> emitted, the more severe the impacts are likely to be.<sup>68</sup> There is reason to worry that the warming ahead will not be gradual, given evidence that in the past the earth has often made climate changes in "abrupt, lurching fashion," which would be even more disruptive than linear warming.<sup>69</sup>

In South Dakota, global warming is predicted to manifest itself in decreased soil moisture likely to harm both crops and natural vegetation; greater morbidity and mortality from heat stress; increased summer drought; displacement of today's plant and animal species; more agricultural pests and diseases; and increased storm intensity, causing greater flooding, water pollution, and erosion<sup>70</sup> The region's Prairie Pothole Region, is particularly vulnerable to climate warming, threatening the ducks and other migratory waterfowl for which the region is a critical breeding ground.<sup>71</sup>

Joint Commenters do not ask WAPA, in its EIS, to put itself in the position of the global scientific community, and predict the impacts of global warming. *That work has been done by the global scientific community already*, and WAPA is legally bound to recognize these scientific findings.

<sup>67</sup> *Id.* at 18, l. 17-29.

<sup>68</sup> *Id.* at 18, l. 30-32.

<sup>69</sup> *Id.* at 19, l. 4-8.

<sup>70</sup> *Id.* at 21-22.

<sup>71</sup> *Id.* at 23-24.

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**2. Big Stone II would be a major source of global warming pollution.**

According to Project proponents, Big Stone II would emit approximately 4.7 million tons of CO<sub>2</sub> per year.<sup>72</sup> Every year, this plant would emit the equivalent global warming pollution of nearly 670,000 cars, or roughly two-thirds more than the CO<sub>2</sub> emissions of all the cars registered in South Dakota combined.<sup>73</sup> This single project increases the CO<sub>2</sub> emissions of the entire state of South Dakota by 34%, and more than doubles the current emissions from the state's power sector (currently 3.79 million tons).<sup>74</sup> It is difficult to imagine anything that permitting agencies could do to worsen global warming more than permitting Big Stone II, unless it would be to permit an even bigger coal plant instead.

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**3. Big Stone II would cause irreversible changes to the environment that will remain beyond the operating lifetime of the facility.**

NEPA clearly demonstrates a concern over an energy facility's long-term environmental impacts. NEPA requires WAPA to analyze the environmental impacts of proposed actions, which should include analysis of all potential significant impacts.<sup>75</sup> Furthermore, NEPA requires WAPA to analyze the "relationship between local short-term use of man's environment and the

<sup>72</sup> Rebuttal Testimony of Ward Uggerud, SD PUC EL05-022, at 6, 1. 9-10 (June 9, 2006)

<http://www.state.sd.us/puc/commission/dockets/electric/2005/el05-022/rebtestimonyuggerud.pdf>. Joint Intervenors had calculated the emissions from the plant to be about 4.5 million tons per year, meaning that our testimony regarding the financial and environmental risks associated with the plant's CO<sub>2</sub> emissions are slightly underestimated.

<sup>73</sup> Testimony of Dr. Hausman, *supra* note 53, at 27, 1. 11-17.

<sup>74</sup> *Id.* at 27, 1. 3-10.

<sup>75</sup> 42 U.S.C. § 4332(c)(i) (2006).

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maintenance and enhancement of long-term productivity.<sup>76</sup> As one D.C. district court has stated:

There can be no doubt that, in order to comply with section 102(2)(C) of NEPA, a federal agency must, as a general rule, assess "the extent to which the proposed action involves tradeoffs between short-term environmental gains at the expense of long-term losses, or vice versa," "the extent to which the proposed action forecloses future actions," and the extent to which the proposed action involves "irreversible and irretrievable commitments of resources." CEQ Guidelines, 40 C.F.R. ss 1500.8(a)(6), (7) (1977). See *NRDC v. United States Nuclear Regulatory Commission*, 178 U.S.App.D.C. 336,345,547 F.2d 633, 642 (1976), rev'd on other grounds sub nom. *Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519,98 S.Ct. 1197,55 L.Ed.2d 460 (1978). Indeed, ERDA has expressly adopted this standard in its NEPA regulations. 10 C.F.R. s 711.83(a)(8), 42 Fed.Reg. 4833 (Jan. 26, 1977). To comply with these requirements, an agency must, when faced with alternatives to a proposed course of action, compare the effects of such alternatives on long-term decisionmaking and planning.<sup>77</sup>

Carbon dioxide emissions provide the most dangerous potential for long-term impacts for Big Stone II, yet the DEIS failed to provide any discussion of the long-term, irreversible impacts of the Project's carbon emissions.

Large baseload coal plants are designed to operate for decades.<sup>78</sup> Some of today's coal plants have been operating for as long as 70 years. Assuming an operating lifetime for Big Stone II of 50 years, the plant will emit over 225 million tons of CO<sub>2</sub> before it closes.<sup>79</sup> Moreover, the CO<sub>2</sub> emitted from Big Stone II would continue warming the planet for centuries after the plant itself closes its doors. The IPCC states that "several centuries after CO<sub>2</sub> emissions occur, about a

<sup>76</sup> 42 U.S.C. § 4332(c)(iv) (2006).

<sup>77</sup> *Natural Resources Defense Council, Inc. v. Administrator, Energy Research and Development Administration*, 451 F.Supp. 1245, 1264 (D.C.D.C. 1978).

<sup>78</sup> Testimony of Dr. Hausman, *supra* note 53, at 26, 1. 8-10.

<sup>79</sup> *Id.* at 26, 1. 25-26.

quarter of the increased CO<sub>2</sub> concentration caused by these emissions is still present in the atmosphere.<sup>80</sup> The decision this agency makes in 2006 will therefore still have implications for the warming the Earth experiences centuries from now.

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While global warming is very much a long-term problem, it is also one that calls for immediate action. The recent statement from the U.S. National Academy of Sciences and its counterpart academies from 10 other nations calls it "vital" to take immediate steps to reduce CO<sub>2</sub> emissions now because "[f]ailure to implement significant reductions in net greenhouse gas emissions now, will make the job much harder in the future."<sup>81</sup> Action taken now to reduce greenhouse emissions will lessen the rate and magnitude of climate change ahead; the academies note that a lack of full scientific certainty about some aspects of climate change is "not a reason for delaying an immediate response that will, at a reasonable cost, prevent dangerous anthropogenic interference with the climate system."<sup>82</sup>

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**4. The Commission must consider the cumulative and synergistic impact of Big Stone II's emissions along with those of other power plants.**

Both NEPA and the CEQ regulations require W APA to consider the cumulative effects of Big Stone II.<sup>33</sup> The CEQ regulations specifically state that an agency must consider cumulative actions and similar actions within the same EIS.<sup>34</sup> Therefore, W APA needs to consider the effects of Big Stone II in conjunction with other projects that also emit large

<sup>80</sup> IPCC Working Group I Summary for Policymakers, *supra* note 58, at 17.

<sup>81</sup> Joint Science Academies Statement, *supra* note 56.

<sup>82</sup> *Id.*

<sup>83</sup> See *Kleppe v. Sierra Club*, 427 U.S. 390, 412-15 (1976); *Thomas v. Peterson*, 753 F.2d 754, 757-58 (9<sup>th</sup> Cir. 1985); 40 C.F.R. § 1508.25(a)(2) (2006).

<sup>84</sup> 40 C.F.R. § 1508.25(a)(2), (a)(3) (2006).

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volumes of CO<sub>2</sub> in conjunction with an analysis of Big Stone II. President Carter made the CEQ regulations binding on administrative agencies, such as WAPA, through executive order. <sup>85</sup>

The cumulative impact of America's coal plants on global warming is, as Dr. Hausman testified, "staggering." The United States is the source of more greenhouse gas emissions than any nation by far, on both a per capita and total basis." We contribute 24% of world CO<sub>2</sub> emissions from fossil fuel consumption, and almost one-third of those emissions come from coal plants. <sup>87</sup>

The Project co-owners did not attempt in the SDPUC proceeding to rebut any of the evidence that global warming is a tremendous problem, that coal plants are a major cause of it, or that Big Stone II will greatly increase South Dakota's contribution to it for many decades to come (indeed centuries, considering the lingering impact of its emissions). They are apparently content to point out that Big Stone II will amount to just a fraction of global anthropogenic emissions.<sup>88</sup> Their cavalier dismissal of the biggest contribution South Dakota has ever made to this severe and urgent environmental threat runs counter to WAPA's environmental review requirement that long-term and cumulative environmental impacts be considered.

Moreover, Project proponents overlook the fact that a fractional share of a huge problem can be very significant indeed. If global warming were a small problem, then Big Stone II's share of it would indeed constitute a small amount of environmental harm. As the record shows, though, global warming is a problem of overwhelming proportions, and even a fractional share

<sup>85</sup> See Exec. Order No. 11991, 3 C.F.R. Comp. 123 (1978).

<sup>86</sup> Testimony of Dr. Hausman, *supra* note 53, at 25, 1. 23-26.

<sup>87</sup> *Id.*

<sup>88</sup> Testimony of Ward Uggerud, *supra* note 71, at 6, 1. 9-18.



of the damages associated with it represents an enormous amount of environmental damage. Just how enormous is indicated by the testimony of SD PUC Staff witness Dr. Olesya Denney, discussed further below. Dr. Denney's testimony is available on the South Dakota PUC website at <http://www.state.sd.us/puc/commission!dockets/electric/2005/EL05-022/ELOS-022.htm>.<sup>89</sup>

**5. Big Stone II's global warming emissions would cause enormous damage to the environment.**

SDPUC Staff's analysis of the environmental damage caused by Big Stone II's CO<sub>2</sub> emissions shows that *Big Stone II will cause from tens of millions to billions of dollars worth of environmental damage.*<sup>90</sup>

In the absence of any calculation of Big Stone II's environmental impacts by Co-Owners, SDPUC Staff conducted its own calculation, beginning with a survey of existing environmental externality estimates per unit of air emissions.<sup>91</sup> It relied mainly on an EPA survey of externality studies that shows costs per ton of CO<sub>2</sub> ranging from \$1.50 to \$51.00 dollars per ton of CO<sub>2</sub> emitted.<sup>92</sup> SDPUC Staff also calculated externalities costs using the average of EPA's high and

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<sup>89</sup> Dr. Denney's testimony is available through the links to Staff's Exhibit 2 and Staff's Exhibit 3.

<sup>90</sup> Testimony of Dr. Olesya Denney, SD PUC EL05-022, at 38, l. 4-8 and Table 6A (May 19, 2006), *available at* <http://www.state.sd.us/puc/commission/dockets/electric/2005/el05022/hearing/exhibitstaff2.pdf>.

<sup>91</sup> *Id.* at 22-23. Environmental externalities represent environmental impacts that are not reflected in the costs of the party that causes the impact. *Id.* at 23. They are completely different from the future CO<sub>2</sub> regulatory costs projected and discussed by Joint Intervenors; the latter, by definition, are costs that coal plants are expected to pay in the future. The Project proponents' persistent efforts to suggest that environmental costs (borne by the world at large) and future regulatory costs (to be borne by the Project) are the same and suggest a failure to take seriously either environmental damages or financial risk.

<sup>92</sup> *Id.* at 25.

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low values, and using an example state "midrange value" of \$8 per ton of CO<sub>2</sub>.<sup>93</sup> In addition, SD PUC Staff calculated the CO<sub>2</sub> damages using a 3% discount rate rather than the 10% discount rate used in SD PUC Staffs base case analyses.<sup>94</sup> Joint Commenters strongly agree with the position described by SD PUC Staff that it is inappropriate to discount the health and well-being of future generations as deeply as the 10% discount rate does. The 3 % "social discount rate" which SD PUC Staff notes is used by EPA in its cost-benefit analyses, is far more appropriate when discussing long-term global damages.

Although there is a wide range of quantified CO<sub>2</sub> environmental damages SD PUC Staff reviewed and applied to Big Stone II, depending on the CO<sub>2</sub> cost value chosen and the discount rate applied, the environmental damages of Big Stone II are enormous even when one focuses analysis on the lower end of SD PUC Staffs range of values.<sup>95</sup> For example, the low EPA value for annual CO<sub>2</sub> damages (\$1.50 per ton) associated with Big Stone II (at 4.36 million tons CO<sub>2</sub> per year), yields \$50,098,876 in CO<sub>2</sub> damages over 40 years of plant operation at a 10% discount rate.<sup>96</sup> Applying a 3% discount rate, these minimum EPA-quantified damages increase to \$154,043,273.<sup>97</sup> Using the Minnesota PUC externality value of \$3.64 per ton of CO<sub>2</sub> would

<sup>93</sup> *Id.* at 25, 29 and 33.

<sup>94</sup> *Id.* at 40-41.

<sup>95</sup> We note that in calculating Big Stone II's environmental damages, Staff underestimates Big Stone II's CO<sub>2</sub> emissions, counting them as only 4,363,868 tons per year, *id.*, at 25 (Table 3), rather than at the approximately 4.7 million tons per year that Co-owners state it will emit. We also note that Staff's cumulative damages assume only forty years of operation, which would be a short lifetime judging by coal plants in operation today.

<sup>96</sup> Testimony of Dr. Denney, *supra* note 83, at Table 6A (calculation derived from subtracting "Lower Boundary" Total Externalities Excluding CO<sub>2</sub> from Total Externalities Including CO<sub>2</sub>).

<sup>97</sup> *Id.*, at Table 7A (calculation derived from subtracting "Lower Boundary" Total Externalities Excluding CO<sub>2</sub> from Total Externalities Including CO<sub>2</sub>).

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obviously more than double the low-end EPA damages. The California PUC value of \$8.00 per ton of CO<sub>2</sub> would obviously double again the Minnesota-based calculation of damages. Clearly, even using any of these low externalities values shows hundreds of millions of dollars of environmental damage from Big Stone II's CO<sub>2</sub> emissions. Using an average of high and low EPA values (\$26.00 per ton) would easily put Big Stone II damages into the billions of dollars. The highest level of damages SD PUC Staff reviewed (EPA's \$51 value) represents five billion dollars worth of cumulative harm caused by the CO<sub>2</sub> emissions of this one plant.<sup>98</sup>

In stark contrast to Project proponents' attempts to dismiss Big Stone II's global warming impacts as minimal, SD PUC Staff's calculations demonstrate that Big Stone II poses a threat of serious injury to the environment even under the most optimistic of assumptions.

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**6. The DEIS failed to adequately consider the impacts of mercury emissions.**

Because WAP A accepted that the no action alternative would provide no benefit to emissions control, the DEIS falsely concluded that Big Stone II "would not cause or contribute to a significant degradation of ambient air quality" and would have "no significant impacts from the emissions of Hazardous Air Pollutants, including mercury."<sup>99</sup> WAPA partially based this judgment based on deference to South Dakota, which it expected would adequately constrain the plant's prospective emissions.<sup>100</sup> [The SDPUC, however, accepted the Co-Owners entire proposal without concern for the

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three years of toxic pollutants such as mercury that comes with it. In fact, the SDPUC did not even seriously consider mercury emissions because those

<sup>98</sup> *Id.* (calculation derived from "Upper Boundary" totals for CO<sub>2</sub> externalities.

<sup>99</sup> DEIS at ES-29.

<sup>100</sup> *Id.*

O-3ak

emissions would likely not affect South Dakota residents, but rather Minnesota residents and others downwind of Big Stone II.] [Because of this situation, and because NEPA requires meaningful consideration of environmental impacts, it is up to WAPA to meaningfully consider mercury fallout in an EIS.]

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The DEIS also concluded that mercury emissions are now problematic because of the upcoming USEPA Clean Air Mercury Rule (CAMR).<sup>101</sup> The DEIS did note that Big Stone II would have a significant impact on air quality if the mercury emissions would result in a violation of CAMR.<sup>102</sup> WAPA needs to consider the effects of mercury emissions in a meaningful way because Big Stone II does not plan to meet the limit its emissions to the CAMR budget allocation to South Dakota.

During its first three years of operation, Big Stone II will greatly exceed the EPA's mercury emissions allocation for South Dakota, and indeed, during that time period, the Project does not commit to emissions of less than 330 pounds of mercury per year for just the new Big Stone II unit.<sup>103</sup> While the EPA has established a South Dakota "budget" of 144 pounds per year of mercury emissions for 2010-20 17, Co-Owners seek "flexibility" to exceed South Dakota's

<sup>101</sup> DEIS at 3-6 and 4-3.

<sup>102</sup> DEIS at 4-4.

<sup>103</sup> The only enforceable requirement that impacts Big Stone II's mercury emissions level in the first three years of operation is the CAMR New Source Performance Standard, which would limit Big Stone II emissions of mercury to 330 lbs/year, to be added to that emitted by Big Stone Unit I, which in 2004 was about 189 lbs., for a site total of about 500 lbs. See, *supra* n. 1 and Direct Testimony of Ward Uggerud, SD PUC EL05-022, at 2-3 (March 15, 2006), available at <http://www.state.sd.us/puc/commission/dockets/electric/2005/e105-022/ApplicantsEX01.pdf>.

mercury allocation by well over 350 pounds of mercury per year for the first three years of operation.<sup>104</sup>

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The costs of Big Stone II's annual mercury emissions are nontrivial. According to a SDPUC Staff witness, the average cost of the annual environmental damage associated with Big Stone II's mercury emissions is equal to \$3,953,015, meaning that the proposed project's mercury emissions will cost \$11,859,045 over its first three years of operation.<sup>105</sup> Based on the SDPUC Staff's higher cost scenario of mercury emissions damages, costs could run as high as \$22,203,525 over these first three years.<sup>106</sup>

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While Project proponents have agreed to a voluntary emissions cap after the first three years of operation, it is uncertain how or if they will be able to meet this cap. According to Dr. Denney, "Co-Owners do not know specifically how the commitment will be met, but rather gamble that by 2014 some mercury-control technology will become commercially available."<sup>107</sup> Even if mercury-control technology is available, Project co-owners do not know if they will be able to afford it. Given these uncertainties, it is possible that the Project will have to cut plant output in order to meet the voluntary emissions cap.

<sup>104</sup> This number equals the difference between projected emissions for Big Stone I and Big Stone II and the mercury emissions budget for South Dakota. Emissions of 330 pounds per year for Big Stone II and 189 pounds per year for Big Stone I were assumed. The Project can still comply with the federal CAMR rule by purchasing "credits", rather than reducing mercury emissions.

<sup>105</sup> Testimony of Dr. Denney, *supra* note 83, Table 4 (based on pre-June 2006 CAMR New Source Performance Standard, which was relaxed in June 2006 to allow higher mercury emissions from new sources).

<sup>106</sup> *Id.*

<sup>107</sup> Surrebuttal Testimony of Dr. Denney. SD PUC EL05-022, at 16, 1. 5-7 (June 19, 2006), available at <http://www.state.sd.us/puc/commission/dockets/electric/2005/e105-022/hearing/exhibitstaffJ.pdf>.

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Even after three years have passed and Big Stone II falls under its voluntary emissions cap, South Dakota mercury emissions are estimated to be approximately the *same level* they are today.<sup>108</sup> The purpose of new federal regulations of mercury emissions at power plants is quite obviously to *reduce* mercury emitted from the electricity sector across the nation, not to maintain the status quo. The health risks are too grave.

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The DEIS also failed to adequately examine the fate of mercury emissions from this plant, and in particular, where and to what extent will it come to rest in Minnesota's or other wetlands, lakes or other water bodies. In the final EIS, WAPA should include a more detailed analysis of mercury fallout.

**7. WAPA Should Incorporate the Analysis of the Minnesota Department of Natural Resources Regarding the Project's Impact on Water Supply and Quality.**

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On June 30, 2006, the Minnesota Department of Natural Resources (MDNR), sent formal correspondence to the South Dakota Water Management Board regarding its concerns with the amount and water quality impact of the Project's proposed increased water withdrawals from Big Stone Lake. The MDNR requested that the South Dakota - Minnesota boundary waters commission be convened to discuss its concerns. Joint Commenters request that WAPA review the MDNR's comments regarding the Project's impact on water quantity and quality.

To summarize some of the MDNR's points, the agency stated to South Dakota regulators that Big S tone Lake is a shallow lake that provides a premier fishery and is one of the largest recreational lakes in Minnesota. The proposed Project appropriation represents approximately

<sup>108</sup> The Project's consolation that "at least mercury emissions aren't going to get worse" after the first three years of commercial operation of Big Stone II is not persuasive; it would have been far easier to substantially reduce existing mercury emissions of Big Stone Unit I, without more than doubling the size of the coal-fired source next door.

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20-35% of the total lake volume based on historic water levels. Consequently the withdrawal of this volume of water has the potential to significantly affect the ecology and recreational suitability of Big Stone Lake. For instance, the water draw down model developed by Barr Engineering indicates water levels on Big Stone Lake will be lowered 6-12 inches several times per decade due to the Big Stone Plant withdrawals. According to MDNR, this increases the potential for winterkill, elevates water temperatures; increases internal loading from nutrient enriched lake sediments, and increases algal production. Further, it reduces access to open water in shallow areas of the lake and increases the potential for navigational hazards caused by near surface rocks.

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The MDNR voiced its concerns that steady demand of water for a base load power plant will increase during hotter and dryer climatic periods and concerns about emergency needs for cooling water for essential power production during these periods.

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Further, the MDNR observed that under the Project proposal, there will also be impacts to the Minnesota River which depends on outflows from its upstream watersheds to maintain exceptional aquatic ecosystems for which countless federal, state and local dollars have been invested (Big Stone National Wildlife Refuge and Lac Qui Parle State Wildlife Management Area). This new volume of appropriation, in combination with previous alterations to the Big Stone Lake dam elevation have significantly changed the hydrologic implications for flows from Big Stone Lake to the downstream river system in both quantity and quality. The reduction in the volume and frequency of cleaner water from the Big Stone Lake watershed coupled with hyper-eutrophic waters of the Whetstone creates conditions that are significantly more deleterious to the downstream aquatic ecosystems. The raising of the May - September water level control elevation from 967 to 968 substantially reduced the amount of outflow that can

occur from the lake to feed downstream flow needs. The additional reduction of up to 10,000 acre-feet of water for consumptive use for the power plant will further impact frequency and duration of outflows from the lake and is well documented as part of the Barr Engineering analyses.

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The MDNR also alerted the South Dakota Water Management Board to the fact that the water quality of the discharge from the Whetstone River is very poor compared to water quality in Big Stone Lake. Winter kill, summer kill and spawning success concerns for the fishery will increase with a greater percentage of the Whetstone River flows making up the available waters for the Minnesota River.

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In a re-issued DEIS, WAPA should examine the impacts that MDNR raised regarding the Project in its June 30, 2006, correspondence to the South Dakota regulators, and analyze available mitigation measures.

#### **CONCLUSION**

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For the foregoing reasons, Joint Commenters request that WAPA withdraw the DEIS for the Big Stone II Project, and reissue a revised draft document. Even ignoring the fact that the DEIS does not adequately analyze alternatives to the Project, nor the environmental impacts of the Project, the now public information that the entire cost basis for the Project is obsolete, requires new analysis. At a minimum, WAP A will need to reissue a draft statement that includes the Project's revised, substantially escalated costs, and evaluate alternatives in that context. As discussed in these comments, however, other fatal flaws exist in the current DEIS, and justify the statement's withdrawal, reissuing a new DEIS to comply with NEPA and its implementing regulations.



Dated: July 24, 2006

Respectfully submitted,

*lsi*

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Attorney for Izaak Walton League of America Midwest  
Office, Fresh Energy, Union of Concerned Scientists,  
and Minnesota Center for Environmental Advocacy



MRES - MINNESOTA RENEWABLE ENERGY SOCIETY, INC. CHAPTER OF THE AMERICAN  
SOLAR ENERGY SOCIETY

July 20, 2006

Ms. Nancy Werdel  
Western Area Power Administration  
Natural Resource Office - Big Stone II EIS, A7400  
P.O. Box 281213  
Lakewood, CO 80228-8213

Dear Ms. Werdel,

Attached please find the comments of the Minnesota Renewable Energy Society on the Draft Environmental Impact Statement for the proposed Big Stone II coal-fired generation unit.

O-4a

We find the DEIS seriously and surprisingly deficient on the indicated points. It is disappointing that WAPA would submit a document that clearly fails to meet the requirements both of NEPA, and of practical foresight and good sense.

We urge WAPA in the strongest terms to withdraw this EIS, producing in its place a supplemental EIS that fully addresses the issues cited.

Sincerely,



David Boyce, Chair

20 July 2006

*MINNESOTA RENEWABLE ENERGY SOCIETY COMMENTS ON WAPA DRAFT EIS, BIG STONE II POWER PLANT AND TRANSMISSION PROJECT*

**I. Overarching Failure to Address Primary Environmental Concerns Under NEPA**

O-4b

The WAPA Draft EIS wholly fails to address the implications of the fact that the Big Stone II facility will, if built and operated, singlehandedly increase by one-third South Dakota's emissions of carbon dioxide (CO<sub>2</sub>), the greenhouse gas most responsible for long-term global climate change - which has profound local and regional implications for South Dakota and neighboring states, for the nation, and for the planet entire.

O-4c

Total CO<sub>2</sub> emissions could be zero if the Big Stone Co-Owners had instead chosen to construct one or more renewable energy facilities - the most obvious option being windfarms, a proven technology for the geographic area in which the plant is sited: South Dakota hosts one of the greatest resources of wind on the face of the earth.

O-4d

The draft EIS nowhere analyzes such alternative technologies as wind power, instead opting -- in direct violation of both the spirit and the letter of NEPA - to passively accept the Co-Owners' assertion that a polluting, 600-megawatt, coal-fired power plant with a projected average annual output of 4.7 million tons of CO<sub>2</sub> is the necessary means of power production to fill an asserted but unproven need for additional generation. But "an agency may not define the objectives of its action in terms so unreasonably narrow that only one alternative ... would accomplish the goals of the agency's action, and the EIS would become a foreordained formality." [*Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 196 (D.C. Cir. 1991), cert. denied, 502 U.S. 994, 112 S. Ct. 616 (1991).]

O-4e

The possibility that the asserted need based on projected demand growth might be obviated by aggressive conservation and efficiency programs is likewise nowhere explored in the DEIS, despite the NEPA requirement to address all such reasonable alternatives. It is simply dismissed with the undocumented assertion that "additional conservation measures through demand side management would be insufficient to meet the proposed project purpose and need," again passively accepting without examination the Co-Owners' claim on a potentially vital issue.

O-4f

Demand-side management (DSM) is one of the most widely-accepted, first-recourse, and cost effective means of dealing with projected demand. To pass over, without exhaustive examination, both renewable technologies and DSM in favor of coal-fired power - especially in the face of an ever-growing body of evidence suggesting that climate change threatens regional and global meteorological stability, prospects for essential agriculture, public health (see item 3 below), and the very fabric of society and culture - is inexplicable.

## 2. Failure to Address Conflict with Environmental Laws of an Affected State

The state of Minnesota in 2006 - just months ago - passed a landmark law requiring its largest existing coal-fired power plants to dramatically reduce their emissions of toxic mercury within a decade. The existing, 450-megawatt Big Stone facility, were it sited approximately one mile east of its present location, would unquestionably have been brought under the requirements of this new legislation and would have been required to reduce its output of mercury by as much as 90 per cent by the end of 2014, to approximately 19 lbs.

[The Big Stone II Co-Owners, having originally projected initial, 2012 mercury emissions from the combined Big Stone I and Big Stone II units at 399 lbs./ year (p. 4-10), are cited in the DEIS as having the "goal" of reducing that amount - through the use of unspecified technologies and programs that may or may not include purchase of allowances under a cap-and-trade scheme - below the level of the existing facility (189 lbs.) to a level of 144 lbs., meeting the CAMR requirement This is later to be further offset via cap-and-trade - **but not actually reduced**, since cap-and-trade by its nature leaves existing emissions in place - to a level meeting the ultimate CAMR requirement of 56 lbs. after 2017.]

O-4h

This scenario evades the fact that under Minnesota law, the existing facility at Big Stone would have had to reduce its real output of mercury to a total of some 19 lbs. by 2014, while any new coal-fired facility in Minnesota - if permitted at all, which is arguable - would be required to meet an equally stringent standard. The total combined allowable real mercury emissions for Big Stone I and II by the end of 2014, were the units sited on the opposite side of Big Stone Lake, can reasonably be projected at less than 50 lbs.

O-4g

Yet this facility which is proposed to be sited directly on the Minnesota border, with planned connection to Minnesota's transmission lines, for the express purpose of serving Minnesota ratepayers, would output - indefinitely, thanks to the substitution of the proposed cap-and-trade program for actual emissions controls - real emissions of some three times the amount that would be allowed in Minnesota. These emissions would fall primarily on Minnesota thanks to the prevailing regional winds. Recent studies in Ohio, Massachusetts, and the Lake Michigan basin, and earlier experience in Florida, make it plain that far more mercury - nearly 70 per cent in the case of the much-publicized 2003-2004 Steubenville, Ohio, study - tends to fall to earth within a few score miles of a coal-fired source than is transported long-distance and more widely dispersed. Minnesota's waterways - as noted in the DEIS (p. 4-26) - are already seriously degraded by mercury deposition; additional loading is unacceptable: the widely-known EPA calculation is that an annual contamination rate of .002 lb. - i.e., as little as 1/70th of a teaspoon of mercury - can contaminate a 20-acre lake to a level requiring a fish consumption advisory. Yet the DEIS opines that "long-term impacts to water resources due to air emissions from the existing and proposed plants would not be significant." (p.4-140) A real annual load upwards of 144 lbs., over the lifespan of the Big Stone facility, would amount conservatively to an added, cumulative burden of several tons of mercury - much of it deposited in central and southern Minnesota.

Under Council on Environmental Quality regulations [40 CFR 1500.4(n), 1506.2(b), and 1506.2(d)], such conflicts with state law must be addressed in any federal EIS. Notwithstanding that the state of Minnesota is, under its own Environmental Policy Act, developing an EIS on Big Stone II through the Department of Commerce, the WAPA DEIS offers nothing in the way of analysis of

O-4i

the conflict between the proposal for Big Stone II and the laws of the state of Minnesota, let alone any suggestion of how this evident conflict might be addressed and reconciled.

### 3. Failure to Fully Address Public Health Impacts and Economic Impacts

O-4j

Both the issue of global climate change and mercury deposition raised above have profound implications for public health and for the regional economy that are either ignored or insufficiently addressed in the DEIS - as are other externalities.

O-4k

The extraordinary onrushing impact of climate change on public health is increasingly well understood and well publicized, and ranges from the lethal impacts of summer heat waves especially on elder populations, and on those rendered most vulnerable by preexisting illness, as witnessed in both the Midwest and Western Europe in recent years - to the establishment of new vectors for disease as the ranges of both insect and microbial carriers expands. No mention of these or other health-related effects is made in the DEIS.

O-4l

The governor of Minnesota takes the issue of climate instability so seriously that he recently went on record, before a group of power company executives, warning them that a carbon tax - presumably at the federal level - will be coming their way in the near future. The DEIS declares that carbon-related costs are beyond its scope, and avoids any evaluation of the certain near-, mid-, and long-term additional carbon-related regional costs of choosing to construct a coal-fired power plant. It does, however, offer the observation that

According to DOE, current technology for CO2 capture and sequestration is not economically cost effective. Additionally, with the exception of enhanced oil recovery, none of the storage technologies have been developed past the conceptual stage. (p. 4-11)

O-4m

In other words, a power plant is proposed that will emit a staggering quantity of a pollutant that is of primary concern - in fact, of unspeakable significance - to society, for which no cost-effective, proven capture-and-disposal technology is currently available, and the DEIS for that plant addresses the scope of neither the environmental implications (see item 1 above), nor the implications for public health, nor the economic implications.

O-4n

[Concerning the health impacts of mercury pollution, the DEIS is simply dismissive - failing even to cite the well-known negative neurological consequences of mercury (this despite inclusion, among its References, of a government document spelling out those effects - see "Agency for Toxic Substances and Disease Registry (ATSDR), 1999a. ToxFAQs for Mercury" (p, 8-1)). It defends this negligence with the curious comment that mercury's effects "cannot be fully appraised or separated from those of other contaminants" (p. 4-128)]. [The fact that as much as 70 per cent of the plant's mercury output - given the

O-4o

results of the Ohio study noted in item 2 above - might fall on a state whose lakes are a virtual gauntlet of fish consumption advisories does not even bear mention.] [Instead, the DEIS insults both the intelligence of

O-4p

the reader, and established science, by suggesting that "public perception that mercury emissions may have contaminated fisheries" may be "founded or unfounded." (p. 4-128)

O-4q [Additionally, the DEIS makes no mention of the regional economic impact of the ever-increasing cost of coal (e.g., Powder River Basin coal has more than doubled in price over the last year) - nor of the ever-increasing cost of moving it, by rail, from the mine to the power plant.] [The railroads are

O-4r currently playing hardball with the regional power industry, to the point of holding shipments of coal below levels desired by power generators, with the intent of increasing charges for shipment as contracts once unfavorable to rail are renegotiated. What are the economic implications of this situation for the power companies and their ratepayers, and thus for the regional economy?]

O-4s Finally, externalities related to any and all other "backside" health impacts are simply ignored. A rather conservative estimate using established externalities values for new coal-fired power plants would suggest that a billion-dollar coal-plant project - even when fitted with modern pollution controls - is, over the probable half-century lifetime of the plant, likely to impose an additional dollar cost on society of at least half again that much via the health-impairing, often lethal impact of fine particulates and other pollutants (see e.g. Abt Associates, 2002; Burtraw & Toman, 1997) - even if one were shortsighted enough to set aside the extraordinary costs, and risks, to public health stemming from carbon dioxide emissions and global warming.

O-4t That WAPA would overlook or dismiss the above list of impacts - both economic and human - is both alarming, and potentially tragic.

## **BUSINESSES**

B-1. Big Stone II

B-2. Missouri River Energy Services

B-3. Rose Creek Anglers, Inc



# BIG STONE II

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OTTER TAIL POWER COMPANY, LEAD DEVELOPER  
CENTRAL MINNESOTA MUNICIPAL POWER AGENCY  
GREAT RIVER ENERGY  
HEARTLAND CONSUMERS POWER DISTRICT  
MISSOURI RIVER ENERGY SERVICES  
MONTANA-DAKOTA UTILITIES CO.  
SOUTHERN MINNESOTA MUNICIPAL POWER AGENCY

July 18, 2006

Ms Nancy Werdel  
NEPA Document Manger  
Western Area Power Administration  
P. O. Box 281213  
Lakewood, CO 80228-8213

Dear Ms. Werdel:

Subject: Draft Environmental Impact Statement DOE/EIS-0377  
Big Stone II Power Plant and Transmission Project

There are a number of project changes that are not currently in the above referenced Draft Environmental Impact Statement EIS but that need to be reflected in the final EIS. The following is a high level review of those changes. A list of the other corrections or changes is included in the enclosed document "Corrections – Draft Environmental Impact Statement Big Stone II Power Plant and Transmission Project."

Expansion of Plant Construction Laydown Area and Water Pipeline Routing Area

The plant construction area that is located south of 144<sup>th</sup> Street will be expanded east of the original area to allow for additional storage space in the construction laydown area and to accommodate a new rail delivery spur. (See Enclosed Drawings 142662-SS-0036, 142662-SS-0037, and Exhibit 1-2)

B-1a

A water pipeline corridor will be added that begins on the west side of the existing holding pond and then crosses 144th street and continues on to the makeup water storage pond. (See Drawing 142662-SS-0036)

Mercury

The Big Stone II co-owners have agreed to the following commitment with respect to mercury emissions:

B-1b

Big Stone II proposes to include in its South Dakota PSD Construction Permit a voluntary site mercury emission cap of 189 pounds per year provided the facilities are allowed a period of three years after commercial



operation date to test and implement commercially available, technically feasible mercury emissions control measures. This agreement is significant because, even though electrical output from the combined units will increase to 230% of current capacity, mercury emissions from both units will not increase above the amount emitted during 2004.

B-1c

Addition of Two Diesel-Fired Booster Fire Pumps

Two additional diesel-fired booster fire pumps will be added for fire protection. One booster pump will be installed for the boiler building and a second will be installed for the coal silos. The booster pumps are necessary because of the structure height.

Water Appropriation Volume

There are a number of revisions that reflect on-going project design with respect to water appropriations and pond storage volumes. The DEIS refers to a maximum water appropriation volume of 18,900 acre-feet per year in a couple of locations. The maximum water appropriation volume currently included in the draft water appropriations permit application is 18,000 acre-feet per year. The total plant site storage volume is **18,152** acre-feet based on the following pond sizes:

B-1d

Pond Name	Existing or Proposed	Approximate Volume (acre-feet)
Cooling Pond and Existing Makeup Pond	Existing	5,600
Evaporation Pond	Existing	1,436
Holding Pond	Existing	885
Bottom Ash Pond	Existing	21
Water Makeup Pond	Proposed	10,079 <sup>2</sup>
Cooling Tower Blowdown Pond	Proposed	130
TOTAL		18,152

B-1e

New Canby Substation

Rather than rebuilding the existing Canby Substation to accommodate the voltage increase and new transmission line, the substation would be relocated to Alternative C as shown on the enclosed map labeled Exhibit X Canby Substation Alternatives. The proposed site is within the existing transmission line corridor and is outside of the flood plain.

B-1f

Rerouting Portion of SD Transmission Line Outside of Existing Corridor

To address landowner concerns, it is necessary to route a small segment of the SD portion of the route outside of the existing corridor for somewhat more than one mile. This particular area is near a township correction line and at this location the existing corridor is only about 2.25 miles wide.

Enclosed are maps showing the corridor and the proposed line route. "Sheet 1 of 6 Detail Route Map" depicts the original line route in relation to the corridor boundary which is shown in yellow. "Sheet 2 Detailed Route Map" shows the revised route. Note that the line needs to move to the west of the farmstead that is located in the SE ¼ of the SW ¼ of Section 36 resulting a

Ms. Nancy Werdel  
July 18, 2006  
Page 3

deflection in the line immediately to the south in Section 6. HDR would be willing to provide additional information on Sections 3, 6, and 7 as necessary to document the impacts to the revised route.

Thank you for the opportunity of providing comments on the DEIS. It is of vital importance to the Big Stone II co-owners.

Sincerely,



Terry Graumann  
Manager, Environmental Services

Enclosures

C. Ivan Clark - R. W. Beck

**Corrections – Draft Environmental Impact Statement Big Stone II Power Plant and Transmission Project**

<b>Page No.</b>	<b>Section</b>	<b>Reference</b>
ES-10	ES.4.1	Revise site arrangement on Figure ES-2 to reflect the current configuration and location of the cooling tower, cooling tower blow pond, and the expanded construction laydown area (See Drawing 142662-SS-0036). Revise consistently throughout the document.
ES-12	ES.4.2.2 Transmission Alternative A	Suggest addition of a paragraph noting the construction of a new substation at Canby and that a portion of the substation would be built to accommodate future 345-kV operation (See last paragraph)
ES-18	Table ES-4 Air Quality	Add mercury to the list of emissions for which there will be no increase. Note also the Applicant's commitment to <b>voluntarily cap mercury emissions at 189 lbs. within 3 years of COD.</b>
2-3	2.2.1.2	Suggest addition of wording noting that additional property may be purchased as a plant site buffer.
2-5	2.2.1.2	Correct the location of the coal handling facility on Figure 2.2-2. Apply consistently throughout the document.
2-10	2.2.1.3 Last two paragraphs	As a result of recent New Source Performance Standard Rules regulating internal combustion engines, the diesel generators and the fire pumps will use catalyzed particulate filters for emission controls. There will be three fire pumps. Primary pump as described and a booster pump for boiler building and a booster pump for the coal silos.
2-12	2.2.1.5	First bullet- Reference <b>75,000</b> tons emergency stock-out; Second bullet – Reference coal storage silos <b>65</b> feet in diameter and <b>225</b> feet in height; Second to last paragraph – storage of <b>8,000</b> tons of limestone stored in a covered <b>hooped storage building.</b>
2-15	2.2.1.5	Superscript <sup>d</sup> under Location for Sodium Chloride.
2-20	2.2.2	Reference location of new Canby Substation on Figure 2.2-7.
2-21	2.2.2	Reference location of new Canby Substation on Figure 2.2-8.
2-28	2.2.3	Reference new Canby Substation under "Additions and Modifications to Non-Western owned Facilities"
2-46	2.3.4.1	Reference location of new Canby Substation on Figure 2.3-1.
2-47	2.3.4.1	Reference location of new Canby Substation on Figure 2.3-2.
2-48	2.3.4.1	Reference location of new Canby Substation on Figure

B-1g

B-1g  
(cont'd)

		2.3-3.
2-49	2.3.4.2	Add some wording about the new Canby Substation in second to last paragraphs
2-66	Table 2.6-1	Revise consistent with Table ES-4
3-9	3.2.1	Reference location of new Canby Substation on Figure 3.2-1
3-16	3.2.2.3	Reference revised site arrangement on Figure 3.2-3.
3-26 through 3-29	3.3.2.3	Reference revised site arrangement on Figure 3.3-1 through Figure 3.3-4
3-33	3.3.3.3 Substation discussion	Provide a description of the soils at the new Canby Substation site
3-108	3.8.1	Revise the last sentence under Infrastructure to read as follows: "Few .....; six of the primary cities are Morris, Willmar, Ortonville, and Granite Falls, Minnesota, and Big Stone City and Milbank, South Dakota."
4-1	4.0	Reference new Canby Substation in third paragraph.
4-3	4.1.1	Reference inserting <b>be</b> in sentence in first line of the page. "Significance levels, as defined in the PSD rules, are to be differentiated ..."
4-6	4.1.2	Include revised totals in Table 4.1-3 once they have been verified by OTP.
4-7	4.1.2	Include revised modeling results in Table 4.1-4 once they have been completed by OTP.
4-9 and 4-10	4.1.2	Include discussion of commitment to voluntary mercury cap discussion.
4-10	Table 4.1-6	Add Voluntary Cap of 189 pounds in 2014 and a rate of $2.33 \times 10^{-5}$
4-12	4.1.2	Correct to reflect fire pumps in bullet list and in the second complete sentence on the page
4-12	Table 4.1-7	Revise PM10 emission rates consistent with new equipment and fugitive emission rates from the roads once they have been verified by OTP
4-13	4.1.2	Reference no increase in SO <sub>2</sub> , NO <sub>x</sub> and mercury in Summary of Impacts.
4-18	4.2.2	Clearly define the basis of the acres in the second paragraph (surface acres?, disturbed area?) 450 surface acres for makeup wate storage pond, 15.22 surface acres for cooling tower blowdown pond,. Note also that there would be one and possibly two new brine concentrators.
4-19	4.2.2.1	Note that an alternative domestic water source for construction and operation is the Big Stone City municipal water system.
4-19	4.2.2.1	Note that an alternative sanitary sewage treatment system for construction and operation is the Big Stone City municipal treatment system.
4-20	4.2.2.1	Fifth paragraph second sentence revise to read as

B-1g  
(cont'd)

		follows: Runoff that currently collects near the existing landfill area would be reclaimed, pumped out to the pond system, or evaporated.
4-23	4.2.2.3	<del>Barr updating.</del>
4-24	4.2.2.3	<del>Barr updating.</del>
4-26	4.2.2.3	Reference voluntary mercury cap
4-29	4.2.3.1	Reference new Canby Substation.
4-35	4.3.2.3	Revise acreage in third line to reflect expanded laydown area.
4-38	4.3.3.3	Reference new Canby Substation?
4-46	Table 4.4.-1	Update acreages to include the temporary impacts of the water pipelines and the expanded construction laydown area. Update text accordingly
4-50	4.4.2.3	<del>Barr updating</del>
4-58	Table 4.4-3	This table appears to be misplaced. It should be in the transmission area and not the plant area.
4-63	4.4.3.1	Reference new Canby Substation.
4-65	4.4.3.2	Reference new Canby Substation.
4-80	4.5.3	Reference new Canby Substation.
4-86	Table 4.7-1	Revised consistent with the change in construction laydown and water pipeline installation
4-86	Table 4.7-2	Revised consistent with the change in construction laydown and water pipeline installation
4-87	Table 4.7-3	Revised consistent with the change in construction laydown and water pipeline installation
4-89	4.7.3.1	Reference new Canby Substation in first paragraph under substations.
4-128	4.11.2.1	Reference mercury cap.
4-133	4.12.3	Include description of new Canby Substation – See enclosure
4-138	4.12.4	Reference mercury cap.

### Description of New Canby Substation

New Canby Substation would be approximately 600' x 600' and constructed on approximately 57 acres located in the SW 1/4 Section 19, Twn. 115, Range 44 of Yellow Medicine county. This is approximately 1 mile Northeast of the existing substation along highway 75. The substation initially will house a 230/115/41.6kv transformer, 2-230kv lines, two 115kv lines and two 41.6kv lines. The 230kv portion of the substation will likely be constructed with 345kv equipment to match the rating of the Big Stone to Granite Falls transmission line. This substation will have provisions for a second transformer to allow for future developments in the area.



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July 3, 2006

Ms. Nancy Werdel  
NEPA Document Manager  
Big Stone II EIS, A 7400  
Western Area Power Administrator  
PO Box 281213  
Lakewood CO 80228-8213

RE: *Big Stone II Power Plant and Transmission Project. South Dakota and Minnesota, DOE/EIS-0377*

Dear Ms. Werdel:

Missouri River Energy Services (MRES) welcomes this opportunity to submit written comments into the record on the Draft Environmental Impact Statement in the above captioned docket.

MRES is a not-for-profit joint-action agency serving 60 member communities in Iowa, Minnesota, North Dakota and South Dakota. MRES is a consumer-owned utility and all of our municipal utility members are also owned by the consumers they serve. The MRES board of directors is composed of 13 board members. All of these board members live in the respective communities that they represent and each of these individuals work for the municipal utility of their community.

The MRES board is the governing body of our organization. The board members have been elected from the ranks of the membership, and are responsible for making resource decisions and investments that will ultimately be recovered from the consumer-owners, i.e. the municipal utility members themselves. The MRES board participated in the discussions concerning investment in BSP II, provided the membership with information concerning the project, and passed specific motions in support of the BSP II project.

The nature of consumer-owned utilities like MRES is that there is no separation between ratepayer and shareholder; the people who pay the bills are the people who own the utility. It is that local control over the decision-making that distinguishes not-for-profit public power utilities from others in the industry. The members of MRES, along with their respective boards of directors, have been informed of, and involved in, the analysis and selection of Big Stone II as the most reliable, yet cost-effective, source of baseload power to meet their own growing consumer demands.

B-2a

As evidence of that support, a number of MRES member communities have taken the added step of expressing their support of the Big Stone II project formally. At this time, as part of our comments, we submit the enclosed copies of Resolutions of Support passed by fourteen MRES

member communities in the state of Minnesota. These Resolutions of Support are formal indications of the backing that the Big Stone II Project has from the communities that will ultimately benefit from it. The Resolutions provided here are from the Minnesota communities of Alexandria, Benson, Breckenridge, Detroit Lakes, Jackson, Lakefield, Luverne, Marshall, Madison, Melrose, Ortonville, Sauk Centre, Wadena, and Worthington.

MRES is pleased to have the continued support of its member communities. Because the electric demands of cities such as these continue to grow, MRES has joined the participants in the Big Stone II Plant and Transmission Project. This project will bring MRES members reliable, costeffective baseload power to meet future power needs in an environmentally sound manner.

Thank you again for this opportunity to comment.

Sincerely,

A handwritten signature in black ink, appearing to read "Bill Radio". The signature is fluid and cursive, written in a professional style.

Bill Radio  
Director, Member and Public Relations

Enclosures

c: Todd Guerrero



Rose Creek Anglers, Inc.

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19 July, 2006

Nancy Werdel  
Western Area Power Administration  
Natural Resource Office Big Stone II EIS, A7400  
P.O. Box 281213  
Lakewood, CO 80228-8213

Dear Ms Werdel,

B-3a [On June 3,2006, I had the pleasure of touring the Big Stone Power Plant. There is no doubt that company officials at Otter Tail Power have calculated a number of options to meet the energy needs of its customers. All of the questions asked while touring the plant confirmed this. As company management stated, even though electricity demands are not growing as fast as in previous decades, more generating capacity will be needed in the future.]

B-3b [I am reasonably confident that the decision making process to expand the plant was performed with a typical committee agenda in which the objectives were categorized into "musts" and "wants", the "wants" being further sub-categorized with a weight value of importance. Because emitting zero emissions is obviously not going to be in the "must" column, Otter Tail officials have expressed their desire to place a high weight value on reducing emissions.] [My engineering background advises me to completely analyze the

B-3c [effects of this proposed expansion. It is very important that a number of questions are thoroughly addressed before proceeding with an expansion of coal utilization.]

B-3d [I highly believe that the proposed emission reductions will not be enough to negate current threats to our fisheries and our health?] [Minnesota has initiated dramatic emission

B-3e [reductions from coal burning power plants in the last few years. The Minnesota PUC approved the MERP (Metro Emission Reduction Project) proposal in December 2003. This project will convert two power plants from coal to natural gas, which will greatly reduce

B-3f [mercury, sulfur dioxide and nitrogen oxides.] [The EPA has begun to respond to this growing threat to our health and has mandated that coal fired power plants reduce their

B-3g [mercury emissions by 70% by the year 2017.] [Many leading scientists feel while this is a meaningful first step, it will not be nearly enough to resolve the magnitude of the problem.]

B-3h [Otter Tail Power currently emits approximately 189 pounds of mercury from the existing Big Stone plant. It is proposing to emit the same quantity from both the existing and new plants combined. This would not comply with the EPA's mercury ruling of a 70% reduction in mercury. In Minnesota, as well as many other states, we have a state-wide

fish consumption advisory due to mercury contamination and we realize that dramatic reductions of mercury emissions are required to reverse the situation.

Big Stone's plan will not meet the EPA's target nor will it help to resolve this problem. Many states have taken initiatives to cut mercury emissions ahead of the lenient federal standard. South Dakota is not one of them. Minnesota recently passed one of the most restrictive mercury emission laws in the country, which will reduce mercury emissions by 90% on its three largest emitting plants by the year 2012. This law, however, unfortunately will not affect the Big Stone plant.

B-3i It appears to me that the Big Stone plant is attempting to transmit their electricity into Minnesota without a reasonable plan for the future. We make strides in solving a problem with some great initiatives and now we will be taking steps backwards to negate them. It is a silly sight to see a dog futilely chasing its tail, but this is precisely what we will be doing if we allow transmission lines from Big Stone II into our state.

B-3j [As a manufacturer of angling products, and a concerned citizen, I am very worried about sulfur dioxide emissions because of the threat of acid rain. Besides being the single largest contributor to our nation's mercury contamination, coal burning power plants are also the largest contributor to acid rain.] This issue has not received much attention lately, but the problem has not gone away. The Atlantic Salmon Federation has published several articles on this subject and researchers have revealed some troubling findings. A pH of 5.5 hinders reproduction of Atlantic salmon and a pH of 5.0 is toxic. 14 once fabled rivers in Nova Scotia now have a pH of less than 4.7 and salmon have become extinct. Studies have also shown that acidic water leaches elements such as aluminum which can be toxic. Aluminum is normally bound to soil particles and is not available to fish, but is mobilized in water of low pH.

The Wisconsin DNR has reported that 2% of its lakes are acid and its Surface Water Resources Data Base also states that 10% of the state's lakes are "extremely sensitive" with an additional 25% considered "moderately sensitive" to acid deposition. Their research has also found that waters that have low pH enhance the conversion of mercury to methyl mercury which is a potent neurotoxin.

Electric utilities boast about the 50% reduction in sulfur dioxide emissions since the "New Source Review" was added to the Clean Air Act in the late 1970's. If we drastically increase the use of coal, which will happen if over 100 proposed coal burning projects are approved, what does that do to our 50% reduction? Once again we are chasing our tail.

B-3k There are a number of costs related to this proposal that are not being adequately addressed. With Carbon Dioxide levels increasing in the atmosphere, there is a rapid growing concern of this waste product. Coal-fired power plants emit approximately one third of the Carbon Dioxide gases and Otter Tail officials do not offer any way of eliminating this problem. Most European countries already have an average surcharge of

\$20 US per ton, and with all of the scientific reports that have been published recently, it will not be long before there are penalties for big emitters.

B-3l [ We have seen incredible advances recently in energy technology. Hybrid cars are becoming quite common, plug-in hybrids will be available in the near future and fuel cell buses are used in some cities. The automotive industry has learned that energy efficiency is the future. Why do we want to commit ourselves to inefficient old technology, especially technology that creates so many environmental problems, by expanding the use of coal? ]

B-3m [The time is now to change the path on which we are traveling. We need to reduce our dependency on fossil fuels, especially on the worst polluting of all- coal.] [We need to

B-3n [implement new technology to burn the coal that we are burning cleaner and more efficiently.] [We need to take a new route of renewable resources such as wind and ] B-3o

B-3p [biomass.] [We need to put the health of our children ahead of an energy source which is cheap to produce in the short run but tremendously expensive in the long run when we have the wisdom to consider all the truly expensive external costs associated with its production.]

Minnesota has much at stake with our 10,000 plus lakes and we do not want to transmit electricity into our state from an upwind high pollution source.

Sincerely,

Rich Femling

## INDIVIDUALS

- I-1. Lori Askelin
- I-2. Lois Braun
- I-3. Alese Colehour
- I-4. Keith Davison
- I-5. Beverly Falk
- I-6. Jim Falk
- I-7. Wendell Falk
- I-8. Joe Foss
- I-9. Sergio Gaitan
- I-10. Susan Granger
- I-11. Merle Greene
- I-12. Thomas A. Hillenbrand
- I-13. Patrick Johnson
- I-14. Glenn Joplin
- I-15. Scott Kelly
- I-16. Pete Kennedy
- I-17. Jeanne Koster
- I-18. Daniel and Ruth Krause
- I-19. Richard L. Kroger
- I-20. Gil Lanners
- I-21. Terry Makepeace
- I-22. Ellen Mamer
- I-23. Stacy Miller
- I-24. Becca Orrick
- I-25. Carol Overland
- I-26. Elsie Perrine
- I-27. Elizabeth Smith
- I-28. Roy Smith
- I-29. Gerald L. Steele
- I-30. Gregory Stricherz
- I-31. Brynan Thornton
- I-32. Richard Unger
- I-33. Judith Webster
- I-34. Nancy Wilson
- I-35. Jessica Zupp
- I-36. Joe Erjavec, et al

**To:** <BigStoneEIS@wapa.gov>  
**Date:** Wed, Jul 19, 2006 7:43 AM  
**Subject:** Comments on the Big Stone II WAPA Draft Environmental Impact Statement

Ms. Werdel

Regarding the WAPA Draft Environmental Impact Statement for the proposed Big Stone II coal plant expansion. I am very upset with the proposed expansion and how it will affect Minnesota's environment and our health.

Several aspects of the DEIS are inadequate,

- I-1a 1. It doesn't provide an adequate analysis of alternatives to Big Stone II, such as wind and solar development. These alternatives would reduce the environmental impacts and need to be analyzed more closely.
- I-1b 2. It doesn't look at the costs related to future operation and expansion of a coal plant, including the rising cost of coal and gasoline for its transport, the likelihood of future regulation of carbon dioxide, and the significant social costs.
- I-1c 3. It doesn't adequately take into account the implications of the expansion of the coal plant and the impact on human health.
- I-1d 4. It states that Big Stone II would emit 8.9 million tons of carbon dioxide every year, making a serious contribution to global warming.
- I-1e I strongly oppose the expansion of this new coal plant, and transmission lines to serve it. The WAPA DEIS should reflect the extensive health and environmental damage Big Stone II will create, and propose alternatives to its construction.

Thank you for your time and consideration on this matter.

Lori Askelin  
Roseville, MN

**To:** <BigStoneEIS@wapa.gov>  
**Date:** Wed, Jul 19, 2006 5:31 PM  
**Subject:** Comments on the Big Stone II WAPA Draft Environmental Impact Statement

Ms. Werdel

I am writing to comment on the WAPA Draft Environmental Impact Statement for the proposed Big Stone II coal plant expansion.

I oppose this proposed expansion on the following grounds:

I-2a

1) It will increase emissions of greenhouse gases at a rate of 8.9 million tons per year, this at a time when we are already seeing the effects of global warming. We need to be reducing, not increasing CO2 emissions.

I-2b

2) The DEIS does not adequately explain how it will mitigate mercury emissions. Mercury is a serious human health hazard, which disproportionally affects women, children and native peoples who fish for subsistence.

I-2c

3) The health costs of burning coal are astronomical. A recent report from IATP and MCEA found that every year Minnesota alone spends \$303 million on neurobehavioral disorders, and \$30.6 million on asthma in Minnesotan children. Mercury and particulate matter from coal plant emissions contribute significantly to these illnesses.

I-2d

4) Finally, in an age of declining fossil fuel supplies it is imperative that we invest our resources in developing clean renewable energy systems, such as wind, solar, energy efficiency, and demand-side power management. These alternatives have not been adequately examined in your DEIS. I suspect that if they had, you would find that there is no need to expand the Big Stone II coal plant.

Thank you for your time and consideration on this matter.

Lois Braun  
St. Paul, MN

**To:** "bigstoneeis@wapa.gov" <bigstoneeis@wapa.gov>  
**Date:** Mon, Jul 24, 2006 9:37 AM  
**Subject:** No more coal!

I-3a

Scientists, doctors, and everyday citizens have researched and observed the negative effects of fossil fuels on our health and environment. Why do we still consider putting more into the air, water, and subsequently our bodies!  
It is time to modernize and consider renewable energy sources for our future.

Please help put an end to this absurdity.

Thank you

Alese Colehour  
Minnetonka, MN

Keith C. Davison  
Morris, Minnesota

July 19, 2006

Nancy Werdel  
Western Area Power Administration  
Natural Resource Office  
P.O. Box 281213  
Lakewood, CO 80228-8213

Re: Big Stone II EIS, A7400

We live in western Minnesota, near the South Dakota border. We are also stockholders in Otter Tail Power.

- I-4a [ Otter Tail should be focusing on alternative sources of power, not engaging in construction of coal fired plants. Big Stone II will send more pollutants, including mercury, into the atmosphere. Just
- I-4b [ because the plant is barely into South Dakota doesn't mean that Otter Tail should ignore Minnesota's requirements.
- I-4c [ All reputable scientists agree that coal plants significantly contribute to global warming. We should all be concerned about that.

Sincerely,

  
Keith C. Davison



**Written Comment Sheet**  
**Big Stone II Power Plant and**  
**Transmission Project Draft EIS**



If you have any comments on the Big Stone II Power Plant and Transmission Line Project Draft Environmental Impact Statement, please complete this comment sheet and hand it in tonight. You may also e-mail your comments to BigStoneEIS@wapa.gov or mail them to:

Western Area Power Administration  
**NEPA Document Manager**  
Big Stone II EIS, A7400  
P.O. Box 281213  
Lakewood, CO 80228-8213

Please return comments by close of the public comment period, **July 3, 2006!**

I-5a

I want you aware that I oppose the Big Stone II Transmission Lines that are being proposed to be located through Minn estn. I am very concerned about avoiding mercury release into our environment. My special concern is avoiding polluting our lakes, one of which I live on. Because of this I strongly oppose the Big Stone II Power Plant.

Sincerely,

Beverly Falk

New London MN 56273

(Continue comments on other side of sheet, as needed)

Please provide your contact information.

Name Beverly Falk

Title

Mailing address

City, State, Zip Code New London, MN 56273

Phone

Email

Thank you for your interest and participation!

# Written Comment Sheet

## Big Stone II Power Plant and Transmission Project Draft EIS



US Army Corps  
of Engineers

If you have any comments on the Big Stone II Power Plant and Transmission Line Project Draft Environmental Impact Statement, please complete this comment sheet and hand it in tonight. You may also e-mail your comments to [BigStoneEIS@wapa.gov](mailto:BigStoneEIS@wapa.gov) or mail them to:

Western Area Power Administration

**NEPA Document Manager**

Big Stone II EIS, A7400

P.O. Box 281213

Lakewood, CO 80228-8213

I-6a

The scientific community continues to advance in its ability to test the most minuscule particles and correlate how our complex ecosystem functions. In our past we have done significant damage to our environment primarily out of ignorance and greed. [New technology is advancing rapidly that offers more environmentally friendly options at lower costs and certainly a lower cost to the clean up that will be indebted to society when we continue to burn coal. What will we say in response to the obvious problem of global warming and mercury poisoning? That we just didn't know better - when in fact we did. That it cost too much to do the right thing when in fact it cost less.] [A viable

I-6b

alternative to major power lines is a locally distributed transmission system. As we upgrade our antiquated local transmission system and feed back into the power grid we free up space on our existing major transmission lines.] [New technology in hydrogen storage, biomass fired generation, methane digesters, and many other alternatives are

I-6c

becoming a reality every day.] [We have just started to test our precious water in

I-6d

Minnesota and we find that mercury is literally showing up everywhere. We simply can not continue to add more toxins into our water when other options exist.] [We can no

I-6e

longer ignore the devastating effects of excessive CO2 emissions resulting in global warming. The Big Stone II Power Plant proposal is a failed design in a time when stronger regulation is needed and South Dakota is under regulated.] [The transmission

I-6f

lines from the proposed project do not serve the wishes of 90% of Minnesota residents that want alternative energy. Therefore, I do not see that the project or the transmission lines warrant a Certificate of Need as the proposal is not consistent with the wishes of Minnesotans who embrace alternative energy and mercury free lakes and rivers where fish are safe to eat.]

Please provide your contact information.

Name Slim Faulk

Title \_\_\_\_\_

Mailing address \_\_\_\_\_

City, State, Zip Code Mandate MN 56291

Phone \_\_\_\_\_ Fax \_\_\_\_\_

Email \_\_\_\_\_

Thank you for your interest and participation!

# Written Comment Sheet

Big Stone II Power Plant and  
Transmission Project Draft EIS



If you have any comments on the Big Stone II Power Plant and Transmission Line Project Draft Environmental Impact Statement, please complete this comment sheet and hand it in tonight. You may also e-mail your comments to [BigStoneEIS@wapa.gov](mailto:BigStoneEIS@wapa.gov) or mail them to:

Western Area Power Administration  
**NEPA Document Manager**  
Big Stone II EIS, A7400  
P.O. Box 281213  
Lakewood, CO 80228-8213

Please return comments by close of the public comment period, **July 3, 2006!**

I want you to ~~be~~ be aware that  
I strongly oppose the Big Stone II  
Transmission Lines to be interconnected  
to Minnesota.

I-7a

I am very concerned about  
a release of Mercury into our  
environment and therefore oppose  
the transmission lines coming  
into Minnesota.

I-7b

I am concerned about the

(Continue comments on other side of sheet, as needed)

Please provide your contact information.

Name Wendell Falk

Title [Redacted]

Mailing address [Redacted]

City, State, Zip Code New London, MN

Phone [Redacted]

Email NA 56273

Thank you for your interest and participation!

I-7c

Minnesota water system and  
want clean + safe alternative  
energy.

Joe Foss



Minneapolis, MN 55404

Nancy Werdel  
Western Area Power Administration  
Natural Resource Office Big Stone II EIS, A7400  
P.O. Box 281213  
Lakewood, CO 80228-8213

July 17, 2006

Dear Nancy Werdel,

I-8a [ I am writing today to express my opposition to the proposed Big Stone II expansion. I believe building more coal plants is a bad choice for our future. Burning more coal will add to our current problems with air pollution, mercury contamination, and global warming-induced climate change. I believe our energy needs can be met with greater use of wind/solar power on the supply side and efficiency/conservation on the demand side. I don't believe the Draft Environmental Impact Statement addresses these concerns. ]

I-8d [ I'm quite concerned about the increased levels of nitrogen oxides, sulfur dioxide, and particulate matter from a new coal plant. As a child, I had difficulty breathing from time to time when I'd exercise outside. I have read stories of children having the same difficulty when they live fairly close to a factory or power plant. I don't believe this new power plant addresses these concerns. ]

I-8c

I-8f Mercury contamination is my second area of concern. Mercury is well-known to cause damage to the development of a child's brain. That is why there are health warnings to limit your intake of certain fish.

I-8g Pregnant women or very young children are instructed to restrict their consumption even further. The longer term solution is to significantly reduce mercury contamination in the general environment.

I-8h Burning coal is a major source of mercury emissions, only a small amount can do a lot of damage. I am a teacher who works with children. I don't want to see their learning stunted because of our poor decision to burn more coal.

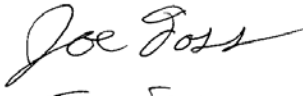
I-8i

I-8j My third area of concern is global warming-induced climate change. Some may argue that Big Stone II is only one plant and it will have little impact on the global climate. I believe we need to show leadership to reduce and eliminate carbon emissions instead of waiting for someone else to do it. The science is clear that adding tons of carbon to the atmosphere warms the air. This increases the risks of climate instability: droughts, heat waves, wildfires, coastal flooding, heavy rains, etc. We don't know exactly what will happen with climate change, but we do know we are increasing the risks.

I-8k

I-8l

I-8m [ Finally, I believe we have the technology  
to reduce our need to burn coal and to replace  
that with building renewable technologies that are  
clean and available locally like wind. Greater  
I-8n [ energy efficiency can also reduce overall demand.  
I-8o [ Building Big Stone II would distract us from  
investing in the cleaner technologies.

Sincerely,  
  
Joe Foss

Ms. Nancy Werdel  
Western Area Power Administration  
Natural Resource Office Big Stone II EIS, A7400  
P.O. Box 281213  
Lakewood, Colorado 80228-8213

I-9a [It is with dismay that I read about the plans to expand the Big Stone II coal-fired power plant by a huge 600 MW. It is disconcerting that after so much evidence of the polluting and health effects of coal-fired electrical generation that releases soot, NOx and SOx into the air, that your institution is even considering this coal expansion.] [Mostly when the proposed location is in the border of Minnesota with South Dakota; an area with such great and proven wind power potential. This is environmental injustice at its worst! And it flies in the face of the people that have to live with this old and dirty technology.]

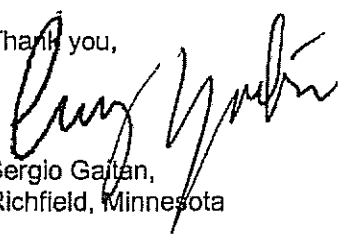
I-9c My 10 year old nephew Julian suffers from asthma. He has trouble breathing the polluted air here in St. Paul Minnesota. The prevailing winds coming from the coal fired plant are sure to blow that soot over Minnesota exacerbating the mercury pollution for the fish in our 10,000 lakes and increasing the CO2 and particulate matter concentrations in the air we breathe. I wonder if you care about our children from where you sit in Colorado ...

I-9d Why is it so difficult to use those prevailing winds to generate clean renewable wind power instead of having them be the winds that carry tons of pollutants 24-7 for the next 50 to 100 years? We would like to be able to turn our electrical air conditioning units in the summer knowing that our comfort does not come at the expense of increased global warming or adverse health consequences.

I-9e I am asking you to please have the conscience, awareness and wisdom to stop this coal expansion and solicit proposals from the wind industry to compare the benefits and costs of the two options. I am convinced that once you fairly weigh in all the costs including the externalities such as the pollution and health effects as well as the future cost of coal, their subsidies, and their associated carbon taxes, that you will find clean wind power to be a far superior choice over the life-cycle of the technologies proposed. An adequate Environmental Impact Statement will necessarily by definition have to weigh the effects of the technologies on the health of the people, the fish and the ecosystems. We are ultimately the ones paying for these utility rates and environmental consequences. Besides wind power will create more full time jobs per MW of installed capacity than coal fired plants.

I-9f So the real question to you is: as a government representative, whose interests do you really represent? The interests of the people that have to live with your decisions for many years to come? Or those of the coal industry who are driven by short term profits? Please listen to the people! We need to breathe Fresh Energy now!!!

Thank you,

  
Sergio Gaitan,  
Richfield, Minnesota



Sent to P&B 7/15/06

# Written Comment Sheet

## Big Stone II Power Plant and Transmission Project Draft EIS



US Army Corps  
of Engineers

If you have any comments on the Big Stone II Power Plant and Transmission Line Project Draft Environmental Impact Statement, please complete this comment sheet and hand it in tonight. You may also e-mail your comments to BigStoneEIS@wapa.gov or mail them to:

Western Area Power Administration  
**NEPA Document Manager**  
Big Stone II EIS, A7400  
P.O. Box 281213  
Lakewood, CO 80228-8213

Please return comments by close of the public comment period, **July 3, 2006!**

RECEIVED  
JUL 15 2006

See comments on reverse. Thank you.

Multiple horizontal lines for writing comments.

(Continue comments on other side of sheet, as needed)

Please provide your contact information.

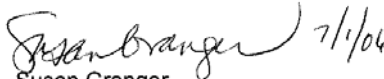
Name Susan Granger Title \_\_\_\_\_  
Mailing address \_\_\_\_\_ City, State, Zip Code Morris, MN 56267  
Phone \_\_\_\_\_ Fax \_\_\_\_\_ Email \_\_\_\_\_

Thank you for your interest and participation!

July 1, 2006

Written Comment Sheet -- Big Stone II Power Plant and Transmission Project

- I-10a I strongly oppose granting a permit for the Big Stone II Power Plant and Transmission Project. I am particularly concerned about the undertaking's potential effect on Minnesota water quality.
- Most of the mercury that is accumulating in Minnesota rivers and lakes is from air-born emissions, and most of these emissions come from coal-burning power plants.
- According to a February 2004 MPCA document, "Despite decades of progress in cleaning up water pollution, hundreds of Minnesota's lakes, rivers and streams are still not healthy enough for people to use safely and enjoy. These 'impaired' waters do not meet waterquality standards and pose risks to people, aquatic life, and recreation. They can contain too much sediment, bacteria, mercury, phosphorus and other contaminants" (MPCA, *Why Impaired Waters are a Priority for Minnesota*, Feb. 6, 2004).
- Many of the lakes and rivers in west central and south western Minnesota (which are near my home in Morris), as well as elsewhere in the state, are "impaired by mercury." According to the MPCA, "The 2006 Impaired Waters list of the Minnesota Pollution Control Agency (MPCA) shows 1,312 mercury impairments, including 442 impairments on rivers and 870 impairments on lakes" (MPCA, *Draft Statewide Mercury TMDL Study*, June 2006; see also map entitled *Minnesota, Missouri, and Des Moines River Basin: Bioaccumulative Toxics 2006 Impaired Waters Requiring a TMDL per Section 303 (d) Clean Water Act*, MPCA, June 2006).
- I-10b Strategies for reducing the levels of mercury in Minnesota have been developed, but most of our excess mercury comes from outside of the state. According to the MPCA, "About 60 percent [of the mercury deposited by air in Minnesota] comes from human activities outside the state, such as coal-fired power plants and mining," with another 30 percent coming from natural sources. "Since natural sources are not controllable, the 65 percent [targeted] reduction must come from the 70 percent of mercury deposition that is from anthropogenic sources, which translates to a 93 percent reduction goal for anthropogenic sources from 1990 levels. . . . Given Minnesota sources contribute only 10 percent of the mercury deposition, the state's share of the allocated reduction is also relatively small. Taking that a 10 percent share of the 70 percent that is controllable (10 percent divided by 70 percent of the total) means the state share is 14 percent of emissions; and the non-state share is 86 percent of emissions. Thus, the federal government and international sources will have an 86 percent share of the mercury-reduction goal" (MPCA, *Draft Statewide Mercury TMDL Study*, June 2006).
- I request that the federal Pollution Control Agency intervene to help bring about this mercury reduction goal by helping reduce mercury-containing emissions that originate outside of Minnesota but affect our waters.
- I-10c I strongly feel that adding to the coal-burning capacity of the Big Stone Power Plant would move us in exactly the wrong direction: we need to collectively *reduce* the amount of mercury-containing emissions in the air, not increase or even maintain current levels.

  
Susan Granger  
Morris, MN

**To:** <BigStoneEIS@wapa.gov>  
**Date:** Wed, Jul 19, 2006 10:34 AM  
**Subject:** Comments on the Big Stone II WAPA Draft Environmental Impact Statement

Ms. Werdel

I am writing to give input on WAPA Draft Environmental Impact Statement for the proposed Big Stone II coal plant expansion.

- I-11a  [I am very concerned that a polluting coal plant is being considered rather than a renewable energy source such as wind or solar that would reduce environmental impacts.] [The financial cost of using coal is increasing as are its health and environmental costs. Mercury and other matter from coal plant emissions
- I-11b  contribute significantly nervous system and respiratory problems.] [Native American families, in
- I-11c  particular, would be affected because of their proximity to the plant.] [Not to mention the known and
- I-11d  accepted effects of carbon dioxide/monoxide.]

Please ensure that these concerns of mine -- which are shared by so many others -- are taken into serious consideration in the final EIS.

Merle Greene  
St. Paul, MN

To: BigStoneEIS [BigStoneEIS@wapa.gov]  
Subject: Big Sttone II  
Date: 06/26/06 9:51 AM

To Whom it May Concern,

I am Abbot Thomas Hillenbrand, the religious superior of a Benedictine Monastery located about 20 miles due west of the present Big Stone Power Plant and Ethanol Plant.

I-12a [As a resident of the area where the new power plant is proposed I am very concerned about the environmental impact this plant will have in the area. We already have a large coal-burning plant as you know, as well as a large Ethanol Plant. And all of us know that coal-burning power plants are the dirtiest plants for producing energy. South Dakota rightly brags that it has some of the cleanest air in the U.S. I hope we can keep it that way.] [Bringing another coal burning plant that is much bigger than the present one will be very detrimental to the healthy and safety of the local people, while people in other States will benefit from the electricity generated. South Dakota certainly does not need more electrical plants for it's own needs.]

I-12b [Let's try to make this an environmental issue rather than an economic one. Health over economic prosperity. The mercury and carbon dioxide emissions for these plants are very serious health issues for local and global residents. I would like to ask the PUC to go slowly and to seriously consider the concerns of the local citizens who live in the immediate area.]

I-12c [Above all I think we here in South Dakota have to seriously consider the potential of wind energy. And in this area of the State, especially up here in the hill country around the Summit, SD area, wind is a constant and almost daily phenomenon. The Hyde County wind project with 27 wind generators produces enough energy for 14,000 homes at a cost of 5 cents per kilowatt. At least that is what the sign says. This absolutely clean and renewable energy that seriously needs to be tapped here in South Dakota.]

Sincerely yours,

Thomas A. Hillenbrand, O.S.B.  
Marvin, SD

**To:** <BigStoneEIS@wapa.gov>  
**Date:** Wed, Jul 19, 2006 10:30 AM  
**Subject:** Comments on the Big Stone II WAPA Draft Environmental Impact Statement

Ms. Werdel

I-13a [ I am writing to comment on the WAPA Draft Environmental Impact Statement for the proposed Big  
Stone II coal plant expansion. I am deeply concerned about this proposed expansion and how it will  
I-13b [ affect Minnesota's environment, and our health.] [I fundamentally disagree with perpetuating our  
I-13c [ dependance on such an environmentally corrosive form of energy production like coal.] [I'd like to see  
wind power and biomass better emphasized as the valid alternatives they are becoming.]

Thanks.

Patrick Johnson  
St. Paul, MN

**Written Comment Sheet**  
**Big Stone II Power Plant and**  
**Transmission Project Draft EIS**



If you have any comments on the Big Stone II Power Plant and Transmission Line Project Draft Environmental Impact Statement, please complete this comment sheet and hand it in tonight. You may also e-mail your comments to BigStoneEIS@wapa.gov or mail them to:

Western Area Power Administration  
**NEPA Document Manager**  
 Big Stone II EIS, A7400  
 P.O. Box 281213  
 Lakewood, CO 80228-8213

*22nd or 23rd*

Please return comments by close of the public comment period, **July 31, 2006!**

I-14a

I-14b

*I understand the need for more electric power. My hope and request is that you will investigate thoroughly all the alternatives and select those that are the most environmentally friendly. I would be willing to pay more for my power if I thought the process to obtain the power was not harming our environment.*

*(Continue comments on other side of sheet, as needed)*

**Please provide your contact information.**

Name *Elena Seplin* Title   
 Mailing address  City, State, Zip Code *New London, Miss 39273*  
 Phone  Fax  Email

**Thank you for your interest and participation!**

# Written Comment Sheet

## Big Stone II Power Plant and Transmission Project Draft EIS



If you have any comments on the Big Stone II Power Plant and Transmission Line Project Draft Environmental Impact Statement, please complete this comment sheet and hand it in tonight. You may also e-mail your comments to BigStoneEIS@wapa.gov or mail them to:

Western Area Power Administration

**NEPA Document Manager**

Big Stone II EIS, A7400

P.O. Box 281213

Lakewood, CO 80228-8213

Please return comments by close of the public comment period, **July 3, 2006!**

I-15a

I-15b

I am deeply concerned about levels of mercury and other pollutants in Minnesota lakes and streams. The Pomme de Terre River, which passes through Morris, as well as the rest of the Minnesota River basin are vulnerable to coal burning power plant emissions. Pursuing conservation, wind power, and other alternatives to meeting projected demand for electricity is much more consistent with the responsible stewardship of the environment that is our obligation to ~~our~~ the generations that follow us.

I oppose expanding the Big Stone plant.

*(Continue comments on other side of sheet, as needed)*

### Please provide your contact information.

Name Scott Kelly Title \_\_\_\_\_

Mailing address  City, State, Zip Code Morris, MN 56267

Phone  Fax \_\_\_\_\_ Email

Thank you for your interest and participation!

# Written Comment Sheet

## Big Stone II Power Plant and Transmission Project Draft EIS



US Army Corps of Engineers

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Western Area Power Administration

**NEPA Document Manager**

Big Stone II EIS, A7400

P.O. Box 281213

Lakewood, CO 80228-8213

Please return comments by close of the public comment period, **July 3, 2006!**

0002 90 711  
EIS/06

- \_\_\_\_\_  
- \_\_\_\_\_  
- \_\_\_\_\_

- I challenge the Draft Big Stone II Power Plant and Transmission Line Project Draft EIS  
- on two points, need and energy alternatives.

I-16a

- The 2005 MAPP Load and Capability study (MAPP, 2005) is flawed in that it is a study  
- conducted by power generating companies to assess the needs of the customers in their  
- area. Power companies are in the business to sell energy, not conserve it. What their  
- customer's anticipated energy needs are is prejudiced by what they have to sell. By the  
- EIS's own admission, the larger market for energy is to the south and southeast of the  
- MAPP area. Big Stone I already does not run at full capacity. It looks like Big Stone II  
- is being built to supply energy out side of the area that will be environmentally affected  
- by the power plant

I-16c

I-16d

We have abundant wind energy in western Minnesota and the eastern Dakotas. Why do  
we need to build a power plant in the when Minnesota utilities are paying electrical wind  
generators to be idled because we do not have the transmission lines to transmit the  
power they generate (Meersman, StarTribune, 16Jun06)? The assessment of wind energy  
in the alternatives section of the draft EIS was at best minimal and at worst insulting.  
Wind was never seriously considered as an alternative to the Big Stone II project.

I-16e

Because the project proposers have not shown a clear need for the project, the project is  
not required and ultimately an EIS is not required.

PAK  
3/3/06

needed)

Please provide your contact information.

Name Pete Kennedy Title \_\_\_\_\_  
Mailing address \_\_\_\_\_ City, State, Zip Code Musdock, MN 56271  
Phone \_\_\_\_\_ Fax \_\_\_\_\_ Email \_\_\_\_\_

Thank you for your interest and participation!

I-16b



**To:** "Nancy Werdel" <BigStoneEIS@wapa.gov>  
**Date:** Mon, Jul 24, 2006 5:15 PM  
**Subject:** Attn: Nancy Werdel - DEIS comment amended

Nancy Werdel  
Western Area Power Administration  
PO Box 281213  
Lakewood, CO 80228

Dear Ms. Werdel: Please accept the following draft of my previously submitted comments on the Draft EIS for Big Stone II. It is revised, strictly to remedy typographic errors, including omission of single words. Thank you. Jeanne Koster

-----  
On my own behalf, I am commenting on two aspects of DOE/EIS-0377, the Draft EIS for the Big Stone II Power Plant and Transmission Project. My comments address sections 2.5.1 and 4.1.  
2.5.1 Power Generation Technologies [Considered but Eliminated from Detailed Analysis]

#### Wind Energy

- I-17a [ Wind Energy, combined with aggressively incentivized conservation, should be treated as a full-dress generation alternative. Instead, wind is dismissed in fourteen lines and, in another section, the co-owners essentially plead they've gone about as far as they can go with conservation.
- I-17a [ The dismissal of conservation needs to be defended with specifics by showing in detail how a more intensive conservation program is not a practical alternative.
- I-17a [ Wind should not be dismissed because it isn't "dispatchable." Not dispatchable is not the same as not reliable in any absolute sense. Recent wind integration studies suggest that the utilities involved may be able to manage integration of wind as up to 20% or better of their baseload without any new backup generation. (UWIG Issues Assessment of Integration of Wind Into Utility Power Systems, May 22, 2006, available from <http://www.uwig.org/IntegrationStateoftheArt.htm>. Also, Wolf, Ken. Wind Integration Study. Minnesota Department of Commerce, November 2004)
- I-17b [ Exactly how might membership in the Western Fuels Association compromise the objectivity of the co-owners of Big Stone II who are WFA members? Do they instinctively shy away from alternatives to coal because they need to realize return on the investment which their WFA membership might entail. If there is some kind of (even unconscious) compromise of this sort, it should be brought into light of day. Consideration should be made of neutralising any such compromising from the comparison of wind/conservation versus new coal generation costs.
- I-17c [  Should the baseload at issue be considered as the pooled existing baseload of the seven co-owners?
- I-17d [  Scheduling for wind certainly would require new agility and may require adjusting the dispatching culture.  
 What would be the cost and feasibility of meeting such challenge?
- I-17e [  Transmission will probably be the greatest challenge. There should be credible projection of the cost of constructing, upgrading, and modifying transmission to accommodate wind. The cost would no doubt be considerable, but does it within a reasonable time frame amortise so that wind cost converges with the cost of coal and then surpasses coal in economy in a meaningful way?
- I-17f [  Please add a full alternative for the combination wind and aggressively incentivized conservation. Rather than being patched into the Final EIS, fairness to the public demands that this alternative be done in a

SECOND DRAFT EIS.

4.1 Air Quality

Mercury Emissions from the Existing and Proposed Plants

I-17g

The treatment of mercury emissions on pages 4-8 through 4-10 raises serious but unresolved regulatory and economic issues. Furthermore, it overlooks certain issues with potentially grave public health consequences. It also overlooks an obligation to consider alternatives that can forestall the regulatory problem and may forestall the economic problem.

Regulatory issues:

I-17h

Table 4.1-6 projects a Big Stone I&II combined mercury emissions goal of 144 lbs (by 2018?). This figure is somewhat puzzling. It represents South Dakota's entire interim allowance under the federal Clean Air Mercury Rule. South Dakota has a new air quality rule affirming a federal standard that provides that one utility can't hog the whole allowance. Big Stone's actual original allowance will be 129.6 lbs, I believe, not 144 lbs. After 5 years (2016 for Big Stone I&II?), the utility must even give back some of its original actual allowance. Yet, in the draft EIS they make clear they are, indeed, counting on hogging the whole 144 lbs.

Furthermore, as I understand, even the 144 lbs is "fictional." If I understand correctly, actual emissions will be 210 lbs, with the difference to be made up by purchase of allowances from utilities elsewhere who are exceeding the federal standard for mercury emissions. The EIS says the utility intends to pare actual emissions to 144 lbs eventually but forecasts having to resort to allowance purchasing if their efforts to achieve 144 lbs don't pan out.

However, by 2018, the federal government will have cut South Dakota's mercury emissions allowance to 58 lbs. In their draft EIS, Big Stone people are showing no plan for making the jump from actual 210 -144 lbs to whatever part of 58 lbs they are entitled to use. South Dakota rule will not allow them to hog the whole 58.

Economics of mercury control:

I-17i

Exposition of the above regulatory realities is neither clear nor complete in the DEIS, even though they have a potentially profound effect on the economics of the project. In another context, the permitting procedure before SD Public Utilities Commission, the utility declined to estimate cost for purchasing mercury control allowances, saying only that it would probably be in millions of dollars annually.

They rejected considering activated carbon injection, which could give 90 % or greater mercury emissions reduction, saying they did not foresee any problem in regulatory compliance with the type of coal they would use, combined with a wet scrubber/baghouse. (SDPUC Docket EL005 Applicants' Exhibit 23-A, page 3-3)

However, as one might conclude from Regulatory Issues, above, the utility appears to be headed for some regulatory complications. They will be paying millions along the way for mercury allowances, which will grow more scarce and expensive as utilities that have them to sell undergo the mandated "give-back" process and as laggard utilities lurch toward 2018's massive state allowance reductions.

A regulatory official in another state, who declined to be identified in this comment, told me in early July this year that cost has come way down for installing up-to-date activated carbon mercury emissions control, estimating that cost for Big Stone should be about \$3 million to install and fine tune, with annual

operating costs thereafter between \$1 to 2 million.

The DEIS does not give any exposition, either positive or negative, of mercury reduction alternatives that might maximize reduction and save money at the same time. This seems a wrongful omission.

#### Public Health

The omission of a detailed consideration of an environmentally better mercury reduction alternative seems the more egregious when viewed in the light of mercury's ferocious neurotoxicity. Neurological impairment has certain economic consequences, particularly considering special education needs, that can and should be quantified in this EIS. Economics aside, the best control is certainly an ethical imperative, especially if it can be done at reasonable cost. Where is the credible analysis of mercury control alternatives in this DEIS?

The seriousness of the imperative to consider best mercury control should be established by at least a couple of paragraphs about the known effects of mercury on human health.

It threatens developing fetuses and children under fifteen with neurological impairment that might just shave points off young IQ's or, more seriously, blight their lives with ADHD or even autism. Eating mercury-tainted fish is one pathway for mercury damage to health. Other pathways exist that are less well understood, as a Texas study suggests. In 2005, a University of Texas, San Antonio, Health Science Center study of 1200 school districts in Texas reported a very significant increase in the rate of autism -- 17% per 1000 [cumulative] lbs of mercury emitted in counties with coal fired power plants. ("Mercury Pollution, Autism Link Found . . .," Reuters, Thursday, March 16, 2005).

The need for mothers and children to AVOID fish in the diet is also a tragic impact. Fish are the most reliable source for Omega-3 oil, increasingly revealed to be essential to human health. For an undetermined proportion of individuals, vegetable-source omega 3 oils will not suffice. Deep water fish are the best source, but the fish in our lakes are a not-insignificant source.

It seems that omega 3 oils are absolutely essential for healthy neurological development, and bi-polarity can be a deficiency disease potentiated by lack of omega 3 in the mother's diet during a child's gestation. (Papolos, Demitri and Janice. "The A-Zs of Omega-3s," The Bipolar Child Newsletter, Spring 2001, Volume 7) For an undetermined proportion of individuals, vegetable-source omega 3 oils will not suffice. Deep water fish are the best source, but the fish in our lakes are a not-insignificant source. Mom just has to eat more fish to ensure her baby develops properly.

Oh, wait. I momentarily forgot. Mom's not supposed to eat the fish!!!

#### CONCLUSION

[Fairness requires a second draft of the EIS for Big Stone II,] one which includes wind/conservation as a generation alternative to the proposed 600 MW coal plant. The original draft's inadequate treatment of mercury impacts and regulatory reality must be made more complete and more specific, including the suggestions offered above.

Thank you for this opportunity to comment.

Jeanne Koster  
Watertown, SD

I-17j

I-17k

To: BigStoneEIS [BigStoneEIS@wapa.gov]  
Subject: Appendix B  
Date: 06/28/06 1:37 PM

Nancy,

I-17l [Turning to Appendix B in the DEIS for BSII made me recall that I had, indeed, read it already (before the eye accident). All the specifics are about transmission line alternatives. Nothing about sources of power in any combo that might be alternatives to coal.

I-17m [I'm so glad there's the prospect now of some good analysis of that. When you talk to the people who will do it, emphasize to them that the generation (and to a certain extent even the transmission and dispatch) alternatives can be gradually implemented. The process can be much more gradual (manageable in smaller steps) and forgiving than the process involved in putting all eggs in one big honking coal plant.

I-17n [Also, part of the "supply" can be Nega-watts, power "found" as a result of aggressively incentivized conservation. There's room for MUCH more of that.

I-17o [Tell them to do a real good analysis of the \$\$ realities of getting the 600 MW from coal vs from a mix of Nega-watts and wind.

Thanks. You are gracious.

Jeanne Koster

To: BigStoneEIS [BigStoneEIS@wapa.gov]  
Subject: Big Stone II Power Plant  
Date: 07/02/06 10:35 AM

There are four things that concern us greatly about the new Big Stone power plant.

- I-18a [ 1. Water usage. 7500 acre feet does not sound like a lot except in a drought year when the lake is already low and another foot would be disastrous. Some contingency plans should be made for drought years. Maybe well water could be used in those extreme years.
- I-18b [ 2. Radioactive waste. Burning coal concentrates all waste. How much radioactive material is in the ash and how is it handled? How much radioactive waste is emitted into the atmosphere? I could not find reference to radioactive waste in the Draft EIS.
- I-18c [ 3. Carbon dioxide. Something must be done to minimize the effects of producing more carbon dioxide. Perhaps forest areas that absorb carbon dioxide could be purchased and permanently set aside to compensate for the carbon dioxide production.
- I-18d [ 4. Mercury emissions. I commend you for lowering the amount of mercury that will be emitted. However, it is still too much.

I realize that all of these suggestions come at a price. I would be willing to pay more now rather than trying to play catchup at some future date.

Drs Daniel and Ruth Krause  
Browns Valley, MN



RICHARD L. KROGER

WOOD LAKE MN 56297-1421

July 19, 2006

WAPA  
P.O. Box 281213  
Lakewood, Colorado 80228-8213

Dear Mr. Wendel:

I am writing to express my concern about the inadequacies of the EIS for the Big Stone II Transmission Project. I have worked on EIS's and written sections several times but this EIS is grossly inadequate because:

① It fails to address the massive impact Hg will have on minorities who eat a disproportionate amount of fish from our Hg polluted water caused mostly by adjacent coal-fired power plants. You should have your sources check into who is eating our Hg contaminated fish downstream of the Lacqui Parle Lake Dam. They are almost exclusively Hispanic and Asian origin people.

I-19a

I-19b

I-19c

② You also fail to address the facts that recent studies show that much of the Hg comes from local sources like Bigstone I Power Plant.

I-19d

③ Probably the biggest failure of your EIS is the lack of analysis of valid alternatives to meet energy needs. Wind, solar, and conservation are the only valid sources of energy for our sustainable future. Coal fired power plants spewing their

I-19e

dirty emissions of  $CO_2$ , Hg,  $NO_x$  oxides cannot continue. Have you heard of global warming or are you part of Bush's Flat Earth Society? Let's

I-19f

I-19g

get with it in the EIS and develop some real alternatives for evaluation.

I-19h

④ The EIS should explain how much it would cost Bigstone II to counteract its  $CO_2$  emissions with purchase of equal amount of "carbon credit" on the

②

I-19h

Chicago Climate Exchange. This will get at the true societal/hidden costs of dirty coal. This is a valid request for this information in the EIS because other companies are already purchasing carbon credits to offset their global warming impacts. The calculation must also include the

I-19i

CO<sub>2</sub> emitted by the trains transporting the coal from Wyoming and Montana to Bystrom II.

I-19j

Why do we have to accept increased global warming, Hg pollution, poisoning of our minorities, and increasing suffering by asthmatics just to satisfy Bystrom's pursuit of the almighty dollar. I urge you and the EIS

I-19k

preparers to use your consciences and prepare a final EIS that you would be proud to put your name on and show the public and your family members that you not only met the letter of NEPA but the intent of the law. <sup>seriously</sup>  
Dick Hagg



To Whom It May Concern:

I am the owner of the S.E. 1/4 Section 25 T115N R43W. My son has rented the S. W. 1/4 of Section 25 T115N R43W for many years and anticipates renting it for years to come. Thus, we have one mile (8 double poled structures) of your power line to contend with, I also own land adjacent to Lanners Lake in Section 26 115N R43W.

Concerning your proposed update, of the line to 230000 kv. I believe my following points should be considered.

I-20a [ My Dad signed the easement for the construction of the present line about 50 years ago for \$100.0 compensation, per setting. It is all insult to your and my intelligence to consider that it be fair and equitable compensation.

I-20b [ My calculation is that each year, each setting, results in a \$7. to \$9. direct loss, due to the land area not being farmed. [In addition that figure should be doubled due to farming around the poles and doubling up on seed population, fertilizer and chemical application. Typically, because of the doubling of crop inputs and the difficulty in cultivating the curved rows, that area is lost as well.]

I-20c [ Because of the electric field near the present 115000 kv line the use of GPS· WAAS, for electronic guidance of farm machinery, is rendered useless. I project that this very significant problem may very well, in the future, because of agricultural technology advances, render the farm land near the power line, valueless for agricultural production,

I-20d [In addition, we have had thousands of dollars of damage to farm machinery from striking the power line poles.] [And the pole sites are a weed source that infects the nearby area.]

I-20f [ It is my hope that you relocate the updated line. I feel that after 50 years, the present property owners and renters have been exploited and have well paid their civic and public duties. Let someone else take a turn!

I-20g [ The north and south boundaries of your corridor are both county roads,. Why couldn't the line be installed in either county road right of way? That would certainly be more user friendly to both you and the farmers. And it would avoid sensitive wildlife areas, such as Lanners Lake.

I-20h [ If you insist on the present location, it is my thinking that it would only be fair and responsible, that the line be buried. (and possibly shielded) irregardless of the cost

I-20i [ If you insist on the overhead line, please, get rid of the double pole structure and go to a single pole, set exactly on the property lines. The present structures are set about 8 to 10 feet south of the property lines, adding to the aggravation.

I-20j [ Finally, the matter of compensation should be revisited. Form my above comments. I am sure you understand my position on the matter. Please be advised that the 5<sup>th</sup> amendment and the laws of eminent domain do not allow for the taking of private property without fair and just compensation. I think compensation should be paid annually. And periodically adjusted for inflation and other circumstances that may arise.

Thank you, for any and all consideration that you may be able to extend in this matter.

Sincerely,



To Whom It May Concern:

I am a landowner in Omro township, Yellow Medicine County, Minnesota.

I have concerns about the proposed upgrading of the present 115kv power line running from Canby to Granite Falls.

I-20k

[The present and preferred route is across about a mile of D.N.R. wildlife refuge in sections 26 & 27 of Omro. Including, across the southern part of Lanners Lake. The largest body of water in the area. The second largest body of water in the area is located about  $\frac{3}{4}$  of a mile south of Lanners Lake. There is also another water containing wildlife refuge about  $\frac{1}{2}$  mile southeast of Lanners Lake, So there are natural wildlife flyways between these areas.] [I have

I-20l

observed wildfowl striking the power lines. The result is usually devastating.] [Also,

I-20m

transmission lines emit an electro magnetic field, have a constant hum and are patrolled by low flying aircraft, all of which may be detrimental to wildlife.]

I-20n

I am very concerned about the electro magnetic field produced in the power line area. Presently, the 115kv line renders useless the satellite produced GPS-WAAS signal, for electronic guidance of farm machinery. It is basic physics that as the voltage of the line is increased, the magnetic field of influence will increase exponentially. It is reasonable to assume that in the, not so distant future, farm machinery will operate robotically from electronic signals. At which time, the land within the area of influence will become useless for agricultural crop production.

Modern farm tractors, combines, sprayers, etc. have numerous electronic controllers incorporated into their manufacture. There are controllers for the engine, transmission, hydraulics and more, that operate on very minimal voltages. I understand that a 345kv overhead line will drive these controllers amuck. Can you imagine a 500-1000 horsepower tractor or combine on the loose!

I-20o

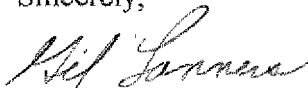
If you consider this loss of agricultural revenue for generations to come, it is academic that power lines should be buried when crossing prime agricultural land. Power companies will argue that is not feasible. I highly dispute their rational. They only see their side of the situation. Also, the power companies have means of recouping their expenditures, farmers do not.

I-20p

If it evolves that an overhead line will be built. I strongly believe that the alternate route from Canby to Granite Falls would be the best choice. It would avoid the wildlife areas and problems mentioned in the above paragraphs. And if it was build in the highway #3 right of way, the structures would physically not interfere with farming operations. And there would be fewer agricultural acres involved in the electronic interference.

Thank you, for your consideration of my remarks.

Sincerely,



I-20q

P.S. I note that in the DEIS, there is no mention of how the power line will affect agricultural electronic guidance signals. I expect that this electronic interference will be, by far the largest monetary aspect of the proposed project.

MS. NANCY WERDEL  
WESTERN AREA POWER ADMINISTRATION  
P.O. BOX 21213  
LAKEWOOD CO 80228

DEAR MS. WERDEL,

As a landowner and farmer in Omro township in Yellow Medicine County, I have farmed under the Otter Tail Power company power line for my whole farming career.

I-20r [ I have some concerns with the aggravations of farming under this power line. The grief of turning machinery out for each power line setting for each aspect of farming; planting, cultivating spraying, combining and the tillage work, along with the overlapping of farm chemicals under each tower.

I-20s [ How does this power line going to affect the new electronics within the farm equipment? What effects will it have on the new electronic technologies of the future? Tractors, combines, sprayers, two-way radios, satellite dishes. G.P.S.), internet and other electronics are surely in the infancy of technology. Are you willing to improve the power lines in a few years when frequency emissions renders new technology inoperable? Wi-fi laptops currently lose their connection when within this magnetic field, Won't you be taking a step backwards by not allowing agriculture to keep up with technology?

I-20t [ I know of a neighbor who is a ham radio operator who claims problems), and that is with the current 115 kv of power. What will happen at 230 kv of power? The settings are being engineered for 345 kv of power, can you image what problems this may create?

I-20u [ The power line in question, crosses the Department of Natural Resources land. I believe this would raise issues with the wildlife flight patterns. I personally have seen dead wildlife from flying into the existing power lines), from fog, mornings or evenings, not being able to see this line, or even being startled. The hum that the power line makes, must), as I see it, also affect the breeding aspects of wildlife.

I-20v [ I also have concerns over the stray voltage issues involving possible bealth risks, such as cancer. Could this power line become the target of a possible future lawsuit?

I-20w [ What does this power line do [or the value of the land? Nothing, in fact it devaluates the price of the land tremendously. The cosmetic picture would be an eyesore, no one would put up their home near the power line or even near the structures.

I-20x

Wouldn't this inhibit rural development in out state Minnesota? Even putting a little air strip would be out of the question. Are you not putting out state Minnesota at a disadvantage?

I-20y

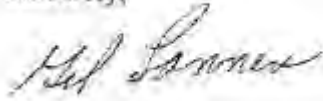
In closing, I realize that I will not and cannot stop this power line, nor do I want to stop the progress. But I feel that all people use electricity and that we should all bear the burdens associated with this. I have taken my turn supporting the current structures. Should it not be someone else's turn to support the future electrical infrastructures? [I would personally like to

I-20z

see the power line be constructed in the county road #3 right of way, east of St. Leo. The proposed alternative route should have the power line settings be in the county road ditch, where the setting would not bother anyone, verses in prime farmland.]

Thank you for your time and consideration in this matter.

Sincerely,



**To:** BigStoneEIS@wapa.gov  
**Subject:** Big Stone proposed power plant  
**Date:** Thu, Jul 13, 2006 12:11 PM

Dear Nancy Werdel,

- I-21a [I am writing to express my concerns about the proposed new power plant in Big Stone South Dakota. Even if there are safeguards to control the amount of harmful pollutants that are released into the atmosphere, I feel that this second plant would double what is already being released. I do not believe that any amount of mercury, sulfur, and other harmful chemicals that are released into the environment is good for anyone.] [Also, do you have any
- I-21b [knowledge of the harm that these chemicals will have both short and long term on the plant, animal, aquatic, and human life in the area?] [I would like to
- I-21c [see other safer sources of energy produced that would not have harmful effects on our environment and hope that this will be examined.] [Once our environment
- I-21d [is damaged, we will not be able to recover from this and it will have a very bad effect on the life of the people, animals, and other life in this area.]
- I-21e [Again, I hope that other sources of energy will be looked into that are safer for the people and quality of life for this area.

You may call me at 320-289-1288 if you have any questions about my concerns.

Thank you for your cooperation.

Yours truly,

Terry J. Makepeace  
Appleton, Mn.

**To:** <BigStoneEIS@wapa.gov>  
**Date:** Wed, Jul 19, 2006 12:04 PM  
**Subject:** Comments on the Big Stone II WAPA Draft Environmental Impact Statement

Ms. Werdel

I-22a [ I am concerned that the proposed expansion of the Big Stone II coal plant will negatively affect our environment and our health in known and unknown ways. Please delve deeper into environmental and health aspects of this coal plant before the final EIS,] and [please consider wind power as an alternative.] I-22b

People in this country are suffering from increased allergies and asthma. I have seen this in my college students and when I helped out in my children's schools. We are learning more--slowly--about how our past activities are affecting our present health. As we modernize our resources, we need to use the best and cleanest technology for a safe future.

I-22c [Carbon dioxide also is affecting the quality of our air.] [Mercury affects our water and the animals that live in it, and us when we eat fish.] I-22d

I-22e [How clean will the extraction and burning of coal be for Big Stone II?] [Please take and spend time and money up front in determining the full impact of this proposed development, lest we make a costly mistake.] I-22f

Thank you for listening.

Ellen Mamer  
St. Paul, MN

**To:** <BigStoneEIS@wapa.gov>  
**Date:** Fri, Jul 21, 2006 10:14 AM  
**Subject:** The WAPA DEIS Inadequately Analyzes Alternative Power Sources

Ms. Werdel

I-23a [ Clearly, the intent of the laws requiring an environmental impact statement is to protect the public interest. An EIS is meant to ensure that an applicant is diligent in considering several methods for meeting demand--not simply the easiest or business as usual choice.

I-23b [ WAPA's Draft Environmental Impact Statement for the proposed Big Stone II plant fails to demonstrate that coal is the best option for meeting the needs of its customers. There are alternative technologies and strategies that merit consideration and full analysis. These analyses should be provided in a revised EIS and objectively compared against the proposed plan.

I-23c [ Also, we can no longer ignore that anthropogenically induced global warming is a recognized phenomenon among the scientific community. More and more, it is also acknowledged by the media, the public, and even public servants. The Bush Administration has agreed that global warming merits attention and has defined goals for reducing the United States'

I-23d [ carbon intensity.] [WAPA's failure to consider reasonable, technologically available power production options is counterproductive to the goals of reducing carbon intensity and sets a poor precedent for other proposed projects in the United States.]

I-23e [ Given the gravity of global warming and mercury pollution, WAPA should prepare a revised EIS that objectively estimates the full cost of operating Big Stone II, including social costs, environmental impacts, and the likelihood of a carbon credit system being established during its service lifetime. Only when these costs are assessed can a fair and objective comparison be made to the costs and impacts of alternative technologies.

I trust that we share the same goal of meeting the public's energy needs in the most socially responsible, reasonably affordable way. Thank you for your consideration on this important matter.

Sincerely,

Stacy Miller  
Hudson, WI

**To:** "bigstoneeis@wapa.gov" <bigstoneeis@wapa.gov>  
**Date:** Tue, Jul 25, 2006 8:53 AM  
**Subject:** No New Coal Plants Near MN!!!

I-24a [ I am extremely disturbed by the recent news of a new coal plant being built near Minnesota. I want my kids to breathe fresh air when they grow up, not air that is polluted by hydrocarbons, sulfur dioxide and other poisonous chemicals and compounds.] [This is an age when we need to move forwards towards looking at alternative energy sources. The more money we invest in alternative energy sources the more successful and effective those energy sources can become. We can not wait until the air is so polluted we have to wear face masks, we have to take action now to keep our beautiful midwest beautiful and healthy for us and future generations.]

I-24b

Sincerely

Becca Orrick  
St. Paul, MN



To: BigStoneEIS [BigStoneEIS@wapa.gov]  
Subject: Big Stone II DEIS Comment  
Date: 07/17/06 9:17 PM

I-25a

Attached please find report addressing the costs  
of pollution, which should be addressed in the EIS, and here's the link:  
<http://www.environmentalobservatory.org/library.cfm?refid=88337>

Carol A. Overland  
Attorney at Law  
Red Wing, MN 55066

# Written Comment Sheet

Big Stone II Power Plant and  
Transmission Project Draft EIS



US Army Corps  
of Engineers

If you have any comments on the Big Stone II Power Plant and Transmission Line Project Draft Environmental Impact Statement, please complete this comment sheet and hand it in tonight. You may also e-mail your comments to BigStoneEIS@wapa.gov or mail them to:

Western Area Power Administration  
NEPA Document Manager  
Big Stone II EIS, A7400  
P.O. Box 281213  
Lakewood, CO 80228-8213

Please return comments by close of the public comment period, July 3, 2006! 3 Week Extension

I-26a

"Why Coal, Why Now?"

I-26b

My husband + I live in the shadow of coal fired Big Stone I plant and the pollution it sends out. Isn't that enough? Why a 2nd coal fired plant so close?

I-26c

Why Coal which produces so much CO<sub>2</sub> + mercury pollution. We have WIND - plenty of wind and why not use it now? Partner wind and a cleaner Big Stone I.

I-26d

I-26e

Why Now - in 5 or 10 years (Very soon) technology for a cleaner use of coal - like coal gasification will be perfected. It is very close - wait a few years and make Big Stone II a cleaner burning coal plant with IGCC process. Reconsider and make

I-26f

Big Stone II wait a few years for a cleaner process. My husband + I already live + work in the shadow of one coal fired plant.

I-26g

Please help us and please help the environment around our area of SE South Dakota and Western Minnesota

Please provide your contact information.

Name Elsie Penine

Title Citizen

Mailing address

City, State, Zip Code Ortonville, MN 56278

Phone

Fax

Email

Thank you for your interest and participation!

Thank you for  
your consideration

**To:** "bigstoneeis@wapa.gov" <bigstoneeis@wapa.gov>  
**Date:** Wed, Jun 21, 2006 1:12 PM  
**Subject:** Concern about another coal plant in South Dakota

I think that building a new coal power plant would be an enormous policy error.

- I-27a [ [The environmental and related health costs of a coal fired plant are significant, especially for those like myself who have asthma.] [I am not sure that the draft EIS adequately addressed alternative long-term strategies for renewable energy.]
- I-27b [ [The real solution for states like South Dakota that are rich in wind resources is to encourage power companies to invest in renewable energy portfolios. The only way to do this is to refuse to approve building additional coal plants.
- I-27c [ [I do not believe that we can assume, as the EIS does, that coal fired plants are financially and environmentally sustainable in the long term. Given the recent evidence available in the field of environmental science, we can expect costs of operating old-fashioned coal fired plants to increase in the future as they are forced to control carbon dioxide emissions, mercury pollution and greenhouse gases. These problems will result in unknown and uncontrollable future costs that will ultimately passed on to rate payers.
- I-27d [ [At the very least, companies proposing to build the Big Stone Lake plant should be required to go back to the drawing board to file a more complete EIS that incorporates responses to these issues. The unintended secondary consequences of additional coal fired plants in South Dakota are unacceptable.
- I-27e [

Sincerely

Elizabeth Smith  
Vermillion, SD

Sunday, July 23, 2006

Dear Ms. Werdel,

I urge you to consider these comments on the WAPA Draft Environmental Impact Statement for the proposed Big Stone II coal plant expansion.

I-28a [ At age 73, I've seen the transformation of our atmosphere into a sewer for short-term economic gain. We just can't continue "more of the same". It's not only economically narrow-minded and short-sighted, but immoral to dump million of additional tons of CO2 into the atmosphere, to shower the downwind shadow of this plant with mercury, and to spew forth more asthma inducing particulates.

Here are some of the aspects of the DEIS that really should be dealt with in the final EIS:

I-28b [ (1) Alternatives - Alternatives that would reduce the environmental impacts have not been analyzed, which contradicts the National Environmental Policy Act (NEPA) and Section 404 of the Clean Water Act.]  
I-28c [In addition, the DEIS does not mitigate the impact transmission lines will have on wetlands.]

I-28d [ (2) Cost - The DEIS does not consider the full range of costs including the likelihood of future regulation of carbon dioxide.] And the [social costs are significant: a recent report from IATP and MCEA found that every year Minnesota alone spends \$303 million on neurobehavioral disorders, and I-28e [ \$30.6 million on asthma in Minnesotan children. Mercury and particulate matter from this plant will contribute significantly to these illnesses.]

I-28f [ (3) Mercury and Environmental Justice - the Environmental Justice implications of the expansion are real. The DEIS does not consider the disproportionate impact on Native American families that live in proximity to the plant and consume a large amount of fish that are mercury contaminated.

I-28g [ (4) Carbon dioxide emissions and climate change - The DEIS says that Big Stone II would emit 8.9 million tons of carbon dioxide every year and does not consider alternatives to mitigate or control the projected CO2 emissions. Does this not compromise or violate the President's national goal for reducing intensity of carbon emissions in the American economy 18% by 2012?

I-28h [ I strongly oppose the expansion of this new coal plant unless the EIS truly addresses the extensive health and environmental damage Big Stone II will cause unless the concerns stated herein are addressed.

Thanks for your consideration on this matter.

With warm regards,

Roy Smith  
Edina, MN 55439

Western Area Power Administration  
NEPA Document Manager  
Big Stone II EIS, A7400  
P. O. Box 281213  
Lakewood, CO 80228-8213

Dear Sir/Madam:

I am writing in regard to the proposed expansion of the Big Stone power plant.

- I-29a [It is my contention that such an expansion will further harm the fragile environment in which I am a resident.] [Of concern to me is the increase in mercury levels which will be added to the lakes and rivers in this part of Minnesota. During the winter, especially, the prevailing winds will bring the pollutants from this power plant down on these waterways and their waterfowl. These winds, as you know, carry the pollutants for great distances landing on farms and waters. This area exists on both sides of the Minnesota River as it winds through farms and cities in Western Minnesota.]
- I-29b [It is my contention that such an expansion will further harm the fragile environment in which I am a resident.] [Of concern to me is the increase in mercury levels which will be added to the lakes and rivers in this part of Minnesota. During the winter, especially, the prevailing winds will bring the pollutants from this power plant down on these waterways and their waterfowl. These winds, as you know, carry the pollutants for great distances landing on farms and waters. This area exists on both sides of the Minnesota River as it winds through farms and cities in Western Minnesota.]
- I-29c We also have enough greenhouse gasses now. We need not add to what we already have.
- I-29d It seems to me that these winds, which are especially strong during the winter months, could be harnessed to produce power rather than act as an exhaust system for the power plants themselves. We can provide cleaner air and more good paying jobs for this part of Minnesota and the Dakotas through wind energy. This is a renewable energy source where the use of more coal, even though we are told that we have a good supply, need not be depleted to provide more electrical power. I believe that if we consider the long-range cost/benefit ratio, we will choose wind power over coal based power generation.
- I-29e [When I consider the air and water pollution, which coal produces, I am thinking of the energy that it takes to mine the coal, transport the coal and then burn the coal to produce the electricity.]
- I-29f [Certainly wind power will not produce nitrogen oxides, sulfur dioxides, carbon monoxide, particulate matter, hydrochloric acid and most of all the mercury emissions that worry me most of all.] [Would it not be better to protect our population from those harmful air and water pollutants? I think so.]
- I-29g [Would it not be better to protect our population from those harmful air and water pollutants? I think so.]
- I-29h [I am not saying to deny the population from the electrical power.] [I am saying that we can use electrical power from wind sources to do the chores we need done, to heat and light our homes, our farms and our factories.] [But we need to do it cleanly without fear of harm to coming generations of children and adults.] **I say we need to think in terms of long, rather than short-term goals.** Thank you for listening to my concerns.
- I-29i [I am not saying to deny the population from the electrical power.] [I am saying that we can use electrical power from wind sources to do the chores we need done, to heat and light our homes, our farms and our factories.] [But we need to do it cleanly without fear of harm to coming generations of children and adults.] **I say we need to think in terms of long, rather than short-term goals.** Thank you for listening to my concerns.
- I-29j **I say we need to think in terms of long, rather than short-term goals.** Thank you for listening to my concerns.
- I-29k

Sincerely



Gerald L. Steele, PhD  
Starbuck, MN  
56381

To: BigStoneEIS [BigStoneEIS@wapa.gov]  
Subject: new power plant  
Date: 06/21/06 1:10 PM

June 21, 2006

Ms. Nancy Werdel  
Western Area Power Administration  
Natural Resource Office, Big Stone II EIS  
Lakewood CO 80228-8213

RE: New coal-fired power plant

Ms. Werdel:

Recent TV ads in the Minneapolis area talked about how efficient coal-fired power plants are and how abundant coal is. Coal may well be abundant, but it is far from being a good way to generate electric power.

I-30a [ Coal-mining companies have become less concerned with the natural beauty of our land. They seek to extract the coal at the cheapest cost possible, resulting in severely marred landscape. And severely marred human life.

I-30b [ When coal is burned, it becomes one of the worst dispersers of mercury. When that mercury is released into the atmosphere, it pollutes lakes making the fish from those lakes dangerous to eat. The mercury is also borne for long distances in the air and can cause serious bodily harm when it is inhaled.

I-30c [ The area that would be served by the new Big Stone power plant is one of the best places in the country to harness wind power—an infinitely renewable energy source. Ideally the needs of that area would be completely met with wind power. But if that is not the final decision, wind power should be part of the solution.] [And any coal-burning plant should be required to have the

I-30d [ absolute most up-to-date mercury containment equipment.]

I-30e [ This new plant will serve and affect not only the current population but many generations to come. We have to do the right thing now for the future of the earth.

Sincerely,

Gregory Stricherz  
Minneapolis MN

# Written Comment Sheet

Big Stone II Power Plant and  
Transmission Project Draft EIS



US Army Corps  
of Engineers.

If you have any comments on the Big Stone II Power Plant and Transmission Line Project Draft Environmental Impact Statement, please complete this comment sheet and hand it in tonight. You may also e-mail your comments to BigStoneEIS@wapa.gov or mail them to:

Western Area Power Administration  
**NEPA Document Manager**  
Big Stone II EIS, A7400  
P.O. Box 281213  
Lakewood, CO 80228-8213

Please return comments by close of the public comment period, **July 3, 2006!**

I-31a

The expansion of the Big Stone II is a hazard to the environment. Not only will it be expanding over the border from South Dakota to Minnesota, it will be polluting lots more. The co-owners of Big Stone II propose to adversely affect air quality by adding up to 16,448 tons of nitrogen oxides, up to 13,272 tons of sulfur dioxide, and at least 250 tons of particle matter into the air each year.

I-31b

Mercury pollution could approach 399 pounds, according to the DEIS. Besides, there's enough coal burning factories already.

I-31c

About 75% percent of the energy we use is coal burning energy. That is not right, we should use other cleaner ways to use energy and for example wind power is clean and effective way to create energy. And there is lots more better ideas on energy so why do we need Big Stone II when a clean energy development

I-31d

Plan can create more than 200,000 new jobs

(Continue comments on other side of sheet, as needed)

Please provide your contact information.

Name Bryan Thornton Title \_\_\_\_\_

Mailing address \_\_\_\_\_ City, State, Zip Code \_\_\_\_\_

Phone \_\_\_\_\_ Email \_\_\_\_\_

Thank you for your interest and participation!

across 10 state Midwest regions by 2020,  
when Big Stone II could only create 625 jobs.  
So we are also helping the economy as well as  
the environment. We will have cleaner air, cleaner  
environments and cleaner lives.



To: BigStoneEIS [BigStoneEIS@wapa.gov]  
Subject: Public Comment on BigstoneII Power Plant and TransmissionProject  
Draft Enviornmental Project Enviorm  
Date: 07/10/06 5:42 AM

Please accept this letter as Public Comment on the Bigstone II Power Plant and Transmission Project.

I-32a

The EIS does not fairly address the increased mercury pollution that will result if the Bigstone II Power Plant is built a mile or 2 west of the Minnesota border with South Dakota. The EIS does contain a wind Compass Rose which indicates the prevailing wind from the site of the existing and proposed coal plant which shows the wind passing over Minnesota's lake country which is already polluted with mercury. Even the Minnesota River has fish consumption restrictions. Imagine the effect on lakes which have no outlet to flush pollutants.

I-32b

[The proposed Power Plant itself, which has been permitted in South Dakota could not be built in Minnesota because of the existing and new legislation enacted in 2006. This legislation expresses the official policy of the State of Minnesota. It is the job of the Public service Commission to give effect to the policies of the State of Minnesota.] [The transmission line and the

I-32c

Power Plant are one and the same project. One cannot work without the other. The builders seem to be separating this into two projects, and urging Minnesota to consider only the effects of the transmission line. However, one will not exist without the other.]

I-32d

If this scheme is allowed then some there will be a Bigstone III and a Bigstone IV. Minnesota's entire upwind border is the end-around to the Minnesota Mercury Law and our legislation will have no effect. The Commission has the right and duty to prevent this from happening by denying the Transmission line under these circumstances.

I-32e

[This decision may be the single most important decision in Minnesota this year. If the way is opened for these kind of power plants to be built just upwind on the excuse that Minnesota lacks jurisdiction over the part of the project that is physically located in South Dakota, we could allow our wonderful lake country to be destroyed by pollution.] [People will not want to vacation where the environment is such that even the fish are full of poison.

I-32f

Once we get the mercury we cannot get rid of it. It will not flush downstream.]

I-32g

[Minnesota faces no shortage of energy. Our farmers are ready to produce it with wind, hydrogen and biomass.] [Why should we buy our energy from another state which has no protections for pollution rather than from ourselves? Our farmers are as deserving of the business as the electric distributors who want to control power production as well.]

I-32h

Richard Unger  
Montevideo MN

July 11, 2006

To: BigStoneEIS [BigStoneEIS@wapa.gov]  
Subject: Comments on the Big Stone II WAPA Draft Environmental Impact Statement  
Date: 07/18/06 5:16 PM

Ms. Werdel

Hi,

It is time to realize that we need all the energy help we can get or, forget the future.

Coal, like it or not is a necessary component in Minnesota's energy present and future.

Reality dictates this.

Minnesota is a net energy user . Not a producer. We do not have these energy resources. We are in big trouble.

Natural Gas  
Coal  
Oil  
Uranium  
Hydro  
Geothermal

We do have wind and a bit of solar potential. So, like it or not wind and coal will play a big part of the future here.

If we want to retain our current population base and standard of living there is simply no other choice.

So, this is something that may surprise you.

Jeff & Judy

Judith Webster  
Harmony, MN

I-33a

To: BigStoneEIS [BigStoneEIS@wapa.gov]  
Subject: I oppose Big Stone II  
Date: 06/23/06 8:34 PM

Greetings,

I am a SD physician, during the week I live at Blue Cloud Abbey which is about 20 miles west of Big Stone. I oppose the building of Big Stone II for these reasons:

- I-34a [ 1) Coal-burning power plants should now be abandoned in favor of renewable energy sources – particularly wind power in our state
- I-34b [ 2) Coal-burning power plants produce too much CO2 – adding to global warming and the greenhouse effect
- I-34c [ 3) Coal-burning power plants put too much mercury into the ecosystem – both nearby (likely) and generally “down-wind” into the environment.

I, along with the monks at Blue Cloud Abbey, oppose the building of Big Stone II and support wind energy / renewable clean energy alternatives. Abbot Thomas will likely add his note from the monks, he may also testify Thursday in Pierre to the same but I cannot make it.

Please stop Big Stone II.

Sincerely,

Nancy L. Wilson, M.D.

To: BigStoneEIS [BigStoneEIS@wapa.gov]  
Subject: Stop the Big Stone Coal Plant  
Date: 06/21/06 12:32 PM

I-35a [My concerns are only whether the full impact of the coal plant has been evaluated.] [I think that South Dakota would really be giving itself a bad name if, in the midst of the reinvigoration of renewable technologies, we chose to go back to coal. Coal has a bad rap for a reason. Perhaps there is a way we can use the new plant for clean coal research instead of dirty coal output. Wouldn't South Dakota be better off trying to develop renewable technologies? Can't we capture methane and turn it into fuel? There are plenty of cows in South Dakota and it is well-recognized that cows are a major source of methane. Is methane cleaner than coal? Or, the state government could give better tax incentives for renewable energy development. There are ethanol plants popping up all over Iowa. Why can't South Dakota follow its neighbors' leads?]

I-35b

Thank you for your time.

Sincerely

Jessica Zupp  
West Des Moines, IA

Ms. Nancy Werdel  
NEPA Document Manager  
Western Area Power Administration  
P.O. Box 28123  
Lakewood, CO 80228-8213

**Re: Public Comment Concerning the Big Stone II Draft Environmental Impact Statement**

Dear Ms. Werdel:

I-36a [ It is our belief that the WAPA's Draft Environmental Impact Statement (EIS) fails to provide full analysis of the social, environmental and financial costs of the proposed Big Stone II coal fired power plant. Big Stone II construction would result in excessive mercury emissions, contributions to global warming from carbon dioxide emissions, and higher than projected costs associated with its operation. WAPA should withdraw the current EIS and do a full analysis of these and other costs associated with the proposed project. Furthermore, an objective analysis regarding the need for additional baseload power is in order since the generation mix in the service area is approximately 70-75% coal already. ] I-36b

I-36c [

I-36d [ Additionally, the current EIS fails to analyze other strategies for meeting the power needs of customers in the service area as required by law.<sup>1</sup> No detailed analysis was provided for demand side management, wind power, IGCC, and other more environmentally favorable technologies. Without a thorough analysis of alternatives such as these, the EIS process is incomplete and fails to comply with the regulations governing the procedure—to *protect the public interest*. This is an unacceptable omission and we request that WAPA be required to reevaluate and resubmit a comprehensive EIS that objectively considers alternatives to the proposed, outdated technology.

I-36e [ WAPA's plan to purchase credits to comply with mercury emissions standards in the coming decades fails to address the true impact of mercury on lakes, rivers and streams. In Minnesota, we have a well-recognized, scientifically documented problem with mercury pollution due to coal combustion. Steps have recently been taken to address this problem in the latest Minnesota legislative session. As currently proposed, Big Stone II will work to undermine these efforts since most of its mercury emissions will end up in Minnesota's water. Genuine attempts should be made to mitigate this pollution. Again, these alternatives should be reflected in the EIS. ] I-36g

I-36f [

I-36h [

I-36i [ To maintain confidence in the process, an EIS must demonstrate that the proposed technology is clearly in the public's interest. The current EIS as submitted by WAPA fails utterly in this mission. We suspect that a full cost and impact analysis of the Big Stone II plant would demonstrate reasonable alternatives for meeting the power needs of WAPA's customers. It is WAPA's obligation to objectively and fully investigate options and to make these assessments available to the public.

I-36j [

I-36k [ It is our request that WAPA fulfill its obligations as required by law in this important process. Thank you for your attention to this matter.

<sup>1</sup> 40 CFR 1502.14

We, the undersigned, request that the Big Stone II EIS, be redone and resubmitted in a manner that complies with 40 CFR 1502.14 and other applicable laws.

Joe Eijavec  
[Signature]

Joe Eijavec  
3920 36th Ave S  
Minneapolis, MN 55406

Joe Plummer  
4641 17th Ave S  
Mpls, MN 55407

Ashley James  
[Signature]

Ashley James  
3733 Pillsbury Ave  
Minneapolis, MN 55409

Sarah Johnson  
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Sarah Johnson  
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Edmund Phillips  
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Edmund Phillips  
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Matthew Miller  
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Matthew Miller  
213 St. Croix St.  
Hudson, WI 54016

Stacy A Miller  
[Signature]

Stacy A Miller  
213 St. Croix St.  
Hudson, WI 54016

*Volume IV – PUBLIC COMMENTS*

FL-1. CLEAN WATER ACTION FORM LETTER (35 Signatories)

ADDITIONAL COMMENTS INCLUDED WITH CLEAN WATER ACTION FORM LETTER

FL-2. Rodney Campbell

FL-3. Patience Caso

FL-4. Timothy DenHerder-Thomas

FL-5. Helmbrecht Gaylord

FL-6. Julie Sabin

FL-7. Arwen Wilder

FL-8. SIERRA CLUB FORM LETTER (217 Signatories)

ADDITIONAL COMMENTS INCLUDED WITH SIERRA CLUB FORM LETTER

FL-9. Margaret Boettcher

FL-10. Lee Johnson

FL-11. Corinne Livesay

FL-12. Tony Prokott

FL-13. Mike Refsland

FL-14. William Steele

FL-15. Patresha Tkach

FL-16. SIERRA CLUB POST CARD (72 Signatories)

## Clean Water Action Form Letter

To: BigStoneEIS [BigStoneEIS@wapa.gov]  
Subject: Stop the Big Stone Coal plant

I am concerned about the proposal to build a new coal plant in South Dakota, rather than investing in clean energy that supports local communities and is better for our health.

- FL-1a [ Since the proposed plant is expected to operate for at least forty years, the true consequences of its pollution potential must be examined. The draft Environmental Impact Statement did not show conclusively that building a new coal plant is really less costly, in health, environmental, social, cultural, and economic terms, than alternatives to develop renewable resources.
- FL-1b [ • The draft Environmental Impact Statement prepared for the proposal did not fully consider the alternative of using a combination of fossil and renewable fuels to meet the alleged needs of the Big Stone partners.
- FL-1c [ • Renewable energy sources seemed to be quickly dismissed as alternatives to a coal plant, because these sources didn't meet the "needs and objectives" of the utilities. More consideration should have been given to the needs and objectives of the customers of the utilities.
- FL-1d [ • The determination that a new coal plant is the only alternative that would result in reasonable long-term operating costs seems incomplete, since the draft Environmental Impact Statement did not consider the potential for future costs related to the emission of greenhouse gases. Carbon dioxide is not currently regulated under the Clean Air Act, but it will most likely be a regulated pollutant in the near future.
- FL-1e [ • The draft Environmental Impact Statement assumes that the federal Clean Air Mercury Rule will not be changed or delayed due to legal challenges. It also assumes that mercury pollution does not significantly impact local water bodies. However, recent studies in Massachusetts, Florida, Ohio, and the Great Lakes show that local sources of mercury negatively impact local water bodies to a greater extent than previously thought.
- FL-1f [ • The social and environmental justice issues relating to mercury were ignored in the draft Environmental Impact Statement. The Environmental Impact Statement did not address the contribution that the proposed coal plant's mercury pollution will have on the health of women, children, and anyone who fishes for food. The draft Environmental Impact Statement does not adequately consider the environmental, health, social, cultural and related economic impacts of the proposed Big Stone coal plant. Please include a more complete analysis of the full impacts of the coal plant proposal in the final Environmental Impact Statement.
- FL-1g [ The draft Environmental Impact Statement does not adequately consider the environmental, health, social, cultural and related economic impacts of the proposed Big Stone coal plant. Please include a more complete analysis of the full impacts of the coal plant proposal in the final Environmental Impact Statement.

Thank you for your time.



## Clean Water Action Form Letter

Signatories to the Clean Water Action Form Letter:

Mary Anderson; Minnetonka, MN

Sigurd Anderson; Lake City, MN

Dean Borgeson; Brooklyn Park, MN

Mary Brady; Minneapolis, MN

Rodney Campbell; Brooklyn Park, MN

Joe Caron; Plymouth, MN

Patience Caso; Saint Louis Park, MN

Michael Chapman; Sioux Falls, SD

Joyce Crane; Sioux Falls, SD

Scott Daby; Minneapolis, MN

Larry Dale; Rapid City, SD

Yvonne DeBoer; Sioux Falls, SD

Mary DeJong; Sioux Falls, SD

Timothy DenHerder-Thomas; Saint Paul, MN

Michael Edwards; Saint Paul, MN

Travis Gallipo; Sioux Falls, SD

Helmbrecht Gaylord; Sioux Falls, SD

Michelle Gross; Saint Paul, MN

Donald Herrick; Sioux Falls, SD

Jesse Jacob; Saint Paul, MN

Erin Jordahl-Redlin; St. Anthony, MN

Randy Kouri; Minneapolis, MN

Elizabeth LaPorte; Saint Paul, MN

Joel Levie; Evansville, MN

Sherri Mann; Marine on Saint Croix, MN

Karen O'Connor; Minneapolis, MN

Chuck Pearson; Minnetonka, MN

Julie Sabin; address not provided

Steve Sandberg; Roseville, MN

Joanne Reinhart; Sauk Rapids, MN

Jolene Theodosopoulos; Sioux Falls, SD

Alice VanDeStroet; Canton, SD

Erin Foster West; Saint Paul, MN

Arwen Wilder; Minneapolis, MN

Chuck Wolff; Burnsville, MN

To: BigStoneEIS [BigStoneEIS@wapa.gov]  
Subject: We need clean energy, for our health and our economy.  
Date: 06/01/06 8:58 PM

FL-2a

"Increasing clean", I believe the commercial says. Yes increasing clean but never clean. Even with the new technology to capture pollutants before it reaches our our children's air, we cannot just bury it and hope it will go away. Let's make a stand to our children's future. The economics will respond. We are America, we meet challenges. our history is clear. Be a leader that matters. I am concerned about the proposal to build a new coal plant in South Dakota, rather than investing in clean energy that supports local communities and is better for our health.

Since the proposed plant is expected to operate for at least forty years, the true consequences of its pollution potential must be examined. The draft Environmental Impact Statement did not show conclusively that building a new coal plant is really less costly, in health, environmental, social, cultural, and economic terms, than alternatives to develop renewable resources.

- The draft Environmental Impact Statement prepared for the proposal did not fully consider the alternative of using a combination of fossil and renewable fuels to meet the alleged needs of the Big Stone partners.
- Renewable energy sources seemed to be quickly dismissed as alternatives to a coal plant, because these sources didn't meet the "needs and objectives" of the utilities. More consideration should have been given to the needs and objectives of the customers of the utilities.
- The determination that a new coal plant is the only alternative that would result in reasonable long-term operating costs seems incomplete, since the draft Environmental Impact Statement did not consider the potential for future costs related to the emission of greenhouse gases. Carbon dioxide is not currently regulated under the Clean Air Act, but it will most likely be a regulated pollutant in the near future.
- The draft Environmental Impact Statement assumes that the federal Clean Air Mercury Rule will not be changed or delayed due to legal challenges. It also assumes that mercury pollution does not significantly impact local water bodies. However, recent studies in Massachusetts, Florida, Ohio, and the Great Lakes show that local sources of mercury negatively impact local water bodies to a greater extent than previously thought.
- The social and environmental justice issues relating to mercury were ignored in the draft Environmental Impact Statement. The Environmental Impact Statement did not address the contribution that the proposed coal plant's mercury pollution will have on the health of women, children, and anyone who fishes for food. The draft Environmental Impact Statement does not adequately consider the environmental, health, social, cultural and related economic impacts of the proposed Big Stone coal plant. Please include a more complete analysis of the full impacts of the coal plant proposal in the final Environmental Impact Statement.

Thank you for your time.

Rodney Campbell  
Brooklyn Park, MN

To: BigStoneEIS [BigStoneEIS@wapa.gov]  
Subject: We need clean energy, for our health and our economy.  
Date: 06/02/06 8:20 AM

FL-3a

I am appalled by the proposal to build a new coal plant in South Dakota, rather than investing in clean energy that supports local communities and is better for our health.

FL-3b

We just passed legislation in Minnesota to reduce mercury. Why are you proposing to increase mercury pollution again. This is unacceptable, especially in an area of the state that has potential for wind power.

Since the proposed plant is expected to operate for at least forty years, the true consequences of its pollution potential must be examined. The draft Environmental Impact Statement did not show conclusively that building a new coal plant is really less costly, in health, environmental, social, cultural, and economic terms, than alternatives to develop renewable resources.

- The draft Environmental Impact Statement prepared for the proposal did not fully consider the alternative of using a combination of fossil and renewable fuels to meet the alleged needs of the Big Stone partners.
- Renewable energy sources seemed to be quickly dismissed as alternatives to a coal plant, because these sources didn't meet the "needs and objectives" of the utilities. More consideration should have been given to the needs and objectives of the customers of the utilities.
- The determination that a new coal plant is the only alternative that would result in reasonable long-term operating costs seems incomplete, since the draft Environmental Impact Statement did not consider the potential for future costs related to the emission of greenhouse gases. Carbon dioxide is not currently regulated under the Clean Air Act, but it will most likely be a regulated pollutant in the near future.
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The draft Environmental Impact Statement does not adequately consider the environmental, health, social, cultural and related economic impacts of the proposed Big Stone coal plant. Please include a more complete analysis of the full impacts of the coal plant proposal in the final Environmental Impact Statement.

FL-3c

Please consider dropping this proposal in favor of a renewable, environmentally friendly energy solution.

Patience Caso  
Saint Louis Park, MN

**To:** "bigstoneeis@wapa.gov" <bigstoneeis@wapa.gov>  
**Date:** 7/23/2006 6:12 PM  
**Subject:** Stop the Big Stone Coal plant

- FL-4a [I am concerned about the proposal to build a new coal plant in South Dakota right next to the Minnesota border and supplying power to Minnesota citizens, rather than investing in clean energy that supports local communities and is better for our health. I find it disturbing that such a plant, whose production is destined largely for Minnesotas use, but has inadequate pollution controls to meet Minesota's standards, would be sited just adjacent to the state to avoid this problem.] [When a vast resource of un-utilized, economically stable, and environemntally beneficial wind power is located literally around the proposed site, I cannot believe that an accurate investigation of costs and banefits has led to the conclusion that yet one more coal plant is the 'best' alternative.]
- FL-4b [I am concerned about the proposal to build a new coal plant in South Dakota right next to the Minnesota border and supplying power to Minnesota citizens, rather than investing in clean energy that supports local communities and is better for our health. I find it disturbing that such a plant, whose production is destined largely for Minnesotas use, but has inadequate pollution controls to meet Minesota's standards, would be sited just adjacent to the state to avoid this problem.] [When a vast resource of un-utilized, economically stable, and environemntally beneficial wind power is located literally around the proposed site, I cannot believe that an accurate investigation of costs and banefits has led to the conclusion that yet one more coal plant is the 'best' alternative.]
- FL-4c [We are looking at a decision that will effect my future, and that of future generations for decades to come as (in its current support of another coal plant at Big Stone) a major contributor to fossil fuel dependence and global warming.] [The draft Environmental Impact Statement did not show conclusively that building a new coal plant is in the long run really less costly, in health, environmental, social, cultural, and economic terms, than alternatives to develop renewable resources.]
- FL-4d [We are looking at a decision that will effect my future, and that of future generations for decades to come as (in its current support of another coal plant at Big Stone) a major contributor to fossil fuel dependence and global warming.] [The draft Environmental Impact Statement did not show conclusively that building a new coal plant is in the long run really less costly, in health, environmental, social, cultural, and economic terms, than alternatives to develop renewable resources.]
- FL-4e • The draft Environmental Impact Statement prepared for the proposal did not fully consider the alternative of using a combination of fossil and renewable fuels to meet the alleged needs of the Big Stone partners. [Further the societal benefits of a locally-based non-polluting source of energy are primarily discounted: a common practice in fossil energy development, while the negative externatilities of toxic pollution and carbon emissions have been underestimated.]
- FL-4f • The draft Environmental Impact Statement assumes that the federal Clean Air Mercury Rule will not be changed or delayed due to legal challenges, [which could significantly increase the costs of Big Stone through higher pollution standards, even without the considerations of the hidden health and environmental impacts of the mercury itself.] It assumes that mercury pollution does not significantly impact local water bodies, though recent studies in Pennsylvania, Massachusetts, Florida, Ohio, and the Great Lakes show that local sources of mercury negatively impact local water bodies to a greater extent than previously thought. [Mercury pollution is a serious problem for anyone who eats fish, in addition to the wildlife (especially birds) that make living in Minnesota attractive and support a strong tourism and outdoor recreation industry, providing over 300,000 jobs in Minnesota alone.]
- FL-4g [Mercury pollution is a serious problem for anyone who eats fish, in addition to the wildlife (especially birds) that make living in Minnesota attractive and support a strong tourism and outdoor recreation industry, providing over 300,000 jobs in Minnesota alone.]
- FL-4h • The social and environmental justice issues relating to mercury were ignored in the draft Environmental Impact Statement. The Environmental Impact Statement did not address the contribution that the proposed coal plant's mercury pollution will have on the health of women, children, and anyone who fishes for food.
- FL-4i • The determination that a new coal plant is the only alternative that would result in reasonable long-term operating costs seems incomplete, since the draft Environmental Impact Statement did not consider the potential for future costs related to the emission of greenhouse gases. Carbon dioxide is not currently regulated under the Clean Air Act, but it is likely that it will be regulated in the future, imposing further costs on the Big Stone II facility and other coal power plants as the most carbon-polluting of power facilities. Furthermore, significant reductions of carbon emissions will be necessary to stabilize global climate and avert a substantial increase in major disastrous climatic events such as Hurricane Katrina, major flood and drought events, and the expansion of infectious tropical diseases. As a project that produces energy through the most carbon-intensive means, this project imposes a massive un-counted cost on our future.
- FL-4j • Alternatives like extensive wind power development, which are extremely (end of message received)

Timothy DenHerder-Thomas; Saint Paul,MN

To: BigStoneEIS [BigStoneEIS@wapa.gov]  
Subject: Stop the Big Stone Coal plant  
Date: 07/02/06 9:12 PM

I am concerned about the proposal to build a new coal plant in South Dakota, rather than investing in clean energy that supports local communities and is better for our health.

Since the proposed plant is expected to operate for at least forty years, the true consequences of its pollution potential must be examined. The draft Environmental Impact Statement did not show conclusively that building a new coal plant is really less costly, in health, environmental, social, cultural, and economic terms, than alternatives to develop renewable resources.

- The draft Environmental Impact Statement prepared for the proposal did not fully consider the alternative of using a combination of fossil and renewable fuels to meet the alleged needs of the Big Stone partners.
- Renewable energy sources seemed to be quickly dismissed as alternatives to a coal plant, because these sources didn't meet the "needs and objectives" of the utilities. More consideration should have been given to the needs and objectives of the customers of the utilities.
- The determination that a new coal plant is the only alternative that would result in reasonable long-term operating costs seems incomplete, since the draft Environmental Impact Statement did not consider the potential for future costs related to the emission of greenhouse gases. Carbon dioxide is not currently regulated under the Clean Air Act, but it will most likely be a regulated pollutant in the near future.
- The draft Environmental Impact Statement assumes that the federal Clean Air Mercury Rule will not be changed or delayed due to legal challenges. It also assumes that mercury pollution does not significantly impact local water bodies. However, recent studies in Massachusetts, Florida, Ohio, and the Great Lakes show that local sources of mercury negatively impact local water bodies to a greater extent than previously thought.
- The social and environmental justice issues relating to mercury were ignored in the draft Environmental Impact Statement. The Environmental Impact Statement did not address the contribution that the proposed coal plant's mercury pollution will have on the health of women, children, and anyone who fishes for food. The draft Environmental Impact Statement does not adequately consider the environmental, health, social, cultural and related economic impacts of the proposed Big Stone coal plant. Please include a more complete analysis of the full impacts of the coal plant proposal in the final Environmental Impact Statement.

The draft Environmental Impact Statement does not adequately consider the environmental, health, social, cultural and related economic impacts of the proposed Big Stone coal plant. Please include a more complete analysis of the full impacts of the coal plant proposal in the final Environmental Impact Statement.

FL-5a

I'm from original Milbank and have seen the air pollution and the quality of the lake water and fishing deteriorated since the opening of the first power plant.

Thank you for your time.

Sincerely

Helmbrecht Gaylord  
Sioux Falls, SD

To: BigStoneEIS [BigStoneEIS@wapa.gov]  
Subject: Not a Tree Hugger - Stop the Big Stone Coal plant  
Date: 06/21/06 2:32 PM

FL-6a

Obviously I'm using a pre-written message, but before you decide to read or ignore it, consider this. I'm not a tree hugger or a green freak. I'm a business woman. I'm a capitalist. I cannot see the economic sense in building a coal facility. The future is elsewhere. Get with the program, please. We need you making good decisions.

I am concerned about the proposal to build a new coal plant in South Dakota, rather than investing in clean energy that supports local communities and is better for our health.

Since the proposed plant is expected to operate for at least forty years, the true consequences of its pollution potential must be examined. The draft Environmental Impact Statement did not show conclusively that building a new coal plant is really less costly, in health, environmental, social, cultural, and economic terms, than alternatives to develop renewable resources.

- The draft Environmental Impact Statement prepared for the proposal did not fully consider the alternative of using a combination of fossil and renewable fuels to meet the alleged needs of the Big Stone partners.
- Renewable energy sources seemed to be quickly dismissed as alternatives to a coal plant, because these sources didn't meet the "needs and objectives" of the utilities. More consideration should have been given to the needs and objectives of the customers of the utilities.
- The determination that a new coal plant is the only alternative that would result in reasonable long-term operating costs seems incomplete, since the draft Environmental Impact Statement did not consider the potential for future costs related to the emission of greenhouse gases. Carbon dioxide is not currently regulated under the Clean Air Act, but it will most likely be a regulated pollutant in the near future.
- The draft Environmental Impact Statement assumes that the federal Clean Air Mercury Rule will not be changed or delayed due to legal challenges. It also assumes that mercury pollution does not significantly impact local water bodies. However, recent studies in Massachusetts, Florida, Ohio, and the Great Lakes show that local sources of mercury negatively impact local water bodies to a greater extent than previously thought.
- The social and environmental justice issues relating to mercury were ignored in the draft Environmental Impact Statement. The Environmental Impact Statement did not address the contribution that the proposed coal plant's mercury pollution will have on the health of women, children, and anyone who fishes for food. The draft Environmental Impact Statement does not adequately consider the environmental, health, social, cultural and related economic impacts of the proposed Big Stone coal plant. Please include a more complete analysis of the full impacts of the coal plant proposal in the final Environmental Impact Statement.

The draft Environmental Impact Statement does not adequately consider the environmental, health, social, cultural and related economic impacts of the proposed Big Stone coal plant. Please include a more complete analysis of the full impacts of the coal plant proposal in the final Environmental Impact Statement.

Thank you for your time.

Respectfully yours  
Julie Sabin

To: BigStoneEIS [BigStoneEIS@wapa.gov]  
Subject: (none)  
Date: 06/05/06 12:44 PM

I am appalled at the proposal to build a new coal plant in South Dakota, rather than investing in clean energy that supports local communities and is better for our health.

Since the proposed plant is expected to operate for at least forty years, the true consequences of its pollution potential must be examined. The draft Environmental Impact Statement did not show conclusively that building a new coal plant is really less costly, in health, environmental, social, cultural, and economic terms, than alternatives to develop renewable resources.

- The draft Environmental Impact Statement prepared for the proposal did not fully consider the alternative of using a combination of fossil and renewable fuels to meet the alleged needs of the Big Stone partners.
- Renewable energy sources seemed to be quickly dismissed as alternatives to a coal plant, because these sources didn't meet the "needs and objectives" of the utilities. More consideration should have been given to the needs and objectives of the customers of the utilities.
- The determination that a new coal plant is the only alternative that would result in reasonable long-term operating costs seems incomplete, since the draft Environmental Impact Statement did not consider the potential for future costs related to the emission of greenhouse gases. Carbon dioxide is not currently regulated under the Clean Air Act, but it will most likely be a regulated pollutant in the near future.
- The draft Environmental Impact Statement assumes that the federal Clean Air Mercury Rule will not be changed or delayed due to legal challenges. It also assumes that mercury pollution does not significantly impact local water bodies. However, recent studies in Massachusetts, Florida, Ohio, and the Great Lakes show that local sources of mercury negatively impact local water bodies to a greater extent than previously thought.
- The social and environmental justice issues relating to mercury were ignored in the draft Environmental Impact Statement. The Environmental Impact Statement did not address the contribution that the proposed coal plant's mercury pollution will have on the health of women, children, and anyone who fishes for food. The draft Environmental Impact Statement does not adequately consider the environmental, health, social, cultural and related economic impacts of the proposed Big Stone coal plant. Please include a more complete analysis of the full impacts of the coal plant proposal in the final Environmental Impact Statement.

The draft Environmental Impact Statement does not adequately consider the environmental, health, social, cultural and related economic impacts of the proposed Big Stone coal plant. Please include a more complete analysis of the full impacts of the coal plant proposal in the final Environmental Impact Statement.

FL-7a

It would also serve us all well to do a comparative study of pollution, output and costs between this and windmill technology. Only then can you shut up the environmentalists. Otherwise we will keep being a thorn in your side.

Thank you for your time.

Arwen Wilder  
Minneapolis, MN

# Sierra Club Form Letter

To: BigStoneEIS [BigStoneEIS@wapa.gov]  
Subject: Comments on the Big Stone II WAPA Draft Environmental Impact Statement

Ms. Werdel

I am writing to comment on the WAPA Draft Environmental Impact Statement for the proposed Big Stone II coal plant expansion. I am deeply concerned about this proposed expansion and how it will affect Minnesota's environment, and our health. Several aspects of the DEIS are inadequate, and I would like to point out a few of the areas that I am concerned about, and need deeper examination in the final EIS:

- FL-8a [ (1) Alternatives - The DEIS does not provide an adequate analysis of alternatives to Big Stone II, such as wind and solar development, energy efficiency, and demand side management. It also fails to examine alternative plant sites and technology. Alternatives that would reduce the environmental impacts have not been analyzed, which contradicts the National Environmental Policy Act (NEPA) and Section 404 of the Clean Water Act.] [In addition, the DEIS does not mitigate the impact transmission lines will have on wetlands, and less damaging alternatives.] ] FL-8b
- FL-8c [ 2) Cost – The DEIS does not consider the full range of costs related to future operation and expansion of a coal plant, including the rising cost of coal and gasoline for its transport, the likelihood of future regulation of carbon dioxide, and the significant social costs. A recent report from IATP and MCEA found that every year Minnesota alone spends \$303 million on neurobehavioral disorders, and \$30.6 million on asthma in Minnesotan children. Mercury and particulate matter from coal plant emissions contribute significantly to these illnesses. ]
- FL-8d [ 3) Mercury and Environmental Justice – the DEIS does not adequately take into account the Environmental Justice implications of the expansion of the coal plant and the impact on human health, particularly for women, children, and subsistence fishers. The DEIS does not consider, for example, the disproportionate impact on Native American families that live in proximity to the plant and consume a large amount of fish that are mercury contaminated. ]
- FL-8e [ 4) Carbon dioxide emissions and climate change – The DEIS says that Big Stone II would emit 8.9 million tons of carbon dioxide every year, making a serious contribution to global warming. The DEIS does not take into account alternatives that could mitigate or control the projected CO2, violating the President's national goal for reducing intensity of carbon emissions in the American economy 18% by 2012. ]
- FL-8f [ [I trust that WAPA will incorporate these concerns into the final EIS and create a document that more than adequately addresses these issues. I strongly oppose the expansion of this new coal plant, and transmission lines to serve it.] [The WAPA DEIS should reflect the extensive health and environmental damage Big Stone II will create, and propose alternatives to its construction.] ] FL-8g

Thank you for your time and consideration on this matter.



## Sierra Club Form Letter

Signatories to the Sierra Club Form Letter:

Megan Anderson; Fridley, MN

Michelle Anderson; Woodbury, MN

Steve Anderson; St. Francis, MN

Ulrike Anderson; Stillwater, MN

Jim Armstrong; Minneapolis, MN

Jamie Banicki; Duluth, MN

Teri Bedard; Des Moines, IA

Gail Benoit; Saint Paul, MN

Margaret Boettcher; Stillwater, MN

Colin Bogucki; Minneapolis, MN

Mary Breslin; Minneapolis, MN

Robbie Brokken; Harmony, MN

C. Brown; Mabel, MN

Craig Brown; Bloomington, MN

Christopher Brueske; Saint Paul, MN

Wayne Buisman; Harris, MN

Barbara Buehl; Eden Prairie, MN

Elizabeth Burr; Saint Paul, MN

Alan Carlson; Saint Paul, MN

Jonathan D. Carlson; Atwater, MN

Jack Carrick; N. Saint Paul, MN

Clarence Chaplin; Saint Paul, MN

Carolyn Clements; Minnetonka, MN

Sharon Coombs; Shoreview, MN

Stefan Collinet-Adler; Saint Paul, MN

Kelli Cool; Blaine, MN

Anne Conroy; North Oaks, MN

Kyle Crocker; Bemidji, MN

Val Cunningham; Saint Paul, MN

Angela Curran; Northfield, MN

Scott Daby; Minneapolis, MN

Herbert Davis; Sauk Centre, MN

Robert Davis; Saint Louis Park, MN

Timothy DenHerder-Thomas; Saint Paul, MN

Becky Detert; Welcome, MN

Rebecca Diffley; Maplewood, MN

Carol Dixon; Andover, MN

Stephen Donnelly; Easthampton, MA

Elizabeth Dostal; Bloomington, MN

Patrick Dreese; Plymouth, MN

Sandy Duffy; Eden Prairie, MN

Doug Duncan; Stanton, MN

Nancy Durkee; Eagan, MN

Bo Ekmark; Duluth, MN

Susan Elsner; Minneapolis, MN

Cheryl Engel; Minneapolis, MN

Andrew Engen; Albertville, MN

Katy Englund; Rush City, MN

Caroline Erickson; Hopkins, MN

Dinda Evans; San Diego, CA

Meghann Fedde; Minneapolis, MN

Deborah Fellows; Arden Hills, MN

Richard Fish; Minneapolis, MN

Kim Fortin; Minneapolis, MN

## Sierra Club Form Letter

Diane Fortney; Spicer, MN

Paula Fox; Golden Valley, MN

M. Franssen; Edina, MN

Erin Frett; Minneapolis, MN

Michelle Friessen; Minneapolis, MN

Matthew Friessen; Annapolis, MD

Joel Fuller; Minneapolis, MN

Cami Funkhouser; Rush City, MN

Annie Gardner; Minneapolis, MN

P. Gibbons; Minneapolis, MN

Paul Giefer; Minneapolis, MN

Peter Glick; Saint Paul, MN

David Goon; Bloomington, MN

Cynthia Goss; Bloomington, MN

Karen Grande; New Hope, MN

Nancy Grilz; Shoreview, MN

Jon Grinnell; Saint Peter, MN

Scott Grinnell; Ashland, WI

Richard Graves; Saint Paul, MN

Carol Green; Minneapolis, MN

Gene Groebner; Saint Paul, MN

Monica Gross; Minneapolis, MN

Eileen Grundstrom; White Bear Lake, MN

Amanda Gurgone; Minneapolis, MN

Wendy Haan; Minneapolis, MN

Jo Ann Haberman; Minneapolis, MN

Maureen Hackett, M.D.; Minnetonka, MN

Janet Hannaford; Golden Valley, MN

Clyde Hanson; Lutsen, MN

Troy Hanson; New Prague, MN

Karen Harder; Minneapolis, MN

Samantha Hatttey; Marshall, MN

Thomas Herdtle; Inver Grove Heights, MN

Kent Hering; Bemidji, MN

Marcia Hoffman; Alexandria, MN

Joshua Houdek; Minneapolis, MN

Mike and Nancy Houghton; Nevis, MN

Karen Hulstrand; Stillwater, MN

Sung Hwang; Eden Prairie, MN

Ann Isaksen; Minneapolis, MN

Beth Iverson; Shakopee, MN

Craig Johnson; Saint Louis Park, MN

Denny Johnson; Garvin, MN

Lee Johnson; Edina, MN

Lori Johnson; Eden Prairie, MN

Rebecca Johnson; Minneapolis, MN

Susan Johnson; Edina, MN

Jay and Deanna Juergens; Bloomington, MN

Sherrie Kamm; Minneapolis, MN

John Kammer; Savage, MN

Peter Karhatsu; Lakeville, MN

Patrick Kelley; Northfield, MN

Maizie Kelly; Minneapolis, MN

Jennifer Kendall; Winona, MN

Kate Kezar; Farmington, MN

## Sierra Club Form Letter

Eric Kischell; Oronoco, MN  
Scott Kneeskern; Stillwater, MN  
Kris Koehnen; Minneapolis, MN  
Ted Koshiol; Northfield, MN  
Eugene Kremer; Saint Paul, MN  
Linda Kriel; Newport, MN  
Laura Kroeten-Bue; Minneapolis, MN  
Becky Krueger; Burnsville, MN  
Cynthia Launer; Minneapolis, MN  
Daniel Leanio; Minneapolis, MN  
Cristine Leavitt; Arden Hills, MN  
Lori J Lecount; Minneapolis, MN  
Tiffany Lemmons; Saint Paul, MN  
Neal Lesmeister; Baxter, MN  
Tom Limond; Minneapolis, MN  
Steve Linnerooth; Center City, MN  
Corinne Livesay; White Bear Lake, MN  
Michael Loscheider; Minneapolis, MN  
Michelle Losey; Burnsville, MN  
Barry Maloney; Minneapolis, MN  
Frank Manzo; Rochester, MN  
Dan & Betty Meados; Side Lake, MN  
Christopher Mitchell; Saint Paul, MN  
Jamie Mitchell; Farmington, MN  
Keith Monsaas; Duluth, MN  
Phyl Morello; Albrightsville, PA  
Tom Morris; Plymouth, MN  
Peter Mortensen; Roseville, MN

Jeremiah Myer; Waseca, MN  
Donald Myers; Rochester, MN  
Carrie Nelson; No. Saint Paul, MN  
Christine Nelson, Coon Rapids, MN  
Clareyse Nelson; Minneapolis, MN  
Tim Nelson; Duluth, MN  
Julie Nester; Minneapolis, MN  
Thomas Newcombe; Shoreview, MN  
Robert Niemi; Crystal, MN  
Teresa Nordquist; Eden Prairie, MN  
Jane Norling; Minnetrista, MN  
Pat Nudd; Cedar, MN  
Ryan O'Connell; Virginia, MN  
Alan Olander; Nevis, MN  
Wendy Olson; Maple Grove, MN  
Janice Patrick; Maplewood, MN  
Brin Petersen; Minneapolis, MN  
Leslie Pilgrim; Mendota Hts, MN  
Marjorie Pitz; Saint Paul, MN  
Jan Pohlen; Coon Rapids, MN  
Betsey Porter; Bloomington, MN  
Tony Prokott; Minneapolis, MN  
Parker Quammen; Zumbrota, MN  
Teddy Raby; Excelsior, MN  
Ian Radtke; Minneapolis, MN  
Jane Ralls; Minneapolis, MN  
Mindy Rechelbacher; Wayzata, MN  
Tim Reede; Minneapolis, MN

## Sierra Club Form Letter

Mike Refsland; Minneapolis, MN

Julie Remington; Saint Paul, MN

Todd Reps; Minneapolis, MN

Bill Rickmeyer; Nisswa, MN

Sheila Williams Ridge; West Saint Paul, MN

Theresa Rooney; Robbinsdale, MN

Nancy Rowland; Saint Paul, MN

Carlos Rymer; Union City, NJ

Donna Sandon; Courtland, MN

Merry Sawdey; Cannon Falls, MN

Rick Schubert; Hovland, MN

John Sens; Eden Prairie, MN

Pat Shannon; Minneapolis, MN

Rebecca Shedd; Minneapolis, MN

Bennett Siems; Minneapolis, MN

Shawn Simonson; Lake Crystal, MN

Joan Simpson; Saint Paul, MN

Mark Sperry; North Oaks, MN

Erin Stojan; Saint Paul, MN

Reba Stone; St. Simons Island, GA

Kay Strand; Edina, MN

William Steele; Bovey, MN

Martin Steitz; Forest Lake, MN

Patrick Stoffel; St. Joseph, MN

Sharen Storhoff; Mabel, MN

Jeffrey Swainhart; Minneapolis, MN

Dan Tanner; Bloomington, MN

Adam Tembreull; Rogers, MN

Scott Thiem; N. Mankato, MN

Brian Thorbjornsen; Cloquet, MN

Dylan Thorbjornsen; Cloquet, MN

Richard Thorbjornsen; Park Falls, WI

Patresha Tkach; Saint Paul, MN

Beth Toso; Minneapolis, MN

Brian Trusinsky; Richfield, MN

John Velie; Minneapolis, MN

Mary Vlazny; Rochester, MN

Dolores Voorhees; Cedar, MN

John Wehler; Crystal, MN

Don Weirens; Saint Louis Park, MN

Elizabeth Weis; Minneapolis, MN

Richard Wheeler; Minneapolis, MN

Natascha Wiener; Minneapolis, MN

Jessica Willey; Eden Prairie, MN

Winnie Williams; Woodbury, MN

Susan Wiste; Farwell, MN

Anne Wogen; Eden Prairie, MN

Nicole Wood; Blaine, MN

Dan Zielske; Morristown, MN

Ben Zimmerman; Falcon Heights, MN

Erica Zweifel; Northfield, MN

**To:** <BigStoneEIS@wapa.gov>  
**Date:** Fri, Jul 21, 2006 2:30 PM  
**Subject:** Comments on the Big Stone II WAPA Draft Environmental Impact Statement

Ms. Werdel

I am writing to comment on the WAPA Draft Environmental Impact Statement for the proposed Big Stone II coal plant expansion. I am deeply concerned about this proposed expansion and how it will affect Minnesota's environment, and our health. [I believe that we all of us, you and I, have a sacred duty to protect and preserve the gift of Creation—Clean Water, Clean Air.]

FL-9a

Several aspects of the DEIS are inadequate, and I would like to point out a few of the areas that I am concerned about, and need deeper examination in the final EIS:

1) Alternatives - The DEIS does not provide an adequate analysis of alternatives to Big Stone II, such as wind and solar development, energy efficiency, and demand side management. It also fails to examine alternative plant sites and technology. Alternatives that would reduce the environmental impacts have not been analyzed, which contradicts the National Environmental Policy Act (NEPA) and Section 404 of the Clean Water Act. In addition, the DEIS does not mitigate the impact transmission lines will have on wetlands, and less damaging alternatives.

2) Cost – The DEIS does not consider the full range of costs related to future operation and expansion of a coal plant, including the rising cost of coal and gasoline for its transport, the likelihood of future regulation of carbon dioxide, and the significant social costs. A recent report from IATP and MCEA found that every year Minnesota alone spends \$303 million on neurobehavioral disorders, and \$30.6 million on asthma in Minnesotan children. Mercury and particulate matter from coal plant emissions contribute significantly to these illnesses.

3) Mercury and Environmental Justice – the DEIS does not adequately take into account the Environmental Justice implications of the expansion of the coal plant and the impact on human health, particularly for women, children, and subsistence fishers. The DEIS does not consider for example, the disproportionate impact on Native American families that live in proximity to the plant and consume a large amount of fish that are mercury contaminated.

4) Carbon dioxide emissions and climate change – The DEIS says that Big Stone II would emit 8.9 million tons of carbon dioxide every year, making a serious contribution to global warming. The DEIS does not take into account alternatives that could mitigate or control the projected CO<sub>2</sub>, violating the President's national goal for reducing intensity of carbon emissions in the American economy 18% by 2012.

I trust that WAPA will incorporate these concerns into the final EIS and create a document that more than adequately addresses these issues. I strongly oppose the expansion of this new coal plant, and transmission lines to serve it. The WAPA DEIS should reflect the extensive health and environmental damage Big Stone II will create, and propose alternatives to its construction.

Thank you for your time and consideration on this matter.

Margaret Boettcher  
Stillwater, MN

**To:** <BigStoneEIS@wapa.gov>  
**Date:** Tue, Jul 18, 2006 8:11 PM  
**Subject:** More WindSource, Not Coal-Fired Big Stone II Environmental Impacts

Ms. Werdel

FL-10a [ Our family gladly pays 20% extra for 100% wind-sourced electricity.] [ Our greatest treasure in Minnesota (besides our children, and two of our kids have asthma - which is aggravated by particulates from powerplant emissions) are our 10,000 beautiful lakes, many of which have recently been downgraded with fish consumption advisories due to mercury from power plant fallout.] [And Western MN contains one of the best locations for wind power in the entire country - what a backwards idea to expand coal fired generation, when we could shift our energy mix towards wind power!]

FL-10c

FL-10b

I am writing to comment on the WAPA Draft Environmental Impact Statement for the proposed Big Stone II coal plant expansion. I am deeply concerned about this proposed expansion and how it will affect Minnesota's environment, and our health. Several aspects of the DEIS are inadequate, and I would like to point out a few of the areas that I am concerned about, and need deeper examination in the final EIS:

1) Alternatives - The DEIS does not provide an adequate analysis of alternatives to Big Stone II, such as wind and solar development, energy efficiency, and demand side management. It also fails to examine alternative plant sites and technology. Alternatives that would reduce the environmental impacts have not been analyzed, which contradicts the National Environmental Policy Act (NEPA) and Section 404 of the Clean Water Act. In addition, the DEIS does not mitigate the impact transmission lines will have on wetlands, and less damaging alternatives.

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Thank you for your time and consideration on this matter.

Lee Johnson  
Edina, MN

To: BigStoneEIS [BigStoneEIS@wapa.gov]  
Subject: Comments on the Big Stone II WAPA Draft Environmental Impact Statement  
Date: 07/20/06 11:24 AM

Ms. Werdel

I am writing to comment on the WAPA Draft Environmental Impact Statement for the proposed Big Stone II coal plant expansion. I am deeply concerned about this proposed expansion and how it will affect Minnesota's environment, and our health. Several aspects of the DEIS are inadequate, and I would like to point out a few of the areas that I am concerned about, and need deeper examination in the final EIS:

1) Alternatives - The DEIS does not provide an adequate analysis of alternatives to Big Stone II, such as wind and solar development, energy efficiency, and demand side management. It also fails to examine alternative plant sites and technology. Alternatives that would reduce the environmental impacts have not been analyzed, which contradicts the National Environmental Policy Act (NEPA) and Section 404 of the Clean Water Act. In addition, the DEIS does not mitigate the impact transmission lines will have on wetlands, and less damaging alternatives.

2) Cost – The DEIS does not consider the full range of costs related to future operation and expansion of a coal plant, including the rising cost of coal and gasoline for its transport, the likelihood of future regulation of carbon dioxide, and the significant social costs. A recent report from IATP and MCEA found that every year Minnesota alone spends \$303 million on neurobehavioral disorders, and \$30.6 million on asthma in Minnesotan children. Mercury and particulate matter from coal plant emissions contribute significantly to these illnesses.

3) Mercury and Environmental Justice – the DEIS does not adequately take into account the Environmental Justice implications of the expansion of the coal plant and the impact on human health, particularly for women, children, and subsistence fishers. The DEIS does not consider, for example, the disproportionate impact on Native American families that live in proximity to the plant and consume a large amount of fish that are mercury contaminated.

4) Carbon dioxide emissions and climate change – The DEIS says that Big Stone II would emit 8.9 million tons of carbon dioxide every year, making a serious contribution to global warming. The DEIS does not take into account alternatives that could mitigate or control the projected CO2, violating the President's national goal for reducing intensity of carbon emissions in the American economy 18% by 2012.

I trust that WAPA will incorporate these concerns into the final EIS and create a document that more than adequately addresses these issues. I strongly oppose the expansion of this new coal plant, and transmission lines to serve it. The WAPA DEIS should reflect the extensive health and environmental damage Big Stone II will create, and propose alternatives to its construction.

Thank you for your time and consideration on this matter.

MY ADDITION:

WE NEED TO FUND MORE WIND POWER, AND AS PRES. CARTER DID, OFFER REBATES TO THOSE WHO INSTALL ENERGY SAVING ALTERNATIVES AT HOME. THEN, WE NEED TO FUND ALTERNATIVE ENERGY RESEARCH. WE CAN'T CONTINUE TO CONTAMINATE OUR ATMOSPHERE!!!

FL-11a

Corinne Livesay  
White Bear Lake, MN

To: BigStoneEIS [BigStoneEIS@wapa.gov]  
Subject: Comments on the Big Stone II WAPA Draft Environmental Impact Statement  
Date: 07/18/06 5:58 PM

Ms. Werdel

I am writing to comment on the WAPA Draft Environmental Impact Statement for the proposed Big Stone II coal plant expansion. I am deeply concerned about this proposed expansion and how it will affect Minnesota's environment, and our public health. Several aspects of the DEIS are inadequate, and I would like to point out a few of the areas that I am most concerned about, that need deeper examination in the final EIS:

FL-12a 1) Alternatives - The DEIS does not provide an adequate analysis of alternatives to Big Stone II, such as renewable wind and solar development, energy efficiency, and demand side management. [Much could be done to shift peak demand to nonpeak hours, as well as encouraging a more decentralized power system where delivery losses are minimized. It also fails to examine alternative plant sites and technology.] Alternatives that would reduce the environmental impacts have not been analyzed, which contradicts the National Environmental Policy Act (NEPA) and Section 404 of the Clean Water Act. In addition, the DEIS does not mitigate the impact transmission lines will have on wetlands, and less damaging alternatives.

FL-12b 2) True Cost (not merely reduced to dollar figures) -- The DEIS does not consider the full range of costs related to future operation and expansion of a coal plant, including the rising cost of coal and gasoline for its transport, the likelihood of future regulation of carbon dioxide, and the significant eco-social costs. A recent report from IATP and MCEA found that every year Minnesota alone spends \$303 million on neurobehavioral disorders, and \$30.6 million on asthma in Minnesotan children. Mercury and particulate matter from coal plant emissions contribute significantly to these "externality" illnesses. [The economic orthodox acceptance of externalization of costs is illegitimate and in effect sociopathic. Public policy is long overdue for taking these costs on the basis of the precautionary principle.]

3) Mercury and Environmental Justice - the DEIS does not adequately take into account the Environmental Justice implications of the expansion of the coal plant and the impact on human health, particularly for women, children, and subsistence fishers. The DEIS does not consider for example, the disproportionate impact on Native American families that live in proximity to the plant and consume a large amount of fish which have steadily increasing mercury contamination.

4) CO2 emissions and climate change - The DEIS says that Big Stone II would emit 8.9 million tons of carbon dioxide every year, contributing to acceleration of global warming. The DEIS does not take into account alternatives that could mitigate or control the projected CO2, violating the President's national goal for reducing intensity of carbon emissions in the American economy 18% by 2012.

I trust that WAPA will incorporate these concerns into the final EIS and create a document that more than adequately addresses these issues. I strongly oppose the expansion of this new coal plant, and transmission lines to serve it. The WAPA DEIS should reflect the extensive health and environmental damage Big Stone II will create, and propose alternatives to its construction.

Thank you for your time and consideration on this matter.

Tony Prokott  
Minneapolis, MN



**To:** <BigStoneEIS@wapa.gov>  
**Date:** Tue, Jul 18, 2006 6:42 PM  
**Subject:** Comments on the Big Stone II WAPA Draft Environmental Impact Statement

Ms. Werdel

FL-13a

I was born and raised in Detroit Lakes, Minnesota. My father is still a doctor in my home town. I have much family throughout the state, so I feel very strongly about being a native Minnesotan, and I want what is best for our great state.] I am writing to comment on the WAPA Draft Environmental Impact Statement for the proposed Big Stone II coal plant expansion. I am deeply concerned about this proposed expansion and how it will affect Minnesota's environment, and our health. Several aspects of the DEIS are inadequate, and I would like to point out a few of the areas that I am concerned about, and need deeper examination in the final EIS:

1) Alternatives - The DEIS does not provide and adequate analysis of alternatives to Big Stone II, such as wind and solar development, energy efficiency, and demand side management. It also fails to examine alternative plant sites and technology. Alternatives that would reduce the environmental impacts have not been analyzed, which contradicts the National Environmental Policy Act (NEPA) and Section 404 of the Clean Water Act. In addition, the DEIS does not mitigate the impact transmission lines will have on wetlands, and less damaging alternatives.

2) Cost – The DEIS does not consider the full range of costs related to future operation and expansion of a coal plant, including the rising cost of coal and gasoline for its transport, the likelihood of future regulation of carbon dioxide, and the significant social costs. A recent report from IATP and MCEA found that every year Minnesota alone spends \$303 million on neurobehavioral disorders, and \$30.6 million on asthma in Minnesotan children. Mercury and particulate matter from coal plant emissions contribute significantly to these illnesses.

3) Mercury and Environmental Justice – the DEIS does not adequately take into account the Environmental Justice implications of the expansion of the coal plant and the impact on human health, particularly for women, children, and subsistence fishers. The DEIS does not consider for example, the disproportionate impact on Native American families that live in proximity to the plant and consume a large amount of fish that are mercury contaminated.

4) Carbon dioxide emissions and climate change – The DEIS says that Big Stone II would emit 8.9 million tons of carbon dioxide every year, making a serious contribution to global warming. The DEIS does not take into account alternatives that could mitigate or control the projected CO2, violating the President's national goal for reducing intensity of carbon emissions in the American economy 18% by 2012.

I trust that WAPA will incorporate these concerns into the final EIS and create a document that more than adequately addresses these issues. I strongly oppose the expansion of this new coal plant, and transmission lines to serve it. The WAPA DEIS should reflect the extensive health and environmental damage Big Stone II will create, and propose alternatives to its construction.

Thank you for your time and consideration on this matter.

Mike Refsland  
Minneapolis, MN

**To:** <BigStoneEIS@wapa.gov>  
**Date:** Tue, Jul 18, 2006 6:54 PM  
**Subject:** Comments on the Big Stone II WAPA Draft Environmental Impact Statement

Ms. Werdel

I am writing to comment on the WAPA Draft Environmental Impact Statement for the proposed Big Stone II coal plant expansion.

No! No! No!

FL-14a

We Minnesotans will be suffering for years and years from increased mercury and other pollutants downwind of this expanded plant. And the increased burning of coal will significantly increase global warming. I am glad to see that last week temperatures in the Dakotas were well into the triple digits on the F scale. I hope that temperatures this summer have been sufficient to warm your brains into the thinking mode.

I am deeply concerned about this proposed expansion and how it will affect Minnesota's environment, and our health. Several aspects of the DEIS are inadequate, and I would like to point out a few of the areas that I am concerned about, and need deeper examination in the final EIS:

- 1) Alternatives - The DEIS does not provide an adequate analysis of alternatives to Big Stone II, such as wind and solar development, energy efficiency, and demand side management. It also fails to examine alternative plant sites and technology. Alternatives that would reduce the environmental impacts have not been analyzed, which contradicts the National Environmental Policy Act (NEPA) and Section 404 of the Clean Water Act. In addition, the DEIS does not mitigate the impact transmission lines will have on wetlands, and less damaging alternatives.
- 2) Cost – The DEIS does not consider the full range of costs related to future operation and expansion of a coal plant, including the rising cost of coal and gasoline for its transport, the likelihood of future regulation of carbon dioxide, and the significant social costs. A recent report from IATP and MCEA found that every year Minnesota alone spends \$303 million on neurobehavioral disorders, and \$30.6 million on asthma in Minnesotan children. Mercury and particulate matter from coal plant emissions contribute significantly to these illnesses.
- 3) Mercury and Environmental Justice – the DEIS does not adequately take into account the Environmental Justice implications of the expansion of the coal plant and the impact on human health, particularly for women, children, and subsistence fishers. The DEIS does not consider for example, the disproportionate impact on Native American families that live in proximity to the plant and consume a large amount of fish that are mercury contaminated.
- 4) Carbon dioxide emissions and climate change – The DEIS says that Big Stone II would emit 8.9 million tons of carbon dioxide every year, making a serious contribution to global warming. The DEIS does not take into account alternatives that could mitigate or control the projected CO<sub>2</sub>, violating the President's national goal for reducing intensity of carbon emissions in the American economy 18% by 2012.

I trust that WAPA will incorporate these concerns into the final EIS and create a document that more than adequately addresses these issues. I strongly oppose the expansion of this new coal plant, and transmission lines to serve it. The WAPA DEIS should reflect the extensive health and environmental damage Big Stone II will create, and propose alternatives to its construction.

Thank you for your time and consideration on this matter.

William Steele  
Bovey, MN

**To:** <BigStoneEIS@wapa.gov>  
**Date:** Wed, Jul 19, 2006 8:29 PM  
**Subject:** Comments on the Big Stone II WAPA Draft Environmental Impact Statement

Ms. Werdel

FL-15a  Please go to the movies, specifically: An Inconvenient Truth. thanks.

I am writing to comment on the WAPA Draft Environmental Impact Statement for the proposed Big Stone II coal plant expansion. I am deeply concerned about this proposed expansion and how it will affect Minnesota's environment, and our health. Several aspects of the DEIS are inadequate, and I would like to point out a few of the areas that I am concerned about, and need deeper examination in the final EIS:

1) Alternatives - The DEIS does not provide an adequate analysis of alternatives to Big Stone II, such as wind and solar development, energy efficiency, and demand side management. It also fails to examine alternative plant sites and technology. Alternatives that would reduce the environmental impacts have not been analyzed, which contradicts the National Environmental Policy Act (NEPA) and Section 404 of the Clean Water Act. In addition, the DEIS does not mitigate the impact transmission lines will have on wetlands, and less damaging alternatives.

2) Cost – The DEIS does not consider the full range of costs related to future operation and expansion of a coal plant, including the rising cost of coal and gasoline for its transport, the likelihood of future regulation of carbon dioxide, and the significant social costs. A recent report from IATP and MCEA found that every year Minnesota alone spends \$303 million on neurobehavioral disorders, and \$30.6 million on asthma in Minnesotan children. Mercury and particulate matter from coal plant emissions contribute significantly to these illnesses.

3) Mercury and Environmental Justice – the DEIS does not adequately take into account the Environmental Justice implications of the expansion of the coal plant and the impact on human health, particularly for women, children, and subsistence fishers. The DEIS does not consider for example, the disproportionate impact on Native American families that live in proximity to the plant and consume a large amount of fish that are mercury contaminated.

4) Carbon dioxide emissions and climate change – The DEIS says that Big Stone II would emit 8.9 million tons of carbon dioxide every year, making a serious contribution to global warming. The DEIS does not take into account alternatives that could mitigate or control the projected CO<sub>2</sub>, violating the President's national goal for reducing intensity of carbon emissions in the American economy 18% by 2012.

I trust that WAPA will incorporate these concerns into the final EIS and create a document that more than adequately addresses these issues. I strongly oppose the expansion of this new coal plant, and transmission lines to serve it. The WAPA DEIS should reflect the extensive health and environmental damage Big Stone II will create, and propose alternatives to its construction.

Thank you for your time and consideration on this matter.

Patresha Tkach  
Saint Paul, MN

**MINNESOTA WANTS CLEAN ENERGY**

**Wind Works, Coal Costs**-Comments on the WAPA Draft Environmental Impact Statement for the Big Stone II Transmission Project

FL-16a

▪ Alternatives- The DEIS does not provide an adequate analysis of alternatives to Big Stone II, such as wind and solar development, energy efficiency, and demand side conservation. Right now Minnesota gets less than 2% of its power from our vast wind source, and over 65% from coal. The DEIS should include a full analysis of clean, renewable alternatives to Big Stone II.

FL-16b

▪ Cost- The DEIS does not consider the full range of costs related to future operation and expansion of a coal plant including the rising cost of coal and its transport, the likely future regulation of carbon dioxide, and the significant social costs such as a recently estimated \$303 million on neurobehavioral disorders, and \$30.6 million on asthma in Minnesotan children. Coal plants contribute significantly to such diseases.

FL-16-c

▪ Mercury and Environmental Justice- The DEIS does not adequately take into account the Environmental Justice implications of the expansion of the coal plant and the impact on human health, particularly for women, children, and subsistence fishers. For example, the disproportionate impact on Native American families that live in proximity to the plant, and consume a large amount of fish. Mercury from coal plant emissions contaminate fish tissue and cause neurobehavioral disorders. The DEIS ignores recent studies in Massachusetts, Ohio, Florida, and the Great Lakes showing that local sources of mercury impact local water bodies to a greater extent than previously known. Minnesota recently passed one of the strongest mercury reduction laws in the country. Transmission lines for a new dirty coal plant just over our border destroys the progress of bi-partisan leadership in setting new standards for mercury reduction in Minnesota.

FL-16d

Sincerely, \_\_\_\_\_

Postcards received from:

Meredith Aby; Minneapolis, MN	Ardes Johnson; Minneapolis, MN
V. Amaris; Minneapolis, MN	Greg Johnson; Saint Paul, MN
Mike and Ginny Backman; Benson MN	Sandra L. Johnson; Richfield, MN
Lee Barnett; Minneapolis MN	Jane Jost; Morris, MN
Lizette Bartholdi; Minneapolis MN	Varun Kharbanda; Minneapolis, MN
Makle Bean; Saint Paul MN	Cesia Kearns; Minneapolis, MN
Burt Bellace; Minneapolis, MN	Sean Keith; Saint Paul, MN
Catherine Berg; Frazee, MN	Alexis Lair; Minneapolis, MN
Sid Berg; Minneapolis, MN	Margaret Lerin; Saint Paul, MN
Sid & Lola Berg; Minneapolis, MN	Lane Lillquist; Minneapolis, MN
Ann K. Brady; Minneapolis, MN	Thomas E. Limond; Minneapolis, MN
Faye Brown; Minneapolis, MN	Kae Mebes; Minneapolis, MN
Jessica Burton; No address provided	Sarah Michaelson; Minneapolis, MN
Craig Cox; Minneapolis, MN	E. Mitchel; Minneapolis, MN
Bailey Craft; Fridley, MN	Aileen Oden; Minneapolis, MN
Heather Cusick; Minneapolis, MN	Kristi Papenfuss; Minneapolis, MN
Joshua Davis; Saint Paul, MN	Brian Pasko; Minneapolis, MN
Erik Earthman; Minneapolis, MN	Mary Peeples; Saint Paul, MN
Joe Foss; Minneapolis, MN	Diane J. Peterson; White Bear Lake, MN
Yvonne Godber; Minneapolis, MN	Deb Pongro; Minneapolis, MN
Sharon Goens; Minneapolis, MN	Trisha Qualy; Minneapolis, MN
John Harkness; Minneapolis, MN	Eric Reichow; Saint Paul, MN
Mark Haynes; Minneapolis, MN	Kelly Reynolds; Minneapolis, MN
Irma Hodge; Granite Falls, MN	Daniela Rumpf; Minneapolis, MN
Allison Johnson; Saint Paul, MN	Erin Rupp; Minneapolis, MN

Rainry Salk; Minneapolis, MN  
Tony Santucci; Minneapolis, MN  
D. Savran; Minneapolis, MN  
Scandin; Minneapolis, MN  
Anna Schliep; Morris, MN  
Taye Shene; Minneapolis, MN  
Jeff Shotts; Minneapolis, MN  
Alaina Song-Braire; Minneapolis, MN  
Yonow Song-Braire; Minneapolis, MN  
Stephen Allen Suss; Minneapolis, MN  
Celia Swanson; Saint Paul, MN  
Jonathan Sweet; Minneapolis, MN  
Renee Szudy; Minneapolis, MN  
Lisa Tabor; Saint Paul, MN  
Cole Thompson; Minneapolis, MN  
Brynan Thornton; Edina, MN  
Alice Tobias; Falcon Heights, MN  
Mari Wedeking; Saint Paul, MN  
Jim Winkle; Minneapolis, MN  
Meredith Wodrich; Minneapolis, MN  
Nicole Zeimis; Saint Paul, MN  
Ben G. Zimmerman; Falcon Heights, MN

## **PUBLIC HEARINGS**

### **PH1. Big Stone City, South Dakota - June 13, 2006**

- PH1-1. Ron Louks
- PH1-2. Lanny Stricherz
- PH1-3. Michael LaBatte, Sisseton-Wahpeton Oyate Office of Environmental Protection
- PH1-4. Delores Miller
- PH1-5. Jeanne Koster
- PH1-6. Steve Jackson Jr., Sisseton-Wahpeton Oyate of Lake Traverse Reservation
- PH1-7. Mary Jo Stueve
- PH1-8. Carol Eastman Standing Elk

Written Comments:

- PH1-9. Lanny Stricherz
- PH1-10. Jerry Flute, Sisseton-Wahpeton Oyate of Lake Traverse Reservation

### **PH2. Morris, Minnesota - June 14, 2006**

- PH2-1. Mary Jo Stueve, South Dakota Clean Water Action
- PH2-2. Allen Wold
- PH2-3. Earl Hauge
- PH2-4. Michelle Handlin

Written Comments:

- PH2-5. Margaret A. Kuchenreuther

### **PH3. Granite Falls, Minnesota - June 15, 2006**

- PH3-1. Dick Unger
- PH3-2. Andrew Falk
- PH3-3. Izaac Holt
- PH3-4. Katie Laughlin
- PH3-5. Duane Ninneman, Clean Up the River Environment
- PH3-6. Julie Jansen, Minnesota Clean Water Action Alliance
- PH3-7. Delores Miller
- PH3-8. Patrick Moore
- PH3-9. Gary L. Johnson, Yellow Medicine County Board

Written Comments:

- PH3-10. Duane Ninneman, Clean Up the River Environment

### **PH4. Benson, Minnesota - June 16, 2006**

- PH4-1. Cesia Kearns
- PH4-2. Christopher Childs
- PH4-3. Rob Wolfington, Benson City Manager
- PH4-4. Eva Falk
- PH4-5. Erin Jordahl-Redlin, Clean Water Action
- PH4-6. Andrew Falk
- PH4-7. Jim Falk
- PH4-8. Karen Falk
- PH4-9. John Baker, Swift County Commissioner

Written Comments:

- PH4-10. Rob Wolfington, Benson City Manager

PUBLIC HEARING  
HELD: JUNE 13, 2006, 7 P.M.  
BIG STONE CITY AMERICAN LEGION  
HIGHWAY 12 WEST  
BIG STONE CITY, SOUTH DAKOTA

**MR. RON LOUKS**

PH1-1a

My comment is that the proposal for the project here is the transmission lines are going through Minnesota, basically. But my question is, we've got about 600 that's available to us now that we're not even using. Xcel Energy in St. Paul paid \$14.5 million to unplug the wind turbines south of Marshall on it. And my question is, when they did this study, that they're going to need more energy. Was this in the proposal or not? And Xcel Energy says they can't -- don't have any transmission lines.

PH1-1b

So my question is, these partners that are going to build this one, maybe they should take up a collection and have a transmission line put in there so we had that power to use, and then see what we need for energy here. Probably maybe 2030 or 2040 we may need something. I don't think we need nothing now. We can use what sources we've got.

**MR. LANNY STRICHERZ**

PH1-2a

To follow-up on what he said, I want to read the editorial from this morning's Sioux Falls Argus Leader, "Coal vs. Wind." And this was written due to the PUC meeting for South Dakota that's coming up the end of this month. Not this meeting. "Coal vs. Wind." "Proposed plant offers opportunity to discuss future of power." Editorial Board, Argus Leader, June 13, 2006.

"A group of environmentalists finally might spark the broad discussion on wind power that South Dakota needs. That's especially important with the revelation that Xcel Energy customers \$10.4 million to wind farms for energy it couldn't use -- and that payments will continue. Excel is committed to paying for the power, even though it doesn't have the transmission lines to use it, according to investigations in Minnesota.

The environmentalists hope to derail the \$1 billion Big Stone II coal plant proposed near Milbank. They'll be making their case at a South Dakota Public Utilities Commission hearing that begins June 26 in Pierre. The PUC plans to make a decision on the siting permit for the plant by July 14, but Bob Sahr says environmental concerns are only part of the decision.

"One component is going to be environmental effects, but we also have to look out for the consumers. . ."

"That's fine. What we need is a discussion. Opponents of the plant, scheduled to open in 2011, say it will release mercury and carbon dioxide. Mercury can accumulate in fish. Carbon dioxide contributes to the greenhouse effect and global warming.

"Supporters of the plant -- especially the seven companies planning it -- say new pollution controls will help Big Stone I as well, and it's the cheapest way to generate electricity. The opponents want more attention paid to wind power, which they say not only is cleaner but would create more jobs. They would back up wind power with natural gas plants. Proponents of the coal plant dispute the economic impact of wind power and point to problems -- that wind power isn't constant.

"And in back of all of this discussion will be the transmission lines. We don't have them now, but they're critical if wind power is to be used at all -- as a Minnesota investigation clearly details. Environmental concerns -- with a focus on wind power -- will provide a valuable counterpoint to plant backers who mostly point to positive economic impact."



PH1-2b

As I told Dustin Johnson from the South Dakota PUC, Bitter Lake, which is directly west of Big Stone power and sits on the south end of the town of Waubay is the most highly mercury polluted body of water in the state of South Dakota. I have been fishing up here for over 40 years and moved up to Sisseton when I retired two years ago. I have had several locals tell me of the mercury pollution in most of the lakes in the region. I had an interesting conversation with a fisherman from the town of Clear Lake. That's straight south of here about 40 miles. He comes up to the Sisseton area fishing all the time, and he told me that he catches fish in quite a few of the lakes up there, including several of the ones that I fish in, and he only -- he catches and releases all except he takes one fish home with him each time he comes up. And he feeds part of that fish to his cat. His cat gets sick off from every fish that he gives him, except from the ones from Enemy Swim and Clear Lake, the Clear Lake on Highway 10 west of Sisseton, and those are deep lakes. The other ones, apparently, hold the mercury and the fish get sick off of them. He's pretty sure it's the mercury that causes it. He also took fish home to his mother who cooked it for his sister and his sister's daughter, and his sister got sick off of it and her doctor told her it was probably from a combination of the medication she was on interacting with the mercury.

PH1-2c

With more than a \$2 billion loan given to the DM&E railroad by the federal government and the fact that we know the Big Stone line is getting less than 40 percent of the coal that it needs to run on a full-run basis, it seems like this project is throwing money to the wind rather than to harnessing the wind for clean renewable non-fossil energy. That loan could have gone to put in transmission lines for the wind power which we so desperately need and also to create jobs and to keep our environment clean and safe for ourselves and future generations.

PH1-2d

When you add in the fact that the city of Rochester, Minnesota, and Mayo Clinic are fighting to keep the DM&E from going right through the city, this whole situation makes less and less sense all the time. Granted the DM&E hauls and will haul more than coal, but that is their major product at the present.

PH1-2e

The state of South Dakota appears to be taking its marching orders from the federal government, Bush administration. Divorcing ourselves from fossil fuel is a huge part of Jimmy Carter's administration. The Reagan and Bush Senior's administration got us right back into the fossil fuel business. And while the Clinton administration looked to have stricter environmental controls on the use of fossil fuels, it did not go back to the Carter administration's use of renewables, other than pushing of ethanol. The current Bush administration with the President, Vice-President, Secretary of Defense, and Secretary of State all having ties to the oil industry and the power industry are, again, pushing use of fossil fuels and nuclear. The state of South Dakota seems to be following along with the administration's suggestion simply because both are Republicans and not using the common sense that young and forward-looking folks should be using to bring our energy consumption into the 21st Century, not taking us back to the 19th Century.

**MR. MICHAEL LaBATTE**

PH1-3a

I'm from the Sisseton-Wahpeton Oyate, and I work in the Office of Environmental Protection. And the Sisseton-Wahpeton Oyate is hereby petitioning for an extension for comment on the Draft Environmental Impact Statement, DEIS, regarding Big Stone II. We did not receive a timely copy of the DEIS, and there is not adequate time to respond. Tribal consultation on this matter is requested prior to our comments.

Thank you.

**MS. DELORES MILLER**

My name is Delores Miller, and I really appreciated all the comments from the last two speakers and it answered a lot of questions that I had and gave me some information.

PH1-4a

My first comment tonight as I came in, and I picked up the summary impact statement; and as I looked through it, I didn't see anything mentioned as the mercury, about the mercury pollution and how it affects the health of the people involved. And I thought to myself, all these other issues were addressed, the birds, the land. Didn't mention the lakes. Just all kinds of issues, but nothing about how it affects our health and how our children and grandchildren are going to be affected. And it kind of tells me that it's going to be swept under the rug, because there are issues that need to be addressed.

PH1-4b

[Another comment I have is on the coal supply. South Dakota and Minnesota don't have coal. It all has to be brought in by rail. And the railroads are having a hard time keeping up with the demand, because of the demand for electricity. So in conjunction with that, I mean, we need our coal plants.] [But I do think they do need to be upgraded to control the emissions.] [And why can't they work hand in hand with the wind so that the two companies

PH1-4c

PH1-4d

can join together as one and give us what we need and protect our environment and the health of our children?]

Thank you.

**MS. JEANNE KOSTER**

I would like to clarify that this statement is made on my own behalf. And I may have a prepared statement for an organization later, but this is not for them. There is some items that I did not see in my cursory run-through the DEIS, which I received only yesterday morning, but I hoped it would be reflected in the final.

PH1-5a

We are told that the co-owners are making a commitment to reduce the mercury emissions to about 189 pounds a year, which is in the right direction. It isn't enough, but it's in a good direction. So we hope that this commitment will be reflected in the Final EIS. We hope it will also specify how this commitment is enforceable or how we can be assured that it will be honored and whether the co-owners are willing to have this as a condition of permits under which they operate, so that enforcement action could be taken in case they fall short.

PH1-5b

We also note that the 189 pounds a year, although it is in a good direction, is far from the amount that the state of South Dakota will be budgeted under the final implementation of the Clean Air Mercury Rule. That figure, we understand, is now at 58 pounds a year. How will the co-owners, how are the co-owners planning to make the leap between 189 pounds a year, and the final budget of 58 pounds a year? We hope that that will be explained, exposed in the DEIS.

PH1-5c

Are they going to upgrade their pollution technology, or are they going to rely on cap-- I forget the name of the term. Are they going to rely on credits that they can purchase from utilities who are making a better effort at compliance? And I hope it will also be explained, if they are planning to rely on purchasing credits from other utilities, whether they are actually purchasing from themselves in another state besides South Dakota.

PH1-5d

For example, co-owners in the plant in South Dakota also may have plants in Minnesota, which is going to be operating at a much higher standard. So they will be spending their pollution control money control in Minnesota, and then the plants in Minnesota conceivably could be selling credit to the same company operating, so that they can pollute in South Dakota. If this is going to be the case, we hope it will be reflected in the Final EIS.

PH1-5e

Then, also, we think it would be appropriate to mention in the Final EIS, whether any of the generators or their officers or governors have any interest, whatsoever, in coal extraction or supply.

Thank you.

**MR. STEVE JACKSON, JR.**

Good evening, everybody. My name is Steve Jackson. I'm coming to you tonight from the Sisseton-Wahpeton Oyate of Lake Traverse Reservation, formerly known as the Sisseton-Wahpeton Sioux Tribe of South Dakota. Our tribe has around 11,000 tribal members, encompassing four counties and also a million acres within northeastern South Dakota.

PH1-6a

I would like to reiterate what Michael LaBatte said earlier, that our tribe has formally requested that the comment period be extended for the Draft EIS. I would also like to mention, for the record, that the Draft EIS is not on the WAPA web site as has been advertised and relayed to interested parties.

Additionally, while flipping through the Draft EIS, which I just received this evening, it stated that Western Area Power, WAPA, has done some informal consultation with the tribe. For the WAPA officials that are familiar with working with tribes, tribes rarely, if ever, participate in informal consultation. There is certain consultation practices that need to be held, such as formal consultation with our tribe and our tribal council, regarding the health and welfare of the Sisseton-Wahpeton Oyate on this matter. And that has not occurred.

It has also been brought to my attention by flipping through the pages of the Draft EIS that WAPA has sent out a letter requesting our tribe, among other tribes, to be a signatory on a PA. Again, formal consultation needs to occur before this can happen. And I think in order to have open, good communication with the Sisseton-Wahpeton Sioux Tribe, as well as any tribe or any government, you need to have formal consultation with the government and its officials.

PH1-6b

I've spoken to Nancy last Thursday evening, regarding this, and hopefully there can be follow-up on both ends on the consultation process. I see that, you know, letters have been sent that says in the Draft EIS, no tribes made comments. Every tribe operates differently. But every tribe is also a separate nation, meaning we have our own President, our own Chairman, our own Vice-Chairman. And so, therefore, the proper way to communicate with governments is not to send a letter to a P.O. Box and then wait. But the proper way to communicate with a government, to effectively communicate with governments is to do some follow up, address it to the tribal leaders, and then we can have good, open relations on this topic.

And so to end, close, I would just like to once again say that we look forward to WAPA, co-owners, whoever is interested, to come out, come out to the Sisseton-Wahpeton Sioux Tribe and sit down with our tribal leaders on this matter so that we can prepare a formal statement on the Draft EIS.

Thank you very much.

**MS. MARY JO STUEVE**

Hello. I'm Mary Jo Stueve and this is my homeland. It's been my homeland. I'm one of ten siblings, Big Stone County, Graceville, and I'm now working out of South Dakota Clean Water Action. I live in Sioux Falls, but I also work out of home and have a home in Graceville. Grew up on Big Stone Lake. Fished and swam. And, now, we're not supposed to eat the fish.

I appreciate the comments that were made, in particular, about participation, consultation, how we know, when we know, when do we get the information, and the issues of mercury and process.

PH1-7a

[Last September 13, 2005, there was a public hearing. A request was made at that time to have the Environmental Impact Statement that was going to be done, and it was not done statewide because they did not want to duplicate the process. So it was handed over to

WAPA, NEPA, to do this.] [And the request was made at that time to address total maximum daily load, TMDL, for the mercury levels in Big Stone Lake in a 50-mile radius, because the application by the co-owners did not address this, did not calculate or analyze or measure. And neither, in my brief review, does the EIS address this, the total maximum daily load.]

PH1-7b

PH1-7c

The Draft EIS states that Big Stone II's mercury pollution will be "insignificant," in quotes, "insignificant." I noticed it also says there may be a public perception that we have a mercury problem. It's not a perception. It is a reality. So the conclusion in the Draft EIS, as it stands, that mercury pollution will be insignificant is debatable. It warrants more careful analysis than what was provided in the EIS.

PH1-7d

[For some of you, you know; others don't. But when mercury is released into the air, just because we have a zero discharge facility does not mean that we do not have air deposition.] [When it's released into the air, it settles downwind of the power plants where it

PH1-7e

contaminates lakes, rivers, and the fish we eat. Exposure to mercury pollution is especially harmful to women of child-bearing age, fetuses, and children, because it interferes with the development of the nervous system and leads to neurological problems. Mercury exposure costs billions of dollars each year due to reductions in IQ, poverty, low-weight birth, welfare recipients, lost education and opportunity, and special education costs.

PH1-7f

A recent Mount Sinai Medical School study quantified the annual economic impacts of mercury exposure at an estimated \$1.3 billion. And this cost is attributable to U.S. power plants alone.] [Airborne mercury from Big Stone II would affect regional and worldwide water bodies. And our lake is known for fishing, recreation, and camping. Big Stone Lake and the upper Minnesota River, including numerous tributaries, are already under fish consumption advisories for mercury; and, therefore, any amount added to these impaired waters is biologically significant, and I might add, under Clean Water Act Rule.]

PH1-7h

The Draft EIS does not address the real and scientifically-driven demonstrated effects of mercury on the environment and public health.

PH1-7g

We have one other study that I found, and it's not also addressed in the Draft EIS, and it should be analyzed in light of this. The U.S. Army Corps of Engineers jointly with another body did a study in the North and South Dakota waters that bordered the border there. One of the results of that study shows the propensity for mercury to transform into the toxic methylmercury is more likely to occur in wetland areas than in deep water. Any and all of you that are from this area know, we are a wetland area.

Thank you.

**MS. JEANNE KOSTER**

PH1-5f

This is Jeanne Koster coming at you again. Thank you. I hope the Final EIS will do some calculation to show what would be the cost of complying with the STAPPA/ALAPCO Mercury Model, the model rule, compared to what the co-owners are planning to do now to bring it down to 189 pounds a year.

Thank you.

**MS. CAROL EASTMAN STANDING ELK**

I'm from Sisseton, South Dakota. And I wasn't going to say anything, because this hasn't been addressed. I went away on relocation 40-some years ago. And I lived in the city where there is a lot of pollution. Air pollution and everything. So now I came home last year, and I was thinking, well, I want to bring all my grandchildren back here. It is a clean place, you know. Freshwater, you know. Clean air. And now I hear this.

PH1-8a

I hear that -- I mean, now -- I love fish. Now I'm afraid to eat fish because it will probably kill me, you know? So I don't know, for a lot of people, they always thought us Indian people were like backward, you know, but we learn to live with what we had and what

was around us. For people to bring this kind of energy that is toxic and kills you, that's sort of -- that somehow doesn't make sense to me.

[And so I want to make this statement for you people here. You know, this was a good place to live. It is our place. It's our place in this earth that we were put here for, and you know, to share this place. But you are ruining it. You have one plant here. That's enough. You should clean it up. You should do what you can with it and mix it with the wind energy and other stuff and, you know, for what's needed.] [But personally, you should not have another plant, because you've already ruined the water. And all of these, all of these, you know, bodies of water, they're connected. So if you're going to have pollution in one, you know it's going to seep all over everywhere else.]

For one thing, you know, for me as an Indian woman, I know this. Water is life. We can't live without it. You pollute it, you're killing yourself; and you're killing us.

Thank you.

PH1-8b

PH1-8c

PH1-8d

As I told Dustin Johnson of the SD PUC, Bitter Lake which is directly west of Big Stone Power and sits on the south end of the town of Waubay is the most highly mercury polluted body of water in our state. I have been fishing up here for 40 years and moved up to Sisseton when I retired two years ago. I have had several Native Americans tell me of the mercury pollution in most of the lakes in the region. -

PH1-9a I had an interesting conversation with a fisherman from the town of Clear Lake who drives up here several times a month to fish various lakes in the Northeast region of the state. He told me a couple of weeks ago that he shares his fish with his cat. When he fishes Enemy Swim or Clear Lake (the one between Sisseton and Britton on Hiway 10) his cat does not get sick. If he gives the cat fish from Buffalo or any of the other lakes up here the cat gets sick. He suspects that it is mercury. Also he gave some fish to his mother to fix for his sister and her daughter. His sister got sick. She was being treated with medication and when she talked to her doctor about it he suspected also that it was mercury in the fish that had made her sick. I give most of my fish away and have had no experience of getting sick myself or of anyone else getting sick but none of the folks may have had an intolerance level to the mercury.

PH1-9b With the more than a billion dollar loan given to the DM&E railroad by the federal government and the fact that [we know that the Bigstone one is getting less than 40 percent of the coal it needs to run on a full run basis, it seems like this project is throwing money to the wind rather than to harnessing the wind for clean renewable non fossil energy.] That loan could have gone to put in transmission lines for the wind power which we so desperately need to create jobs, and to keep our environment clean and safe for ourselves and future generations.] [When you add in the fact that the City of Rochester MN and Mayo

PH1-9c Clinic are fighting to keep the DM&E from going right through the city, this whole situation makes less and less sense all the time. Granted the DM&E hauls and will haul more than coal, but that is their major product at the present. ]

PH1-9d The state of South Dakota appears to be taking it's marching orders from the Bush administration. Divorcing ourselves from fossil fuel was a huge part of Jimmy Carter's administration. The Reagan and Bush Senior's administration got us right back into the fossil fuel business. And while the Clinton administration looked to have stricter environmental controls on the use of fossil fuels, it did not go back to The Carter administration's use of renewables other than the pushing of ethanol. The current Bush administration, with the President, Vice President, Secretary of Defense and Secretary of State all having ties to the oil industry and the power industry, are again pushing the use of fossil fuels and nuclear. The state of South Dakota seems to be following along with the administrations suggestions simply because both are Republicans and not using the common sense that young and forward looking folks should be using to bring our energy consumption into the 21st century not taking us back to the 19th century.

Sincerely,

Lanny Stricherz  
Sisseton, SD 57262

ATTACHMENT 2 - 6/13/06 - Big Stone City



## Sisseton-Wahpeton Oyate

Lake Traverse Reservation  
Office of Environmental Protection  
Old Agency Box 509, Agency Village, SD 57262-0509  
PHONE: (605) 698-4998 FAX: (605) 698-4999

June 13, 2006

Ms. Nancy Werdel  
Western Area Power Administration  
PO Box 281283  
Lakewood, CO 80228

To Whom It May Concern:

The Sisseton-Wahpeton Oyate is hereby petitioning for an extension for comment on the Draft Environmental Impact Statement (DEIS) regarding Big Stone II.

We did not receive a timely copy of the DEIS and there is not adequate time to respond. Tribal consultation on this matter is requested prior to our comments.

Thank you.

Sincerely,

Jerry Flute  
Tribal Chairman  
Sisseton-Wahpeton Oyate

Michael LaBate  
Acting Office Administrator  
Office of Environmental Protection

PH1-10a

PUBLIC HEARING  
HELD: JUNE 14, 2006, 7 P.M.  
BEST WESTERN PRAIRIE INN  
200 HIGHWAY 28 EAST  
MORRIS, MINNESOTA

**MS. MARY JO STUEVE**

PH2-1a I am here tonight on behalf of South Dakota Clean Water Action membership. And I speak on the membership behalf. I request an extension of the comment period. Our members last night that attended the Big Stone City meeting, the same presentation, informed me of the difficulty in accessing the document. There were instructions to go to a Web site. The page was unavailable. Some had requested the document. It did not arrive. Many of our members feel in order to adequately comment, they needed to see the document first and needed to have time to process this complex, complicated, over 600-page document, and felt hindered at being able to even supply comments last night, although they did attend. So Clean Water Action, South Dakota membership, 7,791 member families, request an extension of the comment period.

PH2-1b [Aside from that, our members are deeply concerned about the inconsistency and the lack of analysis on mercury and other toxic emissions.] [The application does not address PH2-1c in a calculated,cumulative manner what the impact would be on human, plant, and environment surrounding the area. Neither does the Draft EIS.]

PH2-1d The Draft EIS shows and records an estimated 399 pounds of mercury released. And though, as Nancy mentioned, now we hear a recent document and co-owner commitment to have no more than 189 pounds, the current 2004 levels. What is it? And what does it mean? Is it a firm commitment? Our members are concerned. Is it voluntary? Who will enforce it? And the analysis has not been done.

PH2-1e Who does it harm? Our children, our grandchildren, our environment forever, and how? And in order for a decision to be made, everything should be on the table, and the people should know, what are we risking and what are the trade-ins? The time has not been available. The information has not been available, and we request an extension.  
Thank you.

**MR. ALLEN WOLD**

PH2-2a [I was a little disappointed we weren't going o have a question-and-answer. And it is hard to give comments when you walk into the room 10 minutes ago.] [Some of the questions PH2-2b I have is, how big is the present power plant? How much increase are we looking at? It says 600 MW, but I don't know how big the first one is.]

PH2-2c There was a projection up there on how much power would be used that we would have a deficit in 2011. I'm assuming that in 1975, or before the first power plant came on line, there was also projection for power usage. How accurate were they? How local is all the power? How far do we send it out? Looks like Willmar is like the farthest end of the earth from here.

PH2-2e [And then, are you on a national power grid so that in times of surplus electricity here, can we sell to Phoenix or Texas or someplace?] [It's something new called a "supercritical boiler." I'm assuming that the present one does not have one. What are the advantages of it? PH2-2d Will the one at the existing power plant be replaced with a new one in the future?]

PH2-2f I notice that coal usage has increased from 2.4 million tons annually to 3.3 million tons. Unless we're really doubling it, it seems like you might be a little short on coal. Seems like there should be almost 5 million tons instead of 3.3. So I'm wondering, either you gained a lot in efficiency or you're not building it proportionately.



PH2-2g [ I do have a comment, too, on 189 pounds of mercury. Was that a recent concession? And how firm is the commitment?  
 How many square miles will this affect with pollutants? Most of it's going to go west -- or I mean east, because of the prevailing westerly winds. And how far downstream will the winds carry it? ] PH2-2h  
 Thank you very much.

**MR. EARL HAUGE**

So I'm a farmer from Pope County, and I buy most of my electricity from GRE. So I farmed in Pope County for over 40 years, and I'm committed that I leave my farm in better condition than when I begin farming 40 years ago. And I think that's who we are as people of the state of Minnesota. We have a deep commitment to leave this world for the next generation in as good or better condition than when we began our life.

Now Big Stone II will be a great electrical generating plant using all the latest technology to produce clean, low cost electricity for us, the consumers. But it will still inject hundreds of thousands of tons of carbon dioxide into the air each year. If it is built, it will do this for the next 16 years or for as long as the plant is in operation, which is likely to be 80 years.

PH2-3a [ [Global warming is an issue for me. I don't know how serious it is but I am concerned. And I do know that carbon dioxide from coal makes global warming worse. I don't want my life to be about making this world worse. As a farmer, we irrigate our crops.] [My electric bill is over \$20,000 a year. If it would cost a cent per kilowatt more to generate from the wind, I would say let's generate from the wind.] ] PH2-3b

PH2-3c [ I'll bet many of us here even donate money each year to humanitarian causes throughout the world. We want to make the world better. I don't think there is a person here who would vote to make global warming worse by building Big Stone II just to save \$20 on their electric bill. Instead we could build wind turbines in South Dakota and produce more electricity than Big Stone II.

PH2-3d [ I know the wind doesn't always blow. But these big wind turbines are connected to the electrical grid. So if it is not blowing in South Dakota, you can be sure it's blowing in North Dakota, or Minnesota, or Iowa, or Wisconsin. I am not an expert, but I can read and I can listen. And if the environmental experts say 20 percent of our electricity should be generated from the wind, why is it even a consideration to build a coal plant when we are generating less than two percent of our electricity from the wind at this point?

South Dakota is the Saudi Arabia of wind. They can produce it cheaper than perhaps any other state in our country. Since the ridge west of Big Stone has enough wind to produce twice as much electricity as Big Stone II will ever produce, let us use the wind. Not one of us wants to be a cause of global warming or to waste coal, which is a nonrenewable resource.

And I realize this plant will be sited in South Dakota, but I'm suggesting that in Minnesota we have a tax of one cent per kilowatt on any new electricity generated from coal. t will be our way of making a statement, and our way of saying, "We are committed to not making global warming any worse." ] PH2-3e  
 Thank you.

**MS. MICHELLE HANDLIN**

PH2-4a [ Currently, the Environmental Impact Statement doesn't have the impact on the environment, including the mining and the transportation increasing. And my question is, will this be addressed in the final report since that is part of -- it should be part of the Environment Impact Statement? Will there be an increase in mining, and an increase in transportation getting that coal to the plant?

PH2-4b

And my second comment is to rural communities are needing an increase in renewable energy to fund life out here. Since less and less people are out here, we need like the renewable energy; wind, solar, biomass. One, two, three percent wind isn't enough to fund the future. We don't need just wind. We need coal, but we need more wind and biomass to offset what we've been doing.

Thank you.

### Written Comment Sheet

Big Stone II Power Plant and  
Transmission Project Draft EIS



If you have any comments on the Big Stone II Power Plant and Transmission Line Project Draft Environmental Impact Statement, please complete this comment sheet and hand it in tonight. You may also e-mail your comments to BigStoneEIS@wapa.gov or mail them to:

Western Area Power Administration  
NEPA Document Manager  
Big Stone II EIS, A7400  
P.O. Box 281213  
Lakewood, CO 80228-8213

Please return comments by close of the public comment period, July 3, 2006!

PH2-5a

As of today 6/14/06 the Big Stone II Draft EIS was not available at the Morris Public Library, according to the librarian I consulted. Without access to the EIS I cannot make an informed comment at this time. I request that you extend the comment period for a reasonable amount of time after assuming the EIS is available for public viewing at all of the locations noted in the Federal Register.

(Continue comments on other side of sheet, as needed)

Please provide your contact information.

Name Margaret A. Kuchenreuther Title \_\_\_\_\_

Mailing address \_\_\_\_\_ City, State, Zip Code Morris MN 56267

Phone \_\_\_\_\_ Fax \_\_\_\_\_ Email \_\_\_\_\_

Thank you for your interest and participation!

PUBLIC HEARING  
HELD: JUNE 15, 2006, 7 P.M.  
MINNESOTA WEST COMMUNITY AND TECHNICAL COLLEGE  
1593 11<sup>TH</sup> AVENUE  
GRANITE FALLS, MINNESOTA

**MR. DICK UNGER**

I'm from Montevideo. I came over, I'm mostly concerned about the mercury situation, and I think our Minnesota legislature talked about mercury most of the session, and there was some legislation and everything on it.

- PH3-1a [ Our big Environmental Impact Statement spends only a page and a half on the mercury. It doesn't indicate the prevailing winds, which are going to bring virtually all the mercury to Minnesota. ] [ It doesn't talk about the economic value to Minnesota's lake country. ] PH3-1b
- PH3-1c [ Now we already can't eat the fish, even here in Montevideo, out of our river, more than once a week. There is mercury in all the lakes. And if this balloons, it would cut Minnesota's lake country. ] [ It would cut the property values up around Brainerd Lake. Imagine the thing even 10 percent. the Environmental Impact Statement looks at this matter at all as to the mercury. ] PH3-1d
- PH3-1e [ I would also indicate the second slide that they showed us here, although it indicated renewable energies, such as wind and things, it also indicated on the list that this was never even studied. The only thing they essentially studied was fossil fuel. And I would be real concerned about the mercury. ] [ For all the money we're having on the hearings, we haven't even dissected a fish. We don't know. ] PH3-1f

That's about all I would have.

**MR. ANDREW FALK**

- PH3-2a [ One of the things I would like to address certainly as an environmentalist is with respect to renewable energy and how that helps promote clean environment. And a lot of the things I've heard about this project are the transmission lines, and they're going to overbuild certain lines to make space for additional 800 to 1,000 MW of potential renewable, such as wind. And I hear this quite often. ] PH3-2b
- PH3-2c [ But the question is, is it truthful in the way that it's presented, because the proposers of the plant do not control the transmission system? Rather, that's controlled by an entity called MISO, who oversees what is put into the grid and what load comes off the grid. And they have the ultimate authority to go and designate what sources are able to enter the grid and at what point in time. ] PH3-2b
- PH3-2c [ And it talks about that there is this additional transmission capacity, when, in fact, the MISO cue has thousands of megawatts in place, so any new renewable projects put into the cue currently are not going to be able to use this transmission. This transmission has been taken up by coal plants and other projects that are farther out, reaching out as far as 2015. ] PH3-2b
- PH3-2c [ So I believe that the advertising, the marketing of this idea, that there is going to be space for renewables in conjunction with this coal plant is misleading. The thing is, is they might say there is potential for renewable generation to be put on the grid, but in reality, is just some form of generation. ] PH3-2b
- PH3-2c [ So I would like to address the fact that we really, if we want to promote renewables, we have to be fair and honest and truthful in the way that we're going to present we're going to have space for renewables on the grid. And I just haven't been very comfortable with the way that they promote that this is going to be concrete space available for renewables. ] PH3-2b
- PH3-2c [ Another thing I would like to address is with this plant, we talk about building it for our community, for the rural community, when, in fact, over 50 percent of this overbuild is going to be designed for the Twin Cities and farther export markets from our usage here. We ] PH3-2d

don't use that much electricity in the area. It's designed specifically to being sent and exported to other markets. So we're forced to live with the environmental impacts here while other consumers supposedly are reaping cheap electricity benefits and not having to deal with the environmental consequences.

PH3-2d

PH3-2e

Furthermore, looking at Great River Energy as being a cooperative, cooperatives namely was built out of the Rural Electrification Act, and REC's, most of their growing demand is coming from Twin City suburbs, and this is the power that's going to be designed or designated to serve those areas. So the fact -- And I think that this RUS loan program, it's kind of contrary to what the initial idea was when it was enacted to help bring electricity to the farmers and rural people.

PH3-2f

[So with that, I would like to end my comments just finishing up that I truly think that this plant doesn't serve, this doesn't serve the interest of western Minnesota, because we have to deal with the environmental impacts.] [We have to deal with the mercury in our fish and waters.] [We have to deal with the carbon dioxide.] [We have to deal with all of these other

PH3-2g  
PH3-2h

PH3-2i

hazards, that it's being built in South Dakota because it does meet or would not pass Minnesota environmental standards, because it's built in South Dakota, those don't apply. I just think that looking at us in rural Minnesota, we need to look at, does this really serve our interests?]

Thank you.

**MR. IZAAC HOLT**

PH3-3a

Hello. I would like to present specifically on the increased risk of carbon dioxide that the proposed plant would emit. Big Stone II's operations will release an estimated \$4.7 million tons of carbon dioxide in the air each year. Carbon dioxide is the main greenhouse gas contributing to global warming.

All major scientific organizations in the United States have stated that the anthropogenic climate change due to an increase in greenhouse gases appears to be real. Such scientific consensus informs national and international law and policy. Scientists and policy-makers alike recognize that rising global temperatures will have a profound effect on wildlife and people worldwide.

Based on policy trends in the other industrialized countries, Japan, the United Kingdom, etc., carbon dioxide emissions are likely to be regulated in the United States very soon. The costs of meeting any future carbon constraints will increase the cost of Big Stone II.

PH3-3b

According to national environmental policy, the government is to "fulfill the responsibilities of each generation as trustee of the environment for succeeding generations." That's from the National Environment Policy Association, Section 101, part (b). In continuing to grant permits to coal-fired power plants without a discussion of the global impact via an Environment Impact Statement, permitting agencies are not acting in the best interest of the future generations

PH3-3c

I am concerned that the Draft EIS did not address the impact that Big Stone II's carbon dioxide emissions will have on global warming, nor did it address the economics of future greenhouse gas regulation. The Draft EIS needs to examine the effects of carbon dioxide emissions in the forward-looking manner required by the National Environment Policy Association.

Thank you.

**MS. KATIE LAUGHLIN**

- PH3-4a [ The true costs of coal energy and renewable energy, such as wind power must be fully analyzed and compared. The Draft EIS should have examined the true costs of energy by taking into account the environmental externalities created by generating electric power.] [The
  - PH3-4b [ Draft EIS should have thoroughly analyzed the cost of Big Stone II associated with increased healthcare from air pollution and environmental decline from acid rain, mercury contamination, and the loss of rare habitats and species.
  - PH3-4c [ The Draft EIS should have also discussed externalities associated with coal mining, surface reclamation, disposal of ash and other waste. Big Stone II will produce 300,000 to 350,000 cubic yards of ash wastes yearly. And future land use requirements, Big Stone II will require about 95 acres for ash disposal alone.
  - PH3-4d [ Encouraging coal energy based primarily on inaccurate market prices leads to economic inefficiency and impacts public health and social welfare. I am concerned that in the Draft EIS, the costs of coal-based energy did not adequately reflect health and environmental impacts.
  - PH3-4e [ Since Big Stone II is expected to operate for at least forty years, the true consequences of its pollution must be examined.] [And because the region has such amazing renewable energy potential, the Draft EIS should have shown conclusively that building a new coal plant is really less costly in health, environmental, and economic terms than developing wind and biomass resources.]
  - PH3-4f [ Rather than fully assessing all of the costs and benefits of coal-based power, the Draft EIS merely analyzed the costs and benefits to the co-owners. The cost to energy consumers and the general public must be addressed in obtaining an accurate cost estimate for coal-based energy.
- Thank you.

**MR. DUANE NINNEMAN**

- PH3-5a [ Good evening, everyone. My name is Duane Ninneman, and tonight I'm here to provide public comment on behalf of Clean Up the River Environment and its members from across the Upper Minnesota River Watershed.
- PH3-5b [ The Western Area Power Administration Draft Environmental Impact Statement lists a summary of hazardous air pollutants in section 4, page 8. To quote the document, "Most of the mercury in the atmosphere is elemental mercury vapor, which circulates in the atmosphere for up to a year, and hence can be widely dispersed and transported thousands of miles from emission sources." Recent studies, however, contradict this notion.
- PH3-5c [ Clean up the River Environment contends that the Draft EIS fails to take into consideration published research by the United States Environmental Protection Agency. From the Ohio River Valley, which concludes that nearly 70 percent of mercury actually originates from nearby coal-burning power plants and not from widely dispersed sources.
- PH3-5d [ A similar study in Alberta, Canada, documents significant increases in mercury deposition in the local area immediately downwind from coal-burning plants. The research shows that mercury is falling in the water and accumulating in lake sediment within a 30 to 65 miles of coal-fired power plants.] [CURE has also seen the DNR fish studies, which show a steady increase in mercury found in fish from the Minnesota River, and we are very concerned about fact that this EIS for Big Stone II does little to address this environmental issue.]
- PH3-5e [ The Federal Clean Air Mercury Rule imposes New Source Performance Standards beginning in 2010. By 2018, South Dakota's entire mercury budget will be only 58 pounds per year, and Big Stone II is expected to far exceed that number.

PH3-5f

This year Minnesota enacted the most stringent mercury reduction legislation in the country, which passed by a unanimous vote in both houses and was signed by Governor Pawlenty. Minnesota regulation will not curtail mercury from the Big Stone plant, even though much of the plant's mercury falls in western Minnesota on the prevailing winds.

PH3-5g

[CURE has recently been convening people together from all sectors of the Upper Minnesota River Watershed to talk about new opportunities for renewable energy and how that development will lead to healthy landscape, local jobs, and new sources of long-term income for the landowners and farmers in our region.] [We very concerned about what the Big Stone coal plants are doing to slowly destroy the recreation and tourism economy that has been established for around Lac qui Parle Lake and the Lac qui Parle Wildlife Management area.] [We also maintain that by locking ourselves into coal generation, we could lock ourselves out of clean wind and biomass distributed power.]

PH3-5h

PH3-5i

Lac qui Parle Lake is French for Lake Speaks, and tonight she is speaking loudly and clearly. We can hear her say, "No more mercury. No more coal." and her message is on the wind.

**MS. JULIE JANSEN**

My name is Julie Janssen, and I am with Clean Water Action Alliance in Minnesota. I'm here to speak on our 60,000 members across Minnesota. We are submitting written comments as well, but this is one of my main concerns I want to address tonight.

PH3-6a

The Big Stone II's co-owners propose releasing up to 399 pounds of mercury into the environment each year. The Clean Air Mercury Rule allows the entire state of South Dakota 144 pounds of mercury pollution per year. The Draft EIS is unclear on the issue of mercury. Will Big Stone I and II emit the projected 399 pounds of mercury, thereby increasing the mercury emissions above Big Stone I's recent level? Or will Big Stone I and II emissions meet the co-owners goal of 144 pounds per year? If Big Stone I and II do not achieve the goal of 144 pounds per year, can they buy mercury allowances necessary to operate the plant?

If the Draft EIS provides no clarity with regard to Big Stone mercury's pollution, the co-owners have not made a formal commitment to achieve their mercury emission goals, and they prematurely rely on the Clean Air Mercury Rule, a troublesome and unsettled law.

According to the Environmental Protection Agency, there are cost-effective ways of substantially reducing mercury emissions. The public needs a commitment from Big Stone II's co-owners to use these cost-effective methods to reduce mercury. The Draft EIS says that Big Stone II's mercury pollution will be insignificant. This conclusion is debatable and warrants more careful analysis than what is provided in the Draft EIS.

PH3-6b

When the mercury is released into the air, it settles downwind of the power plant, where it contaminates lakes, rivers, and the fish we eat. Exposed mercury pollution is especially harmful to women of child-bearing age, fetuses, and children, because it interferes with the development of the nervous system, and it leads to various neurological problems.

Mercury exposure costs the public billions of dollars each year due to reduction in IQ, poverty, low-weight births, welfare reciprocity, lost education, special education costs and etc. A recent Mount Sinai Medical School study quantified the economic impact of mercury exposure at an estimate 1.3 billion. This cost is attributable to the U.S. power plants alone.

Airborne mercury from Big Stone II would affect regional and worldwide water bodies. Big Stone Lake is known for fishing, recreation, and camping. It, and the upper Minnesota River, including numerous tributaries, are already under fish consumption advisories for mercury; and therefore, any amount of mercury added to these impaired waters is biologically significant.

The Draft EIS does not address the real and significantly demonstrated effects of mercury on the environment and public health. It assumes that mercury pollution does not significantly impact local water bodies. However, recent studies strongly suggest that local

sources of mercury negatively impact local water bodies to a greater extent than previously thought. The Draft EIS should have provided a thorough analysis of the impact of Big Stone II's mercury pollution and what it will have on fish and aquatic ecosystems of Big Stone Lake in the Minnesota River and its tributaries. The document should have also examined more widespread effects of mercury pollution.

PH3-6c

The rationale used in the Draft EIS that the problem of mercury is so large that the Big Stone co-owners should not be held responsible to the rest of the world for the Big Stone II's contribution to the mercury pollution. This rationale concerns me. Under Section 102 of the National Environmental Policy Act of 1969, federal agencies need to recognize the worldwide and long-range character of environmental problems. Discussion of mercury in the Draft EIS is clearly not in keeping with this policy.

PH3-6d

Also on behalf of Clean Water Action's 60,000 members statewide in Minnesota alone, we would like to request an extension on the Draft EIS. Many of our members had a hard time getting the Draft EIS, and they felt they've had little or no access to it, and therefore have not had time to address the EIS themselves.

Thank you.

**MS. DELORES MILLER**

I'm Delores Miller and I'm from a little town north of Ortonville, Graceville, Minnesota. And my family has used Big Stone Lake for years. I raised a family of ten children and spent a lot of time at the lake with them. That was our main recreation. And out of concern for my family members and the people in Graceville, Minnesota, I've spoken to a lot of people. I have some statements that I would like to read.

PH3-7a

Much of the environmental impact data in the Draft EIS assumes that Big Stone II will burn sub-bituminous Power River Basin Coal, two-and-a-half to three tons per year. However, it has come to the public's attention that the coal supply at Big Stone has been dwindling. Will Big Stone be able to find enough trains to buy or lease to carry coal to Big Stone I and II? How will business relations with Burlington Northern Santa Fe affect Big Stone II's ability to meet its objective of reliably meeting customer baseload energy and demand requirements?

These supply issues pose substantial risks and costs to the co-owners of Big Stone II. Was this taken into account when the needs and objectives of the co-owners were assessed and renewable energy options were eliminated? I am concerned that coal-based power presents supply problems that could be mitigated or eliminated by the use of renewable energy.

PH3-7b

Western Area Power Administration, WAPA, has not drafted an objective EIS that is based on an understanding of environmental consequences. Rather the Draft EIS appears to be heavily influenced by Big Stone's co-owners. Most of the two-paragraph discussion of wind energy as an alternative to coal-based power repeats verbatim applicant's exhibit 24-A, Page 2-2. There is no indication that the Draft EIS represents a good faith attempt to examine alternatives to coal-based power. Rather it seems that WAPA relied on one-sided information from the applicant. WAPA should not assist Big Stone in eliminating renewable energy alternatives until all feasible options have been given a thorough evaluation.

There is a growing body of evidence that wind is reliable, will meet customers' needs as it is not prohibitively expensive. I am concerned that the Draft EIS did not present all sides of the energy debate.

PH3-7c

PH3-7d

[And just one more comment. I think in addressing this situation, it seems like there is kind of a sweeping under the rug of some of the important.] [Like mercury has not been addressed like it should be, as it was stated in this last comment up here. And that is one of my top priorities as far as health of children and the unborn babies and of the elderly, and the carbon dioxide, the asthma problems and all of these other things that come up. We need the coal power, but we also need an alternative.] [Instead of increasing the mercury emission, I

PH3-7e

PH3-7f



believe we need to use some of the renewable energy, and I think it's the responsibility of the power companies to see -- The customers are paying the bill and they're also paying the consequences if things aren't met properly.]

So I would like to suggest that we take a look at maybe some side-by-side options of coal and also renewable energy.

Thank you.

**MR. PATRICK MOORE**

I'm here to tell you about the canoe trip, 20:00:36 kayak trip that I took on Whetstone River back in April. I was with Dick Unger, Peter Arneson, and Andy Spath. We put in on the road, the plant road, the bridge to the plant road just below the plant and then we canoed basically into town, into the city of Big Stone and took out at the highway bridge.

Now I have kayaked and canoed six or seven of the area rivers, including the Minnesota River, Yellow Medicine, Hawk Creek, Chippewa, Lac qui Parle, Pomme de Terre in the upper Minnesota River. I had never canoed or kayaked the Whetstone River. [I was stunned by the wildlife we saw on that river that day. And I am concerned that the Draft EIS does not adequately consider the Big Stone II's impact on wildlife.]

[It states that Big Stone II will cause a net loss of 532 acres of wildlife habitat in its construction, and on page 4-48 it kind of breaks that down, and it says there will be high ecological quality areas, 27.5 acres along the Whetstone River that will be affected.

I have to tell you the bills were very high ecological areas. We saw egrets. We saw mink. We saw half a dozen different duck species. But perhaps most importantly, we saw four immature bald eagles that day nesting along the river.

I understand by reading the EIS that raptor species may occur within the proposed project area. I'm here to tell you that they do occur. We saw four immature bald eagles flying overhead this April.] [And we're concerned about the loss of active nests, and that would be a violation of the Migratory Bird Treaty Act. The bald eagle is a federally-threatened species, and if this plant would, perhaps, cause a disturbance of breeding and foraging habitat, if breeding raptors are present or adjacent to the proposed site, they may abandon breeding territories. That's what it says there, and I'm here to tell you that we saw federally-protected species of birds that may be affected by this plant. ]

I'm also the Vice-President of the Minnesota Trails Association, and we are envisioning a day when people will be able to ride a bike from Ortonville to Mankato along the Minnesota River. And one of the things they're going to want to come and see are the birds. And according to a lot of research, especially a multi-agency study of mercury levels in the Everglades released in 2003 found that when incinerators in South Florida reduced their mercury emission by more than 90 percent in a few years, there was a significant drop in mercury levels found in some Everglades and fish and birds.

The Wisconsin Department of Natural Resources has discovered that exposure to mercury contributes to low fertility rates in the common loon. Based on current research, all aquatic or bird species exposed to mercury are likely to be affected by the contamination. What impact will Big Stone II's mercury really have on wildlife? Contrary to the Draft EIS, reducing local sources of mercury pollution can have a large impact on mercury levels in local water bodies.

Finally, the Draft EIS does not thoroughly examine how the loss of vegetation will impact wildlife. Big Stone II will cause a long-term loss of at least 96.4 acres of wetland and riparian forests and prairie vegetation. We canoed along this. It was to see what that type of habitat can create.

PH3-8a

PH3-8b

PH3-8d

PH3-8e

PH3-8f

PH3-8c

Much of the additional short-term vegetative impact will likely result in long-term impact, because the re-vegetation efforts, the replanting this stuff that gets disturbed, may be unsuccessful. This often is the case. Regardless of mitigation efforts, the disturbance of native plant communities often introduces long-term or permanent change to the local plant community.

PH3-8g

Wetland/riparian, forest, and prairie ecosystems are ideal habitat for ecologically significant and rare plant species. What will happen to the vegetation, including 25 special status plant species that may occur within this project site? How will the loss of vegetation and the fragmentation of habitats impact the wildlife we saw that day? Will habitat be created or enhanced to mitigate the effects of habitat loss?

PH3-8h

Rare ecosystems, such as wetlands and prairies, provide a unique habitat for wildlife. The loss of the tall grass prairie, in particular, has already led to a decline in many bird and mammal species. Rare and special-status butterfly species will be particularly affected by fragmentation and the loss of prairie vegetation. Since 94.5 percent of natural vegetation in the region has already been converted, it's critical that the remaining prairie be carefully protected from further encroachments.

So I am concerned, along with the effect on the eagle population, I am concerned that the EIS fails to examine the intimate connection between vegetation and wildlife.

Thank you.

**MR. GARY JOHNSON**

Good evening, everybody. I'm Gary Johnson. I'm from the Yellow Medicine County Board. I kind of got to feel like the Lone Ranger here, because I am not here to discuss mercury, carbon dioxide. I do have agreements with you. I do have some disagreements with you on it. A comment period, it's not only for the negative side of it but for the positive side of it. Kind of looked at it, as a county board, gave our planning and zoning officer direction to drive the entire line. Our side of it comes more from the transmission line rather than the plant, because of the fact that it comes down the west side of Yellow Medicine County and comes all the way along the bottom of it, a total of 40 miles just on the bottom, and then turns back north of Granite Falls.

PH3-9a

The concerns we came across after viewing it with our planning and zoning officer, and myself even looking at some of the different locations and that, there were positives of it. They got to address the moving of the Canby substation, which is in the floodplain now, and I understand it's going to be moved out of the floodplain, if this transmission line goes through.

The negative side of it, the alternative route runs three miles south of the existing line right now. That three miles south puts it into an area known as Spring Creek Road on County Road 3. Spring Creek runs through a major watershed, carries up to Hawk Creek, and eventually ends of dumping in the Yellow Medicine River. The concerns we have there has been a lot of state and federal dollars put in along that road, and the CREP, RIM, and other programs, and I can remember back ten years ago when it was all farm and now it's all native grasses, trees, and it's ideal for wildlife inhabited there.

PH3-9b

I guess the concern we would have is on there, the eight, nine miles, ten miles across that area, we would hate to see it disrupted when we have a line three miles north of there already. Why we would move the line down to the alternate route? That's where the county is pretty much looking at.

PH3-9c

Also, in moving the line down there, at the last public meeting we held earlier this spring, the majority of the concerns were, were mercury and carbon dioxide and some of the constituents that we have down there didn't get a chance to voice their concerns.

And another one of their main concerns that I heard that night was that they do not want the power lines moved down there due to the fact they've had an existing there since they were built and the people have become accustomed to it. They don't want them moved down,

PH3-9d

because the one guy that I talked to farms there, and it will run right over his house. So you have a health issue there. People don't like them over their houses.

I think that pretty much sums it up. The only other thing on the positive side of it again is, I do believe if we don't increase the size of this transmission line, you're not going to be able to dispose of your wind-generated power, and those wind-generated powers right now are coming right up to Yellow Medicine County's line, right up to Canby almost. And the five counties and 6WRD Regional Development Commission are in the process right now of forming a committee and reviewing what the generating power and any other fossil fuels can do for us.

So that's all I would like to say. Thank you very much.

PH3-9e

Public Comment -  
 Western Area Power Administration  
 Duane Ninneman  
 Clean Up the River Environment (CURE)

My name is Duane Ninneman and tonight I am here to provide public comment on behalf of Clean Up the River Environment and its members from across the Upper Minnesota River Watershed.

- PH3-10a
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 The WAPA Draft Environmental Impact Statement lists a summary of hazardous Air Pollutants in section 4 page 8. To quote the document, "Most of the mercury in the atmosphere is elemental mercury vapor, which circulates in the atmosphere for up to a year, and hence can be widely dispersed and transported thousands of miles from emission sources." Recent studies, however contradict this notion.
- PH3-10b
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 [Clean Up the River Environment contends that the Draft EIS fails to take into consideration published research by the United States Environmental Protection Agency from the Ohio River Valley which concludes that nearly 70 percent of mercury actually originates from nearby coal burning plants and not from widely dispersed sources.] [A similar study in Alberta, Canada documents significant increases in mercury deposition in the local area immediately downwind from coal burning plants. The research shows that mercury is falling in the water and accumulating in lake sediment within 30 to 65 miles of coal fired power plants.] [CURE has seen the DNR fish studies which show a steady increase in mercury found in fish from the Minnesota River and we are very concerned about the fact that this EIS for Big Stone II does little to address this environmental issue.]
 
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PH3-10c
- PH3-10d
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 [CURE has seen the DNR fish studies which show a steady increase in mercury found in fish from the Minnesota River and we are very concerned about the fact that this EIS for Big Stone II does little to address this environmental issue.]
- PH3-10e
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 The Federal Clean Air Mercury Rule imposes New Source Performance Standards beginning in 2010. By 2018 South Dakota's entire mercury budget will be only 581bs. per year and BSII is expected to far exceed that number. This year Minnesota enacted some of the most stringent mercury reduction legislation in the country which passed by a unanimous vote in both houses and was signed by Governor Pawlenty. Minnesota regulation will not curtail mercury from the Big Stone Plant even though much of the plant's mercury falls in western Minnesota on the prevailing winds.
- PH3-10f
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 [CURE has recently been convening people together from all sectors of the Upper Minnesota River Watershed to talk about new opportunities for renewable energy] and how that development will lead to healthy landscape, local jobs and new sources of long term income for the landowners and farmers of our region. [We are very concerned about what the Big Stone Coal Plants are doing to slowly destroy the recreation and tourism economy that has been established for generations around Lac qui Parle Lake and Lac qui Parle Wildlife management area.] [We also maintain that by locking ourselves into coal generation we could lock ourselves out of clean wind and biomass distributed power.]
 
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PH3-10h
- PH3-10g
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 [We are very concerned about what the Big Stone Coal Plants are doing to slowly destroy the recreation and tourism economy that has been established for generations around Lac qui Parle Lake and Lac qui Parle Wildlife management area.] [We also maintain that by locking ourselves into coal generation we could lock ourselves out of clean wind and biomass distributed power.]
- PH3-10i
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 Lac qui Parle is French for Lake that Speaks and tonight she is speaking loudly and clearly. We can here her say no more mercury, no more coal. [Her message is in the wind.]

PUBLIC HEARING  
HELD: JUNE 16, 2006, 7 P.M.  
BENSON GOLF COURSE  
2222 ATLANTIC AVENUE  
BENSON, MINNESOTA - JUNE 16, 2006

**MS. CESIA KEARNS**

And I'll be pretty brief. But I guess there is a lot of things that concern me about the proposed construction of this plant and the transmission lines.

PH4-1a [ One of the foremost things on my mind is that I feel like the Draft EIS gives only superficial attention to environmental assessment implications of the proposal. I mean, that there are populations that will be more affected by the negative impact of this plant than others. Particularly communities that are close by the plant

[The Native American communities where we know they have a higher rate of fish consumption than other groups of people, that they therefore have a higher level of mercury poisoning their bodies compared to people who consume less fish.] [And so, you know, regardless of what kinds of controls may be used in the plant, it will still be emitting mercury and the deposition. Recent studies are showing it tends to be greater closer to plants, and it concerns me that these populations are going to be more negatively impacted than others because of the amount of mercury that will be emitted from Big Stone. And I feel like there is not adequate attention given to that. And it's just a pretty serious matter, because it's wrong basically.] PH4-1b

PH4-1c [ I'm also aware that there have been challenges recently based on the delivery of the coal to the plant, and I'm not certain that the coal can be adequately delivered to the site, the plant that they propose right now. And initially we foresee the rising cost of fossil fuels. We know that coal prices are rising. We also know that gasoline is rising, which can affect the delivery of coal, and we can only see prices going up on that, I would guess. So that's a concern for me.

PH4-1d [ And we're keenly aware of, at this point, of the impact of coal burning on human health and the environment, including, you know, the particulate matter can contribute to health problems like asthma. Mercury being a huge concern for, you know, a sensitive population like pregnant women and children. And like I said, communities that have a higher rate of fish consumption. And that's kind of the tip of the iceberg, I guess. So I just strongly oppose the construction of that plant, and the transmission lines to serve it.

**MR. CHRISTOPHER CHILDS**

I'm a writer and I volunteer extensively with the Minnesota Renewable Energy Society and also with the North Star Chapter of the Sierra Club. And like some other people in this room, I was involved in the recent drafting of Minnesota's new mercury bill.

My fundamental concern with the construction of the Big Stone II unit and the interconnection of that unit is that it violates what I consider to be the first law of intelligent survival, which is when you're in a hole, stop digging. And that applies on two counts. The first is mercury and the second is carbon dioxide, greenhouse gases.

PH4-2a [ On the issue of mercury, the initial figure that I was told for the output of this unit was something approaching 400 pounds of mercury. On a recent visit to the plant, I was assured that the plant would put out no more than the current output of the existing unit, which is 190 pounds. I note in the DEIS that the target is now down to 144 pounds. While I can applaud the choice of the owners, the proposed owners of the proposed plant to reduce the mercury by that amount, I have to say that from my perspective, it does not sufficiently address the issue.

- PH4-2b [ If this plant -- First of all, if the existing plant were in Minnesota, a plant of that size would have been brought under the new mercury bill. It would have been required to reduce its mercury emissions by 90 percent or something very close to that. The new unit would have to be built to an equal standard. Therefore, doing approximate math, total output of the existing unit and the proposed unit would have to be on the order of about 25 percent of what is coming out of Big Stone today. Instead we're looking at a target figure, which is approximately 75 percent, 144 pounds would be approximately, according to the numbers in the DEIS, approximately 75 percent of the current output. So I have a problem on that score.
- Ms. Kearns has already addressed some of the issues related to mercury. The fact is that most, virtually all of the lakes in Minnesota are already contaminated with mercury. That is why the bill was recently passed to require these extreme reductions in amount of mercury. PH4-2c
- PH4-2d [ We also know that studies increasingly, study after studies show that a very significant amount of mercury falls out relatively close to power plants, coal-fired power plants. It was thought for a long time that our mercury problem in Minnesota was only about 10 percent home grown. That is subject to serious question as a result of studies in places like Ohio and Lake Michigan basin and a couple of other others states, as far as Massachusetts. So there is a real issue with this plant being allowed to be and tied in to the grid with the mercury emissions coming over Minnesota, a state which is trying very hard to clean up its own act.
- PH4-2e [ But the larger issue for me is really the issue of carbon dioxide and climate change. I have been involved with the climate change issue to one degree or another now for about 15 or 16 years. I was formerly the national speaker for the environmental organization Green Piece, and our campaigners began work on the greenhouse issue around 1989, around the time I was first working for that organization.
- PH4-2f [ I don't know how many of you folks in this room have seen or plan to see Al Gore's movie, "An Inconvenient Truth." I hope everyone will see it, and not because I necessarily expect everyone to take literally everything that's in the movie. But we need a very, very, very serious discussion in this society of what we are doing to ourselves, and what we are going to be leaving to our children and their children. And if even, even the majority of the scientific evidence that is cited in that movie is accurate -- And I do believe it is -- then we have one of the largest problems, arguably the largest problem that human beings have ever faced.
- PH4-2g [ We're talking here about building a 600 MW coal-fired power plant that all by itself will increase South Dakota's carbon dioxide emissions by about one-third. I would argue, and it is nothing personal to the folks from Big Stone, but I would argue that this country cannot afford to continue constructing any type of unit that will have that kind of output of greenhouse gases.
- My own personal preference, I was born after World War II, but I am old enough to remember ration coupons lying around the house post World War II in my parents' home. I have some recollection of the echoes, if you will, of the spirit in which this country operated during the crisis that was the Second World War. It was a spirit of sacrifice. It was a spirit in which people decided that they would do with less or do without for the benefit of future generations. That is very likely the orientation that this society will have to take in future years.
- PH4-2h [ This unit is proposed for the simple reason that most of us are used to using an awful lot of power. We are five percent of the population of the world in this country, and we are consuming about a quarter of the world's energy. It is doubtful that that can continue.
- It is probable, therefore, that at some point, hopefully sooner rather than later, we will all have to reach a conclusion that we will have to do with less. That would be the simplest way to relieve the need for the construction of this or other units that have the potential to do environmental damage.
- So in conclusion, it's my hope that the plant, first of all, will not be constructed. It's my hope that it will not be connected. And it is, in much larger terms, my hope that all of us

here and that people all across this country and throughout this society will decide that there is a serious challenge here that needs every one of us to rise to the occasion.

Thank you very much.

**MR. ROB WOLFINGTON**

I serve as the City Manager of Benson. Benson is the home of an electric utility that was created in 1898. We generate on a standby, 12.2 MW, and we distribute to 3400 customers or citizens in our town.

I have a resolution of support from the Benson City Council for the Big Stone II project. Rather than read the entire resolution, I'll read the last two paragraphs.

Now, therefore, be it resolved that the City of Benson fully supports the Big Stone II project, generation and transmission facilities, and

Be it further resolved, the City of Benson urges all state and federal regulators to support the Big Stone II project based on the baseload energy needs of the city and the region, the environmental considerations being shown by the project, the potential for future resource development created by the additional transmission capacity proposed by the project and the costs stability and system reliability Big Stone II would bring to the region.

PH4-3a [ Resolution of support was passed on March the 27th, 2006, by the Benson City Council.

Thank you for the opportunity to be heard.

**MS. EVA FALK**

PH4-4a [ And I'm concerned about the additional mercury emissions from this plant. That's it.

**MS. ERIN JORDAHL REDLIN**

PH4-5a [ I work with Clean Water Action, and we have offices in Sioux Falls, and we have an office in Minneapolis. And my concerns are very much similar to what has already been brought up, mainly: mercury.

And I know that Ms. Werdel mentioned that the co-owners have voluntarily agreed that they're going to reduce mercury emissions from the new and old -- the proposed and existing units. But I guess Clean Water Action, while we appreciate that the co-owners have made an attempt to address concerns of Minnesotans and South Dakotans, we're still not sure that the letter that was sent to the South Dakota Department of Environment and Natural Resources is going to address all of those concerns. And some of the concerns are just the different numbers.

PH4-5b [ I know the letter that was sent said that the units would be reducing to 189 pounds per year, and that's what the current unit is emitting. But under the federal Clean Air Mercury Rule, and in the Draft Environmental Impact Statement, it states that the goal is 144 pounds of mercury per year. So Clean Water is just confused about which is -- What's a goal mean versus this voluntary agreement?

PH4-5c [ We're also concerned about the fact that, as Ms. Werdel stated, that their voluntary agreement is actually below what they would be allowed to emit, but starting in 2010, the federal rule would require them to reduce to 144 pounds and then in 2018, they would be required to reduce to 58 pounds. So by the time the unit is operational, which I believe is 2012, they should be already actually reducing to 144. So 189 is still above what the federal rule would require. So we're just concerned that the three years that they're asking to test after they're commercially operational, they want to test the mercury control equipment for three years, and then at the end of the three years, so in 2015, I guess, they would be reducing to 189, except that five years earlier, they should have been reducing to 144.

PH4-5d [ The EIS, we didn't see any mention of how they'll be reducing to 58 pounds then in 2018. Will they be buying credits from another state? If so, the expense of the credits that will be passed on to the rate payers, that should be accounted for in the EIS.

PH4-5e [ We would like to know what happens after the co-owners test the technology for three years, if they decide, "Well, this isn't feasible. We're not going to do this." It's a voluntary agreement so there is no requirement under what they're proposing that they would actually have to reduce. Luckily, we do have this federal rule, and I'm sure that citizens would push for the enforcement of that federal rule so they would have to reduce to 144, but these are some of the questions that we still don't feel have been answered in the letter about the voluntary agreement. So while I've said we are glad that they're making an attempt to address concerns, we just still have a lot of questions.

PH4-5f [ Then Clean Water's other concerns are about the global warming pollution. The EIS, we don't feel that it adequately addressed the risks to the rate payers, that it will be inherent because of carbon. You know, the Senate has been holding bipartisan hearings for months, and they're talking about new law that will limit emission carbon dioxide. The Senate actually has already passed a formal resolution to adopt such a law. Five of America's top ten power companies are calling for limits on carbon dioxide, along with other major U.S. corporations, including Wal-Mart and Ford and GE. So we feel that because carbon dioxide limits will probably be in place and operational before Big Stone II would be operational, and certainly, in place before -- early in the plant's working life, that those risks that will be passed on to rate payers should be accounted for in the EIS.

I think that it was already mentioned that Big Stone II would emit more than 4.5 million tons of carbon dioxide. So this would increase, like Mr. Childs said, the entire state of South Dakota's carbon emissions by more than a third. This would be almost as much as 670,000 cars. So that's more than all the cars in South Dakota, the emission combined.

PH4-5g [ So again, because these costs have not been accounted for, we believe that the costs are dramatically underestimated; that even if we assumed midrange estimates for future CO2 cost, Big Stone II would cost 37 to 46 percent more than the co-owners are estimating. And this information comes from the Union of Concerned Scientists.

PH4-5h [ Then if you looked at a wind-based alternative using midrange estimates for CO2, Big Stone II would cost 28 to 72 more percent. So we just feel that these risks, these additional costs, have not been adequately addressed in the Environmental Impact Statement, and before a decision is made about interconnection, we think that they should be.

**MR. ANDREW FALK**

Hello to some of you guys from last night and the night before. I won't bore you with my whole speech about transmission. I would just like to give a few comments that maybe some of you hadn't heard

PH4-6a [ But the big part of this speech about construction of plant and transmission lines is that there will be adequate space for renewable energy on these lines, and these claims have been made by an entity that does not have the authority to dictate what goes into the power grid and what comes off the power grid. That instead is controlled by MISO, Midwest Independent System Operator, who has the authority to allow, to dictate what power goes onto the grid. I talked about that the other night. I just wanted to bring it up again and reiterate.

PH4-6b [ And I want to talk about the economic impact of this, because, obviously, people are for-profit companies. There is a reason why they're doing this: Just to make money. And that's fine. We live in a capital society. But one of the things that I want to talk about is that this plant is being oversized. It's being overbuilt for a market not specifically for western Minnesota. A lot of this power is going to be sent to the Twin Cities, farther markets.

PH4-6c [ It's being built in South Dakota, where 95 percent of the electricity will be shipped to Minnesota and beyond. So I want to have some of these issues addressed.



PH4-6d [ Just for the sake of argument, what if this were, this EIS were prepared to Minnesota standards? What if it were built just across the border in Minnesota? How would it be different? These questions haven't been adequately addressed, which leads us to the environmental impact.

PH4-6e [ Mercury is a stable compound. It doesn't break down in the environment like you hope. If you put a hundred pounds in the environment one year, put a hundred pounds the next year, it doesn't go away; it stays there. That's one of these things we need to address. The fact that we are just meeting the requirements, that we're not rising above and beyond what potentially we could do to completely eliminate or eliminate to a very small percentage.

PH4-6f [ Many of these people don't live in this area. They don't live in the community. They don't go fishing in these lakes. For those of us that live here, we want to have these questions addressed and answered. We live in this community. We work here; we play here. We want to make sure that we can go fishing, and that we can eat our fish.

PH4-6g [ I'm starting to learn more and more about mercury. I never really understood how dangerous a chemical or compound this is. One of the most interesting statistics I heard was one tablespoon of mercury will pollute 40 acres of lake. It will make it so all the fish in that are deemed unsafe for human consumption. We're talking about 189 pounds of mercury per year. The next year. The next year. The next year. I'm not sure exactly what the life expectancy of this plant is. I'm assuming it's close 20 to 40 years. But how much of mercury are we willing to put in this environment, are we willing to subject our children and families to? It just seems that these questions have not been adequately addressed in this EIS.

PH4-6h [ And furthermore, as much as people don't want to talk about it, carbon dioxide is playing a huge role in changing our global climate. We just need to address this problem. We need to look at alternatives to going -- shorten there or stop this problem, because we are seeing climate change. We are seeing a lot of issues that we wouldn't have dreamed of, and we are looking at this nearsightedly and shortsightedly for the case of chief power, or perceived to be the chief power, which that's, once again, proven to be not necessarily sustainable with coal.

PH4-6i [ Coal has gone up in price. Fossil fuels have become more expensive. If the carbon taxes and this green credit or the tags are enforced, the prices to the plant and the consumers are going to increase by a significant margin.

I'm just hoping that these issues would be more adequately addressed. And once again, I just want to reiterate for the fact of the people that live here, we really, I think, we deserve a fair shake in seeing what this is all about.

Thank you.

**MR. JIM FALK**

PH4-7a [ I'm just one of the 85 to 90 percent of the Minnesota residents who have expressed deep concerns about how we address the handling of renewable energy, how we get the renewable energy on our grid. The consumers, the Minnesota consumers, have overwhelmingly said we want renewable energy.

PH4-7b [ My concern with this plant and the transmission is that I don't believe we've adequately addressed, are renewables going to be able to come on line with these transmission lines? Well, obviously, the system, the MISO system is set up so that it's very hard to determine what will be adequately able to integrate into these systems. And I don't know that we totally understand that as certainly as most consumers don't understand that.

PH4-7d [ [But I'm concern about the mercury pollution that the plant will generate. I'm concerned about the fact that I don't know that the transmission system that is being proposed is going to fairly and adequately come forward to address the needs of the residents in Minnesota for renewable energy.] [I think wind has huge potential, and I don't know that

PH4-7c

PH4-7e [ we're getting wind onto our grid, and I don't know that these transmission lines will actually benefit that in any way, shape, or form.]  
[ So that's why I would be opposed to these transmission lines in the state that they are being proposed at this time.  
Thank you.

**MS. KAREN FALK**

PH4-8a [ I'm an elementary teacher. And this past fall we took our class with a lot of Pope County fifth graders to the Ambush Park over here. And we had a whole day where we studied water. Then we went back to our classroom, and we talked about water. And all of the kids enjoyed the water in Minnesota, and they talked about fishing and swimming.

PH4-8b [ But then when we had to talk about how you couldn't really swim or tube in the Chippewa water, because there are too many organisms that would make you sick if you got it in your mouth. Then we talked about going fishing, and they're really, they're ten years old so they shouldn't be eating the fish at all. And it's pretty hard to look at a classroom of ten and eleven years old and tell them, "You can't do that anymore." And I do that every year. And they say, "Well, why?" And I say, "Well, it's harmful."

PH4-8c [ And I'm sorry, I'm tiring of saying "It's harmful." It's time for to us say, "Maybe we can do better." We can do better for these kids, because they're the ones that look at me every year and can't understand why we've done this to what they're going to be inheriting.

[ So please consider that, that these children are the ones that are going to be living with the consequences of what you are proposing. So please reconsider this plant and think about the children.  
Thank you.

**MR. JOHN BAKER**

PH4-9a [ Good evening. I'm John Baker, Swift County Commissioner. The only comment I have to make tonight is the issue of property tax on transmission lines of which I'm not an expert. But from the county aspect, I would hope that if and when this project goes through, those issues are taken care of by both the state and the transmission line people so that we don't have surprises down the road on taxation. It's very detrimental to our citizens of Swift County or any other county in Minnesota when we end up in court fighting over taxes five years down the road and get a big surprise. Very costly.

[ And when you talk about the economics of this project, I would hope that those issues are resolved prior to operating it. So that's all I have to say.  
Thank you.

**RESOLUTION OF SUPPORT FOR THE BIG STONE II PROJECT**

WHEREAS, the City of Benson is a member of Missouri River Energy Services (MRES), and

WHEREAS, the City of Benson purchases all its supplemental power needs from MRES to support its community growth and growing energy needs, and

WHEREAS, MRES has determined that additional base load resources are now necessary to meet the growing needs of all its member municipal electric systems, and

WHEREAS, the Big Stone II Project (BSP II) has been judged to be the most cost effective option to meet the growing needs of Benson and other MRES members to ensure rate stability and service reliability on a timely basis, and

WHEREAS, BSP II will incorporate highly efficient technology that will result in a cleaner environment, including a substantial reduction in mercury, sulphur dioxide and nitrogen oxides emissions, and

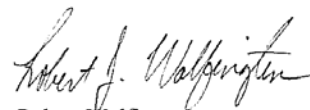
WHEREAS, BSP II will construct new transmission facilities in the region to improve reliability and to also accommodate development of 800 – 1,000 MW of additional generation beyond that needed by BSP II, including potential new renewable generation facilities, and

WHEREAS, the City of Benson finds this project consistent with its environmental record of 75% hydro power and the balance from the cleanest possible base load generation,

NOW, THEREFORE, BE IT RESOLVED, that the City of Benson fully supports the Big Stone II Project generation and transmission facilities, and

BE IT FURTHER RESOLVED, the City urges all state and federal regulators to support the BSP II project based on the base load energy needs of the City and the region, the environmental considerations being shown by the project, the potential for future resource development created by the additional transmission capacity proposed by the project and the cost stability and system reliability BSP II would bring to the area.

Approved by the Benson City Council on March 27, 2006

  
Robert Wolfington  
City Manager

PH4-10a

# Final Environmental Impact Statement

## Volume IV - Public Comments

June 2009

## Big Stone II Power Plant and Transmission Project



Prepared for:

Lead Agency:  
Western Area Power Administration



Cooperating Agency:  
U.S. Army Corps of Engineers

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# 1.0 Introduction

This volume of the Final Environmental Impact Statement (EIS) on the Big Stone II Power Plant and Transmission Project contains public comments received on both the Draft EIS and Supplemental Draft EIS. Public comments were received via mail, through the Internet at Western's web site, and received in oral and written formats at the public hearings.

## 1.1 Comment Numbering Methodology

As discussed in detail in Volume II, document identification numbers were given to each submission (e.g., a letter, email, public comment form, or oral comments given in a single public hearing). The document identification number consists of an alphabetic character to identify the type of entity (e.g., Federal government, individual, public hearing), followed by a dash, and then a number. The submissions are numbered sequentially from 1 upward to the last comment.

Submissions are presented within the following source categories:

- Governmental agencies (F=Federal government, T=Tribal governments, S=State government, L=local government)
- Non-governmental organizations (O)
- Businesses (B)
- Individual commenters (I)
- Form letters (FL)
- Public hearings (PH). PH1 (the public hearing at Big Stone City); PH2 (Morris); PH3 (Granite Falls); and PH4 (Benson).

Next, each category source was assigned a sequential number to differentiate sources within a category. For example, the USEPA submission is F-1 and the U.S. Fish and Wildlife Service submission is F-2.

Finally, each individual bracketed comment within a document was bracketed and assigned a lower case alphabetical character, in sequential order. For example, the USEPA's first bracketed comment was assigned F-1a and the second comment in the same submission was assigned as F-1b.

In developing the bracketed comment numbers for public comments to the Supplemental Draft EIS, the naming process was repeated, except that comments submitted in response to the Supplemental Draft EIS are prefaced with the letter "S" prior to the letter and number. For example, the USEPA's first bracketed comment in response to the Supplemental Draft EIS was assigned SF-1a.

To facilitate designation of specific comments on each submission, all submissions were scanned into a computer-editable text using optical character recognition software. Typical accuracy rates of typewritten text exceed 99 percent, however in some cases, the formatting process of some individual documents created occasional distortion and mis-reading of characters. Additional effort was made to manually correct these distortions and incorrectly read characters, however, in some cases distortion from the original letter may still occur. All original comment submissions have been added to the administrative record for the EIS.

**SDEIS PUBLIC COMMENTS**

## **FEDERAL AGENCIES**

SF-1. United States Environmental Protection Agency

SF-2. U.S. Department of the Interior, Office of Environmental Policy and Compliance



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 8**

**1595 Wynkoop Street  
DENVER, CO 80202-1129  
Phone 800-227-8917**

<http://www.epa.gov/region08>

Ref: 8EPR-N

**FEB 28 2008**

Ms. Nancy Werdel  
Western Area Power Administration  
P.O. Box 281213  
Lakewood, CO 80228-8213

RE: Comments on Big Stone II Power Plant and  
Transmission Project Supplemental Draft:  
Environmental Impact Statement  
CEQ #20070450

Dear Ms. Werdel:

The Environmental Protection Agency (EPA) Regions 8 and 5 have reviewed the Big Stone II Power Plant and Transmission Project supplemental Draft Environmental Impact Statement (DEIS). Our comments are provided in accordance with our review under Section 102(2)(C) of the National Environmental Policy Act (NEPA), 42 U.S.C. 4332(2)(C), and Section 309 of the Clean Air Act, 42 U.S.C. 7609.

The applicant for this project (Missouri River Energy Services, on behalf of several energy entities known collectively as Co-owners) proposes to construct and operate the Big Stone II coal-fired power plant in Big Stone City, South Dakota, a 630-megawatt net capability coal-fired electric power generating station (note: the capacity was 600 megawatt in the DEIS). The Co-owners propose to connect transmission lines to the Western Area Power Administration (Western) power transmission system, and to the Big Stone II coal-fired power plant. The federal action is Western's decision to approve the connection of these transmission lines to Western's power grid. The project would require the addition of new, and modification of existing, transmission lines in Minnesota and South Dakota, and modification of existing substations in Minnesota. The proposed Big Stone II power plant and the transmission lines are interdependent projects. The DEIS states that if Western rejects the application to connect these new transmission lines, the Big Stone II plant would not be built.

Western originally issued a DEIS on this project in May 2006. In December 2007, Western issued a supplemental DEIS. The supplement focused on changes to the back-up water supply for the power plant. Today's comments are intended to be consistent with previous letters EPA has sent to Western on this project. Under separate cover, EPA has sent comments on the

draft air permit (June 26, 2006 to the State of South Dakota) and the 404 permit application (June 27, 2006 to the U. S. Army Corps of Engineers) for this project. EPA also provided comments on the May 2006 DEIS in a letter dated August 7, 2006. Many of the comments in that letter still apply, and are repeated in the enclosed detailed comments.

In EPA's August 7, 2006 letter, we focused on the wetland impacts of the originally proposed project, as well as air quality impacts. Construction associated with the Big Stone II plant included a make-up water storage pond for use as a back-up water supply and projected 65 acres of direct wetlands impacts. The supplemental DEIS changes the proposed project to a wet cooling system using surface water as the primary water supply and ground water as the back-up water supply. Changes also include installation of ground water wells, a pipeline to convey ground water to the proposed plant site, and construction of electrical distribution lines to power the ground water well pumps.

Using ground water as the back-up water supply eliminates the 65 acres of direct wetlands impacts presented in the DEIS. [We commend Western for the elimination of 65 acres of wetland impacts and are revising our comments of August 7, 2006 on wetland impacts from the power plant.] [We continue, however, to recommend that the FEIS include a detailed assessment of the wetland and stream-crossing impacts of the transmission line corridors, including an estimated footprint for transmission towers and access roads for power line construction and maintenance.]

SF-1a

SF-1b

SF-1c

EPA has comments on the potential ground water impacts from the new process. The most significant of these comments is that base flow to the Whetstone River is predicted to be reduced by about 32% as a result of pumping from the Veblen Aquifer associated with this project. EPA recommends that the FEIS describe in much more detail the impacts to the Whetstone River and water users that may result from the reduction in stream flow. Additional detail on ground water impacts is provided in the enclosed comments.

There are no changes to the proposed project's transmission alternatives or other processes. The Big Stone II plant would use pulverized coal-fired super-critical boiler technology and would burn low-sulfur Powder River Basin coal. Air emissions from both the existing Big Stone plant and the proposed Big Stone II plant would be controlled with the addition of pulse jet fabric filter (baghouse) and wet-flue gas desulfurization (scrubber) control systems.

SF-1d

[The Supplemental DEIS did not address air quality impacts. Therefore, most of our comments on air quality are still relevant.] The DEIS indicates that a certain degree of mercury emission control efficiency will be made using the proposed baghouse and scrubber controls.

SF-1e

[However, the DEIS does not contain clear information about the mercury emissions. The FEIS should clearly indicate how mercury emissions will be addressed.]

The DEIS contained estimates of the greenhouse gas (GHG) emission carbon dioxide (CO<sub>2</sub>) from both the existing and proposed plants. The DEIS also included a discussion of CO<sub>2</sub> capture and the increased boiler efficiency as methods to decrease CO<sub>2</sub> emissions. We commend



SF-1f

Western for including this information in the DEIS. However, EPA believes that the GHG emission section should be expanded in the FEIS. Our understanding from reading the Co-owner's settlement agreement with the State of Minnesota Public Utilities Commission is that the Co-owners have agreed to offset GHG emissions from power supplied by the Minnesota owners going to Minnesota customers with a variety of methods including capture/sequestration, emission reductions at other facilities and trading on a greenhouse gas exchange. The FEIS should disclose the steps to be taken to meet the reductions of CO<sub>2</sub> mentioned in the settlement agreement and specify the resultant CO<sub>2</sub> emission reductions anticipated. The FEIS should also identify additional possible mitigation measures (e.g., emissions not covered by the settlement agreement), and compare annual projected GHG emissions from the proposed project to annual emissions from other existing and reasonably foreseeable projects, and annual GHG emissions at a regional, national, and global scale. Additional detail is provided in the enclosed comments.

SF-1g

Based on the procedures EPA uses to evaluate the adequacy of the information and the potential environmental impacts of the proposed action and alternatives in an EIS, EPA is rating this supplemental DEIS as EC-2 (Environmental Concerns-Insufficient Information). An "EC" signifies that EPA's review of the supplemental DEIS has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. A "2" rating signifies that the supplemental DEIS does not contain sufficient information for the EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment. [In this case, the supplemental DEIS does not fully analyze ground water impacts.] EPA's comments and this rating apply to the alternatives carried through analysis in the supplemental DEIS, alternatives 2 and 3. A copy of EPA's rating criteria is enclosed.

Enclosed are EPA's detailed comments. These comments are intended to help ensure a comprehensive assessment of the project's environmental impacts, adequate public disclosure and an informed decision-making process for alternative selection. If you would like to discuss our comments, please feel free to contact me at (303) 312-6004 or Deborah Lebow Aal of my staff at (303) 312-6223.

Sincerely,  
Larry Svoboda  
Director, NEPA Program  
Ecosystems Protection and Remediation

Enclosures (2)

cc: Ken Westlake, EPA Region 5  
Anna Miller, EPA Region 5

**EPA's Detailed Comments**  
**Big Stone II Power Plant Supplemental DEIS**  
February 28, 2008

For your convenience, we are reiterating comments from our August 7, 2006 memorandum that are still relevant. The new comments are in bold font. Original comments from our August 7, 2006 letter are not in bold font.

**Ground Water Impacts**

- SF-1h [ *EPA recommends that the FEIS provide improved detail on impacts to the Whetstone River from reductions in stream flow; analyze impacts to the ecosystem of changes to 24 acres of wetland basins; explain where the conclusion for no domestic wells comes from; and explain the annual average ground water withdrawal numbers more clearly.*
- SF-1i [ • **Page 4-16 of the DSEIS: The base flow to the Whetstone River is predicted to be reduced by about 32% [from 2 cubic feet per second (cfs) to 1.36 cfs] as a result of pumping from the Veblen aquifer associated with the power plant. In addition, the modeling indicates that the frequency of average monthly flows less than 0.5 cfs in the Whetstone River would more than double (from 3.2 to 7.4%). The FEIS should discuss and describe in greater detail the impacts to the Whetstone River and water users that would result from the reductions in stream flow.**
- SF-1j [ • **Ground water pumping could potentially alter the hydrologic regime of 24 wetland basins totaling 77.4 acres. The supplemental DEIS states that these wetlands' would not be lost or permanently dewatered by ground water pumping." However the supplemental DEIS includes no analysis or discussion about impacts to ecosystems or aquatic communities that may result from a decrease in the frequency and degree of wetness in these wetlands. The FEIS should discuss such impacts.**
- SF-1k [ • **The supplemental DEIS does not provide any information on domestic wells using the Veblen aquifer within the study area nor are any records provided for actual water use from the Veblen aquifer. At the December 20, 2007 meeting EPA had with you and your consultants, they stated that no domestic wells exist in the area. We recommend that the FEIS indicate that no domestic wells exist in the area and discuss the source of that conclusion, e.g., whether an investigation was conducted to determine if and where domestic wells might be producing ground water from the Veblen aquifer.**

SF-11

- **The SDDENR report (2007b) that supported the Co-owners Water Appropriation Permit Application assumed an average annual withdrawal of 4700 acre feet (af) from the Veblen aquifer within the project study area (an annual average of 3700 af for the two power plants and an additional 1000 af estimated for existing Grant County users of the Veblen aquifer). The SDDENR estimated that 0.34 inches of recharge would be required to balance withdrawals of 4700 af per year. However, the appropriation that has been permitted is for a maximum of 10,000 af per year and the currently permitted appropriation from the Veblen aquifer in Grant County totals 6389 af per year. This indicates that there is a potential for a maximum annual withdrawal of 16,300 af per year. We recommend that the FEIS discuss any permit restrictions associated with the Co-owners water Appropriation Permit that are intended to limit the annual withdrawals to 4700 af/yr, and/or whether as reported at the December 20, 2007 meeting, there is a permit from South Dakota which limits the average to 4,700 acre-feet over 20 years. Please clarify.**

Wetland Impacts

SF-1m

**We commend Western for the elimination of 65 acres of direct wetland impacts from the power plant. In terms of wetlands potentially impacted by the transmission line corridors, we recommend that *the FEIS include a detailed assessment of the wetland and stream crossing impacts of the transmission line corridors, including an estimated footprint for transmission towers and access roads for power line construction and maintenance.***

SF-1n

The DEIS describes general impacts to wetlands, riparian areas and vegetation in the transmission line areas, but not in site-specific detail. In particular, the corridors appear to be several miles wide and the actual pathways of the power lines are undefined, such that the acreage impacts appear to be a best-guess by the applicant. More information on the actual pathways for the two alternatives and their potential impacts should be included to determine whether the proposed construction of new and modification of existing transmission lines and associated facilities would require an individual CWA Section 404 permit, or whether such work could proceed under a Corps general permit. If an individual permit is required, a CWA Section 404(b)(1) Guidelines evaluation will be necessary. EPA recommends that the FEIS address regulation under CWA Section 404 for the transmission lines. This would assist in streamlining the CWA Section 404 permitting process.

Greenhouse Gas Emissions

SF-1o

***The FEIS should disclose the steps to be taken to meet the reductions of CO<sub>2</sub> mentioned in the settlement agreement and specify the resultant CO<sub>2</sub> emission reductions anticipated. We recommend that the FEIS also identify additional possible mitigation measures (e.g., emissions not covered by the settlement agreement), and compare annual projected GHG emissions from the proposed project to annual emissions from other existing and reasonably foreseeable future projects. Proposed project emissions should also be compared to annual GHG emissions at a regional, national, and global scale.***

SF-1p

**The DEIS contained estimates of the greenhouse gas (GHG) emission carbon dioxide (CO<sub>2</sub>) from both the existing and proposed plants. The DEIS also included a discussion of CO<sub>2</sub> capture and the increased boiler efficiency as methods to decrease CO<sub>2</sub> emissions. We commend Western for including this information in the DEIS. However, EPA believes that the GHG emission section should be expanded in the FEIS, keeping in mind that there are currently no EPA regulatory standards directly limiting GHG emissions.<sup>1</sup>**

<sup>1</sup>Since issuance of the April 2, 2007 Supreme Court opinion in *Massachusetts et al. v. EPA*, 127 S. Ct 1438,

SF-1q

Our understanding from reading the settlement agreement is that the applicants have agreed to offset GHG emissions from power supplied by the Minnesota owners going to Minnesota customers with a variety of methods including capture/sequestration, emission reductions at other facilities and trading on a greenhouse gas exchange. The FEIS should disclose the steps to be taken to meet the reductions of CO<sub>2</sub> mentioned in the settlement agreement and specify the resultant CO<sub>2</sub> emission reductions anticipated. The FEIS should also identify additional possible mitigation measures (e.g., emissions not covered by the settlement agreement).

SF-1r

As part of the cumulative impact analysis, EPA recommends that the FEIS compare annual projected GHG emissions from the proposed project to annual emissions from other existing and reasonably foreseeable future projects. In addition, we recommend that the FEIS compare the annual GHG emissions at a regional, national, and global scale. Comparing the magnitude of annual emissions from other sources will enable the decision makers to better understand the magnitude of the GHG emissions associated with the proposed project and the extent to which their decision making on the proposed project may affect regional GHG emissions. Emissions of GHGs in the United States have been quantified by the U.S. Department of Energy<sup>2</sup> and EPA<sup>3</sup> in publications released in 2007. EPA has found that relating the quantity of GHG emitted from power plants to other GHG emitting actions such as the equivalent number of vehicles driven per year to be particularly useful in helping to understand the scale of power plant GHG emissions to other actions. EPA recommends the use of a GHG equivalency calculator<sup>4</sup> to facilitate this calculation comparison.

Settlement Agreement with the State of Minnesota PUC

SF-1s

*We strongly encourage Western to reference the relevant provisions of the settlement agreement reached between the State of Minnesota PUC and the Co-owners in the FEIS and ROD.*

SF-1t

The Co-owners have signed a settlement agreement with the State of Minnesota PUC, which includes a number of provisions and is available online at <http://www.bigstoneii.com/TransmissionProject/BSTpdf/070831BSTSettlementAgreementAndLetter.pdf>. The relevant provisions should be included in the FEIS and ROD. For example, the FEIS and ROD should clearly reference tracking mechanisms, technology control requirements, and mitigation goals that were agreed to in the settlement agreement.

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549 U.S. (2007), EPA has been developing an overall strategy to address GHG emissions from mobile and stationary sources under relevant Clean Air Act authorities. Thus, neither this comment letter nor the EIS for an individual project reflects, and should not be construed as reflecting, the type of judgment that might form the basis for a positive or negative finding under any provision of the Clean Air Act.

<sup>2</sup>For example, see the Emissions of Greenhouse Gases in the United States 2006, DOE/EIA-O573 (2006). November, 2007, available at <ftp://ftp.eia.doe.gov/pub/oiaf/1605/edrom/pdf/ggrpt/05/306/pdf> (CHECK)

<sup>3</sup>For example, see the Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2005, April 17, 2007, available at: <http://www.epa.gov/climatechange/emissions/downloads06/07CR.pdf> (CHECK)

<sup>4</sup><http://www.epa.gov/cleanenergy/energy-resources/calculator.html>

Additional Detailed Comments on Air Quality Impacts

- SF-1u [ As EPA commented in the August 7, 2006 letter, the FEIS should explain the basis for the statement in the DEIS concerning mercury emission impacts. The DEIS states that "[a]irborne plant emissions could cause local and regional surface water quality impacts such as acidification or increases in mercury concentration." (DEIS at 4-15), but provides no analysis in support of this statement. The FEIS should discuss the potential impacts of these emissions identified in the DEIS as part of its site-specific analysis of the project.
- SF-1v [ *Page 3-4, Figure 3.1-1:* The key for the diagram is not correct. The "Percent of Time" label should read "Velocity" with units such as "meters/sec" or possibly "miles/hour."
- SF-1w [ *Page 4-4, Significance Criteria:* The significance criteria listed visibility but omitted criteria for acid neutralizing capacity in sensitive lakes and deposition of sulfur and nitrogen compounds in Class I areas. Please include the significance criteria for sensitive lakes in the FEIS.
- SF-1x [ *Page 4-5, Section 4.1.2: Reasonably foreseeable future emissions:* The DEIS includes air dispersion modeling results for CO and PM<sub>10</sub>. EPA understands that this modeling includes emissions associated with the existing Big Stone plant as well as those associated with the proposed Big Stone II facility. However, the modeling results do not include reasonably foreseeable future actions. We recommend that the FEIS either provide cumulative air dispersion modeling analysis for CO and PM<sub>10</sub> including reasonably foreseeable future developments (such as major air emission sources in the vicinity of Big Stone) or provide justification explaining why a cumulative effects air dispersion modeling analysis is not necessary. EPA notes that the Mid-continent Area Power Pool has completed a survey showing a 2,500 megawatt deficit by 2014 of which Big Stone II would offset only a portion of the deficit, therefore other power plants may be needed in the next eight years.
- SF-1y [ *Page 4-6, Table 4.1-2:* Please provide more detail and show the calculations for the "2012 Projected" emissions for NO<sub>x</sub>, SO<sub>2</sub>, and PM<sub>10</sub>. In the calculations, indicate the control efficiencies associated with the baghouse and the wet flue gas desulfurization unit. Explain the "Goals" listed in the table, and how they might be obtained. Please provide a column in the table showing "2012 Projected" actual emissions. The current table is showing maximum potential emissions for the year 2012, which does not appear sufficient for disclosure of actual impacts.
- SF-1z [ *Page 4-6, Table 4.1-3:* Please provide an example to show how the "Change in Emission" column is calculated. For instance, the PM<sub>10</sub> change in emission is 932.91 tons/yr and yet, Table 4.1-2 shows no PM<sub>10</sub> emissions greater than 348 tons/yr. For the NO<sub>x</sub> and SO<sub>2</sub> changes in emissions, please explain how the zero change in emissions is calculated.
- SF-1aa [ *Page 4-7:* According to section 4.1.2, the analysts conducted dispersion modeling with Version 02035 of ISCST3 and visibility modeling with VISCREEN. The DEIS has no appendix or technical support document showing the results of the modeling. Please include a support document or appendix with the FEIS.

Additional Detailed Comments on Wetlands and Vegetation Impacts

SF-1ab **EPA is concerned that a description of the potential impacts from constructing transmission lines as well as maintenance of the lines is not included in the DEIS and Supplemental DEIS. This analysis could include wetland, wildlife and vegetation impacts. We recommend that the FEIS include an analysis of the construction and maintenance impacts from the transmission lines.**

SF-1ac *Page 3-56 and 3-65, Section 3.4.3: Transmission Corridors and Substations - Figures 3.4-4 and 3.4-5 illustrate the location of wetlands and State management areas or priority areas. The corridors traverse numerous wetlands, water bodies, and, in particular, areas managed by the State of Minnesota for their unique features or as game or priority vegetation areas. These are large scale maps, however, that do not depict the actual potential pathways of the power lines within the corridors. At this stage in the project's development, we recommend that the FEIS provide a more precise analysis of the corridors and the actual location of the power lines and their impacts. Otherwise, the DEIS alternatives are difficult to compare.*

SF-1ad *Page 4-4, Section 4.4-1: The DEIS lists "Issues related to wetland/riparian areas due to constructing and operating Big Stone II" are related solely to air emissions. There is a potential for impacts to wetlands and riparian areas due to the construction and maintenance of power lines in the Prairie Pothole Eco-region. We recommend that this section be expanded.*

SF-1ae *Page 4-74, Section 4.4.35: Wetland/Riparian Areas - The acreage of impacted wetlands was calculated as a percentage of wetlands within each corridor. Because acreages are estimated, this section does not present a complete analysis of actual impacts to wetlands. Furthermore, this tabulation takes into account only wetlands acreage, and not functions and values. EPA recommends that the follow-up information include a more precise accounting for wetlands in the alternative corridors, including actual acreage impacted by lines, functions and values.*

SF-1af EPA recommends that the FEIS discuss the proposed centerlines for each alternative and demonstrate how these centerlines either avoid or minimize impacts. For impacts that are not avoided, the applicant should provide a partial mitigation plan that explores available mitigation options.

Additional Detailed Comments on Groundwater

SF-1ag ***Measure of error for models: Numerical hydrologic models were used to estimate reductions in stream flow in the Whetstone River, changes in ground water flow to wetlands and drawdowns in the Veblen aquifer. However, any model derived number has a measure of error. EPA recommends that the FEIS include error bars for estimates of quantitative changes in water levels and flow volumes. Western indicated at the December 20, 2007 meeting that it will provide such error bars in the FEIS.***

SF-1ah

**Page 4-10 and 4-11 of the SDEIS (October 2007):** The following sentence is included: "According to the report, assuming average annual withdrawals of 4700 af/yr, an average annual recharge rate of 0.34 inches would balance withdrawals of 10,000 af/yr for the proposed plants." On page 4-8 of the SDEIS, the same report (SDDENR, 2007b) is referenced and it is stated that an average recharge rate of 0.34 inches would balance an annual withdrawal of 4700 af. There is an inconsistency in these statements. Please clarify this inconsistency in the FEIS.

SF-1ai

**Recharge of the Veblen Aquifer:** Average annual recharge has not been determined for the Veblen aquifer. The model assumed 1 inch per year applied over the entire aquifer within the study area. The FEIS should include appropriate references /citations for this value.

SF-1aj

The model also utilized a period of record from 1930-2000. During this period only one extended drought is recorded. The model should not assume only one period of drought over the next 70 years. The modeling does not account for significant reductions in recharge to the Veblen aquifer that will result if extended drought periods occur. Please clarify this issue in the FEIS.



# United States Department of the Interior

OFFICE OF THE SECRETARY  
Office of Environmental Policy and Compliance  
Denver Federal Center, Building 56, Room 1003  
Post Office Box 25007 (D-108)  
Denver, Colorado 80225-0007

December 6, 2007

9043.1  
ER 07/921

Ms. Nancy Werdel  
Western Area Power Administration  
P.O. Box 281213  
Lakewood, Colorado 80228

Dear Ms. Werdel:

The Department of the Interior (Department) has reviewed the October 2007 Supplemental Draft Environmental Impact Statement (SDEIS) for the Big Stone II Power Plant and Transmission Project, Northeastern South Dakota and Southwestern Minnesota. The proposed project involves the construction of a 600-megawatt net capability coal-fired electric power generating station named Big Stone II. The proposed Big Stone II plant would be located adjacent to the existing Big Stone plant in Grant County, near Milbank and Big Stone City, South Dakota. Substation modifications and associated transmission lines would also be constructed in South Dakota and Minnesota. The SDEIS was prepared to analyze proposed changes to the original plan, including the source for the proposed plant water supply, plant cooling system, plant water usage, water treatment, and wastewater management. The Revised Proposed Action includes a wet cooling system using surface water as the primary water supply and groundwater as the back-up water supply. Changes also include installation of groundwater wells, a pipeline system to convey groundwater to the proposed plant site, and construction of electrical distribution lines to power the groundwater well pumps. The Department offers the following comments and recommendations for your consideration.

## **GENERAL COMMENTS**

The U.S. Fish and Wildlife Service (USFWS) provided comments on the original Big Stone II project proposal to the Western Area Power Administration (WAPA) on March 22, 2006, in response to a request for review of the WAPA's Administrative Draft EIS. Official Department of the Interior comments on the DEIS were provided on July 20, 2006.



SF-2a [ The Department continues to have concerns regarding the release of mercury that will occur with operation of the proposed plant and the impacts of mercury on area wildlife and resources, particularly the Minnesota River. Mercury is a known neural inhibitor and long-term exposure can result in bioaccumulation in muscle tissue, effectively working its way through the food chain and causing exponential effects to predator and prey organisms. Consequently, the most up-to-date technology should be employed at the plant to ensure adverse impacts are minimized. A commitment to adopting improved technologies as they become available should be provided in the Final EIS and Record of Decision.

SF-2b [ Wetland impacts attributed to plant operations have been modified due to changes in water source during low water/drought conditions. The proposed retention pond has been eliminated from the plan and replaced with a proposed well field and groundwater removal. Although this action avoids impacts to 65 acres of wetland that would have been eliminated by the pond, the [SDEIS indicates that the hydrology of a number of wetlands could be modified by the lowering of the groundwater table during periods of groundwater pumping. Additional discussion of these potential impacts should be provided in the Final EIS, and a commitment should be made to provide appropriate mitigation to offset these impacts. Although most of these wetlands are privately owned, the USFWS does have property interests in some of the wetlands in the vicinity of, or within, the area predicted to be impacted by groundwater pumping.] This issue is addressed in more detail in our specific comments below.

**SPECIFIC COMMENTS**

SF-2c [ Wetland Impacts. Section 3.4.6. Section 4.4.1, and Section 4.4.6: The SDEIS indicates that potential impacts to wetlands as a result of the proposed groundwater pumping were evaluated during groundwater modeling. The impact evaluation identified 133 wetlands totaling 218.6 acres within the area in which the modeling indicates a minimum water table drawdown of 1.6 feet. Of these 133 wetlands, 24 wetlands (comprising 77.4 acres) were identified as being underlain by little or no clay and, thus, potentially subject to impact due to depression of the water table level as a result of groundwater pumping. [The SDEIS did not provide specific details of the exact location of each of the 133 wetlands identified in the modeling area or of the 24 wetlands identified as being potentially subject to groundwater influence.]

SF-2d [ The SDEIS indicates that for the 24 wetlands likely to be affected by groundwater pumping, the pumping could shift the water regime to one with a shorter period of surface water and more accelerated dry down could occur later in the growing season. These changes could adversely impact the functions and values of these wetlands for migratory waterfowl and other water birds. [The Final EIS should provide an estimate of the number of years in which groundwater pumping is likely to be needed to provide back-up water supply. Based on this estimate, a calculation should be made of the acres of wetlands impacted on an annualized basis, irrespective of the jurisdictional status of the wetlands. A compensatory mitigation plan should be developed to offset these impacts, and the plan should be discussed in the Final EIS. A commitment to implement the plan should be provided in the Record of Decision for the project.]

SF-2e Most of the wetlands that could be adversely impacted by groundwater pumping are privately owned. However, the USFWS owns several Waterfowl Production Areas (WPAs) in the vicinity of, but not within, the "predicted area of maximum drawdown" shown on SDEIS Figure 4.2-2. The USFWS also holds wetland easements on a number of areas within the vicinity of the predicted area of maximum drawdown, as well as one wetland easement area that lies partially within the outer contour line of the predicted area. These WPAs and wetland easement areas are under the management of the USFWS Waubay National Wildlife Refuge (NWR). The USFWS is concerned that the proposed groundwater pumping during drought periods could adversely impact the property interests of the USFWS in one or more of these areas.

SF-2f To ensure that potential impacts to USFWS property interests are adequately addressed, we request that the Western Area Power Administration and the project Co-owners coordinate with Mr. Larry D. Martin, Refuge Manager, Waubay NWR, to determine which, if any, of the wetlands in the easement areas and WPAs within or near the area of drawdown are potentially subject to groundwater influence. For any such wetlands, a determination should be made of the duration and extent of potential adverse impact and measures necessary to mitigate such impacts. If agreement cannot be reached concerning the extent of possible adverse impacts, a plan should be developed to monitor the USFWS wetlands potentially subject to impact, as well as reference wetlands, during periods in which groundwater pumping will be implemented. The results of this coordination (mitigation measures, if needed, and/or a monitoring plan) should be discussed in the Final EIS.

SF-2g Section ES.3.3, Changes to Plant Water Usage, page ES-3; and Section 2.2.3, Changes to Plant Water Usage, top of page 2-7: Both sections state that the total water consumption for the two plants is about 13,000 acre-feet per year. It also is stated that during periods of extreme drought, when ground water is the only source of water supply, that 10,000 acre-feet of ground water will be pumped. The text should reconcile this discrepancy by explaining that the additional 3,000 acre-feet would be taken from water in storage in the on-site cooling pond as stated on Page 4-10.

SF-2h Section 3.2.4, Surface Water, page 3-4, third paragraph (continuing onto the top of page 3-6); and Section 4.2.4.1, Revised Proposed Action, Effects on the Whetstone River, page 4-16: The source of the statements about streamflow characteristics of the Whetstone River should be provided. The conclusions concerning mean monthly discharge are inconsistent with streamflow statistics for the Whetstone River near Big Stone City, SD (USGS gaging station number 05291000). The USGS has been collecting streamflow data at this site since 1931 and the available statistics for this station indicate that the mean of monthly discharge for March and April is nearly twice that as the means of monthly discharge for May, June, and July. Also, note that the mean of monthly discharge at this station for January and February is 6.7 and 15 cfs, respectively. The streamflow statistics for this gaging site are available on the Internet at: [http://waterdata.usgs.gov/nwis/monthly/?referred\\_module=sw&site\\_no=05291000&por\\_05291000\\_8=900123,00060,8,1910-04,2006-09&format=html\\_table&date\\_format=YYYY-MM-DD&rd compression=file&submitted\\_form=parameter\\_selection\\_list](http://waterdata.usgs.gov/nwis/monthly/?referred_module=sw&site_no=05291000&por_05291000_8=900123,00060,8,1910-04,2006-09&format=html_table&date_format=YYYY-MM-DD&rd compression=file&submitted_form=parameter_selection_list) Questions concerning this comment can be directed to Lloyd Woosley, Chief of the USGS Environmental Affairs Program, at (703) 648-5028 or at [lwoosley@usgs.gov](mailto:lwoosley@usgs.gov).

SF-2i Section 8.0, References: Many of the references provided are incomplete citations for what appears to be unpublished consultant reports. Limited accessibility of unpublished reports limits the public's ability to evaluate the analyses presented in the SDEIS, such as the closeness of calibration of the modeling studies on which some of the conclusions in the SDEIS are based. Consideration could be given to including in the Final EIS complete citations for these reports, if they are publicly available, or summarizing the results from these studies more fully in the appendices.

**SUMMARY COMMENTS**

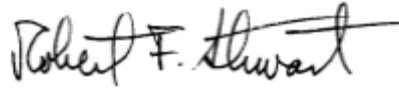
SF-2j

The Department is concerned that the proposed groundwater pumping during drought periods could adversely impact wetlands in which the USFWS has property interests. The Western Area Power Administration and the project Co-owners should coordinate with the USFWS to discuss any mitigation measures and/or monitoring that would be necessary to ensure that the interests of the USFWS are adequately protected. A compensatory mitigation plan should be developed to offset impacts to privately owned wetlands.

The Department has a continuing interest in working with the Western Area Power Administration to ensure that project impacts to resources of concern to us are adequately addressed. For coordination with the USFWS concerning its property interests in the project area, please contact Mr. Larry D Martin, Refuge Manager, Waubay National Wildlife Refuge, 44401 134A St., Waubay, SD 57273, Phone: (605) 947-4521, Fax: (605) 947-4524.

Thank you for the opportunity to review and comment on the document.

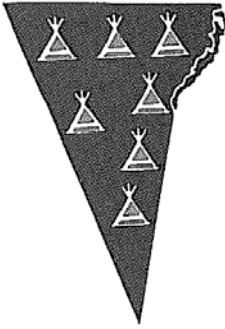
Sincerely,



Robert F. Stewart  
Regional Environmental Officer

## TRIBES

ST-1. Sisseton-Wahpeton Oyate, Lake Traverse Reservation



# Sisseton - Wahpeton Oyate

## OF THE LAKE TRAVERSE RESERVATION

BOX 509 • AGENCY VILLAGE, SOUTH DAKOTA 57262-0509  
PHONE: (605) 698-3911 • FAX: (605) 698-7907

### OFFICE OF THE TRIBAL CHAIRMAN

December 10, 2007

Ms. Nancy Werdel

Western Area Power Administration Natural Resources Office, A 7400 P.O. Box 281213

Lakewood, CO 80028

Re: Sisseton Wahpeton Oyate SDEIS Formal Comments

Dear Ms. Werdel:

A Supplemental Draft Environmental Impact Statement (SDEIS), addressing the co-owners intent to pump groundwater for use as cooling water, was prepared in October 2007 with comments due no later than December 10, 2007. Please find attached the formal comments from the Sisseton Wahpeton Oyate. We would like our comments entered into the formal records and addressed appropriately. Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael I. Selvage". The signature is written in a cursive, somewhat stylized font.

Michael I. Selvage, Sr. Tribal Chairman

Sisseton Wahpeton Oyate

ENC: SWO SDEIS comments

**BIG STONE II POWER PLANT AND TRANSMISSION PROJECT Supplemental Draft  
Environmental Impact Statement**

**SISSETON WAHPETON OYATE COMMENTS**

**December 6, 2007**

*The following comments are organized by the section numbers listed in the Big StoneII Supplemental Draft Environmental Impact Statement (SEIS)*

**ES 3.2 Changes in Plant Water Supply**

The Co-owners have modified their plans to include use of groundwater from the Veblen Aquifer as a back-up water supply for plant operations through a pipeline system using 7-14 wells.

The SEIS provides no indication that aquifer pumping tests and analysis have been performed to indicate that "groundwater pumping from the Veblen Aquifer would not cause significant impacts to beneficial uses of the aquifer". The Co-owners have performed a simple well pumping test, however, this well pump test only tested the boreholes for water yield, not for aquifer characteristics.

ST-1a

1. The Co-owners are requested to perform aquifer pumping tests using standard and acceptable hydrogeological methods to substantiate the contention that there would be no significant impacts to beneficial uses. Aquifer pumping tests will provide information such as drawdown, cone of depression, hydraulic conductivity, transmissivity, and storativity which will assist in effectively evaluating impacts on beneficial uses.

**ES 3.3 Changes to Plant Water Usage**

**The maximum volume of water appropriated from the Veblen Aquifer to operate both plants at full output by is 10,000 acre-feet per year with an estimated pumping rate of 6,200 gallons per minute. (The volume of 10,000 acre-feet per year equates to approximately 3.2 billion gallons of water per year.) The Co-owners indicate that an average of 3,720 acre-feet per year of water will be regularly needed to supplement combined plant needs and that only in extreme drought, when groundwater is the only source of water available, will the maximum appropriation be used.**

ST-1b

If extreme drought conditions are present, groundwater sources are affected as well. Static water levels in wells decrease during drought conditions. The United States Geological Survey (USGS) records indicate that water levels in the Veblen Aquifer have fluctuated between approximately 20 feet between 1991 and 2006. The Co-owners have estimated that static water levels may drop by an additional 37 feet after pumping 6,200 gallons per minute for one year. This could potentially mean, during drought conditions groundwater levels could drop by 57 feet between drought and Big Stone II pumping. This additional impact beyond drought conditions would be devastating to water users relying on well water. Wells could run dry resulting in

significant costs to users, pumps would have to be lowered if possible, land subsidence could occur from dewatering the aquifer, surface water resources could be further impacted where hydrologic connections occur between groundwater and surface water.

The Co-owners have stated that a model created in an Excel spreadsheet was used for simulation of a groundwater source for the plant as well as for simulation of water from Big Stone Lake and Minnesota River flows. An Excel spreadsheet is unacceptable in the field of Hydrology for simulating complex hydrologic systems. Professionals typically use numerical models such as MODFLOW or GMS for evaluating water resources.

- ST-1c [ 1. Please use a valid hydrological model (i.e, MODFLOW or GMS) to simulate the combined effect of groundwater water levels during drought and pumping at a rate of 6,200 gallons per minute.
- ST-1d [ 2. Please use a valid hydrological model to evaluate the short and long-term effects of withdrawal of 3,720 acre-feet per year of groundwater from the Veblen Aquifer.
- ST-1e [ 3. What is the hydraulic conductivity, porosity, and transmissivity of the Veblen Aquifer?

**ES 6 Impacts**

The SEIS describes impacts to groundwater as "not significant".

- ST-1f [ 1. Please provide the parameters for "significant" and "not significant".
- ST-1g [ 2. How was the conclusion reached that impacts to groundwater would be "not significant" without aquifer pumping tests and subsequent modeling with a valid groundwater model?
- ST-1h [ 3. Please describe the hydrological relationship of the Whetstone River to groundwater. ]

**Water Resources**

Based on the modeling performed by the Co-owners, surface water supplies alone will not meet the proposed water supply demands for 66 out of 70 years.

- ST-1i [ 1. What will be the long-term effects to regional groundwater supplies and connected surface water sources given that groundwater will need to supplement surface water for 66 out of 70 years? To what geographical extent will impacts be observed?
- ST-1j [ 2. Why were climatic conditions modeled to simulate the period of time 1930 to 2000 as opposed to 2006 or 2007?
- ST-1k [ 3. What is the period of record of historical climatic data was used with the surface-water model discussed in this section? The Sisseton Wahpeton Oyate request that a model be generated using a valid water model that utilizes climatic data for the intervals of time of 10 and 20 years. Given global climate changes, utilization of recent data would more accurately reflect future conditions.

- ST-1l [ 4. Please use a valid water model and current climatic data to evaluate the impacts to surface water bodies (Big Stone Lake, Whetstone River, Minnesota River).  
 5. What will be the impacts of groundwater withdrawals to Big Stone Lake, Whetstone River, and Minnesota River? ] ST-1m

- ST-1n [ There has been no discussion about potential impacts of groundwater withdrawals or surface water withdrawals to upstream sources such as the Little Minnesota River.  
 6. Please describe the hydrological interaction between this waterbody and the Veblen Aquifer and Big Stone Lake. ]

**3.2.2 Groundwater**

**Aquifer Characteristics**

- ST-1o [ This section does not describe aquifer characteristics, it only describes characteristics of two individual wells. There is no discussion on common aquifer characteristics such as hydraulic conductivity, transmissivity, porosity, and storativity.  
 The short discussion on recharge inadequately describes recharge mechanisms to the aquifer. It does not discuss water budgets, recharge to confined or unconfined aquifers, factors affecting recharge to the Veblen Aquifer, locations of recharge areas, nor connectivity to surface water bodies and the subsequent effects.  
 1. Please provide a detailed and comprehensive discussion of those factors mentioned above. ]

**Groundwater Uses**

ST-1p [ Although domestic wells do not require groundwater withdrawal permits, it is possible to obtain an estimate of domestic well users through well log records for a given area, simple field surveys, aerial photographs, and county records. The Co-owners have not made a reasonable attempt to quantify the number of private wells or groundwater withdrawals from private wells. It is the private well owners, residents of South Dakota and Minnesota who will suffer the financial burden of having to mitigate failing wells due to dewatering of the aquifer, should those conditions occur. ]

- ST-1q [ 1. What is the source of the reported average annual groundwater pumped from the aquifer for irrigation during between 1979 and 2005? The SEIS reports this value to be 819.3 acre-feet for that time span out of 6,389 acre-feet appropriated for each year. ]

- ST-1r [ 2. What are estimated future water needs for beneficial use over the next 70 years? ]



### **3.2.3 Floodplains**

ST-1s [ The Federal Emergency Management Agency "approximates" floodzone boundaries most everywhere in the United States, not just in the area of the Big Stone II plant. The FEMA floodzone determinations should not be minimized for the sake of constructing a coal-fired power plant. ]

### **3.2.4 Surface Water**

ST-1t [ 1. Given that the Little Minnesota River is the headwaters for Big Stone Lake and contributes approximately 90% of water to the lake's supply (Jensen, 2007), what are potential impacts to the Little Minnesota River due to withdrawals from Big Stone Lake and the Veblen Aquifer.  
2. How will lower flows in the Minnesota River affect aquatic life and subsequently, human health, considering existing Mercury levels as well as additional Mercury contributions by Big Stone II operations? ] ST-1u

### **3.6.2 Land Use Planning**

ST-1v [ 1. What are growth projections for the expanded groundwater area? What are the anticipated groundwater needs for future beneficial use? ]

## **4.2 Water Resources**

### **Impact Assessment Methods**

ST-1w [ This section discusses installation of two 2" observation wells and two 12" pumping wells relative to aquifer tests being conducted. However, there is no data presented in the SEIS that supports an aquifer test being conducted. The SEIS reviewer anticipates presentation of the data collected such pumping rate, duration of pumping, drawdown, and recovery water levels in the piezometer and pumping wells in addition to fundamental hydrologic parameters. ]

ST-1y [ 1. The Sisseton Wahpeton Oyate request a copy of this aquifer test data.  
2. It is requested that this model be re-run using data obtained since 2000 to reflect more current hydrological conditions as well as evaluating data in recent 10-year intervals to observe more current climatic conditions. ] ST-1x

ST-1aa [ 3. Please supply copies of the wells logs and locations of those well logs used to evaluate aquifer thickness.  
4. Calibration of a MODFLOW model using elevations and water levels from regional well logs is highly inaccurate. Please re-run the model using more accurate controls. ] ST-1z

ST-1ab [ 5. Are the wells logs used for the model representative of the entire 1,000 square miles addressed in the model?  
6. Given the fact that groundwater alone could not supply enough water to operate the plant at full output, at what point (after what period of time) of groundwater diversion would this shortage occur? ]

## Groundwater Resource Evaluation and Testing Activities

- ST-1ac [ 1. Please supply a copy of the report from South Dakota DENR which contends that an annual recharge rate of 0.34 inches per year would balance withdrawals from the proposed plants. ]
2. Does this report address groundwater withdrawals on the maximum appropriated amount of 10,000 acre-feet per year? ] ST-1ad
- ST-1ae [ 3. Does this report take into account water users in Roberts County? ]
4. Given that the Co-owners state the Veblen Aquifer is a confined aquifer, at what approximate geographic locations does recharge occur? ] ST-1af

## Groundwater Pumping and Production Impacts

- ST-1ag [ 1. Did the MODFLOW model represent confined or unconfined aquifer conditions? ]
- A confined aquifer will have a cone of depression that expands 100 to 1000 times faster than that in an unconfined aquifer (Fetter, 1988). Also, a confined aquifer will have much slower recharge rates.
- ST-1ah [ 2. Was the recharge rate used in the model representative of a confined or unconfined aquifer? ]
3. What methods were used to determine that the 82-hour pump test had no effect on surface water bodies near the pumping well? ] ST-1ai
- ST-1aj [ 4. What were the effects on the observation wells located near the pumping well? ]
5. Did the Co-owners have observation wells that penetrated both the water table and the confined aquifer? ] ST-1ak
- ST-1al [ 6. Are all the planned pumping wells located in the Veblen Aquifer known to be confined? ]

### 4.10 Environmental Justice

- ST-1am [ Both the DEIS and SDEIS contain regional maps that do not include the Lake Traverse Reservation. In fact, the Reservation and its Indian population are not even mentioned! Table 3.11-1 (2000 Census Data) on page 3-134 of the DEIS shows a minority population of 31.7 percent for Roberts County, with 22.1 percent of the county population living below the poverty level. If the Reservation is completely within the defined airshed for the proposed project, why did the DEIS not address the potential for disproportionately high adverse environmental effects on the minority population of the Reservation? The spirit and intent of CEQ's environmental justice guidelines were not followed in this case. ]

### 4.11 Cumulative Impacts

## **Wildlife and Fisheries**

Atmospheric deposition contains several different forms of mercury but the dominant form is inorganic mercury. Inorganic mercury in aquatic systems is easily converted to methylmercury by bacteria in the water. Methylmercury then adsorbs to plankton, which is eaten by small fish. Inorganic mercury not converted to methylmercury settles to the bottom of lakes and wetlands and is stored in bottom sediments. In shallow waters, the bottom sediments may be resuspended during wind events and provide additional opportunities for the conversion of inorganic mercury to methylmercury.

Fishing is culturally important to the Sisseton-Wahpeton people on the Reservation. It is a year around activity. Methylmercury bioaccumulates at the top of the food chain, especially in larger fish and humans consuming contaminated fish. Predatory fish species like pike, walleye, and lake trout are particularly susceptible, as are mammals such as mink and otter and fish-eating birds such as loons, bald eagles, and osprey (Convenors, Eighth Annual Conference on Mercury as a Global Pollutant, 2007). Mercury cannot be cooked out of consumable game fish (Krabbenhoft and Rickert, 1997). Methylmercury is a neurotoxin that affects the central nervous system of humans. Unborn children are at greatest risk from low-level exposure to methylmercury (Lacerda and Fitzgerald, 2001). Thus, pregnant women should not consume contaminated fish.

ST-1an

Mercury deposition appears to increase during precipitation events (Sorenson et al., 1994; Glass and Sorenson, 1999). The majority of precipitation in northeastern South Dakota comes during April to October, which coincides with the southeasterly wind events. This combination suggests that the deposition of mercury from stack emissions could be significant during this time period for the Lake Traverse Reservation. Regardless of the actual mercury amounts emitted from the Big Stone II plant, mercury will continue to accumulate year after year in aquatic ecosystems on the Lake Traverse Reservation.

## **Wetlands/Riparian Areas**

ST-1ao

The Lake Traverse Reservation is home to over 830 lakes, approximately 2100 miles of rivers and streams, and thousands of wetlands. Several rare types of wetlands, namely prairie fens, lotic-lentic wetland complexes, and relict glacial meltwater channel marshes, occur on the Reservation (Van Haveren, 2005). Several of these wetlands receive water input from groundwater sources. The drawdown of the aquifer and groundwater sources will impact the fragile and rare wetlands found on the Lake Traverse Reservation. One of the prairie fens situated on heirship trust lands in Roberts County, the Owens Creek Fen, is renowned as an intact natural area that supports several rare plants. Wetlands are traditionally and culturally important to the Sisseton-Wahpeton people. Among aquatic ecosystems, wetlands are among the most sensitive to pollutants such as mercury (Lacerda and Fitzgerald, 2001).

## **Summary of Cumulative Impacts to Biological Resources**

ST-1ap

The Sisseton Wahpeton Oyate does not agree that the proposed Big Stone II project would not be expected to result in significant cumulative impacts to biological resources. The Co-owners do

ST-1ap  
Cont. [ not address the cumulative effects of methylmercury accumulation over time in aquatic ecosystems. The bioaccumulation of methylmercury in game fish inhabiting South Dakota lakes and streams is an important human health issue but is not addressed. Additionally, The Co-owners do not adequately address ambient mercury or methylmercury in nearby surface water bodies and is especially silent on South Dakota waterbodies. There is a paucity of data on mercury deposition and methylmercury occurrence in surface waters in the region but there is no doubt that methylmercury has been accumulating in regional waterbodies since the Big Stone I plant commenced operations in July 1975. ] ST-1aq

- ST-1ar [ 1. What are the background levels of mercury, especially methylmercury, in regional waterbodies?  
2. What are the trends in mercury contamination of aquatic ecosystems? ] ST-1as

ST-1at [ There is limited discussion by the co-owners of impacts to aquatic resources immediately downstream of Big Stone Lake. Instream flows of the Minnesota River within the Big Stone National Wildlife Refuge will be reduced but no instream flow assessment was presented. ]

ST-1au [ Mercury deposition appears to increase during precipitation events (Sorenson et al., 1994; Glass and Sorenson, 1999). The majority of precipitation in northeastern South Dakota comes during April to October, which coincides with the southeasterly wind events. This combination suggests that the deposition of mercury from stack emissions could be significant during this time period for the Lake Traverse Reservation. Regardless of the actual mercury amounts emitted from the Big Stone II plant, mercury will continue to accumulate year after year in aquatic ecosystems, therefore impacting the biological resources on and around the Lake Traverse Reservation. ]

## Literature Cited

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- Krabbenhoft, D. P. and Rickert, D. A. 1997. Mercury contamination of aquatic ecosystems. USGS Fact Sheet FS-216-95. Madison, WI: U. S. Geological Survey. 4p. Viewed December 6, 2007 at [http://water.usgs.gov/wid/FS\\_216-95/FS\\_216-95.html](http://water.usgs.gov/wid/FS_216-95/FS_216-95.html).
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- Sorensen, J. A., Glass, G. E., and Schmidt, K. W. 1994. Regional patterns of wet mercury deposition. *Environmental Science & Technology* 28(12):2025-2032.
- Thompson, R. F. 2001. *Water Resources of the Lake Traverse Reservation, South and North Dakota, and Roberts County, South Dakota*. USGS Open-file Report 01-4219. Rapid City, SD: U. S. Geological Survey. 105p.
- Van Haveren, B. P. 2005. *Wetlands of the Lake Traverse Reservation: An Analysis of Wetland Issues and Recommendations for a Wetlands Program for the Sisseton Wahpeton Oyate*. December, 2005. Evergreen, Colorado. 80p.
- Sisseton Wahpeton Oyate

## STATE AGENCIES

SS-1. Minnesota Department of Natural Resources

SS-2. South Dakota Department of Environment and Natural Resources

Minnesota Department of Natural Resources  
500 Lafayette Road • St. Paul, MN • 55155-4037



December 10, 2007

Ms. Nancy Werdel  
Western Area Power Administration  
P.O. Box 281213  
Lakewood, CO 80228

RE: Big Stone II Power Plant and Transmission Project  
Supplemental Draft Environmental Impact Statement

Dear Ms. Werdel:

The Minnesota Department of Natural Resources (MDNR) has reviewed the Supplemental Draft Environmental Impact Statement (SDEIS) for the proposed Big Stone II Power Plant and Transmission Project. We offer the following comments for your consideration.

The SDEIS includes an analysis of revised plans to use groundwater as an alternate cooling water source for the proposed 600-megawatt coal fired power plant while Big Stone Lake remains the primary source of cooling water. Despite MDNR's recommendations, the South Dakota Department of Environment and Natural Resources has permitted Ottertail Power Company to appropriate up to 18,000 acre feet or 5.9 billion gallons per year of water from Big Stone Lake and up to 10,000 acre feet or 3.3 billion gallons of groundwater. This is an extremely large amount of water to be used for cooling purposes, representing approximately 20% of the volume of Big Stone Lake. The groundwater appropriation is roughly equivalent to the annual water supply needs of Sioux Falls, South Dakota's largest city.

Surface Water

The surface water permit allows up to 218 acre feet per day to be taken year round from Big Stone Lake when the elevation of Big Stone Lake is above 967 feet mean sea level (Project Datum). This does not take into account the manner in which the dam has been operated over the past 20 years with the goal of maintaining a normal summer pool elevation of 968 (Project Datum). Neither the permit nor the proposed pumping plan account for the current operation of the dam, but are based rather, on the original permit, which was negotiated via the South Dakota-Minnesota Boundary Waters Commission in the early 1970's and an outdated dam operation plan where the proposed summer pool of Big Stone Lake was to be maintained at 967. MDNR recommends the Supplemental Final EIS analyze impacts associated with permitted appropriations that reflect a normal summer pool level of 968, as has been the practice over the last 20 years.

Groundwater

MDNR is concerned with the proposed use of ground water as an alternate supply of cooling water for several reasons. First, the aquifer to be tapped is reported to be part of a large system known as the Veblen Aquifer, which extends northwest into Roberts and Marshall Counties in South Dakota and includes a small area in North Dakota. However, it is questionable if the glacial outwash deposits that lie within the project area and within Grant County are in fact part of the Veblen Aquifer. According to the USGS and South Dakota Geological Survey, the outwash deposits in Grant County are not considered to be part of the Veblen Aquifer. Second, the aquifer test performed for this project is not adequate to assess the long-term water supply capacity of the proposed well field. Third, the potential impacts on downstream base flows during periods of drought appear to be under-investigated and significant. As an

SS-1a

SS-1c

SS-1b

example, the average winter base flow of the Whetstone River will be reduced by 32%. MDNR is concerned with how these reduced base flows may affect surface waters in Minnesota. Finally, the groundwater model of proposed impacts does not take into account anything that occurred before 1945, including the ten-year drought of the 1930's. MDNR recommends each of these concerns be addressed in the Supplemental Final EIS.

SS-1d

In-Lake Effects

The MDNR is concerned that impacts to Big Stone Lake and downstream waters during expected periods of extended drought have received only cursory analysis. The conclusions drawn in the analysis from the water budget model are often described in terms of "average" levels, which masks significant impacts during an extended drought. For example, the long-term effect on Big Stone Lake levels is stated as a lowering of average lake levels by 0.15 feet over the 70-year period from 1930-2000. On the other hand, a hydrograph based on the computer model developed by Barr Engineering reveals that on 33 separate occasions over the same seventy-year period, water levels would be lowered 0.5-1.5 feet below naturally occurring conditions because of Big Stone II. In addition, the lake level drawdown model that simulates historic water levels, under current and additional pumping rates, does not accurately reflect known water levels that occurred during the same time period. For instance, USGS records show that the lowest level (962.2 Project Datum) on record for Big Stone Lake occurred on November 20, 1940. This level is more than 3 feet lower than the 965.5 (Project Datum) level predicted by the model. It is important to note this level occurred without taking 18,000 acre-feet/year of water from Big Stone Lake. Consequently, all projected levels during a 1930's-level drought are brought into serious question.

SS-1e

SS-1f

SS-1g

Additionally, water levels are affected during months of ice cover, particularly in January, February and March. Although data provided in the SDEIS clearly show that water levels are affected more during the winter than any other time of the year, the SDEIS only reports averages over long periods of time. Reporting average levels over time masks seasonal effects. The ice-covered months should be considered a separate stratum. This should be done because of a very real concern of winterkill of fish, which has occurred on Big Stone Lake in the past. During the winter of 1947-48, Big Stone Lake experienced a winterkill because of a lack of oxygen. Slight winterkills have also been reported as recently as 1976-77. Until the 1980's, Ottertail Power had an additional power plant at Ortonville. That plant pumped water from, and discharged to, Big Stone Lake. The warm water discharge kept many acres of water open during the winter months and likely helped insure against potential winterkill. That plant was torn down and the insurance against winterkill was removed with it. The SDEIS also shows how water levels would decline as result of the appropriation. From this info it appears that, during the 1970's, seven or eight winters would have experienced water levels a half a foot or more lower had the proposed appropriation occurred.

SS-1h

SS-1i

SS-1j

A six-inch difference on a basin can be significant in terms of potential for winterkill. The probability of a Big Stone Lake winterkill could increase as a result of appropriating water during ice-covered months. Pumping water can increase the biological oxygen demand (BOD) under the ice. Oxygen consumption during winter months is a function of oxygen concentration and the velocity of which it travels at the interface with bottom sediments. The MDNR is concerned that appropriating water during winter months accelerates movement of oxygenated water along bottom sediments, thereby increasing BOD and decreasing the amount of oxygen available to support fish over the winter. The MDNR recommends a monitoring plan be developed and implemented as part of the Final Supplemental EIS. The MDNR would like clarification on who would be accountable for restoration should a winterkill occur.

SS-1k



SS-1l [ Big Stone Lake is a premier Minnesota walleye fishery and host to a national walleye tournament. It is also the largest recreational lake in Western Minnesota and an important tax base for the local economy. For several decades the lake association, the Upper Minnesota River Watershed District, Big Stone County, the State of Minnesota and the U.S. Environmental Protection Agency have been investing significant resources into restoring Big Stone Lake's water quality. The lake is still subject to frequent algae blooms and low dissolved oxygen levels. Lowered lake levels during drought cycles caused by pumping will aggravate these conditions and make the lake more susceptible to anoxia conditions. This in turn will increase internal nutrient loading and the likelihood of fish kills and toxic blue-green algae blooms. Also, Big Stone Lake is listed as an "impaired water" based on mercury concentrations. The potential for increased mercury release from sediments as a result of lower water levels and anoxic conditions needs to be investigated.

SS-1m

Downstream Effects

SS-1o [ From a downstream perspective, there is very little mention of the water supply needs of the Big Stone National Wildlife Refuge, Marsh Lake and Lac Qui Parle Lake. These three basins represent approximately 15,000 acres of shallow lakes that have already been adversely affected by the destabilizing effects on their hydrology and increased eutrophication due to drainage, agricultural runoff and wastewater discharges in the upstream watershed. Decreased water supply during periods of extended drought makes these basins more susceptible to fish kill, toxic algae blooms and botulism. In the case of Marsh Lake, botulism could impact the largest nesting colony of Pelicans in North America according to the Lac Qui Parle Refuge Manager. Reducing the relative contribution of base flow from Big Stone Lake during drought periods will negatively effect downstream waters by eliminating the dilution factor it provides for the Whetstone River and wastewater effluent from upstream communities.

SS-1p [ Overall, the proposed project poses some serious and complex water resource concerns. The alternative plan eliminates the additional water storage that would have been provided by the new 450-acre pond and replaces it by using groundwater – a principal supply for domestic and irrigation uses, which has not been shown to be sustainable. It raises more questions about Big Stone I and II Power Plants' ability to operate sustainably both during a short-term drought of 12-24 months, or during a longer-term drought of 48-120 months, such as occurred in the 1930's. Climate experts have warned us that drought conditions should be expected to become more frequent and intensify in the coming decades as a result of global climate change. This project has the potential to severely impact some of Minnesota's premier water resources, located at the headwaters of the Minnesota River, during an extended drought.

SS-1q

SS-1r [ Thank you for the opportunity to review this document. Please contact me with any questions regarding this letter.

Sincerely,



Matt Langan, Environmental Planner  
Environmental Review Unit  
Division of Ecological Services  
(651) 259-5115

c: Steve Colvin, Mark Matuska, Steve Hirsch, Todd Kolander, Dave Leuthe, Norm Haukos, Skip Wright, John Schladweiler

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**DEPARTMENT of ENVIRONMENT  
and NATURAL RESOURCES**

PMB 2020  
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PIERRE, SOUTH DAKOTA 57501-3182  
[www.state.sd.us/denr](http://www.state.sd.us/denr)

December 10, 2007

Ms. Nancy Werdel  
Western Area Power Administration  
PO Box 281213  
Lakewood, CO 80228

Dear Ms. Werdel:

The South Dakota Department of Environment and Natural Resources has reviewed the Big Stone II Power Plant and Transmission Project Supplemental Draft Environmental Impact Statement.

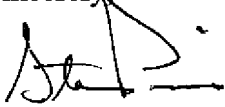
The report identifies Alternative 2, "Wet cooling with groundwater supply back up" as the preferred alternative. This alternative would utilize Big Stone Lake and up to 14 groundwater wells, which produce an average of approximately 3720 acre feet annually for Big Stone's cooling water needs.

South Dakota DENR concurs with the proposed alternative and offers the following comments:

- SS-2a [ • Use of ground water as a backup will reduce the likelihood of needing an emergency water allocation from Big Stone Lake under drought conditions. With the construction of a second power generating facility at Big Stone, use of Big Stone Lake as the sole water source for cooling faces increased drawdown below what is presently experienced without a groundwater back up supply. This protects the lake level from being drawn down even further during drought conditions. Temporary allocations have occurred in the past and may become more likely in the future without the ground water alternative.
- SS-2b [ • Another benefit of using ground water is a substantial reduction in the "footprint" of the proposed expansion. The 450 surface acre water pond and a 25 acre cooling tower blowdown pond are being eliminated. These two benefits outweigh any impacts to flows in the Whetstone River which are expected to be minimal in response to the ground water withdrawals.
- SS-2c [ • DENR also concurs with the Draft EIS which states that use of a wet cooling system would provide the most efficient process for generating electricity along with the least amount of emissions.

Thank you for the opportunity to comment on the proposed Draft Supplemental EIS.

Sincerely,

A handwritten signature in black ink, appearing to read "Steve Pirner", with a horizontal line extending to the right.

Steven M. Pirner, P.E. Secretary

cc: Jason Glodt, Senior Policy Advisor, Governor's Office  
Hunter Roberts, State Energy Coordinator

## **ORGANIZATIONS**

***SO-1. Clean Water Action, South Dakota Office***



# CLEAN WATER ACTION

December 10, 2007

Western Area Power Administration  
Natural Resources Office, A7400  
PO Box 281213  
Lakewood, CO 80228

**RE: Big Stone II SDEIS**

Dear Ms. Werdel,

Thank you for the opportunity to comment on the Big Stone II SDEIS. See major concerns below and attached copies of supporting documents and comments submitted in, or with regard to, Otter Tail’s Application No. 6846-3 for groundwater withdrawal permit for BSII. Please include all documents in our comments for the “revised proposed action and alternatives.” In brief, Applicants for BSII:







- SO-1a [• failed to comply with Executive Order 13175 concerning consultation with tribes by the federal agency;
- SO-1b [• willfully or not, instigated actions leading to circumvention of the National Environmental Policy Act (NEPA);
- SO-1c [• allowed conflict of interest in that firms doing the modeling and analysis of groundwater availability, recharge and preferred alternatives have/had financial and other interest in the outcome of the project, direct and indirect;
- SO-1d [• did not consider additional affected interests, i.e., Minnesota DNR, local ethanol industry, downstream municipalities and water providers, public interest and alternative generation sources—comprehensively *or* transparently; and lastly,
- SO-1e [• applied for and received water permits more than double of that needed, a clear contradiction with SD water mining prohibitions. For example, total water permitted (“Existing Permits” plus 6846-3 equaling 28,000-acre feet) would exceed required amount (13,000-acre feet) to operate Big Stone Plant Unit 1, Big Stone II and POET by 15,000-acre feet (Evidentiary Hearing, July 11, 2007 Milbank, SD).

In light of the above and including additional concerns in the attached documents, South Dakota Clean Water Action requests and recommends that Western deny Applicant (BSII) an interconnection to Western’s transmission system at Morris and Granite Falls substations, including required modifications to these substations and other Western Facilities. Thank you for your consideration.

Sincerely,

Mary Jo Stueve  
State Program Coordinator, South Dakota CWA

ENCL:

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SD DENR, Water Rights Program Administrative record for Application No. 6846-3, through May 14, 2007  
Due to large size (11MB) see on-line file, <http://www.state.sd.us/denr/DES/WaterRights/wmb/6846-3.htm>, emailed separate.

From: CURE (Clean Up the River Environment) [cureintern@info-link.net]  
Sent: Friday, December 07, 2007 1:18 PM  
To: Mary Jo Stueve  
Subject: Has Pawlenty Sold Us Down the River?

Dear Mary Jo,

There were two interrelated stories in this week's Montevideo American News:

Montevideo Budgets \$17.5 million for Waste Water Treatment

Granite Falls Ethanol Plant Fined \$300,000 by MPCA

and a Nov 30. Letter to the Editor from BSII in the Marshall Independent (See the very bottom of this e-mail):

All 3 stories beg the question of how we are to keep water clean and plentiful in the Upper Minnesota River Watershed. The situation is not fair. South Dakota is giving scarce and precious public water away and Minnesotans are being set up to suffer the consequences and pay through the nose. Let me explain:

Montevideo -- a small town of 5,000 people is paying \$17.5 million dollars to upgrade its sewage plant in order to meet state of Minnesota and Federal regulations for treating its water and releasing it into the Minnesota River.

Meanwhile upstream Otter Tail Power and its Big Stone II Partners received a permit from the South Dakota DENR in November 2006 allowing them to draw off twice as much water from the Minnesota River than all 16 of Minnesota's ethanol plants combined. The permit allows BSII Partners to take an additional 10,000 acre feet every year -- that translates to more than 3.2 billion gallons of water from the river going to a private company for profit making purposes.

How much did they pay for the right to take all that water from the river? \$2,500

How much did they pay for the permit giving them permission to take an additional 3.2 billion gallons of ground water from the Veblen Aquifer that feeds Big Stone Lake? \$2,260

South Dakota has allowed a private company to take control of more than 9 billion gallons of water for free every year to operate a power plant that intends to keep our region dependent on global warming producing, mercury emitting fossil fuels for the next 50 years.

What is worse, is that they did not even have the courtesy to ask the State of Minnesota for permission to use the water. They just went ahead and said: "We are taking it and we don't need your permission." Governor Pawlenty's administration (which apparently wants to see Big Stone II get built) has not stood up for Minnesotan's rights -- he has not demanded that the State of South Dakota reconvene the MN/SD Boundary Waters Commission to discuss the issue.

Would this ever be allowed to happen on Lake Pepin on the Mississippi River between the state of Wisconsin and Minnesota on Lake Pepin? No. Governor Pawlenty is selling Western Minnesota down the river. You gotta let him know that he can't get away with telling the nation he is a green governor while in reality he is beholden to utility interests that produce dirty energy for Minnesota just across the border and outside of our regulations.

SO-1f [ Furthermore, if low flows in the Minnesota River are the eventual result of the Big Stone II water draw down of the aquifer that feeds Big Stone Lake and the River itself, it will make it even harder and more expensive for towns like Montevideo to meet water quality regulations. The less water you have to work with, the harder it is to keep the river clean when you discharge treated wastewater into the system. Low flows will make it harder and more expensive for the Granite Falls Ethanol Plant to obtain and discharge Minnesota River water as well.

(Oh and did I mention that is was a South Dakota based management company that got Granite Falls Energy in trouble by blatantly ignoring Minnesota's environmental regulations? And Otter Tail Power wants us to believe them when they say that they will use proper and careful management as it takes all that water every year from the South Dakota side of Big Stone Lake? Sorry, but we have every right to be skeptical. When it comes to a choice between providing water for electricity for a million people or providing water for boats, fish and lake home owners -- who do you think is going to win out? Remember the expected life of this plant is at least 50 years -- what will the private control of all that fresh water be worth then? [If they only intend to use 1/3 of the water they have been permitted to use, why did they ask for a permit for 2/3rds more water and why was it given so cheaply? ]

SO-1g

Minnesota communities are being set up to pay the price for Clean Water. South Dakota, Otter Tail Power and the Big Stone II Partners are ready to reap the profits and ignore their responsibility to their downstream neighbors and to the water needs of future generations. As the saying goes: if you aren't outraged, it means you haven't been paying attention.

CURE is in search of a few good citizens who would be willing to stand up and testify before an Administrative Law Judge at the upcoming Big Stone II hearing on January 10, 2008 in Ortonville. We can help you research the issue and present you with the facts -- they are pretty indisputable. Let me know if you can help.

Patrick J. Moore [www.curemnriver.org](http://www.curemnriver.org)

To The Editor:

Careful planning will lead to little impact on water resources

At a recent public meeting in Milbank sponsored by the Western Area Power Administration, several people raised concerns about the impact of Big Stone II on area water resources. I'd like to explain our plans and assure everyone that meeting our water needs will not significantly impact other users.

SO-1h

[ First, a bit of background. When the Big Stone Plant was built in the mid- 1970s, [the water intake facilities were sized for a future second generating station on the Big Stone site. The Big Stone Plant is permitted by the South Dakota Department of Environment and Natural Resources (SDDENR) to take up to 8,000 acre-feet from Big Stone Lake each year.] The water is stored in ponds on the Big Stone site.

On July 12, 2006, the SDDENR issued a water appropriation permit to Big Stone II. The permit allows the existing Big Stone Plant and Big Stone II to take an additional 10,000 acre-feet from the lake each year.

SO-1i

[ When the surface elevation of Big Stone Lake falls below 967 feet, only limited pumping can occur. This restriction has been in place for more than 30 years and will not change with Big Stone II.

Our initial plans called for the construction of a second water storage pond on the Big Stone site. However, a detailed hydrological study showed we could avoid constructing the pond by using groundwater during times when withdrawal from Big Stone Lake is prohibited.

On March 28, 2007, we applied to the SDDENR for a permit to use up to 10,000 acre-feet of groundwater a year from the Veblen Aquifer. The SDDENR has since issued a permit.

Our hydrological study showed that using groundwater from the Veblen Aquifer would not adversely impact the rights of other water users. In fact, we expect that in the average year we will only use slightly more than one-third of our permitted groundwater withdrawal.

By using groundwater to supplement its water supply, Big Stone will draw down the lake level by an average of about 13½ inches and will not noticeably change the flow rate of the Minnesota River.

In planning the Big Stone II Project, we have taken the needs and rights of other water users very seriously. As our studies and permits indicate, the area's water resources are sufficient and will allow us to use water resources to generate power from the Big Stone site in the same responsible manner as area residents have experienced for the past 30 years.

Sincerely,

Mark A.Rolfes

Manager

Big Stone II Project

Big Stone City, S.D.

's water resources are sufficient and will allow us to use water resources to generate power from the Big Stone site in the same responsible manner as area residents have experienced for the past 30 years.

Sincerely,

Mark A.Rolfes

Manager

Big Stone II Project

Big Stone City, S.D.



April 25, 2007

Chief Engineer  
Water Rights Program  
Foss Building  
523 East Capitol  
Pierre, SD 57501

**RE: APPLICATION NO. 6846-3** to Appropriate Water (by Otter Tail Corporation for the proposed Big Stone II facility)

Chief Engineer:

On behalf of the 7,761 South Dakota Clean Water Action member households, I am filing this petition regarding the application by Otter Tail Corporation to appropriate ground water from the Veblen Aquifer for the proposed Big Stone II coal plant. Clean Water Action is a national nonprofit organization with an office in Sioux Falls, as well as a regional office in Minneapolis, Minnesota. Clean Water Action works to ensure that the country has clean and safe water now and for generations to come. In summary, Clean Water Action

- 1) requests automatic delay of the application hearing,
- 2) opposes this application,
- 3) presents evidence contrary and additional to that in application 6846-3,
- 4) disagrees with the decision by the Chief Engineer that this application does not involve a monetary controversy in excess of \$2,500.00 or termination of a property right in accordance with SDCL 1-26-18.3,
- 5) requests that hearing be held in proximity to affected area to facilitate participation.

## **1. REQUEST FOR AUTOMATIC DELAY**

Clean Water Action requests first of all, automatic delay of the application hearing, currently scheduled for May 10, 2007.

- 1.1 Our office received only a partial packet (odd numbered pages) in response to our April 13<sup>th</sup> request for any and all information pertaining to this application.
- 1.2 Only upon second request did full application materials become available, April 19<sup>th</sup> online, with copy going in the mail the same day.

This delay hampered seriously our ability to review and fact check the application previous to contacting our members in South Dakota to inform them of the opportunity to comment on the application. Additionally, we have found discrepancies and contradicting information compared to that in the application. Hence we request automatic delay to further investigate and prepare an in-depth response.

## **2. OPPOSITION TO APPROPRIATION APPLICATION 6846-3**

Clean Water Action opposes the water appropriation application for the following reasons at this time, not exclusively:

2.1 In South Dakota, “...the public trust doctrine imposes an obligation on the State to preserve water for public use. It provides that the people of the State own the waters themselves, and that the State, not as a proprietor, but as a trustee, controls the water for the benefit of the public”...“Decisions on beneficial use belong ultimately to the Legislature. SDCL 46-2-11.” South Dakota Supreme Court ORDEAN PARKS, et. al. v. JOHN COOPER et. al. 2004 SD 27, at [www.state.sd.us/denr/des/waterrights/ParksVsCooper.pdf](http://www.state.sd.us/denr/des/waterrights/ParksVsCooper.pdf)

- 2.1.1 Application 6846-3 requests appropriation of South Dakota water resources with the majority of benefit going to power demand outside of South Dakota, thus conferring primary benefit not to South Dakotans, but to non-residents,
- 2.1.2 which is likely to imperil or constrain water based resource use and recreation for South Dakotans, especially during drought periods— clearly a use in contradiction to the intent of SD Legislature to provide for the “general health, welfare and safety of the people” through “the conservation, development, management, and optimum use of all this state’s water resources” SDCL 46A-1-1.

2.2 In South Dakota, Chapter 430, Laws of 1955, (1) “...the waste or unreasonable method of use of water be prevented, and that the conservation of such water is to be exercised...beneficial use...does not and shall not extend to the waste or unreasonable use or unreasonable method of diversion.” (Parks v. Cooper, 2004).

SO-1j

2.2.1 Applicants failed to assess or provide cost/benefit comparison of going with a dry cooling system versus water-cooling, advocated for expressly in recent science, policy and advanced technology literature as the prudent measure to take, not only for new plants but also for retrofitting old ones.

SO-1k

2.2.2 We have great stress on limited water resources, unwelcome environmental consequences and dire future predictions, especially in the arid west. In fact, discharge surpasses recharge in the Dakotas, Montana and Wyoming, with grave implications for Big Stone Lake.  
“Declining water levels are a problem locally in unconfined and confined aquifers... In unconsolidated-deposit or consolidated-rock aquifers that contain water under unconfined conditions, large withdrawals from wells completed in the aquifers can reverse the prepumping direction of movement of ground water... Water that moves toward and discharges to streams under prepumping conditions can be intercepted by wells, particularly if large volumes of water are pumped from the wells. A cone of depression created by withdrawal from a single well, or several wells, can extend outward until it reaches a stream [Big Stone Lake, Whetstone River for example]. Water from the stream can then move into the aquifer and toward the pumping well. If withdrawals are large enough, then streamflow can be decreased or completely diverted to the wells. Large withdrawals from pumping and flowing wells completed in the lower Cretaceous aquifers that are overlain by thick confining beds in eastern North and South Dakota have caused the

- hydraulic head in these aquifers to decline 200 feet or more over large areas” (Whitehead, 1996).
- SO-1l [ 2.2.3 Drought conditions intensify water use conflicts, competing interests, and have shut down power plants previously, raising issue of reliability.
  - SO-1m [ 2.2.4 Application 6846-3 based its modeling of water use on past climatic conditions and did not take into account irrefutable scientific evidence of rise in temperature associated with global warming, in great part due to heat-trapping emissions from fossil-fueled power plants.
  - SO-1n [ 2.2.5 Withdrawal of water from underground aquifers can lower water tables enough to cause the overlying land to sink.
  - SO-1o [ 2.2.6 Future options for other economic opportunities remain unfulfilled when water resources over-committed for power generation, in this case surface water as well as ground water draw.
  - SO-1p [ 2.2.7 Reliability problems could result from extreme or prolonged drought conditions, putting at risk *current baseload service* provided by Big Stone Plant Unit 1 should Big Stone II begin to operate.

Consumptive Water Use for U.S. Power Production, NREL/TP-550-33905, P. Torcellini, N. Long, and R. Judkoff, December 2003 National Renewable Energy Laboratory 1617 Cole Boulevard Golden, Colorado 80401-3393, Available electronically at <http://www.osti.gov/bridge>.

The Last Straw: Water Use by Power Plants in the Arid West, Clean Air Task Force, Hewlett Foundation Energy Series, April 2003, Available electronically at <http://www.catf.us/>.

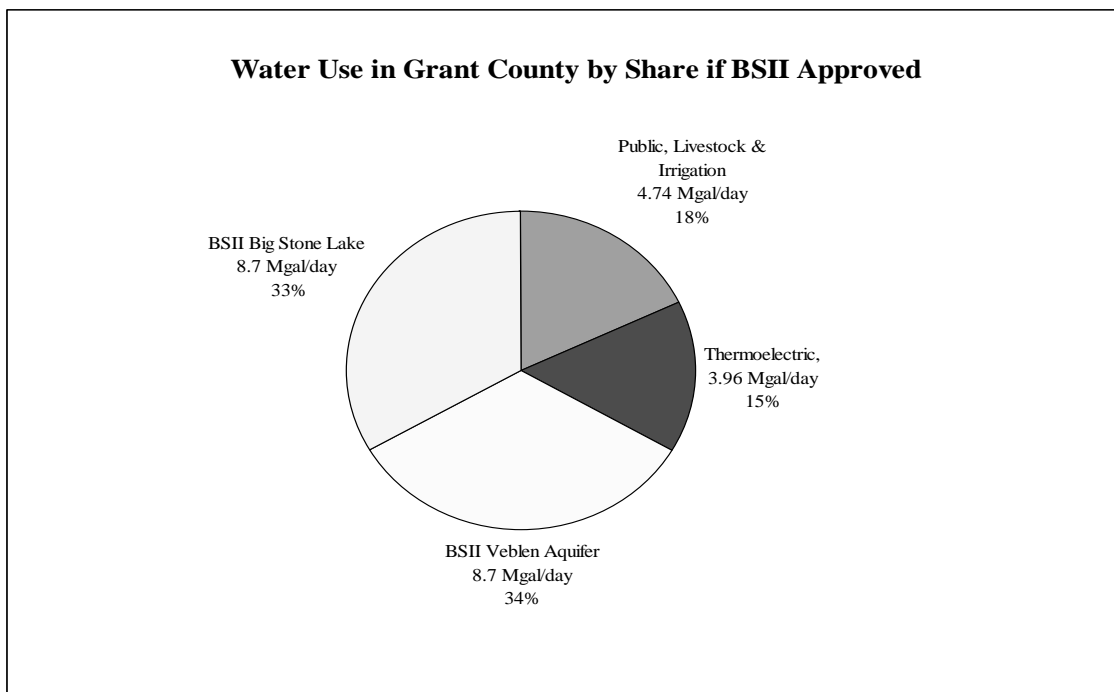
Ground Water Atlas of the United States: Montana, North Dakota, South Dakota, Wyoming, USGS HA730-I, R.L. Whitehead, 1996, Available electronically at [http://capp.water.usgs.gov/gwa/ch\\_i/index.html](http://capp.water.usgs.gov/gwa/ch_i/index.html).

### 3. EVIDENCE CONTRARY AND ADDITIONAL TO THAT IN APPLICATION 6846-3

- SO-1q [ 3.1 *Uncertainty* exists yet today as to the areal extent of the Veblen aquifer and whether ‘connected’ between Lake Traverse Indian Reservation, portions of Roberts County, into Grant County (Jay Gilbertson, group communication at info-session, Big Stone Grind, Big Stone City SD, 24 April 2007). See also South Dakota Geological Survey Open File Reports on Urban and Rural Studies, UR-81: Investigation of ground water resources in portions of Roberts County, South Dakota, Jay Gilbertson; and Open-File Report Number UR-43, Ground-water investigation for Big Stone City, SD, which found stressed, depleted and locally contaminated portions of the Veblen Aquifer, Susan Green and Jay Gilbertson, 1987.
- SO-1r [ 3.2 Family histories recount Big Stone Lake as ‘spring-fed’ with specific ecological sensitive hillside areas relying on ‘maintained’ aquifer levels. (Rosella Carlson, oral history to grandchildren, 1960s and Martin ‘Punk’ Carlson, historical lakeshore homeowner with hillside ‘spring-feed’ to keep minnows fresh, 1990s-current).

3.3 Application 6846-3 indicated, “Records on actual water usage for the municipal, industrial and commercial users are not available” (Potential Impacts, 5.1, p.21). Clean Water Action research found USGS water use charts by county for all fifty states, <http://water.usgs.gov/watuse/data/2000/index.html>, Grant County, SD with public use at .61 Mgal/d, livestock .48 Mgal/d, irrigation 3.65 Mgal/d and thermoelectric 3.96 Mgal/day for total freshwater ground/surface withdrawal of 8.70 Mgal/day in year 2000. With the 2006 approved Otter Tail surface water permit of 8.7 million gal/day, plus 6846-3 permit application of 8.7 million gal/day; total Grant County water use (USGS 2000) *with* BSII = 26.1 million gal/day versus 8.71 million gal/day in 2000. In other words, Otter Tail Power share of total water use would rise dramatically from a 46% share of total water use in Grant County in 2000, up to 81% with Big Stone II in operation.

SO-1s



3.4 Application 6846-3 (Section 2, p.3) noted, “no previous request for groundwater appropriations has been made related to the operation of the Big Stone Plant. Big Stone plant water rights and appropriations have been limited to surface water sources, specifically Big Stone Lake.”

SO-1t

- 3.4.1 USGS Open-File Report 98-268, showed however, 1.73 Mgal/day groundwater withdrawal in 1995, along with 1.73 Mgal/day surface water withdrawals.
- 3.4.2 Application does not explain discrepancy, indeed, claims that no groundwater withdrawals requested to date. Was the 1995 groundwater withdrawal without a permit request?

U.S. Department of the Interior, U.S. Geological Survey, Estimated Use of Water in South Dakota, 1995, Franklin D. Amundson, Open-File

Report 98-268, Prepared in cooperation with the South Dakota Department of Environment and Natural Resources, see Charts p.17, Thermoelectric power use withdrawal by County 1995, Grant County 1.73 Groundwater 1.73 Surface Water = Total 3.46 Mgal/day.

**4. RIGHT TO REFER TO OFFICE OF HEARING EXAMINER**

SO-1u

[Due to lack of time to investigate fully whether or not a property right may be terminated, or whether application involves a monetary controversy in excess of \$2,500 Clean Water Action on behalf of its members disagrees with the Chief Engineer's finding and reserves the right to require the agency to use the Office of Hearing Examiners if findings indicate accordance with SDCL 1-26-18.3.] [In fact, the application reveals property ownership still in question, monetary amounts in excess of \$2,500 and is inconclusive as to whether applicants intend to purchase currently owned or operating irrigation water rights from area farmers.

SO-1v

- 4.1 "The proposed groundwater withdrawal system will be located on property that includes parcels currently owned by OTP, under option for purchase by OTP, and owned by others" (3.2.4 Land Ownership, p. 9).
- 4.2 "15 wells... would cost approximately \$130,000 per well," which does not include cost for pipeline to the plant. Estimated range approximately 1.5-3 million dollars. (BARR Memorandum to Terry Graumann, from Nels Nelson and Ray Wuolo, 3 July 2002, Preliminary evaluation of feasibility of groundwater supply for Big Stone Plant, Project 4125003.)]

**5. REQUEST FOR HEARING IN PROXIMITY TO AFFECTED AREA AND PEOPLES**

Clean Water Action requests that the hearing on application 6846-3 occur at one of the following locations, Watertown, Milbank or Sisseton South Dakota. To facilitate citizen participation from most affected area and to accommodate interested parties from South Dakota, Minnesota and Sisseton Wahpeton Sioux Tribe, Sovereign Nation reserving resource rights and jurisdiction of 1867 Treaty boundaries. (Water resources of the Lake Traverse Reservation, South and North Dakota, and Roberts County, South Dakota: U.S. Geological Survey Water-Resources Investigation Report 01-4219, Thompson, R.F., 2001, p.3, Introduction, map; see also [http://www.tribalresourcecenter.org/ccfolder/sisseton\\_wahpeton\\_codeoflaw71.htm](http://www.tribalresourcecenter.org/ccfolder/sisseton_wahpeton_codeoflaw71.htm)).

Thank you for the opportunity to comment on this application.

Sincerely,

Mary Jo Stueve  
State Program Coordinator  
South Dakota Clean Water Action

405 S 3rd Ave Ste 102A  
Sioux Falls, SD 57104

Cc: Otter Tail Corporation, Environmental Services

April 29, 2007

Chief Engineer  
Water Rights Program  
Foss Building  
523 East Capitol  
Pierre, SD 57501

**RE: APPLICATION NO. 6846-3** to Appropriate Water (by Otter Tail Corporation for the proposed Big Stone II facility)

Chief Engineer:

I am writing to oppose permit 6846-3. I live in Minnesota where the impacts of the proposal will be felt. Issues such as global warming effect everyone.

In South Dakota, all water (surface and ground water) is the property of the people of the state and whether you need a water right permit depends on the type of your water use. The only type of water use which does not require a water right permit is domestic use.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommended APPROVAL of Application No. 6846-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest.

I write to strongly disagree with the Chief Engineer's recommendation.

At the outset, I think an extension of time should be granted to the public to comment upon the current proposal. The applicants have the advantage of setting the timetable for determination. They have spent years working on hiring advocates and paid experts to say what they want to hear. There is an enormous body of literature which is available which needs to be reviewed and public voices need to be heard on the issue. The only reason I have the luxury of filing comments on the issue is because I was formerly employed to review issues such as this. Ordinary citizens who would be affected by the proposal need time and opportunity to review the information and comment upon the proposal.

I. THE UNAPPROPRIATED WATER IS NOT AVAILABLE.

SO-1w [ The Veblen aquifer discharges into Big Stone Lake. It makes no sense to consider the application for the withdrawal of groundwater without reference to the impact it will have on Big Stone Lake.

South Dakota is a state which already must deal with issues of water scarcity. Therefore, any water permit should be granted with a careful eye to the short-term and long-term effects of the water withdrawal.

A. Applicants cannot definitively comply with water mining prohibitions.

One of the key things which needs to be considered is the recharge rate to the Veblen aquifer. According to the applicant's Attachment B, Barr Engineer Report 2007, p. 20

Recharge from infiltrating rainfall is the primary mechanism for adding water to the aquifer system. There are no site specific data for recharge. Recharge was therefore conservatively estimated at 1 inch/year. It is likely that recharge rates are greater than 1 inch/year – in Minnesota, recharge values of 4 to 8 inches/year are commonly used for regional groundwater modeling. Conservatively estimating recharge is important because recharge limits the extent of the cone of depression that develops when a well is pumping.

SO-1x

What is critical to understand is the phrase, “**There is no site specific data for recharge.**” The applicant admits that they do not know what the recharge rate would be. Without know what the recharge rate is, the applicants proposed project could significantly damage the long-term availability of groundwater in the area. Without site specific information, it is simply impossible to know. Nevertheless, South Dakota has a clear policy that prevents water mining. According to SDCL 46-6-3.1 “Annual withdrawal of groundwater not to exceed recharge - Exception for water distribution systems. No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source.”

Without site specific data for the recharge, one can only speculate that there would not be a draw down. The applicant should be required to demonstrate that the quantity of water withdrawn annually from a groundwater source will not exceed the quantity of the average estimated annual recharge of the water. The statute requires that there be a balance to the annual recharge rate- not a recharge rate over years as the petitioners are looking for. Water withdrawal rates will probably exceed recharge capacity. From page 22 of the application:

### **5.2.2 Groundwater Modeling Results and Conclusions**

The maximum drawdown is predicted to be between 35 feet (14 well configuration) and 40 feet (7 well configuration) below existing static water level at the end of one year of pumping. Within the well-field area, the drawdown is predicted to be approximately 15 to 35 feet. The 5-foot drawdown is predicted to extend 3 miles (7 well configuration) to 4 miles (14 well configurations) from the approximate center of the well field. The aquifer system is confined and recovery of groundwater levels will be approximately the inverse of pumping – i.e. water-levels will rebound quickly and then slowly approach pre-pumping conditions after approximately a year.

SO-1y

It says only that it will “slowly approach” pre-pumping conditions after approximately one year of no pumping. This means that the pumping does create a



drawdown and that the applicant cannot say that even after a year of no pumping it will do more than “approach” pre-pumping conditions. This sentence means it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source.

In fact, the applicant cannot establish its compliance with the water mining prohibition, because as the applicant stated, “**There is no site specific data for recharge.**” The section concludes that it considers this “negligible”. Nevertheless, it is an admission that there will be drawdown.

SO-1z

There will likely be impacts on artesian wells. Even the applicant’s experts acknowledge this. According to attachment A, the 2002 Review of Potential Groundwater sources, conducted by Barr Engineering, there will be impacts to both the surface water and the recharge rate. Table 1. Comparison of Groundwater sources makes one thing very clear: the Veblen aquifer represents the lowest cost option to Otter Tail Power and its partners. Table 1. also indicates that the likelihood of well interference is moderate. Table 1. indicates that the likelihood of surface waters impacts is also moderate. It is clear that artesian wells and the surface water will be impacted.

SO-1aa

Table 1. shows that both the Altamont and the Dakota Sandstone would have lower impacts on wells and surface water impacts. They are apparently being rejected solely on economic grounds. Even a causal observer would note that the public’s interest could be better served by the use of water sources which did not impact their surface waters and their wells. Nevertheless, the Big Stone II partners appear concerned only with their bottom line.

This fact appears to be confirmed by Barr Engineering’s own observation. According to Attachment A, the 2002, Barr Engineering document;

#### **IV Recommendation**

The decision on whether to pursue a groundwater backup system will depend on the economic balance between the risk of reduced generation during water shortage and the cost of creating a more reliable supply. We recommend that Big Stone Power look at water supply as a problem of optimizing the economic return of any additional investment.

Again, the purpose of the requested water permit is to simply supply “backup water”. It is merely an economic hedge for the investment partners. It appears there will be a drawdown which will exceed annual recharge rates. It appears likely that other users, particularly artesian wells will be impacted. Under these circumstances, it cannot be established that the water is available.

## **II. SOUTH DAKOTA LAW PROTECTS PUBLIC WATERS**

Under SDCL 46-1-4 it is hereby declared that because of conditions prevailing in this state the general welfare requires that the water resources of the state be put to beneficial use to the fullest extent of which they are capable. SDCL states that the waste or

unreasonable method of use of water be prevented, and that the conservation of such water is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare. The right to water or to the use or flow of water in or from any natural stream or watercourse in this state is and shall be limited to such water as shall be reasonably required for the beneficial use to be served, and such right does not and shall not extend to the waste or unreasonable use or unreasonable method of diversion of water. (SDCL 46-1-4)

A. THE PROPOSED USE IS NOT A BENEFICIAL USE OF WATER.

1. There is no need for the Big Stone II proposal.

A beneficial use is any use of water within or outside the state, that is reasonable and useful and beneficial to the appropriator, and at the same time is consistent with the interests of the public of this state in the best utilization of water supplies. (SDCL 46-1-6).

As noted by the Minnesota Department of Commerce, Otter Tail Power has not successfully demonstrated that there is an actual need for the power. Governor Pawlenty's Department of Commerce recommended that a certificate of need for the plant's transmission not be granted. Under these circumstances, the proposed water permit is not a beneficial use of water supplies.

2. The applicant already has the water it needs.

SO-1ab

Under typical plant operations, it is anticipated that surface water from Big Stone Lake will be the primary source of water for the facilities. Otter Tail proposes to use ground water in conjunction with existing water storage when Big Stone Lake appropriations are not available. This is an anticipatory need in the event the water is not necessary. For the most part, Big Stone II partners plan to store the water and use it in anticipation of need. There is no reason to appropriate the legal right to withdraw water prior to a demonstrated need.

In South Dakota, the first in time takes priority over other rights. By demanding an anticipatory groundwater permit, the Big Stone II partners are reserving for themselves the right to potentially use the water and denying other people the right to beneficially use the water themselves. This is no small amount of water. In total, the Big Stone Partners would control 6.4 billion gallons of water. It would be wrong to deny future generations the beneficial use of water which would be designated as "backup" water. Again, the Big Stone partners are creating storage water. It is premature to determine whether or not such "storage water" is necessary. There is no demonstrated need for the water being requested by this permit and hence it is not a beneficial use of the water.

III. THE GROUND WATER PERMIT IS NOT IN THE PUBLIC INTEREST.

A. BIG STONE II IS A SERIOUS CONTRIBUTOR TO GLOBAL WARMING.

If Big Stone II is permitted to operate, it will be a serious contributor to Global Warming problems. By their own admissions, Big Stone II. will generate 4.7 million tons of carbon dioxide annually. Carbon Dioxide is the leading cause of global warming which can cause irreparable harm to the environment. Expert testimony on the impact of Big Stone II demonstrated material, adverse, and irreversible damage to the environment. Ezra, D. Hausman, PHD, testified on behalf of the joint intervenors on November 17, 2006:

SO-1ac

“My opinion is that the emissions of over 4.7 million tons of CO2 per year from this proposed facility would cause material, adverse and irreversible damage to the environment. I am especially concerned that, considering its expected lifetime of 50 years or more and the slow recovery time for atmospheric CO2, these emissions will contribute to elevated levels of CO2 in the atmosphere, to increased radioactive forcing of climate and to accelerated global climate change for several centuries to come. I consider this to be a material, adverse impact on the environment, both globally and in Minnesota and the surrounding region.” (Joint Intervenors Exhibit 2., p. 31, ll. 23-26 to p. 32 ll. 1-5).

It would not be prudent to ignore clear scientific evidence. The law cannot sanction the use of ecologically irresponsible technologies in an age of feasible alternatives.

The area is a pristine fishing area which would be endangered by global warming. A recent Minnesota Public Radio Article provided this insight:

SO-1ad

“Scientists expect the state's rivers and lakes to get warmer. That would mean cold water fish, such as walleye, could decline. Warm water fish might move north into Minnesota. Magnuson says the state DNR may have to decide whether to try to preserve some Minnesota lakes for walleye, or let them give way to warm water fish.

"I think that one of the things that's got to be happening is the agencies have to think through, what are the consequences of doing nothing, and what's the best they can do in the worst case scenarios to preserve the diversity of resources and values that Minnesotans care about, such as 'I want to fish for walleye,'" Magnuson said.”<sup>1</sup>

Big Stone II is not about long term issues “which could arise from energy consumption and emissions.” The United States Supreme Court recently shed light on the issue in its landmark decision in *Massachusetts v. EPA*.<sup>2</sup> The focus on long term

<sup>1</sup> Plan now for climate change in Minnesota, scientists say by Mary Losure, Minnesota Public Radio, May 22, 2003, online: [http://news.minnesota.publicradio.org/features/2003/05/23\\_losurem\\_climate/](http://news.minnesota.publicradio.org/features/2003/05/23_losurem_climate/)

<sup>2</sup> MASSACHUSETTS v. EPA (No. 05-1120) 415 F. 3d 50, (2007).

issues which could arise from energy consumptions and emissions was done in 1978 when Congress enacted the National Climate Program Act.<sup>3</sup> The act required the President to establish a program to “assist the Nation and the world to understand and respond to natural and man-induced climate processes and their implications.”<sup>4</sup> President Carter directed the National Research Council to report upon the subject.<sup>5</sup> The Council reported: “If carbon dioxide continues to increase, the study group finds no reason to doubt that climate changes will result and no reason to believe that these changes will be negligible. . . . A wait-and-see policy may mean waiting until it is too late.”<sup>6</sup>

That was nearly 30 years ago. Today, there is a very different focus. According to an article appearing in the Washington post on November 17, 2005, “Earth's warming climate is estimated to contribute to more than 150,000 deaths and 5 million illnesses each year, according to the World Health Organization, a toll that could double by 2030.”<sup>7</sup>

SO-1ad  
cont'd

The impacts on all parts of our environments would be devastating. Again the United States Supreme Court recognized this explicitly in its most recent case of *Massachusetts v. EPA*.<sup>8</sup>, where it wrote:

“The harms associated with climate change are serious and well recognized. Indeed, the NRC Report itself—which EPA regards as an “objective and independent assessment of the relevant science,” 68 Fed. Reg. 52930—identifies a number of environmental changes that have already inflicted significant harms, including “the global retreat of mountain glaciers, reduction in snow-cover extent, the earlier spring melting of rivers and lakes, [and] the accelerated rate of rise of sea levels during the 20th century relative to the past few thousand years . . . .” NRC Report 16.”<sup>9</sup>

As for more local impacts, a recent Minnesota Public Radio Article provided this insight:

“Scientists expect the state's rivers and lakes to get warmer. That would mean cold water fish, such as walleye, could decline. Warm water fish might move north into Minnesota. Magnuson says the state DNR may have to decide whether to try to preserve some Minnesota lakes for walleye, or let them give way to warm water fish.

<sup>3</sup> MASSACHUSETTS v. EPA (No. 05-1120) 415 F. 3d 50, (2007).

<sup>4</sup> MASSACHUSETTS v. EPA (No. 05-1120) 415 F. 3d 50, (2007).

<sup>5</sup> MASSACHUSETTS v. EPA (No. 05-1120) 415 F. 3d 50, (2007).

<sup>6</sup> MASSACHUSETTS v. EPA (No. 05-1120) 415 F. 3d 50, (2007).

<sup>7</sup> **Climate Shift Tied To 150,000 Fatalities Most Victims Are Poor, Study Says By Juliet Eilperin Washington Post Staff Writer Thursday, November 17, 2005; Page A20**

<sup>8</sup> MASSACHUSETTS v. EPA (No. 05-1120) 415 F. 3d 50, (2007).

<sup>9</sup> MASSACHUSETTS v. EPA (No. 05-1120) 415 F. 3d 50, (2007).

SO-1ad

"I think that one of the things that's got to be happening is the agencies have to think through, what are the consequences of doing nothing, and what's the best they can do in the worst case scenarios to preserve the diversity of resources and values that Minnesotans care about, such as 'I want to fish for walleye,'" Magnuson said."<sup>10</sup>

SO-1ae

According to information from the Minnesota DNR website:

"Big Stone Lake is 26 miles long and is located on the South Dakota-Minnesota border. The lake is the source of the Minnesota River and attracts anglers who catch walleye, northerns and bluegills. The northern section of the park, called the Bonanza Area, provides a picnic area, boat launch and a primitive group camp for guests. The area also includes the Bonanza Education Center which provides a place to discover the past and ways to preserve it. The southern section of the park, called the Meadowbrook Area, contains a campground, swimming beach and hiking trails."

This is an important area of the country that needs to be protected. According to a recent article in the St. Cloud Times, "Big Stone Lake is probably the most popular border fishery among anglers. At 12,000 acres, Big Stone simply offers the highest walleye population and most ideal structure to fish."<sup>11</sup> Given the importance of Walleye fishing to Big Stone Lake and its commerce, this proposal is not in the public interest.

Climate change establishes that it is not in the public interest to permit the Big Stone operators to take more water.

SO-1af

Ironically, the issue of climate change also undermines the use of any possible modeling data which the petitioners rely upon. Given the state of climate science, future conditions will not likely to replicate past conditions due to global warming. Therefore, none of the applicants modeling data should be accepted.

B. The use could impair the recreational and other quality uses of water in the area, including impacts on Big Stone Lake.

SO-1ag

In a June 30, 2006 letter to South Dakota assistant attorney general John Guhin, Mr. Lokkesmoe described how the surface water proposal would disturb, obstruct and interfere with the natural flow and conditions of public waters in Minnesota in a way that seriously affects the public welfare and interests. Mr. Lokkesmoe submitted a request to

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<sup>10</sup> Plan now for climate change in Minnesota, scientists say by Mary Losure, Minnesota Public Radio, May 22, 2003, online: [http://news.minnesota.publicradio.org/features/2003/05/23\\_losurem\\_climate/](http://news.minnesota.publicradio.org/features/2003/05/23_losurem_climate/)

<sup>11</sup> St. Cloud Times, [Outdoors: It's time to get your fish on](#), By Glen Schmitt Times outdoors writer, April 15, 2007, online: <http://www.sctimes.com/apps/pbcs.dll/article?AID=/20070415/SPORTS/104150007/1002>

reconvene the South Dakota-Minnesota Boundary Waters Commission. However, this has not yet happened.

Now the Big Stone II. partners are proposing another withdrawal of ground water which has the potential to impact Big Stone Lake, particularly during times of drought. Since the Veblen Aquifer discharges into Big Stone Lake, additional heavy demands on groundwater could inhibit the lake's ability to recharge. What will this mean for the recreational uses and property values of Big Stone Lake?

SO-1ag  
(cont'd)

A review of Attachment B, the Barr Engineer Report 2007, on page 20 documents the relationship between the Veblen Aquifer, Big Stone Lake, and the Minnesota river.

#### **4.4 Boundary Conditions**

Big Stone Lake and similar lakes on the Minnesota River were assumed to act as constant head boundaries, which may act as either sources or sinks, depending on nearby groundwater levels. Big Stone Lake and the Minnesota River represent the primary mechanism for removing water from the aquifer system, through natural discharge of groundwater flow from west to east. The Whetstone River and Yellow Bank Rivers were simulated with the River Package, which accounts for the interaction between aquifer and surface-water feature, based on the relative water elevation and a conductance value to simulate the bottom sediments of the surface water.

We know there will be impacts to the Big Stone Lake even from the groundwater application. By design, these will occur when the Big Stone Lake levels are at its lowest- which will likely impact its ability to recover from drought itself. The planned water withdrawal simply makes no sense.

#### **IV. Other issues**

There are many other issues which have not been addressed by the applicants. The applicants indicate they may need to secure easements on property owned by others.

SO-1ah

#### **V. Conclusion**

There are many uncertainties surrounding the proposal. What will happen to Big Stone Lake? What will happen to the Minnesota River? Why should we allow a large new source of pollution to get firmly rooted in South Dakota? What will happen to the fishing? What will the long term impacts of this water withdrawal be on other members of the public and future generations?

Much of this uncertainty can be resolved by simply recognizing what the Minnesota Department of Commerce concluded: the applicants have failed to meet their statutory burdens.

In the end, it comes down to a simple choice of doing what is right for the people of South Dakota, Minnesota, and the region. The proponents of Big Stone II want to divert water from the Veblen aquifer to create storage water. A more responsible decision would be to recognize how critically important aquifers are to people living in arid regions. Aquifers provide drinking water and critical irrigation needs. They create opportunities for other beneficial uses. An aquifer is already storage water. Used responsibly, an aquifer can benefit generations of people.

The proposed use is not beneficial to the public. I am recommending denial of Application No. 6846-3.

Sincerely,

Tore Simosen

4407 Chatsworth Street

Shoreview, Minnesota 55126

STATE OF SOUTH DAKOTA

BEFORE THE WATER MANAGEMENT BOARD

IN THE MATTER OF APPLICATION	)	STUEVE’S OBJECTIONS TO
NO.6846-3, OTTER TAIL	)	APPLICANT’S PROPOSED
CORPORATION (BIG STONE II)	)	FINDINGS OF FACT AND
		CONCLUSIONS OF LAW AND
		PROPOSED FINAL ORDER,
		NOTICE OF AND MOTION TO
		DENY

The undersigned, appearing pro se in the above-captioned matter, opposes issuance of permit application No. 6846-3 to Otter Tail Corporation (Big Stone II), gives notice of, and moves for denial of said permit. Moreover, the undersigned disagrees and objects to proposed Findings, Conclusions and Final Decision submitted by Mr. Madsen on Behalf of Big Stone II on or around August 3, 2007. Objections in particular and not exclusive:

FINDINGS OF FACT

**Petitioners**

1. Number (No.) 4 (p2). Sisseton Wahpeton Oyate (SWO) is listed as ‘Party of Record’ by all parties throughout correspondence in above captioned matter and gave notice of opposition in timely manner (SWO Initial Petition signed April 24, 2007).

**Pleadings and Procedural Background**

2. No. 10 (p4). SWO petition for continuance *also* contains a statement of opposition to above-captioned matter (SWO Initial Petition, signed April 24, 2007, Item12)
3. No. 22 (p7). MN DNR lists several “*serious*” concerns and requests that the South Dakota Water Management Board not take final action in this matter until “Big Stone II actually installs its needed number of wells and is able to perform an aquifer test on the groundwater formation that each well is finished in.” MN DNR also renews its



request to reconvene the South Dakota-Minnesota Boundary Waters Commission to address risks and emerging water resource management problems.

**Hearings**

4. No. 29 (p8). SWO appeared and presented evidence and testimony in the person of Myrna Thompson (Evidentiary Hearing, July 11, 2007 Milbank, SD).
5. No. 30 (p8). MN DNR submitted comments for the record and stated its position.
6. No. 36 (p9-10). “Existing Permits” (18,000-acre feet) currently provide more water than needed (13,000-acre feet) to operate Big Stone Unit 1, POET and the proposed Big Stone II (Evidentiary Hearing July 11, 2007 Milbank, SD, Administrative Record, Otter Tail Application).
7. No. 51 (p13.) Barr Engineering developed a computer model using *past* climatological data, no projections and discounting years since 2000.
8. No. 68 (p17). The record shows applicants have had access to emergency appropriations previously, on rare occasion. Applicants did not present any witness, or other credible evidence to indicate that emergency appropriation would not be possible, or that it would pose undue delay or hardship in the future. SDCL clearly and rightly provides process and oversight in these matters. Furthermore, “Existing Permits” give cushion of 5,000-acre feet more than what applicants say operations require, i.e., 13,000-acre feet (Evidentiary Hearing, July 11, 2007 Milbank, SD).
9. No. 74 (p19). Black & Veatch stands to gain financially by the granting of this permit with further contract work on Big Stone II (Evidentiary Hearing, July 11, 2007 Milbank, SD). This raises questions as to the credibility of Black & Veatch’s analysis and conclusions in this matter.

SO-1ai

10. No. 76 (p19). Applicant did not provide documentation that ‘need exists’ and that the facility is in the public interest. Such remains a *subjective* conclusion. Documentation submitted by undersigned and verified by Big Stone Plant Manager, Jeff Endrizzi, demonstrates that the requested appropriation allotted to Otter Tail would place ‘a’ public interest in jeopardy, POET Biorefining Big Stone. The ethanol plant already exists. If Otter Tail proceeds with Big Stone II, the record shows that “In case of prolonged drought, Otter Tail may need to curtail distilled and/or Cooling Pond water to the Project [POET]. Otter Tail, at its sole discretion, may take this action whenever Big Stone Lake level drops below 967 feet Mean Sea Level for more than 90 continuous days” (Evidentiary Hearing, July 11, 2007 Milbank, SD, Northern Growers LLC -10-Q – For 3/31/07 – EX-10.1 Amendment No.1 to Water and Fuel Oil Agreement by and among Otter Tail Corporation and Northern Lights Ethanol, LLC, [now POET Biorefining Big Stone].)
11. No. 77 (p19). Ibid. Otter Tail cannot have it both ways. It says it needs water permit 6846-3 to “generate electric energy at the Big Stone I and II plants, as well as for the POET Biorefinery plant – on the other hand it does not provide any numbers, evidence or testimony related to water use for POET and also holds authority to cut off POET’s water supply. Moreover, upon cross-examination, Otter Tail witness admitted that if approved, total water permitted (“Existing Permits” plus 6846-3 equaling 28,000-acre feet) would exceed required amount (13,000-acre feet) to operate Big Stone Plant Unit 1, Big Stone II and POET by 15,000-acre feet (Evidentiary Hearing, July 11, 2007 Milbank, SD).
12. No. 80 (p20). See items 10 and 11 above.

13. No. 81 (p20). See item 9 above.

14. No. 82-98 (p20-25). Safeguarding the public interest requires due diligence on the part of state agencies, entrusted to protect and preserve South Dakota resources. The burden does not and should not fall on individual citizens and interested parties. SD DENR, including the Chief Engineer, relied almost exclusively in the above captioned matter on “evidence” sought and paid for by Applicant (Otter Tail), hence prejudicial to the public interest from the start.

#### CONCLUSIONS OF LAW

The proposed appropriation unduly favors out of state interests tied to the coal-burning industry to the detriment of South Dakota based ethanol production. Applicants and SD DENR failed to consult or investigate sovereign tribal (SWO) water use, rights or interest. Furthermore, neither Applicants nor SD DENR took into account ‘*public interest*’ in light of the last seven years of drought or global warming predictions--choosing arbitrarily and capriciously instead, variables favorable to Applicant’s desired outcome. Applicants erroneously and subjectively claim that “[t]he quantity of water withdrawn annually as requested in the Application will not exceed the quantity of the average estimated recharge of water to the groundwater source.” Applicants did not present evidence or testimony to support this, but rather ‘best guesses’.

#### DECISION

At the least, the above objections demand deferral of said application for further scrutiny or additional conditions--at the most, denial of issuance.

Dated this 10th day of August, 2007

---

Mary Jo Stueve

pro se  
405 South 3<sup>rd</sup> Avenue, Suite 102A  
Sioux Falls, SD 57104

### **CERTIFICATE OF SERVICE**

I, Mary Jo Stueve, do hereby certify my appearance pro se In the Matter of Application No. 6846-3 by Otter Tail Power Company on Behalf of Big Stone II. Moreover, that on the 10<sup>th</sup> day of August 2007, a true and correct copy of the *Stueve's Objections to Applicant's Proposed Findings of Fact and Conclusions of Law and Proposed Final Order, Notice of and Motion to Deny* was served by United States, first-class mail, postage pre-paid thereon:

Eric Gronlund / Garland Erbele, Chief Engineer  
Department of Environment and Natural Resources  
Foss Building  
523 East Capitol Ave  
Pierre, South Dakota 57501-3182

Diane Best  
Assistant Attorney General  
1302 East Highway 14, suite 1  
Pierre, South Dakota 57501-8501

Francis E. Brink  
1214 South Wells Street  
Aberdeen, SD 57401-7351

Harold Deering  
Assistant Attorney General  
300 North Dakota Avenue, Ste. 403  
Sioux Falls, SD 57104

Rodney Freeman, Jr.  
Prehearing Chairman  
PO Box 176  
Huron, South Dakota 57350-0176

Elizabeth I. Goodpaster  
Attorney  
Minnesota Center of Environmental Advocacy  
26 East Exchange St., Ste. 206  
St. Paul, Minnesota 55101-2264

Leo Holzbauer, Vice Chairman  
29416 395<sup>th</sup> Ave

Wagner, SD 57380

Everett Hoyt  
4422 Carriage Hills Drive  
Rapid City, SD 57702-6874

Jim Hutmacher, Chairman  
802 East 7<sup>th</sup> Street  
Oacoma, SD 57365

David Leuthe, Regional Hydrologist  
Minnesota Department of Natural Resources  
261 Highway 15 South  
New Ulm, Minnesota 56073

Kent Lokkesmoe, Director  
Minnesota Department of Natural Resources  
500 Lafayette Road  
St. Paul, MN 55155

Bernita Loucks, Secretary  
219 42<sup>nd</sup> Street  
Rapid City, SD 57702-0240

Diana McKeown  
Program Director  
Clean Water Action Alliance of Minnesota  
308 East Hennepin Ave.  
Minneapolis, Minnesota 55414

Mark Rolfes  
Otter Tail Corporation  
Environmental Services  
PO box 496  
Fergus Falls, Minnesota 56538-0496

Michael I. Selvage, Tribal Chairman  
Sisseton Wahpeton Oyate  
PO box 509  
Agency Village, South Dakota 57262-0509

Tore Simonsen  
4407 Chatsworth Street  
Shoreview Minnesota 55126

Tom Welk  
Chris Madsen  
Attorneys at Law  
PO box 5015  
Sioux Falls, South Dakota 57117-5015

Dated this 10th day of August, 2007

---

Mary Jo Stueve  
pro se  
405 South 3<sup>rd</sup> Avenue, Suite 102A  
Sioux Falls, SD 57104



Minnesota Department of Natural Resources

500 Lafayette Road
St. Paul, Minnesota 55155-40\_\_

July 3, 2007

Garland Erbele, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources
PMB 2020, Joe Foss Building
523 East Capitol
Pierre SD 57501-3182

IN THE MATTER OF APPLICATION NO. 6846-3, OTTER TAIL CORPORATION
(BIG STONE II)

On behalf of the Minnesota Department of Natural Resources, I respectfully request the South Dakota Water Management Board to consider the needs and concerns of the citizens and natural resources of Minnesota in this water rights application.

SO-1aj

We have several serious concerns about water supply for Big Stone II that hinge on the reliability of the proposed groundwater appropriation. With the elimination of the additional reservoir storage option that the WMB considered in its approval of the surface water right Permit # 6678-3, the groundwater backup water supply becomes a more critical option in the long-term management of the water supply needs for Big Stone I & II. The loss of the additional new water storage reservoir eliminates the ability to store any additional water in advance of need and requires the aquifer(s) to be able to produce the needed instantaneous water demand of the plant if the surface water source is restricted or unavailable due to extended drought conditions.

SO-1ak

From what we are able to understand based on the information provided by the South Dakota DENR staff, a general mass balance approach is used for determining recharge of the aquifer and its ability to provide the needed water supply. With the magnitude of the Big Stone power plants, in terms of investment and water supply needs, MNDNR is very concerned about the use of a very coarse assessment approach in evaluating the long-term viability of the water supply that the aquifer(s) will be able to provide. Locally the Veblen aquifer appears to be a series of glacial sand/gravel outwash channels that may or may not be interconnected, the only way to determine if pumping at the proposed rate will create well interferences, aquifer mining or water level reduction at greater distances from the pumping center(s) would be to run aquifer tests on completed wells.

SO-1al

If South Dakota properly administers its rules/laws on well interference and aquifer mining, MNDNR staff do not believe that BSII pumping will significantly impact available water in the aquifer, if it extends into Minnesota, nor will it likely cause a significant loss of groundwater
Mr. Garland Eberle

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SO-1al [ base flow to either Big Stone Lake or the Minnesota River. It could reduce flows in the Whetstone River and further aggravate low flow and drought conditions if the Whetstone River produces less flow for downstream systems. ] SO-1am

SO-1an [ Minnesota's concern remains as we originally stated to the WMB in our letter of June 30, 2006 regarding the need for alternative water supplies: "*We request that the permittee be required to explore and functionally develop alternative water sources that are not tied to natural surface water systems and would be available for emergency use during periods of drought as a condition before permission is granted.*" The elimination of additional water storage reservoir increases the importance of the aquifer(s) yielding necessary amounts of water on demand. Locally the Veblen aquifer appears to be a series of glacial outwash channel deposits for which there is no proven connectivity between differing outwash areas, nor is there an accurate way to predict aquifer recharge rates. The spatial distribution of the recharge area for any particular buried channel aquifer is unknown. The Barr Engineering groundwater model did not successfully demonstrate groundwater would be available during the 1930s drought period. It also does not provide the degree of accuracy that an aquifer test would prove. If SDDENR has over-predicted recharge and must curtail water appropriations from this unit of the formation for well interference or aquifer mining concerns, BS I & II may not have adequate supplemental water supplies when surface water restrictions are also imposed.

SO-1ao [ It is our position, given the magnitude of the investment that more certainty should be provided for supplemental water supplies before this water right permit is granted. If groundwater supplies are restricted and since no new reservoir is planned to be constructed, there will be increased probability for requests for additional water for emergency cooling purposes that could result in requests to lower Big Stone Lake and reduce Minnesota River instream flows to ensure for essential base load power production is met during the hot and dry conditions typical in an extended period of drought. The proper approach at this early stage of planning would be to ensure adequate backup sources of water are available before the plant is constructed rather than relying on emergency actions to resolve problems that may not manifest themselves until a crisis is upon us.

SO-1ap

We would request that the South Dakota Water Management Board not take final action on the water rights permit application until Big Stone II actually installs its needed number of wells and is able to perform an aquifer test on the groundwater formation that each well is finished in. This will provide the WMB with proper assurances that sufficient water is available for this use and will ensure BS II has indeed proven that they have adequate groundwater supplies on which they can depend without need for emergency requests from surface or groundwater sources.



Mr. Garland Erbele  
July 3, 2007  
Page 3

SO-1aq

Additionally, since BS II eliminated its new water storage reservoir option after the WMB took final action on Permit #6678-3, we believe that the importance of addressing alternative water supplies is an even more essential part of review on this permit application.

SO-1ar

We also renew our request to reconvene the South Dakota – Minnesota Boundary Waters Commission to address our shared water resources. The risks of cumulative impacts from new large appropriations such as this increase the potential for water resource management problems emerging for which the two states have no agreement on how we will manage them.

Thank you for this opportunity to comment on Application No 6846-3, and we request your careful consideration of our concerns in your decision-making process. If you have any questions, please contact Regional Hydrologist David Leuthe of my staff at 507-359-6050.

Sincerely,  
DNR WATERS



Kent Lokkesmoe  
Director

Ec: Mark Holsten, Commissioner of MN Department of Natural Resources  
Brad Moore, Commissioner of Pollution Control Agency  
Joshua Gackle, Governor's Office  
Mark Matuska, MN DNR Southern Region Director  
Larry Kramka, Assistant Commissioner, DNR  
Prehearing Chairman Rodney Freeman  
Diane Best, Assistant Attorney General  
Tom Welk, Boyce, Greenfield, Pashby & Welk, LLP  
Michael I. Selvage, Sr., Tribal Chairman  
Elizabeth I. Goodpaster  
Mark Rolfes, Ottertail Corporation  
Tore Simonsen  
Mary Jo Stueve, Clean Water Action Alliance of South Dakota  
Diana McKeown, Clean Water Action Alliance of Minnesota  
Eric Gronlund, SD DENR  
Terry Graumann, Ottertail Corporation  
Dave Leuthe, DNR Waters

## INDIVIDUALS

SI-1. Scott Bauer

SI-2. Margaret Bitz

SI-3. Jean Dehmer

SI-4. Dave Dempsey

SI-5. Chris Domeier

SI-6. Susan Granger

SI-7. Michaeleen Kelzenberg

SI-8. Joe Makepeace

SI-9. Duane Markus

SI-10. Christine Marran

SI-11. Carson McIntyre

SI-12. Adam Miller

SI-13. Tom Neiman

SI-14. Traci Rasmussen-Myers

SI-15. Leslie Reindl

SI-16. Beth Rogers

SI-17. Dave Staub

SI-18. Lanny Stricherz

SI-19. Gene Tokheim

SI-20. Erica Zweifel

SI-21. John Harkness

SI-22. Clay Hesser

SI-23. John Sens

SI-24. Aleksandra Stanceivc

From: "City of Graceville"  
To: <BigStoneEIS@wapa.gov>  
Date: 12/26/2007 1:21 PM  
Subject: comment

SI-1a

Hurry up and get this thing built. The demand for electricity must be huge. I am getting controlled more this year than last. I am behind this plant all the way. Hope everything goes well, the cost will only get worse the longer it takes for all of these meetings and notices.

Thank You.  
Scott Bauer- Graceville MN-clerk

From: Margaret Bitz  
To: <BigStoneEIS@wapa.gov>  
Date: 2/11/2008 1:25 PM  
Subject: Do not approve Big Stone II interconnection

SI-2a [ Dear Ms. Werdel  
SI-2b [ [I am requesting that WAPA not grant permission for proposed Big Stone II coal  
SI-2c [ plant.] [My main objection to this project is that it uses too much water; more  
[ water than can be sustained over the long haul.] [There are other more efficient  
[ ways to develop energy, such as wind energy.]

Margaret Bitz  
Fargo, ND 58102

From: Jean Dehmer  
To: <BigStoneEIS@wapa.gov>  
Date: 2/15/2008 7:10 PM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

SI-3a [ I am writing to request that the Western Area Power Administration deny Big Stone II Co-owners an interconnection to Western's transmission system.]

SI-3b [ Big Stone Lake can not withstand the water demands required by the proposed Big Stone II coal plant, at least not for the long term or in any sustainable fashion.]

SI-3c [ Please avoid the pressures of big business and make a responsible choice in favor of the environment and clean water for future generations.]

Jean Dehmer  
Circle Pines, MN 55014

From: Dave Dempsey  
To: <BigStoneEIS@wapa.gov>  
Date: 2/11/2008 12:34 PM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

SI-4a [I strongly urge you to deny co-owners of the Big Stone II Plant in South Dakota  
SI-4b [an interconnection to Western's transmission system.] [A dirty coal-fired power  
plant is bad public policy when we are struggling to control greenhouse gas  
emissions.]

SI-4c [Damaging a public water body and reducing groundwater supply to burn more coal  
makes even less sense.]

SI-4d [Please protect our water, not a \$1.8 billion dollar boondoggle. It is not  
possible to 'mitigate' or lessen the environmental impact of what Big Stone II  
will do to Big Stone Lake.] [Please deny the Big Stone II interconnection  
request.] ] SI-4e

Dave Dempsey  
Saint Paul, MN 55105

From: Chris Domeier  
To: <BigStoneEIS@wapa.gov>  
Date: 2/21/2008 3:58 PM  
Subject: Say No to Big Stone II

Dear Ms. Werdel

I am requesting that Western deny Big Stone II Co-owners an interconnection to Western' transmission system.

SI-5a [ There are better ways to manage our future electrical needs. It's time our society takes a serious look at sustainability, instead of more and more consumptive consumption.

SI-5a [ Improvements in energy efficiency in all devices that use electricity, and development of sustainable energy sources need to become the focus of this generation.

SI-5a [ If we allow continued growth of non-renewable energy sources, what's the liklihood the general public will start to take sustainability serious?

SI-5b [ Remember in the 70s when environmental legislation was going to bankrupt corporate America? Hmmm.... After many, many, many environmental laws, our economy has continued to grow. Is it possible, that the economic "boom" that would result from Big Stone II, would actually be less than the long-term economic growth that would result from environmentally friendly energy use and development. And better yet, that revenue would more likely be spread out to more people, especially local tenants.

SI-5c [ You have "tipping poing" power to help shape the future of peoplekind. Never underestimate the ability of a few, thoughtful individuals to lead society down a better path.

Please deny the Big Stone II interconnection request. Thank you.

Chris Domeier  
appleton, MN 56208

Morris, MN 56267  
February 24, 2008

Ms. Nancy Werdel, NEPA Document Manager  
Big Stone II EIS  
A7400  
Western Area Power Administration  
P.O. Box 281213  
Lakewood, CO 80228~8213

Dear Ms. Werdel:

- SI-6a [ I am writing to convey to the Western Area Power Administration (WAPA) my opposition to the Big Stone II power plant and its proposed use of public water resources in western Minnesota.
- SI-6b [ I am very concerned about Big Stone II's ability to draw down water from Big Stone Lake and from the Veblen aquifer.
- SI-6c [ I am a lifelong western Minnesota resident. The Minnesota River is one of our most important local resources, as are Big Stone Lake and its associated wetlands.
- SI-6d [ We need to work on making the Minnesota River, Big Stone Lake, Marsh Lake, and the wetlands more healthy -- not further stress them.
- SI-6e [ With a 50-year lifespan, the Big Stone II plant has the potential to adversely impact environmental quality and economic growth in west central and southwestern Minnesota for decades and decades.
- SI-6f [ It makes no sense to build such a big plant with such potential for significant environmental impacts (air quality, water quality, etc.) when we are not yet vigorously pursuing other options including conservation and renewable sources like wind.
- SI-6g [ And it is foolish to build a power plant that will have such a significant effect on the water supply in an area of the state that is already on the dry side.
- SI-6h [ Please act wisely with the conservation and protection of western Minnesota's natural resources as one of your highest priorities.

Thank you,

  
Susan Granger



From: Michaeleen Kelzenberg  
To: <BigStoneEIS@wapa.gov>  
Date: 2/11/2008 7:32 PM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

SI-7a I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system. While I recognize the needs for additional power transmission [I have to oppose both this coal plant and various ethanol endeavors

SI-7c that adversely impact public waters and groundwater supplies.] [Yes, this is an email letter and you will receive many of them, but please do not discount the fact that each of these letters does represent legitimate concern and

SI-7d opposition.] [If we error in our water management it should be on the side of conservation of this resource. To much of our water supply is being consumed, how can our aquifers be replenished when draw down lakes, drain our wetlands and send most of our rainfall down stream.] [The older I get the less trust I have in corporate projections and more trust in my own observations of unforeseen negative impacts. No water = no life, given the uncertanties of future climate change I am not willing to risk an unforeseen circumstance.] [IF an additional

SI-7f coal plant is needed it should be built with the most sophisticated scrubbing technology that is available and a design] that can [divert water from an abundant supply into a recirculating environment that has a minimal need for replenishment.]

SI-7b

SI-7e

SI-7g

Please deny the Big Stone II interconnection request.

Michaeleen Kelzenberg  
Minneapolis, MN 55430

From: "Joe Makepeace"  
To: <BigStoneEIS@wapa.gov>  
Date: 1/4/2008 6:18 AM  
Subject: Second Big Stone Coal powered plant

Ms Werdel,

SI-8a [We do not need to put more mercury, carbon dioxide, and other harmful chemicals  
into our environment.] [This includes our air that we breath, water that we  
drink and use for recreation, and soil that produces our food.] [You have an  
SI-8b

SI-8c [abundant amount of wind to use in the western part of Minnesota and wind energy  
is a safe and effective alternative to coal power.] [At some point, people must  
SI-8d  
realize the harmful impact of burning coal to produce energy.] [I do not  
SI-8e [support this plant.] [How much mercury and carbon dioxide may be SAFELY put  
into our environment?]] SI-8f

Joe Makepeace



**Department of**  
Western Area Power Administration  
P.O. Box 281213 Lakewood, CO 80228-8213

FEB 18 2007

**NOTICE OF EXTENSION OF PUBLIC COMMENT PERIOD  
BIG STONE II POWER PLANT AND TRANSMISSION PROJECT  
SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT**

To allow all interested parties ample opportunity to review and comment on the Big Stone II Power Plant and Transmission Project Supplemental Draft Environmental Impact Statement (SDEIS), Western Area Power Administration will extend the public comment period to February 28, 2008. This extension will officially be noticed in the Federal Register in mid-January 2008. You are receiving this unofficial notice based on your expressed interest in the SDEIS. Comments should be postmarked or sent by fax or email no later than February 28, 2008 to:

Nancy Werdel  
Western Area Power Administration  
P.O. Box 281213  
Lakewood, CO 80228  
Telephone: (800) 336-7288  
Fax: (720) 962-7263  
E-mail: [BigStoneEIS@wapa.gov](mailto:BigStoneEIS@wapa.gov)

Translation of handwritten below:

SI-9a [ Ask these people if they want light by candlelight – no AC – no fans for their furnace and to heat & cook with wood. Thanks, Duane Markus

*Dear Nancy:*  
*Ask these people*  
*light by*  
*No fans*  
*their*  
*furnace*

No  
Cod K  
with  
952-475-9142

From: Christine Marran  
To: <BigStoneEIS@wapa.gov>  
Date: 2/11/2008 2:13 PM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

SI-10a [I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system.] [We do not have the water to support another dirty burning coal plant.]

SI-10b

Please protect our water, not a 1.8 billion dollar (and rising) business plan.]

SI-10c [[Low water levels will kill plants fish and other important wildlife.] [Stop promoting private big business using public resources.]

SI-10d

Christine Marran  
Minneapolis, MN 55408

From: Carson McIntyre  
To: <BigStoneEIS@wapa.gov>  
Date: 2/11/2008 12:49 PM  
Subject: Approve Big Stone II interconnection

Dear Ms. Werdel

SI-11a

As a sportsman and outdoorsmen I do appreciate the outdoors very much. Many claim that this project would compromise the outdoors, but I have seen plenty of these powerplants and various other projects like this and it seems to me if they are done well they are not a bad thing. Please continue to work hard to make these projects both a valuable asset to our way of life and power needs while using common sense to avoid damaging your surroundings.

Regards,

Carson McIntyre  
Moorhead, MN

From: Adam Miller  
To: <BigStoneEIS@wapa.gov>  
Date: 2/11/2008 9:29 PM  
Subject: Please Do not approve Big Stone II interconnection

Dear Ms. Werdel

SI-12a [ I am sure that you have received a lot of these letters recently and to be honest I don't know all the ins and outs of what is being proposed. My main concern is that [we are tapping a precious resource without good reason.]

SI-12b [ [Please do not approve this project if it does harm to the wildlife in the area.] If you would like more information on the reason to not approve this project please let me know. Thank you.

Adam Miller  
Saint Paul, MN 55105

From: Tom Neiman  
To: <BigStoneEIS@wapa.gov>  
Date: 2/11/2008 10:25 PM  
Subject: Do not approve Big Stone II interconnection

SI-13a [Dear Ms. Werdel  
I am requesting that Western deny Big Stone II Co-owners an interconnection to  
Western's transmission system.

SI-13b [Having just visited a Excel's Riverside coal plant, I don't understand why you  
SI-13c [would want another coal plant.] [Why not natural gas?] [Better yet, why not be  
encouraging conservation to cut down on our energy needs?] This is just stupid ] SI-13d  
SI-13e [- [we're filling the air with mercury, S02, ash, and C02.] Enough is enough.

Tom Neiman

Tom Neiman  
Saint Louis Park, MN 55416



From: Traci Rasmussen-Myers  
To: <BigStoneEIS@wapa.gov>  
Date: 2/11/2008 1:34 PM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

SI-14a [ [Instead of promoting the increased usage of fossil fuels we need to be increasing our usage of alternative energies.] [Water is a precious resource and it needs to be treated as such.] ] SI-14b

SI-14c [ [It may be a renewable resource, but the rate at which it renews is a long process. The time requirement needed is greater than what is being provided due to increase demand on water in all areas of life.] [Be responsible there are other alternatives that would not have this level of impact on our water resources.] ] SI-14d

SI-14e [ [I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system.] [We do not have the water to support another dirty burning coal plant.] ] SI-14f

Traci Rasmussen-Myers  
Lake Park, MN 56554

From: Leslie Reindl  
To: <BigStoneEIS@wapa.gov>  
Date: 2/11/2008 12:58 PM  
Subject: Do not approve Big Stone II interconnection

SI-15a Dear Ms. Werdel  
SI-15b [Western Area Power Administration is accountable to the public.] The Big Stone II coal plant needs water from Western's transmission system. [This is a very bad idea for reasons of insecure water supply (Minnesota, and especially western Minnesota, is still in the midst of a long drought); the use of clean fresh water for a dirty, and unnecessary, industry;] and the fact that [coal-burning plants] SI-15c  
SI-15d [have no more place in a world now facing global warming.] [Taking water from a public water body and groundwater supply to burn more coal is an infringement on the rights of people to an adequate public water supply and to a stable climate.]  
SI-15e [It is not possible to 'mitigate' or lessen the environmental impact of what Big Stone II will do to Big Stone Lake as well as what another coal-burning plant will contribute to climate change.] [Please deny the Big Stone II interconnection] SI-15f  
request.]

Leslie Reindl  
Arden Hills, MN 55112

From: Beth Rogers  
To: <BigStoneEIS@wapa.gov>  
Date: 2/11/2008 1:39 PM  
Subject: Do not approve Big Stone II interconnection

SI-16a [Dear Ms. Werdel  
SI-16b [I am requesting that Western deny Big Stone II Co-owners an interconnection to  
Western's transmission system.] [I am against more coal burning.] [I am for clean]SI-16c  
water.]

Thank you.

S. Beth Rogers

Beth Rogers  
Crystal, MN 55427

From: Dave Staub  
To: BigStoneEIS@wapa.gov  
Cc: Dave Staub  
Sent: Thursday, February 28, 2008 4:59 PM  
Subject: public comment c/o Nancy Werdel

Ms. Werdel,

SI-17a [ It does take time to collect thoughts on paper of what is the concern of many residents like myself in the vicinity of Big Stone II. [There is a lot of concern about giving up wind rights to outside corporations and financial markets as well as air quality and water rights to the heavy hand of the coal industry, especially in a time of awakening to the alarming rate of rise of CO2 and global warming.]

SI-17b [ [We realize we are threatening the thinking and jobs of the managers of the coal companies, coal plants, including the so-called "co-ops" from Basin Electric to the distribution co-ops to the local rural electric distribution co-ops. The latter have had a mis-information and denial campaign to their members even to the present time.  
I have practiced medicine for 31 years in Sisseton, Roberts, County, SD. I have also been involved in agriculture, as an active producer, including Farmers Union, and in affordable and healthy housing. The latter includes recent prototype buildings based on cementitious materials and large amounts of mass to moderate heating and cooling cycles.  
<http://www.staubdesign.com/page/projects/duplex.html> ]

Other opinions of mine printed in newspapers as attachments above.

Dave Staub, MD

SI-17c [If South Dakota is to "win with the wind", the rural electric and municipal cooperatives need to develop and invest in new renewable energy production, in the model of distributive wind as well as wind farms.] [On a "level playing field" across the energy spectrum, wind energy production will be the cheapest new electricity for the future, especially when tied to hydroelectric production and utilizing the present WAPA transmission grid.] [This new arm of the co-ops would include maintenance and repairs of turbines, control of production, and utilization of **off-peak and demand control** electricity in homes and businesses. This would be true economic development, both new energy for new business and industry and direct and indirect jobs for young South Dakotans, on and off the reservations.] SI-17d

SI-17e

SI-17f The second idea for South Dakota is legislation to make it easier for everyone to invest in community wind. I would suggest the concept of a South Dakota Wind Investment Fund, similar to the State Public Employees and Teachers Retirement fund. Individuals and non-profit groups, government entities (cities, counties, school districts), including the retirement funds, etc. across the state could invest. All wind projects in South Dakota would be required to obtain at least a certain percentage of the capital from the Investment Fund, as fund assets grow. I would suggest that people in South Dakota would trust the wind (which always blows) as much as Wall Street for their investments. The success of the retirement funds is well known. A Wind Investment Fund would also be a lean organization without the Wall Street middle-men taking a portion of the profit. Let's keep South Dakota capital (\$) in South Dakota, and make our resources work for us.

The South Dakota Energy Infrastructure Authority was created in 2005 by the legislature to facilitate building transmission lines primarily thru issuing bonds. I would suggest that this entity exists for the benefit of out-of-state corporations that bring Wall Street and international banking money to build wind farms and take the profits out of the state. The Authority could become community wind friendly and be a part of economic development.

Dave Staub  
 Sisseton, South Dakota

The EIS issues seem to be two:

SI-17g [ Veblen Aquifer “draw- down” of 37 feet. Does this mean 37 feet over the entire area of the aquifer? It would be important to see the size (map) of the aquifer.

SI-17h [ [4.7 million tons of CO2 per year raises the question of what is the total tons of CO2 per year around the world? The latter EIS issue is a global and national environmental policy issue of super-critical importance to the survival of flora/fauna of the planet and human life as well.] [Multiple individuals and organizations have challenged conventional thinking, such as James Hanson of NASA, Ed Mazria of the 2030 Challenge and 2010 Imperative for Architecture, Union of Concerned Scientists, the American Academy of Science, the U.N. committee on global warming, etc.]

SI-17i

The True alternatives are:

SI-17j [ 1) Decrease e- consumption by conserving and changing energy needs by designing and building residential and commercial buildings that have R-40 wall codes and other net CO2 of zero. It would be required by utilities to have retail price structures such as time of day and everyone on peak demand control. 40% of all energy used in the U.S. goes to heating and cooling residential and commercial structures. This is intolerable waste. There is no need to build more of the same and cosmetic rehab work on existing structures.

SI-17k [ 2) In the five northeast counties of South Dakota circling Big Stone II there are superb wind resources of five to twenty times the capacity of the proposed coal plant. 50 to 100 MW of wind could be built incrementally per year “forever”.] [The coal consortium needs to engage publicly and openly the residents of Minnesota and South Dakota who inhale the by-products of burning coal to utilize the common wind resource.] [Otherwise, build the coal plant in Fergus Falls.]

SI-17l [ 3) Develop Smart Grid to utilize Distributive Wind resources and the reliability issues that are of concern.

SI-17n [ 4) [Build distributive wind of 10 to 100 MW all across the WAPA transmission system, inter-connecting many “multi-point” sources of production. The aggregation from the foothills of the Rockies to Iowa will provide a base-load of electrons as well as peaking in-put to the integrated system. “The wind is always blowing multiple places across the 1000 miles of the WAPA foot-print (11,000 miles of high voltage transmission lines). This system has capacity since the Missouri River hydroelectric is presently producing about 50% of average. Ten years ago it was at 150% of average and the coal plants utilizing the transmission were throttled back.] [Logically, this indicates that WAPA has capacity for multi-point wind production. Hydro and Wind generation have potential to complement each other for base load production because of the sequential production across the aggregated foot-print.]

SI-17m

SI-17p

SI-17q

5) Since the WAPA footprint is identical to the Rural Electrics and many Native American Tribes, both entities could become the owners of this distributive system, essentially self-financing this incremental development process by borrowing capital from members or a new entity of a “South Dakota Wind Investment Fund (all states could do the same), where rural and city people could invest in the fund. Risk issues would be spread across each state through this fund. Since conception, Rural Electric Cooperatives have been “one-armed” monopolies. Now is the time to grow the opposite arm, the renewable energy production arm, using the successful democratic and grassroots model of co-ops. The co-op members would economically benefit, rural development would result and ultimately electricity costs would be lower.

SI-17r

[In summary, there are opportunities to think “outside the box.” Distributive wind, smart grid, local to regional capital investment, REC metamorphosis into energy production, incremental growth, etc. will give coal based energy the 10 to 20 years to research and develop the CO2 neutral industry that will be required around the world.] [Normally the cost of development should be included in the product price. Clean coal will cost more than “dirty coal”; the question is how much of the cost will be passed thru other hidden costs.]

SI-17s

David Staub, MD  
 Sisseton, SD 57262

- <http://www.nationalwind.org/pdf/WeberEPW-NWCCSiouxFalls112907.pdf>
- <http://www.nationalwind.org/pdf/GoughNWCCSDTransmissionGough.pdf>
- <http://www.nationalwind.org/pdf/SmithCharlieNWCCSDNov07d3.pdf>
- [http://www.nationalwind.org/pdf/Lindenberg11\\_07.pdf](http://www.nationalwind.org/pdf/Lindenberg11_07.pdf)
- <http://www.nationalwind.org/pdf/CorbusV2EWITSSouthDakotaCorbusNREL.pdf>

## **Selling South Dakota (wind) off for the lowest price**

**Recent months have seen a flourish of wind energy development companies trying to get landowners to sell rights to survey and lease land for potential development. The companies like to have large tracts of land so that they can pick and choose where the best sites are to place wind towers. That makes sense. Except, however, if ultimately the company plans to put the wind tower on your neighbor's land and pay the neighbor the yearly lease and you don't get a cent. You'll probably have a feeling that you've been duped, and realize that you've maybe given up more in the fine print of what you signed, as well. This may be clauses that you won't get involved with other companies for 5 years, etc.**

**However, there is a bigger problem. Even landowners who get towers and lease payments for the next 20, 30, etc years, are selling themselves short. These turbines produce \$300,000 to \$500,000 of electricity each per year. Maintenance, repairs, taxes, investment costs, off-set credits leave a handsome profit for the developer/investors. In this light, the \$5000 to \$10,000 lease payments seem a small percentage, though risk seems negligible.**

**An alternative is possible. It is called Community Wind. In this approach, which is widely developed in Germany (over 100,000 individuals participate), landowners develop their own corporations in small groups and commonly invest 10% of their own money with corporations which can utilize the federal tax production credit for ten years and which supply 90% of the investment. The local owners make 10% of the profit each year for the first ten years and the outside corporation makes 90%. After ten years the agreement "flips" so that the landowners now get 90% of the profits for the life of the turbine. There are variations of this type of agreement. The advantage of landowner cooperation is that all landowners and other local investors can invest even if the turbines are not directly sitting on their own land. Certainly there is more risk, but isn't that what the stock market is all about. The secret of minimizing risk is diversification, spreading investment among a group, not putting all eggs in one basket (all money in one turbine site). The advantage of wind development is the tangible nature of seeing your money making electricity (money) and knowing that "the wind blows most of the time" and is "free". The other advantage is transparency. The Landowners know what their neighbors are doing—they are working together to put the project together. They probably will work with other similar groups. They may decide in 2 or 5 years to do another turbine or possibly ten turbines. A frequent question one hears is "how do I know that this company is real (honest) and the lease is something I should sign?" The answer is simple. Is it totally transparent—are there questions they won't answer? Can you invest? Can you vote in the decisions made proportionate to your investment? Can your neighbors invest? Do you have a copy of the business plan and the outside investors? Can they sell off the investment to a financial company or the Chinese, etc?**



The ultimate type of Community Wind project would be a Wind District concept, similar to school district, ambulance district, hospital district, etc. This would be transparent. This concept doesn't yet exist, but could lead to everyone's benefit. We all use electricity and can benefit by using and selling extra to an outside market, reducing the cost of energy to ourselves.

Finally, the last type of "community" wind would be Distributive wind. In this approach turbines are placed close to substations that are seen scattered in the rural areas and typically on the edge of towns. One or more turbines can easily be interconnected to substations without significant transmission line costs. The concept works especially well for the rural electric cooperatives, which have an organization in place and which already have the infra-structure of distributing electricity to customers. However, the management of rural electric co-ops have been reluctant to broaden the scope of the charters of the rural electrics and slow to open the discussion in a positive fashion with their memberships. The reality is that new coal generated plants will raise the cost of electricity in the future, whereas wind generated electricity will stay constant. Multi-point generation (wind turbines) have many other advantages over mono-point coal generation. The most significant reality is that we won't be contributing to global warming.

A nonprofit organization dedicated to informing the public about community-wind projects is [www.windustry.com](http://www.windustry.com).

Dave Staub, MD  
Sisseton, S.D.

Ms Werdel,

First let me say that I am putting this into the mail by snail mail prior to tonights deadline for the comment period.

I am writing to address the supplemental draft EIS for the Big Stone II power plant. I am asking that it not be approved for several reasons.

- SI-18a [ 1. Big Stone I is currently short of power quite often because of a lack of coal. When I lived up in Sisseton, SD in a HUD highrise, our generator had to go on in the cold of the winter and the heat of the summer because Otter Tail was unable to provide the electricity we needed.
- SI-18b [ 2. Our Lt Governor addressed the wind conference held here in Sioux Falls on Nov 29 and 30. He said that we are already a net energy exporter. We are attempting to get wind power off the ground here and have a lot of things going on to facilitate doing that. There is no reason for us to pollute our water and air to provide energy for folks to the East of us, when we have so much wind power just waiting to be harnessed.
- SI-18c [ 3. Further we do not have the water to spare here in SD, in times of drought. If the Veblen Aquifer is used as a backup, it will drain the wetlands and that puts our migratory waterfowl migration at risk.
- SI-18d [ 4. The new Draft, expands the power output capacity to 630 MW from 600 even though there are two of the partners that have pulled out. When the issue was being argued before the SD state Supreme Court, the justices were of the opinion that the amount of electricity produced would be lessened to 350MW to 500, so less water would be used and less damage would be done to our environment. The attorneys did not explain the increase in the new draft.
- SI-18e [ 5. As I drive to Minneapolis, I constantly see new wind towers going up and new transmission poles going up. We already have the poles here to tie the wind power to the hydroelectric power that we formerly produced from the Missouri River Dams.
- SI-18f [ [In conclusion, as a citizen, I am asking that WAPA will protect what the SD PUC is not willing to] [Our environment is precious and when the rules change to make the cost of burning coal prohibitive, as they certainly will as time passes, it will certainly not make sense to be burning coal and it will cost the consumers more than necessary for their electricity.]
- SI-18g [

Lanny Stricherz

From: Gene Tokheim  
To: <BigStoneEIS@wapa.gov>  
Date: 2/18/2008 6:32 PM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

SI-19a [I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system.] [Many of us believe that we are at a critical time in our planet's ability to recover damage that humans and our industries have done water and the living things that depend on it. We can't pretend to be ignorant about this problem any more.] SI-19b

SI-19c [We do not have the water to support another dirty burning coal plant. Future generations have a right to an adequate public water supply, not to mention opportunities for recreation that we all took for granted when we were young.]

SI-19d [Big Stone Lake is at risk from the water demands of the proposed Big Stone II coal plant. My husband and I live near Lac Qui Parle, just downstream. We remember being able to swim in this lake and eat the fish we caught more than once a month.]

SI-19e [We do not feel confident that the managers of Big Stone 2 have our common interests in mind when they recommend this obsoletetotechnology be foisted upon this region, which will not profit from it.]

SI-19f [The South Dakota Water Management Board is not acting as responsible stewards of our common water supply.]

SI-19g [Please protect our water, not a 1.8 billion dollar (and rising) business plan.]  
SI-19h [It is not possible to 'mitigate' or lessen the environmental impact of what Big Stone II will do to Big Stone Lake.] [Please deny the Big Stone II interconnection request.] SI-19i

Gene Tokheim  
Dawson, MN 56232

February 23, 2008

Nancy Werdel  
Western Area Power Administration  
P. O. Box 281213  
Lakewood, CO 80228

Erica Zweifel  
Northfield, MN 55057

RE: Big Stone Power Plant II

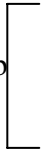
To whom it may concern:

I am writing to voice my concern over the supplemental draft environmental impact statement for the Big Stone Power Plant II. According to the supplement, section ES.3.3, the proposed Big Stone Plant II is now requesting an additional 8,800 acre-feet per year of water. [I am opposed to this change as I am opposed to building the Big Stone Power Plant II.]

SI-20a

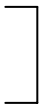


SI-20b



[Freshwater is a scarce and precious commodity. Freshwater represents about 3 percent of the water on Earth and most of that, 68 percent is locked up in the form of ice making usable freshwater scarce and limited (USGS water cycle webpage). We need to be extremely careful when planning how to use this resource.] [The impact of global climate change on this region is not yet fully known and so we should not make decisions on the water resources of this area based on past data.]

SI-20c



SI-20d



[Drawing down the Veblen aquifer (or any other aquifer), which is located beneath the Central and Mississippi migratory pathways, will affect not only humans but wildlife as well.] [The area is part of the Great Plains wetlands which is one of the top twenty threatened bird habitats of the United States according to the American Bird Conservancy.]

SI-20e



SI-20f



I do not think that it is a good use of our precious water to support another coal plant. I believe that our shared natural resources should benefit people in the form of clean drinking water, water for sustainable agriculture, clean water for wildlife and to just enjoy in the beauty of the landscape. Our shared resources should not be given or sold to corporate America for their profit.

Thank you for your time and consideration,

Erica Zweifel

From: "John Harkness"  
To: <BigStoneEIS@wapa.gov>  
Date: 2/27/2008 2:29 PM

Dear Ms. Werdel,

SI-21a

The Arctic Ice Cap is now due to melt in the next few years, according to NASA, sixty years ahead of the worst case scenario projected by the UN's International Panel On Climate Change report from just last spring. Loss of the ice cap means the Arctic Ocean will be turning nearly all the sun light that hits it--twenty four hours a day, seven days a week in the summer--into heat, instead of reflecting most of the light off of the ice back into space. This added heat, if it penetrates deep enough, could start to melt and release into the atmosphere the billions of tons of methane hydrate now locked in ice on the floors of the shallow continental shelves. And methane is a greenhouse gas about 100 times more powerful than CO2 in the short term. A hot Arctic Ocean is also likely to greatly accelerate the rate of thawing of the Siberian and North American tundra, which could release further billions of tons of methane and CO2.

SI-21b

We are at a crucial tipping point, beyond which we will push the earth into feed back loops that will drive the temperature of the earth rapidly and beyond our control far into ranges not seen since humans first evolved. Now is not the time to find more ways to burn up the dirtiest of fossil fuels. Not when we are starting to learn how to conserve and how to generate our energy without burning fuels that overheat the planet.

SI-21c

Coal is not the way to go.

SI-21d

James Hansen, the top climatologist in the country and perhaps the world, has strongly stated that if we want a livable future for our children, we have to move rapidly away from coal burning. Please listen to the voices of the top scientists on climate change. Listen to the voices of our children and of our children's children. Listen to the voices of your own best conscience.

SI-21e

Building the Big Stone Two plant is not in the best interests of the state, nor of the region, nor of the future. There are many other good reasons to oppose this plant, but I think these are the strongest. The time is very, very late. Maybe too late. We can't know for sure. Let's not be an even greater part of the problem than we already are.

Sincerely,

Dr. John Harkness

SI-21f

PS. I strongly recommend that you review the excellent recent well written and well researched reports available at [www.carbonequity.info](http://www.carbonequity.info) before making any decision on this matter.

John Harkness

From: Clay Hesser  
To: <BigStoneEIS@wapa.gov>  
Date: 2/26/2008 8:43 PM  
Subject: Protect Minnesotas natural resources comments on the supplemental draft environmental impact stat

Dear Ms. Werdel:

Ms. Werdel,

SI-22a

How long will be it be before everyone realizes that we cannot continue on with coal-fired power plants. It has to be decided today - not 25 or 50 years from now when it's too late. If we don't stop the use of coal now and go to natural resources such as wind. Please consider this very carefully. Thank you. Clay Hesser, Rochester

Clay Hesser  
Rochester, MN 55902

From: John Sens  
To: <BigStoneEIS@wapa.gov>  
Date: 2/26/2008 10:06 AM  
Subject: Minnesota should be progressive

Dear Ms. Werdel:

- SI-23a [ It is deplorable that another large, polluting coal plant is on the table in the Supplemental Draft Environmental Impact Statement. We need to be progressing away from new coal plants and focusing on new technologies, both renewable and nonrenewable.
- SI-23b [ Building a new coal plant is a step backwards, as it will be bad for the health of the area, it will pollute, and it contributes to global warming. Why should we use this technology when newer technologies that will be cheaper in the long run are available.
- SI-23c [ A new coal plant will be more expensive over the long run, especially as society moves more towards businesses absorbing the costs of their industry. How much of an advantage will coal have when the power companies have to pay for the mercury pollution the plants cause? For the health damages? Not much.
- SI-23d [ Do the right thing, and take a new coal plant off the bill. This is just not a sustainable step.

John Sens  
Eden Prairie, MN 55346

From: Aleksandra Stancevic  
To: <BigStoneEIS@wapa.gov>  
Date: 2/27/2008 8:22 AM  
Subject: Public comments on Otter Tail Power

Dear Ms. Werdel:

I would like to submit my concerns of the expansion of a coal-power plant in Minnesota.

SI-24a

While coal is being offered as an abundant source of power, it remains to be a fossil fuel. It exploits the ground in its retrieval, it pollutes the air in its production.

SI-24b

There are good reasons to believe that investment in non-polluting, clean, renewable energy sources will be subsidized in the coming years. Minnesota should be a leader in pro-environment measures, not a follower. I ask that the Big Stone II project be removed from consideration until it is powered by more sustainable energy sources.

Thank you.

Aleksandra Stancevic  
Minneapolis, MN 55410



**SFL-1. CLEAN WATER ACTION FORM LETTER (497 Signatories)**

***ADDITIONAL COMMENTS INCLUDED WITH CLEAN WATER ACTION FORM LETTER***

**SFL-2. John Almlı**

**SFL-3. Scott Anderson**

**SFL-4. Robert Babin**

**SFL-5. Bill Blonigan**

**SFL-6. Jayne Caldwell**

**SFL-7. Steve Deal**

**SFL-8. Eric Dobervich**

**SFL-9. Peter Doughty**

**SFL-10. Joe Duea**

**SFL-11. Delor Erickson**

**SFL-12. Rhonda Feuerstein (2 letters)**

**SFL-13. Judith Graziano**

**SFL-14. Amelia Kroeger**

**SFL-15. Carmen LaChappelle**

**SFL-16. Jeffrey Maas**

**SFL-17. Ann Galbraith Miller**

**SFL-18. James Moore**

**SFL-19. Patrick Moore**

**SFL-20. Shirley Mueller**

**SFL-21. Rod Nordberg**

**SFL-22. Brian Noy**

**SFL-23. Julie O'Brien**

**SFL-24. Margaret O'Leary**

**SFL-25. Mary Ellen Proulx**

**SFL-26. Deborah Raymond**

**SFL-27. Trever Russell**

**SFL-28. Dustin Simpson**

**SFL-29. Judy Swenson**

**SFL-30. Richard Tester**

**SFL-31. Dick Unger**

## Clean Water Action Form Letter-SDEIS

Dear Ms. Werdel

- SFL-1a [ I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system. We do not have the water to support another dirty burning coal plant. Draining a public water body and groundwater supply to burn more coal places industry wishes over the right of the people to enjoy fishing and recreation, and the right of future generations to an adequate public water supply.
- SFL-1b [ Big Stone Lake is at risk from the water demands of the proposed Big Stone II coal plant. If Big Stone II gets built and we have a dry winter with little or no spring rain again, we could see a three-foot drop in Big Stone Lake levels, contrary to what Otter Tail Power is telling the public.
- SFL-1c [ The South Dakota Water Management Board gave 3.2 billion gallons of water from Big Stone Lake plus 3.2 billion gallons of groundwater per year to Otter Tail Power, even though they knew that the total came to more than double the amount required to operate Big Stone I, Big Stone II, and the ethanol plant.
- SFL-1d [ Worse, an agreement from the 70s allows Otter Tail to take water in 'emergency situations' and even from October to April if the lake is at or greater than 965, which is three-feet below current levels! The lake is already very shallow with an average depth of only eight feet. In this worst case scenario, almost half of the lake's level could be gone to help burn more dirty coal!
- SFL-1e [ Please protect our water, not a 1.8 billion dollar (and rising) business plan. It is not possible to 'mitigate' or lessen the environmental impact of what Big Stone II will do to Big Stone Lake.] [Please deny the Big Stone II
- SFL-1f [ interconnection request.]

# Clean Water Action Form Letter-SDEIS

## Signatories to the CWA Form Letter:

Jeremy Aaron; Saint Louis Park, MN  
Amy Aasen; Fargo, ND  
Jerry Abraham; Coon Rapids, MN  
Greg Abrahamson; Fargo, ND  
Karen Aelony; Minneapolis, MN  
Linn Agrawal; Minneapolis, MN  
Ruth Alliband; Stillwater, MN  
Harold W Anderson; Bloomington, MN  
Jon Anderson; Ortonville, MN  
Jon B Anderson; Cambridge, MN  
John Andrews; Faribault, MN  
David K Arch; Bloomington, MN  
Ron Arndt; Sioux Falls, SD  
Audrey Arner; Montevideo, MN  
Teresa Bailey; Fridley, MN  
Tim Beattie; Minnetonka, MN  
Bonnie Beckel; Minneapolis, MN  
Brad Behrens; Northfield, MN  
Tricia Berens; Eagan, MN  
Barbara Beresford; Minneapolis, MN  
Elaine Berg; Sioux Falls, SD  
Jim Bergemann; Minneapolis, MN  
Edwin V Beylerian; Minneapolis, MN  
Bernard Bidelman; Saint Peter, MN  
Sara Biewen; Plymouth, MN  
Ramona Bjornstad; Coon Rapids, MN  
John Blair; Evansville, IN  
Tom Blanck; Plymouth, MN  
Jenifer Blazek; Eagan, MN  
Marion Blomgrens; White Bear Lake, MN  
Michael Boehne; Brooklyn Park, MN  
Larry Bogolub; Saint Paul, MN  
Joseph Boller; Minneapolis, MN  
Dean Borgeson; Brooklyn Park, MN

Donald Borstad; New Ulm, MN  
David K Boyce; Saint Paul, MN  
Ann K Brady; Minneapolis, MN  
Kevin Brady; Vermillion, SD  
Mary Brady; Minneapolis, MN  
Genevieve Brand; North Mankato, MN  
Gretchen Bratvold; Minneapolis, MN  
Andy Braun; Edina, MN  
Chris Brenny; Minneapolis, MN  
Mary Breslin; Minneapolis, MN  
Jenifer Briest; Watson, MN  
Tom Brinkman; Rochester, MN  
Molly Brom; Minneapolis, MN  
Sandy Brooks; Winona, MN  
Laurel Browne; Saint Paul, MN  
Wendy Brunner; Minneapolis, MN  
R Bryant; Saint Peter, MN  
Nathan Burbach; Grand Forks, ND  
Paul Busch; Saint Paul, MN  
Donna Butler; Coon Rapids, MN  
Lin Butler; Minneapolis, MN  
Mary Lane Butler; Minneapolis, MN  
Gary Cagle; Minneapolis, MN  
Ross Cameron; Moorhead, MN  
Malcolm Campbell; Rochester, MN  
Victoria Caprioni; Saint Paul, MN  
William Card; Minnetonka, MN  
Alan Carlson; Saint Paul, MN  
Jeff Casey; Shakopee, MN  
Paul Challgren; Apple Valley, MN  
Michael Chapman; Sioux Falls, SD  
Jenni Charrier; Wayzata, MN  
Deb Chauckk; Saint Paul, MN  
Christopher Childs; Saint Paul, MN

## Clean Water Action Form Letter-SDEIS

Allan Christensen; New Ulm, MN  
Jaqueline Christenson; White Bear Lake, MN  
Barbara Clanty; Minneapolis, MN  
Steve Cobian; Minneapolis, MN  
Iris Condon; Eagan, MN  
Lisa Coons; Mankato, MN  
Janet Court; White Bear Lake, MN  
Chris Coyne; Minneapolis, MN  
Rebecca Cramer; Minneapolis, MN  
Joyce E Crane; Sioux Falls, SD  
Susie Cremers; Fargo, ND  
Karen Cross; Sioux Falls, SD  
Dee Czech; Arlington, MN  
Scott Daby; Minneapolis, MN  
Heidi Dahlin; Minneapolis, MN  
Abby Dahlquist; Hutchinson, MN  
Franny Dary; Bloomington, MN  
Edward Davies; Hinckley, MN  
Joshua Davis; Minneapolis, MN  
Terry Davis; Plymouth, MI  
Jodi Denny; Coon Rapids, MN  
Michael & Fern DeRubeis; Golden Valley, MN  
Kimberly Dery; Saint Paul, MN  
Mary Jo Deters; Mahtomedi, MN  
Mary DeWitt; Minneapolis, MN  
Martha DiCicco; Fargo, ND  
Jon Diedeman; Moorhead, MN  
Judy Diehl; Morris, MN  
Larry R Dole; Rapid City, SD  
Tim Donovan; Saint Paul, MN  
Terry Drews; Moorhead, MN  
Chris Dtookiatismialtai; Minneapolis, MN  
Denis Eckert; Elk Point, SD  
Barbara Edson; Rosemount, MN  
Allison Edwards; Saint Paul, MN  
Jim Egge; Minneapolis, MN  
Steve Emme; Columbia Heights, MN  
Karen Englehart; Sioux Falls, SD  
Deb Erickson; Northfield, MN  
Steve Ettel; Golden Valley, MN  
Ezell Evans; Brooklyn Park, MN  
Martha Everest; Falcon Heights, MN  
Mary Faimon; Marshall, MN  
Robert Farlee; Minneapolis, MN  
Judith Felker; Edina, MN  
Dan Fischer; Little Canada, MN  
Deborah Fiscus; Minneapolis, MN  
Richard Fish; Minneapolis, MN  
Rick Foss; Sioux Falls, SD  
Kate Francis; Fargo, ND  
Naomi Franek; Fargo, ND  
Brent Frank; Minnetonka, MN  
Jessica Freitag; Minneapolis, MN  
Kevin Friezen; Fargo, ND  
John Fruehwirth; Brandon, SD  
Joel Fuller; Minneapolis, MN  
Steve Funk; Eagan, MN  
Dale Gaffaney; Bloomington, MN  
Michael Gaudio; Saint Paul, MN  
Cathy Geist; Minneapolis, MN  
Michael Gergen; Mankato, MN  
Amy Gilbert; Saint Paul, MN  
Heidi Gilbert; Eden Prairie, MN  
Mary Gillespie; Granite Falls, MN  
Mark Glodaski; Excelsior, MN  
Janene Glyn; Hastings, MN  
Richard Gold; Saint Paul, MN  
Melissa M Golke; Minneapolis, MN  
Tom Goodell; Minneapolis, MN  
Colleen M Grant; Eden Prairie, MN  
Lisa Graue; Sioux Falls, SD  
Ben Green; Fargo, ND

## Clean Water Action Form Letter-SDEIS

Mark Greene; Chanhassen, MN  
Mark Gregory; Vadnais Heights, MN  
Kirk Gridley; Minneapolis, MN  
Melly Grieshaber; Minneapolis, MN  
Sharon Grimes; Minnetonka, MN  
Gordon Grimson; Elk River, MN  
Ann L Grossbauer; Grand Forks, ND  
Ray Grumney; Robbinsdale, MN  
Deborah Guse; Plymouth, MN  
Donna Gustafson; Richfield, MN  
Dennis Haaland; Boyd, MN  
Jo Haberman; River Falls, WI  
Shirley Hale; Crosby, MN  
Tony Hall; Rosemount, MN  
Susan Hansen; Minneapolis, MN  
Tracy Hansen; Apple Valley, MN  
Reid Hanson; Stillwater, MN  
Tom Harries; Bloomington, MN  
Mary Hartman; Minneapolis, MN  
Pat Harwell; Golden Valley, MN  
Kathleen Haskins; Minneapolis, MN  
Kate Hathaway; Saint Paul, MN  
Ann Hauer; Stillwater, MN  
Bob Haugen; Crystal, MN  
Kate Havelin; Saint Paul, MN  
Jessica Hayen; Fargo, ND  
Pamela Heggstad; Minneapolis, MN  
Rick Hendrickson; Edina, MN  
Karen Henneberg; Clinton, MN  
Roy Henneberger; Apple Valley, MN  
Kevin Henninger; Roseville, MN  
Tim Herbstrith; Minneapolis, MN  
Linda Hibbard; Saint Cloud, MN  
Kathryn Hinds; Fargo, ND  
Merrimon T Hipps; Eden Prairie, MN  
Ed Hoff; Grand Forks, ND

Kate Hoff; Minneapolis, MN  
Nathan Holman; Sioux Falls, SD  
Mark Holte; Saint Paul, MN  
Mary Homan; Ortonville, MN  
Mina Hoover; Prior Lake, MN  
Tim Hopkins; Minneapolis, MN  
Bob Hulteen; Minneapolis, MN  
Eustace J Hunte; Minneapolis, MN  
John Hurd; North Mankato, MN  
Michelle Hutchins; Minneapolis, MN  
Julie Ikhaml; Mounds View, MN  
Gail Irish; Minneapolis, MN  
Paul Ittner; Minneapolis, MN  
Kathie Jacobson; Minneapolis, MN  
Loretta Jaus; Gibbon, MN  
Mimi Jennings; Saint Paul, MN  
Anne Johnson; Minneapolis, MN  
Carol Johnson; Saint Paul, MN  
David K Johnson; Hastings, MN  
Janet Johnson; Apple Valley, MN  
Margaret Johnson; Saint Paul, MN  
Ruth E Johnson; Saint Peter, MN  
Lynn Johnston; Saint Paul, MN  
Robert Jones; Fargo, ND  
Erin Jordalh-Redlin; Minneapolis, MN  
Daniel Jurek; Minneapolis, MN  
Fred Jurewicz; Shakopee, MN  
Loran Kaardal; Redwood Falls, MN  
Steve Kahlenbeck; Saint Louis Park, MN  
Sherrie Kamm; Minneapolis, MN  
Stephen Kampa; Northfield, MN  
Matthew Karl; Saint Paul, MN  
Dennis Kassube; Big Stone City, SD  
Martin Kelly; Valley City, ND  
Margaret C Kelly; Blaine, MN  
Paula Kelty; Saint Paul, MN

## Clean Water Action Form Letter-SDEIS

Frank Kendall; Eden Prairie, MN

Pat Kennedy; Saint Peter, MN

JoAnn Khoury; Plymouth, MN

Lori Kimball; Eagan, MN

Judy Kipka; Bloomington, MN

Phil Kirkegaard; Minnetonka, MN

Richard Kirkham; Buffalo, MN

Pamela Kirton; Burnsville, MN

Brenda Kissinger; Sauk Rapids, MN

Greg Klave; Golden Valley, MN

Angie Klein; Minneapolis, MN

Phil Klitzke; Minneapolis, MN

Maria Knops; Hopkins, MN

Paul Knutson; Minneapolis, MN

Robert Kost; Moorhead, MN

Carolyn L Krall; Minneapolis, MN

Marian Kramer; Duluth, MN

Howard Kranz; Minneapolis, MN

Kristin Kregel; Blaine, MN

Kraig Kuusinen; New Hope, MN

Diane Ladner; Granite Falls, MN

Emily LaFave; Bloomington, MN

Mike Lange; North Mankato, MN

Kande Larson; Minneapolis, MN

Claudia I Leaser; Eden Prairie, MN

Jenny Lee; Minneapolis, MN

Richard Lee; Berkley, MN

Joan M Leonard; Fridley, MN

Jami Lessard; Blaine, MN

Margaret Levin; Saint Paul, MN

Ron Liebelt; Wayzata, MN

Sally Taylor Lieberman; Minneapolis, MN

Tim Lies; Belle Plaine, MN

Susan Limpert; Rochester, MN

Kathryn A Linafelter; Minneapolis, MN

Lee Lindquist; Yankton, SD

Grant Littleford; Minneapolis, MN

Robert Logelin; Eagan, MN

David Loy; Minneapolis, MN

Karin Luebke; Maple Grove, MN

Jason Lunderoff; Saint Cloud, MN

Kirsten Lyslo; Apple Valley, MN

Mollie M; Fargo, ND

Becky Maas; Mound, MN

Dennis Macklin; Marine Saint Crx, MN

Bernadette Mahan; Saint Paul, MN

Barry Maloney; Minneapolis, MN

Susan Mangelsdorf; Minneapolis, MN

Chris Manners; Grand Forks, ND

Nancy Mark; Minnetonka, MN

Deb Marks; Sioux Falls, SD

Amy Martin; Hastings, MN

Jamie A Martin; Minneapolis, MN

Linda Martinez; Roseville, MN

Candy Marx; Minneapolis, MN

Shawn McBurnie; Minneapolis, MN

Brian McCarthy; Minnetonka, MN

Kathleen McCarthy; Minneapolis, MN

Kari McDermid; Minneapolis, MN

Leslie McDonald; Eden Prairie, MN

Teresa McGrath; Saint Paul, MN

Sara McIntyre; Sioux Falls, SD

James McKeel; Northfield, MN

Wallace McMullen; Prospect, KY

Tom McReavy; Chanhassen, MN

Peter Mead; Saint Paul, MN

Diane Melloy; Minneapolis, MN

Natalie Melstrom; Minneapolis, MN

Janet Mendez; Saint Paul, MN

Lynn Menz; Lakeville, MN

Doris Miller; Burnsville, ND

Harlan Mittag; Minnetonka, MN

## Clean Water Action Form Letter-SDEIS

Lisa Mix; Sioux Falls, SD  
Joan Molenaar; Champlin, MN  
Warren Moser; Shakopee, MN  
Paul Moss; White Bear Lake, MN  
Tegwin Moye; Inver Grove, MN  
Mertyce Mrvos; Saint Louis Park, MN  
Mary Nadeau; Minneapolis, MN  
Prash Naidu; Morris, MN  
Sue Nankivell; Apple Valley, MN  
Linda Nelson; Burnsville, MN  
Debra Nelson; Alexandria, MN  
Deb Neumeister; Sioux Falls, SD  
James Newton; Burnsville, MN  
Ryan Niebeling; Fargo, ND  
Jeff Nodsle; Corona, SD  
Chris Noe; Minneapolis, MN  
Todd Nordquist; Eden Prairie, MN  
Pam Oas; Blaine, MN  
Paul Odenbach; Minneapolis, MN  
Sandy Offedahl; Minneapolis, MN  
Michelle Olsen; Fargo, ND  
Elizabeth Oness; Winona, MN  
Mary Ann O'Reilley; Waconia, MN  
Gabe Ormsby; Minneapolis, MN  
Stacey Osborne; Apple Valley, MN  
Ben Osmond; Saint Paul, MN  
Laurel Ostrow; Saint Paul, MN  
Arnold Overby; Beaver Bay, MN  
Mark Owens; Austin, MN  
Douglas Owens-Pike; Minneapolis, MN  
Zachary Pagel; Minnetonka, MN  
John Paro; Faribault, MN  
C Patrick; Sauk Centre, MN  
John Paul; Saint Paul, MN  
Melodie L Paulsen; Wyoming, MN  
Greg Paulson; Minneapolis, MN

Scott Pearson; Saint Paul, MN  
Norma Perko; Agency Village, SD  
Brin Petersen; Minneapolis, MN  
Dave Peterson; Sioux Falls, SD  
Douglas R Peterson; Bloomington, MN  
Judy Peterson; Eagan, MN  
Ruth Pfaller; Sturgeon Lake, MN  
Ruth Phelps; Saint Paul, MN  
Velma Pibal; Corona, SD  
Leslie Pilgram; Mendota Heights, MN  
Vicki Poier; Montevideo, MN  
Leigh Pomeroy; Mankato, MN  
Charles A Pospisil; Coon Rapids, MN  
Clare Poulouse; Saint Paul, MN  
Josh Preston; Montevideo, MN  
William Prottengeier; Minneapolis, MN  
Lawrence W Pry; Saint Paul, MN  
Vivian Puyear; Detroit Lakes, MN  
Peter B Quale; Minneapolis, MN  
Anne M Queenan; Saint Paul, MN  
John Rachac; Inver Grove, MN  
Vicki Rathburn; Elk River, MN  
Marie Reese; Grand Forks, ND  
Karen Rehling; Pine Island, MN  
James Reininger; Saint Louis Park, MN  
Marcia Reiter; Dayton, MN  
Elizabeth Rembold; Yankton, SD  
Michael Rice; Golden Valley, MN  
Jolene Richardson; Fargo, ND  
Kristi Richardson; Lonsdale, MN  
Dennis Rimmer; Jamestown, ND  
Barry Ring; Winona, MN  
Beth Robelin; Saint Paul, MN  
Kendra Rodel; Eagan, MN  
Chuck Rogers; Anoka, MN  
Annette Rondano; Minneapolis, MN

## Clean Water Action Form Letter-SDEIS

Phyllis Root; Minneapolis, MN  
Rebecca Rose; Saint Paul, MN  
William Rosenfeld; Minneapolis, MN  
Sara Rostampour; Minneapolis, MN  
Thomas Rourke; Rosemount, MN  
Marg Rozycki; Minneapolis, MN  
Paul Rudberg; Lino Lakes, MN  
Gary A Russell; Minneapolis, MN  
Roni Ryan; Fargo, ND  
Debbie Rybak; Prior Lake, MN  
Lauren Sako; Montevideo, MN  
Justin Samborski; Coon Rapids, MN  
Florence Sandok; Rochester, MN  
Florence Sandok; Rochester, MN  
Donna Sandon; Courtland, MN  
Barbara Sayther; Burnsville, MN  
Barbara Schaack-Kaminski; Bloomington, MN  
Rosemary Schaffer; Richfield, MN  
Glenn Schaufler; Eden Prairie, MN  
Barb Schmiesing; Minneapolis, MN  
Lavone Schnabel; Saint Cloud, MN  
Margaret Schneider; Saint Paul, MN  
Rose Schneider; Woodbury, MN  
Becky Schoenwald; Fargo, ND  
R W Scholes; Minneapolis, MN  
John Schreiber; Saint Paul, MN  
Robert Schuette; Minneapolis, MN  
Barb Schultz; Albany, MN  
Ryan Schultz; Crookston, MN  
Kurt Seaberg; Minneapolis, MN  
Susan Seaquist; Minneapolis, MN  
Robert Seidel; Minneapolis, MN  
Mark Seidelmann; Duluth, MN  
Jean Seifert; Fargo, ND  
Daniel Shaw; Minneapolis, MN  
Don Sherman; Ortonville, MN  
George Shuffelton; Northfield, MN  
Rochleel M Silverman; Edina, MN  
Linda Simon; Minneapolis, MN  
Brian Simonet; Stillwater, MN  
Vicki Simpson; Elk River, MN  
George Sivanich; Northfield, MN  
Ruta Skujins; Minneapolis, MN  
Howard Sloneker; Stewartville, MN  
Amy Smith; Minneapolis, MN  
Nancy Smith; Minneapolis, MN  
Steven Smith; Minneapolis, MN  
Joan Smock; Eden Prairie, MN  
Cheryl T Smoczyk; Wyoming, MN  
Mark Snyder; Minneapolis, MN  
Terry Solom; Minneapolis, MN  
Todd Sperling; Minnetonka, MN  
Jessica Spore; Maple Grove, MN  
David Squires; Albert Lea, MN  
Jennifer Stabenow; Stillwater, MN  
Emily Stanage, Yankton; SD  
Jo Stanage, Yankton, SD  
Thomas Stanage; Yankton, SD  
Kalyn Stanley; Eden Prairie, MN  
Michael Steger; Saint Paul, MN  
Martin Steitz; Forest Lake, MN  
DeeAnn Stenlund; Roseville, MN  
Nan Stevenson; Saint Paul, MN  
Tracy Stewart; Burnsville, MN  
Julie Stradel-Graf; Plymouth, MN  
Jeff M Stromgren; Minneapolis, MN  
Mary Jo Stueve; Sioux Falls, SD  
Kathleen Sullivan; Minnetonka, MN  
David Surdez; Saint Paul, MN  
Terry Sveine; New Ulm, MN  
Charlotte Svobodny; Inver Grove, MN  
Evelyn S Swanson; Hutchinson, MN



## Clean Water Action Form Letter-SDEIS

Jeff M Swanson; Minnetonka, MN

Linda Swanson; Fergus Falls, MN

Stephen Swanson; Minneapolis, MN

Doug Symes; Burnsville, MN

Thoedore & Cynthia Szczech; Woodbury, MN

John Tanquist; Appleton, MN

Jimmy Thanki; Des Moines, MN

Doug Thayer; Plymouth, MN

Christine Thomas; Minneapolis, MN

Diane Thomas; Plymouth, MN

Elaine Thompson; Santa Cruz, CA

Debra Thurlo; Mound, MN

Mary Tierney; Apple Valley, MN

Michael Tobin; Minnetonka, MN

Claire Todd; Richfield, MN

Vlad Toledo; Eagan, MN

W B Trautz; Maplewood, MN

Lois Troemel; Plymouth, MN

Danielle Troske; Fargo, ND

Gail Trowbridge; Duluth, MN

Jane Truhlar; Minneapolis, MN

Triss Underdahl; Duluth, MN

Muriel Vanloh; Canistota, SD

Donny Vauer; Brandon, SD

Kathleen M Veeneman; Minneapolis, MN

Alicia Vegell; Minneapolis, MN

Kevin Vi; Eagan, MN

Ingrid Vick; Madison, MN

Paul Vitko; Maple Grove, MN

Mary Vlazny; Rochester, MN

Cory Wagner; Eagan, MN

Timothy Wagner; Northfield, MN

Becky Walen; Fargo, ND

Nancy Wallace; Buffalo, MN

Beth Walter; Lake Park, MN

Josie Walton; Minneapolis, MN

Clayton Watercott; Anoka, MN

Chris Webber; Minneapolis, MN

Mary Weber; Saint Paul, MN

Melanie Weberg; Bloomington, MN

Tim Weinhold; Minneapolis, MN

Don Weirens; Saint Louis Park, MN

Richard Wells; Coon Rapids, MN

Clare Welter; Saint Paul, MN

Sharon L Wendelin; Brooklyn Park, MN

Mary Werner; Willmar, MN

Elizabeth Wheeler; Madison, WI

Shirley White; Minneapolis, MN

Abra Staffin Wiebe; Minneapolis, MN

M Ct Wiley; Minnetonka, MN

Bob Williams; Bloomington, MN

Jennifer Williams; Minneapolis, MN

Dave Williamson; Mankato, MN

Karin Winegar; Saint Paul, MN

Gerry Winter; Burnsville, MN

Stacy K With; Saint Peter, MN

Ingrid Witzke; Burnsville, MN

Brian Wojtalewicz; Appleton, MN

Pamela Wood; Saint Peter, MN

Thomas Worley; Minneapolis, MN

Randy Worringer; Bloomington, MN

Paul Wright; Rosemount, MN

Rich Wright; Chanhassen, MN

Robin York; Bloomington, MN

Iansa Zaldarriaga; Minneapolis, MN

Dean Zeitz; Silver Bay, MN

Nichoette Zeliadt; Minneapolis, MN

Erica Zweifel; Northfield, MN

Winnie Zwick; Minneapolis, MN

From: John Almli <jamba@aol.com>  
To: <BigStoneEIS@wapa.gov>  
Date: 2/11/2008 4:27 PM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system. We do not have the water to support another dirty burning coal plant. Draining a public water body and groundwater supply to burn more coal places industry wishes over the right of the people to enjoy fishing and recreation, and the right of future generations to an adequate public water supply.

Big Stone Lake is at risk from the water demands of the proposed Big Stone II coal plant. If Big Stone II gets built and we have a dry winter with little or no spring rain again, we could see a three-foot drop in Big Stone Lake levels, contrary to what Otter Tail Power is telling the public.

The South Dakota Water Management Board gave 3.2 billion gallons of water from Big Stone Lake plus 3.2 billion gallons of groundwater per year to Otter Tail Power, even though they knew that the total came to more than double the amount required to operate Big Stone I, Big Stone II, and the ethanol plant.

Worse, an agreement from the 70s allows Otter Tail to take water in "emergency situations" and even from October to April if the lake is at or greater than 965, which is three-feet below current levels! The lake is already very shallow with an average depth of only eight feet. In this worst case scenario, almost half of the lake's level could be gone to help burn more dirty coal!

SFL-2a [ If we destroy our waters, the other stuff won't matter!

Please protect our water, not a 1.8 billion dollar (and rising) business plan. It is not possible to "mitigate" or lessen the environmental impact of what Big Stone II will do to Big Stone Lake. Please deny the Big Stone II interconnection request.

John Almli  
1813 Park Ridge Cir  
Chaska, MN 55318

From: Scott Anderson <scott@twosprucedesign.com>  
To: <BigStoneEIS@wapa.gov>  
Date: 2/12/2008 9:16 AM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

Please deny Big Stone II Co-owners an interconnection to Western's transmission system. Industries are NOT entitled to whatever natural resources they want. If coal plants paid the full cost of cleaning up the pollution they cause I would be more sympathetic to their case. But if they paid the full cost, then coal wouldn't be such a cheap source of the fuel for the rest of us, would it? If we are going to subsidize sources of fuel, either with our taxes or with our shared natural resources, then I insist that we only subsidize energy.

SFL-3a [ This is the land of 10,000 lakes and we can't even eat the fish anymore because of coal!

Big Stone Lake is at risk from the water demands of the proposed Big Stone II coal plant. If Big Stone II gets built and we have a dry winter with little or no spring rain again, we could see a three-foot drop in Big Stone Lake levels, contrary to what Otter Tail Power is telling the public.

The South Dakota Water Management Board gave 3.2 billion gallons of water from Big Stone Lake plus 3.2 billion gallons of groundwater per year to Otter Tail Power, even though they knew that the total came to more than double the amount required to operate Big Stone I, Big Stone II, and the ethanol plant.

Worse, an agreement from the 70s allows Otter Tail to take water in emergency situations? and even from October to April if the lake is at or greater than 965, which is three-feet below current levels! The lake is already very shallow with an average depth of only eight feet. In this worst case scenario, almost half of the lake's level could be gone to help burn more polluting coal!

It is not possible to mitigate? or lessen the environmental impact of what Big Stone II will do to Big Stone Lake. Please deny the Big Stone II interconnection request.

Scott Anderson  
3856 Blaisdell Ave.  
Minneapolis, MN 55409

From: Robert Babin <bobbabin@hotmail.com>  
To: <BigStoneEIS@wapa.gov>  
Date: 2/22/2008 12:10 PM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system. We do not have the water to support another dirty burning coal plant. Draining a public water body and groundwater supply to burn more coal places industry wishes over the right of the people to enjoy fishing and recreation, and the right of future generations to an adequate public water supply.

Big Stone Lake is at risk from the water demands of the proposed Big Stone II coal plant. If Big Stone II gets built and we have a dry winter with little or no spring rain again, we could see a three-foot drop in Big Stone Lake levels, contrary to what Otter Tail Power is telling the public.

The South Dakota Water Management Board gave 3.2 billion gallons of water from Big Stone Lake plus 3.2 billion gallons of groundwater per year to Otter Tail Power, even though they knew that the total came to more than double the amount required to operate Big Stone I, Big Stone II, and the ethanol plant.

Worse, an agreement from the 70s allows Otter Tail to take water in "emergency situations" and even from October to April if the lake is at or greater than 965, which is three-feet below current levels! The lake is already very shallow with an average depth of only eight feet. In this worst case scenario, almost half of the lake's level could be gone to help burn more dirty coal!

Please protect our water, not a 1.8 billion dollar (and rising) business plan. It is not possible to "mitigate" or lessen the environmental impact of what Big Stone II will do to Big Stone Lake. Please deny the Big Stone II interconnection request.

SFL-4a [Coal, scrubbed and filtered, still is a dirty source of energy, there are much cleaner sources available, ones without all this ugliness and damage.

Robert Babin  
5632 14th Ave. S  
Minneapolis, MN 55417

From: Bill Blonigan <bloniganlaw@netzero.net>  
To: <BigStoneEIS@wapa.gov>  
Date: 2/11/2008 1:49 PM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

SFL-5a

If an agreement is made to keep lake levels at 965 feet it should be honored just as any agreement with American Indians regarding their rights should have been honored. Will your group be the renegers of this century?

SFL-5b

We have had since the 1970s to hook up more wind turbines and other renewable energy sources. Why pick the dirtiest method just because it is the cheapest?

SFL-5c

Spend our money on Wind and other Renewable sources. If the Big Stone II owners can create their own water they should be able to use that water for a plant. Just lay off the public water entrusted to us for us future generations of humanity.

I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system. We do not have the water to support another dirty burning coal plant. Draining a public water body and groundwater supply to burn more coal places industry wishes over the right of the people to enjoy fishing and recreation, and the right of future generations to an adequate public water supply.

Big Stone Lake is at risk from the water demands of the proposed Big Stone II coal plant. If Big Stone II gets built and we have a dry winter with little or no spring rain again, we could see a three-foot drop in Big Stone Lake levels, contrary to what Otter Tail Power is telling the public.

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Worse, an agreement from the 70s allows Otter Tail to take water in ?emergency situations? and even from October to April if the lake is at or greater than 965, which is three-feet below current levels! The lake is already very shallow with an average depth of only eight feet. In this worst case scenario, almost half of the lake's level could be gone to help burn more dirty coal!

Please protect our water, not a 1.8 billion dollar (and rising) business plan. It is not possible to ?mitigate? or lessen the environmental impact of what Big Stone II will do to Big Stone Lake. Please deny the Big Stone II interconnection request.

Bill Blonigan  
4300 Twin Oak Ln.  
Robbinsdale, MN 55422

From: Jayne Caldwell <ulfindjayne@comcast.net>  
To: <BigStoneEIS@wapa.gov>  
Date: 2/12/2008 11:40 AM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

SFL-6a [ ONLY GOD CAN MAKE CLEAN WATER - PEOPLE TAKE PRIORITY OVER COAL AND MONEY.

I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system. We do not have the water to support another dirty burning coal plant. Draining a public water body and groundwater supply to burn more coal places industry wishes over the right of the people to enjoy fishing and recreation, and the right of future generations to an adequate public water supply.

Big Stone Lake is at risk from the water demands of the proposed Big Stone II coal plant. If Big Stone II gets built and we have a dry winter with little or no spring rain again, we could see a three-foot drop in Big Stone Lake levels, contrary to what Otter Tail Power is telling the public.

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Worse, an agreement from the 70s allows Otter Tail to take water in "emergency situations" and even from October to April if the lake is at or greater than 965, which is three-feet below current levels! The lake is already very shallow with an average depth of only eight feet. In this worst case scenario, almost half of the lake's level could be gone to help burn more dirty coal!

Please protect our water, not a 1.8 billion dollar (and rising) business plan. It is not possible to "mitigate" or lessen the environmental impact of what Big Stone II will do to Big Stone Lake. Please deny the Big Stone II interconnection request.

Jayne Caldwell  
6100 Ensign Ave. N  
New Hope, MN 55428

From: Steve Deal <steven.deal@gd-ais.com>  
To: <BigStoneEIS@wapa.gov>  
Date: 2/11/2008 3:50 PM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

SFL-7a [I am a strong supporter of Clean Water Action and what it represents for the future of our fine state and its precious natural resources.

I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system. Draining a public water body and groundwater supply to burn more coal places industry wishes over the right of the people to enjoy fishing and recreation, and the right of future generations to an adequate public water supply.

Big Stone Lake is at risk from the water demands of the proposed Big Stone II coal plant.

The lake is already very shallow with an average depth of only eight feet. In this worst case scenario, almost half of the lake's level could be gone to help burn more dirty coal!

Please protect our water. Please deny the Big Stone II interconnection request.

Steve Deal  
Edina, MN 55435

From: Eric Dobervich <aieopr@yahoo.com>  
To: <BigStoneEIS@wapa.gov>  
Date: 2/16/2008 12:23 PM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system. We do not have the water to support another dirty burning coal plant. Draining a public water body and groundwater supply to burn more coal places industry wishes over the right of the people to enjoy fishing and recreation, and the right of future generations to an adequate public water supply.

Big Stone Lake is at risk from the water demands of the proposed Big Stone II coal plant. If Big Stone II gets built and we have a dry winter with little or no spring rain again, we could see a three-foot drop in Big Stone Lake levels, contrary to what Otter Tail Power is telling the public.

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Please protect our water, not a 1.8 billion dollar (and rising) business plan. It is not possible to "mitigate" or lessen the environmental impact of what Big Stone II will do to Big Stone Lake. Please deny the Big Stone II interconnection request.

SFL-8a [It is time to start finding alternative energy sources that do not pollute our water supply and leave the environment in the state that it was meant to be left in.

Eric Dobervich  
3104 Westgate Dr. S  
Fargo, ND 58103



From: Peter Doughty <pdoughty@mm.com>  
To: <BigStoneEIS@wapa.gov>  
Date: 2/12/2008 7:09 PM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system. We do not have the water to support another dirty burning coal plant. Draining a public water body and groundwater supply to burn more coal places industry wishes over the right of the people to enjoy fishing and recreation, and the right of future generations to an adequate public water supply.

Big Stone Lake is at risk from the water demands of the proposed Big Stone II coal plant. If Big Stone II gets built and we have a dry winter with little or no spring rain again, we could see a three-foot drop in Big Stone Lake levels, contrary to what Otter Tail Power is telling the public.

The South Dakota Water Management Board gave 3.2 billion gallons of water from Big Stone Lake plus 3.2 billion gallons of groundwater per year to Otter Tail Power, even though they knew that the total came to more than double the amount required to operate Big Stone I, Big Stone II, and the ethanol plant.

Worse, an agreement from the 70s allows Otter Tail to take water in "emergency situations" and even from October to April if the lake is at or greater than 965, which is three-feet below current levels! The lake is already very shallow with an average depth of only eight feet. In this worst case scenario, almost half of the lake's level could be gone to help burn more dirty coal!

Please protect our water, not a 1.8 billion dollar (and rising) business plan. It is not possible to "mitigate" or lessen the environmental impact of what Big Stone II will do to Big Stone Lake. Please deny the Big Stone II interconnection request.

SFL-9a [The entire Minnesota River watershed is an important and vulnerable ecosystem. Protecting it from further damage, and facilitating its recovery, is paramount.

Peter Doughty  
3617 Architect Avenue  
Minneapolis, MN 55418

From: Joe Duea  
To: <BigStoneEIS@wapa.gov>  
Date: 2/12/2008 8:01 AM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system. We do not have the water to support another dirty burning coal plant. Draining a public water body and groundwater supply to burn more coal places industry wishes over the right of the people to enjoy fishing and recreation, and the right of future generations to an adequate public water supply.

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Please protect our water, not a 1.8 billion dollar (and rising) business plan. It is not possible to 'mitigate' or lessen the environmental impact of what Big Stone II will do to Big Stone Lake. Please deny the Big Stone II interconnection request.

SFL-10a [ I would much rather see investments in Wind or other alternatives to coal powered plants that would have a dramatically smaller impact on the environment.

Thank you for your time,

Joe Duea  
Bloomington, MN 55431

From: Delor Erickson <ckrebs@usfamily.net>  
To: <BigStoneEIS@wapa.gov>  
Date: 2/11/2008 1:08 PM  
Subject: Do not approve Big Stone II interconnection

SFL-11a [ Dear Ms. Werdel

Everything new we build now must be build with environmental hazards in mind.  
This power plant has MANY.

I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system. We do not have the water to support another dirty burning coal plant. Draining a public water body and groundwater supply to burn more coal places industry wishes over the right of the people to enjoy fishing and recreation, and the right of future generations to an adequate public water supply.

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Please protect our water, not a 1.8 billion dollar (and rising) business plan. It is not possible to ?mitigate? or lessen the environmental impact of what Big Stone II will do to Big Stone Lake. Please deny the Big Stone II interconnection request.

Delor Erickson  
3655 Garfield Ave.  
Minneapolis, MN 55409

From: Rhonda Feuerstein <iamqueenbee@charter.net>  
To: <BigStoneEIS@wapa.gov>  
Date: 2/12/2008 7:01 PM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system. We do not have the water to support another dirty burning coal plant. Draining a public water body and groundwater supply to burn more coal places industry wishes over the right of the people to enjoy fishing and recreation, and the right of future generations to an adequate public water supply.

Big Stone Lake is at risk from the water demands of the proposed Big Stone II coal plant. If Big Stone II gets built and we have a dry winter with little or no spring rain again, we could see a three-foot drop in Big Stone Lake levels, contrary to what Otter Tail Power is telling the public.

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Worse, an agreement from the 70s allows Otter Tail to take water in "emergency situations" and even from October to April if the lake is at or greater than 965, which is three-feet below current levels! The lake is already very shallow with an average depth of only eight feet. In this worst case scenario, almost half of the lake's level could be gone to help burn more dirty coal!

Please protect our water, not a 1.8 billion dollar (and rising) business plan. It is not possible to "mitigate" or lessen the environmental impact of what Big Stone II will do to Big Stone Lake. Please deny the Big Stone II interconnection request.

SFL-12a [ I think we need to look for other alternative to supply the energy needs of Minnesotana. I would support wind power initiatives.

Rhonda Feuerstein  
3018 Veterans Dr  
Saint Cloud, MN 56303

From: Rhonda Feuerstein  
To: <BigStoneEIS@wapa.gov>  
Date: 2/12/2008 7:04 PM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system. We do not have the water to support another dirty burning coal plant. Draining a public water body and groundwater supply to burn more coal places industry wishes over the right of the people to enjoy fishing and recreation, and the right of future generations to an adequate public water supply.

Big Stone Lake is at risk from the water demands of the proposed Big Stone II coal plant. If Big Stone II gets built and we have a dry winter with little or no spring rain again, we could see a three-foot drop in Big Stone Lake levels, contrary to what Otter Tail Power is telling the public.

The South Dakota Water Management Board gave 3.2 billion gallons of water from Big Stone Lake plus 3.2 billion gallons of groundwater per year to Otter Tail Power, even though they knew that the total came to more than double the amount required to operate Big Stone I, Big Stone II, and the ethanol plant.

Worse, an agreement from the 70s allows Otter Tail to take water in 'emergency situations' and even from October to April if the lake is at or greater than 965, which is three-feet below current levels! The lake is already very shallow with an average depth of only eight feet. In this worst case scenario, almost half of the lake's level could be gone to help burn more dirty coal!

Please protect our water, not a 1.8 billion dollar (and rising) business plan. It is not possible to 'mitigate' or lessen the environmental impact of what Big Stone II will do to Big Stone Lake. Please deny the Big Stone II interconnection request.

SFL-12b [ As a resident of Minnesota, I do not support a coal powered plant to generate electricity. I could support a wind power or solar powered plant, though.

Thank you for the opportunity to present my opinion.

Rhonda Feuerstein  
Saint Cloud, MN 56303

From: Judith Graziano <vjg@cray.com>  
To: <BigStoneEIS@wapa.gov>  
Date: 2/11/2008 2:23 PM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

SFL-13a

I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system. [I do not want another coal fired power plant sending mercury and CO2 into the atmosphere. There should be a moritorium on such power plants until a comprehensive energy plan is drawn up by Congress, and takes into account carbon trading and caps.]

Another issue is water demands. We do not have the water to support another dirty burning coal plant. Draining a public water body and groundwater supply to burn more coal places industry wishes over the right of the people to enjoy fishing and recreation, and the right of future generations to an adequate public water supply.

Big Stone Lake is at risk from the water demands of the proposed Big Stone II coal plant. If Big Stone II gets built and we have a dry winter with little or no spring rain again, we could see a three-foot drop in Big Stone Lake levels, contrary to what Otter Tail Power is telling the public.

The South Dakota Water Management Board gave 3.2 billion gallons of water from Big Stone Lake plus 3.2 billion gallons of groundwater per year to Otter Tail Power, even though they knew that the total came to more than double the amount required to operate Big Stone I, Big Stone II, and the ethanol plant.

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Please protect our water, not a 1.8 billion dollar (and rising) business plan. It is not possible to ?mitigate? or lessen the environmental impact of what Big Stone II will do to Big Stone Lake. Please deny the Big Stone II interconnection request.

Judith Graziano  
121 Otis Ave  
Saint Paul, MN 55104

From: Amelia Kroeger <ackroeger@aol.com>  
To: <BigStoneEIS@wapa.gov>  
Date: 2/11/2008 2:46 PM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

SFL-14a

Draining a public body of water to accommodate an industry that produces substantial greenhouse gas emissions is, in my view, simply a poor long term decision.

I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system. We do not have the water to support another dirty burning coal plant. Draining a public water body and groundwater supply to burn more coal places industry wishes over the right of the people to enjoy fishing and recreation, and the right of future generations to an adequate public water supply.

Big Stone Lake is at risk from the water demands of the proposed Big Stone II coal plant. If Big Stone II gets built and we have a dry winter with little or no spring rain again, we could see a three-foot drop in Big Stone Lake levels, contrary to what Otter Tail Power is telling the public.

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Please protect our water, not a 1.8 billion dollar (and rising) business plan. It is not possible to mitigate? or lessen the environmental impact of what Big Stone II will do to Big Stone Lake. Please deny the Big Stone II interconnection request.

Amelia Kroeger  
65 Stubbs Bay Rd.  
Maple Plain, MN 55359

From: Carmen LaChappelle <carmenlachappelle@yahoo.com>  
To: <BigStoneEIS@wapa.gov>  
Date: 2/13/2008 7:44 AM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system. We do not have the water to support another coal burning plant. Draining a public water body and groundwater supply to burn more coal places industry wishes over the right of the people to enjoy fishing and recreation, and the right of future generations to an adequate public water supply.

SFL-15a [Do not take the loss of this water lightly. It is a significant amount of water and changes that will likely happen have a domino impact on our environment.]  
SFL-15b [Taking action that we know will negatively impact our ecosystem will ripple down from the obvious -- visibly less water, less fish -- to the less obvious, but equally or more detrimental -- changes to the plant life both in and around the water supply, reduction in plants for animal habitat, loss of invertibrate and other species.] [If in the future, an effort were made to reverse the impact, it may not be possible to recover and at best, would take decades to accomplish and we both know that once something is deemed a dire situation, it takes even more time to get funding, approval and action to begin. We simply should not start on a path to which we know the outcome is not good.]  
SFL-15c

Big Stone Lake is at risk from the water demands of the proposed Big Stone II coal plant. If Big Stone II gets built and we have a dry winter with little or no spring rain again, we could see a three-foot drop in Big Stone Lake levels, contrary to what Otter Tail Power is telling the public.

The South Dakota Water Management Board gave 3.2 billion gallons of water from Big Stone Lake plus 3.2 billion gallons of groundwater per year to Otter Tail Power, even though they knew that the total came to more than double the amount required to operate Big Stone I, Big Stone II, and the ethanol plant.

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Please protect our water, not a 1.8 billion dollar (and rising) business plan. It is not possible to "mitigate" or lessen the environmental impact of what Big Stone II will do to Big Stone Lake. Please deny the Big Stone II interconnection request.

Carmen LaChappelle  
8200 32nd Ave N  
Crystal, MN 55427



From: Jeffrey Maas <maasx063@umn.edu>  
To: <BigStoneEIS@wapa.gov>  
Date: 2/11/2008 12:51 PM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

SFL-16a [ I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system. [It is against the interests of the future to drain a lake to support an outdated, inefficient means of producing power.] Draining a public water body and groundwater supply to burn more coal places industry wishes over the right of the people to enjoy fishing and recreation, not to mentions the public right to an adequate water supply.

Big Stone Lake is at risk from the water demands of the proposed Big Stone II coal plant. If Big Stone II gets built and we have a dry winter with little or no spring rain again, we could see a three-foot drop in Big Stone Lake levels, contrary to what Otter Tail Power is telling the public.

The South Dakota Water Management Board gave 3.2 billion gallons of water from Big Stone Lake plus 3.2 billion gallons of groundwater per year to Otter Tail Power, even though they knew that the total came to more than double the amount required to operate Big Stone I, Big Stone II, and the ethanol plant.

Worse, an agreement from the 70s allows Otter Tail to take water in "emergency situations" and even from October to April if the lake is at or greater than 965, which is three-feet below current levels! The lake is already very shallow with an average depth of only eight feet. In this worst case scenario, almost half of the lake's level could be gone to help burn more coal. Instead, we could invest in a sustainable power producing system and keep our lakes healthy.

Please protect our water, not a 1.8 billion dollar (and rising) business and environmental destroying plan. It is not possible to "mitigate" or lessen the environmental impact of what Big Stone II will do to Big Stone Lake. Please deny the Big Stone II interconnection request.

Jeffrey Maas  
136 Melbourne Ave SE # 2  
Minneapolis, MN 55414

From: Ann Galbraith Miller <agmiller51@msn.com>  
To: <BigStoneEIS@wapa.gov>  
Date: 2/13/2008 7:14 AM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system. We do not have the water to support another dirty burning coal plant. Draining a public water body and groundwater supply to burn more coal places industry wishes over the right of the people to enjoy fishing and recreation, and the right of future generations to an adequate public water supply.

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Please protect our water, not a 1.8 billion dollar (and rising) business plan. It is not possible to "mitigate" or lessen the environmental impact of what Big Stone II will do to Big Stone Lake. Please deny the Big Stone II interconnection request.

SFL-17a [ We are already seeing the effects of ignoring the signs of global warming on our planet. Let's not perpetuate the idea that future generations will pay for the mistakes in judgment we make today.

Sincerely,  
Ann Galbraith Miller

Ann Galbraith Miller  
2921 E. 1st Street  
Duluth, MN 55812

(218)728-1227

From: James Moore <afscme@hometownsolutions.net>  
To: <BigStoneEIS@wapa.gov>  
Date: 2/15/2008 7:43 AM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

SFL-18a

I own stock in Otter Tail Power. I bought the stock because I thought that Otter Tail Power was truly committed to pursuing alternative energy sources. I am appalled by the involvement in the construction of a coal fire power plant.

I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system. We do not have the water to support another dirty burning coal plant. Draining a public water body and groundwater supply to burn more coal places industry wishes over the right of the people to enjoy fishing and recreation, and the right of future generations to an adequate public water supply.

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James Moore  
306 South Street  
Morris, MN 56267

From: Patrick Moore <cure-ed@info-link.net>  
To: <BigStoneEIS@wapa.gov>  
Date: 2/14/2008 11:03 AM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

SFL-19a

The Minnesota DNR has expressed strong concern over this issue. Their letter to you dated Dec. 10 2007 should be given serious consideration.

I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system. We do not have the water to support another dirty burning coal plant. Draining a public water body and groundwater supply to burn more coal places industry wishes over the right of the people to enjoy fishing and recreation, and the right of future generations to an adequate public water supply.

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Please protect our water, not a 1.8 billion dollar (and rising) business plan. It is not possible to ?mitigate? or lessen the environmental impact of what Big Stone II will do to Big Stone Lake. Please deny the Big Stone II interconnection request.

Patrick Moore  
Box 381  
Montevideo, MN 56265

From: Shirley Mueller <srsmueller@yahoo.com>  
To: <BigStoneEIS@wapa.gov>  
Date: 2/15/2008 3:40 AM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system. We do not have the water to support another dirty burning coal plant. Draining a public water body and groundwater supply to burn more coal places industry wishes over the right of the people to enjoy fishing and recreation, and the right of future generations to public water supply.

[Water is sacred and not to be used as a public commodity. It needs to be respected and left where it is and cleaned up instead of further loss and pollution.]

Big Stone Lake is at risk from the water demands of the proposed Big Stone II coal plant. If Big Stone II gets built and we have a dry winter with little or no spring rain again, we could see a three-foot drop in Big Stone Lake levels, contrary to what Otter Tail Power is telling the public.

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Please protect our water, not a 1.8 billion dollar (and rising) business plan. It is not possible to "mitigate" or lessen the environmental impact of what Big Stone II will do to Big Stone Lake. Please deny the Big Stone II interconnection request. PLEASE !!!!!

Thank you, Sr. Shirley Mueller

Shirley Mueller  
910 Middlebrook Circle #3  
Milbank, SD 57252-2134

From: Rod Nordberg <rodnordberg@worldnet.att.net>  
To: <BigStoneEIS@wapa.gov>  
Date: 2/11/2008 1:10 PM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system. We do not have the water to support another dirty burning coal plant. Draining a public water body and groundwater supply to burn more coal places industry wishes over the right of the people to enjoy fishing and recreation, and the right of future generations to an adequate public water supply.

SFL-21a [There are available, economically reasonable alternatives to coal power.

Please protect our water, not a 1.8 billion dollar (and rising) business plan. It is not possible to 'mitigate' or lessen the environmental impact of what Big Stone II will do to Big Stone Lake. Please deny the Big Stone II interconnection request.

Rod Nordberg  
260 Yosemite Cir. N  
Golden Valley, MN 55422

From: Brian Noy <briannoy@gmail.com>  
To: <BigStoneEIS@wapa.gov>  
Date: 2/11/2008 4:30 PM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

[As someone concerned with the impact of coal emissions as well as the local environment of Big Stone], I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system. We do not have the water to support another dirty burning coal plant. Draining a public water body and groundwater supply to burn more coal places industry wishes over the right of the people to enjoy fishing and recreation, and the right of future generations to an adequate public water supply.

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Please protect our water, not a 1.8 billion dollar (and rising) business plan. It is not possible to 'mitigate' or lessen the environmental impact of what Big Stone II will do to Big Stone Lake. Please deny the Big Stone II interconnection request.

Brian Noy  
3004 James Ave S  
Minneapolis, MN 55408

From: Julie O'Brien <jawob@usfamily.net>  
To: <BigStoneEIS@wapa.gov>  
Date: 2/16/2008 11:08 AM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

SFL-23a [ I am a 46 year old female who has enjoyed swimming, canoeing & other lake activities all my life. I can't tell you the extreme lake degradation that I've seen over the course of that lifetime. The fact that my five and ten year old sons cannot see their feet very well at the bottom of the lake when they're standing in the water up to their armpits horrifies me about the state of lake and water quality in a state which I've enjoyed all my life.

I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system. We do not have the water to support another dirty burning coal plant. Draining a public water body and groundwater supply to burn more coal places industry wishes over the right of the people to enjoy fishing and recreation, and the right of future generations to an adequate public water supply.

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Please protect our water, not a 1.8 billion dollar (and rising) business plan. It is not possible to 'mitigate' or lessen the environmental impact of what Big Stone II will do to Big Stone Lake. Please deny the Big Stone II interconnection request.

Julie O'Brien  
821 Osceola Ave.  
Saint Paul, MN 55105



From: Margaret O'Leary <molgfk@hotmail.com>  
To: <BigStoneEIS@wapa.gov>  
Date: 2/11/2008 2:57 PM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

SFL-24a

I grew up at my grandparents' in Beardsley MN and am personally opposed to further harming Big Stone Lake to supply water for this purpose.

I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system. We do not have the water to support another dirty burning coal plant. Draining a public water body and groundwater supply to burn more coal places industry wishes over the right of the people to enjoy fishing and recreation, and the right of future generations to an adequate public water supply.

Big Stone Lake is at risk from the water demands of the proposed Big Stone II coal plant. If Big Stone II gets built and we have a dry winter with little or no spring rain again, we could see a three-foot drop in Big Stone Lake levels, contrary to what Otter Tail Power is telling the public.

The South Dakota Water Management Board gave 3.2 billion gallons of water from Big Stone Lake plus 3.2 billion gallons of groundwater per year to Otter Tail Power, even though they knew that the total came to more than double the amount required to operate Big Stone I, Big Stone II, and the ethanol plant.

Worse, an agreement from the 70s allows Otter Tail to take water in 'emergency situations' and even from October to April if the lake is at or greater than 965, which is three-feet below current levels! The lake is already very shallow with an average depth of only eight feet. In this worst case scenario, almost half of the lake' level could be gone to help burn more dirty coal!

Please protect our water, not a 1.8 billion dollar (and rising) business plan. It is not possible to 'mitigate' or lessen the environmental impact of what Big Stone II will do to Big Stone Lake. Please deny the Big Stone II interconnection request.

Margaret O'Leary  
907 Oak St  
Grand Forks, ND 58201

From: Mary Ellen Proulx  
To: <BigStoneEIS@wapa.gov>  
Date: 2/12/2008 8:37 AM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel  
Dear Ms.Werdel,

Big Stone Lake is at risk from the water demands of the proposed Big Stone II coal plant. If Big Stone II gets built and we have a dry winter with little or no spring rain again, we could see a three-foot drop in Big Stone Lake levels, contrary to what Otter Tail Power is telling the public.

SFL-25a

The pulic and future generations have  
right to Big Stone Lake for recreation  
purposes. We DO NOT NEED another coal-burning plant in the U.S.]

SFL-25b

[Let us invest in wind energy!]

Please protect our water, not a 1.8 billion dollar (and rising) business plan. It is not possible to 'mitigate' or lessen the environmental impact of what Big Stone II will do to Big Stone Lake. Please deny the Big Stone II interconnection request.

Sincerely,

Mary Ellen Proulx  
Woodbury, MN 55125

From: Deborah Raymond  
To: <BigStoneEIS@wapa.gov>  
Date: 2/13/2008 1:20 AM  
Subject: Do not approve Big Stone II interconnection

SFL-26a

Dear Ms. Werdel

[My father grew up in Ortonville, Mn. and Big Stone Lake played an important role in his life. I know he would want the same for the next generation.]

I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system. We do not have the water to support another dirty burning coal plant. Draining a public water body and groundwater supply to burn more coal places industry wishes over the right of the people to enjoy fishing and recreation, and the right of future generations to an adequate public water supply.

Big Stone Lake is at risk from the water demands of the proposed Big Stone II coal plant. If Big Stone II gets built and we have a dry winter with little or no spring rain again, we could see a three-foot drop in Big Stone Lake levels, contrary to what Otter Tail Power is telling the public.

The South Dakota Water Management Board gave 3.2 billion gallons of water from Big Stone Lake plus 3.2 billion gallons of groundwater per year to Otter Tail Power, even though they knew that the total came to more than double the amount required to operate Big Stone I, Big Stone II, and the ethanol plant.

Worse, an agreement from the 70s allows Otter Tail to take water in 'emergency situations' and even from October to April if the lake is at or greater than 965, which is three-feet below current levels! The lake is already very shallow with an average depth of only eight feet. In this worst case scenario, almost half of the lake's level could be gone to help burn more dirty coal!

Please protect our water, not a 1.8 billion dollar (and rising) business plan. It is not possible to 'mitigate' or lessen the environmental impact of what Big Stone II will do to Big Stone Lake. Please deny the Big Stone II interconnection request.

Deborah Raymond  
Blaine, MN 55449

From: Trever Russell  
To: <BigStoneEIS@wapa.gov>  
Date: 2/11/2008 12:48 PM  
Subject: Do not approve Big Stone II interconnection

SFL-27a [Dear Ms. Werdel  
Please Say No To Bigstone II!!!!!!!

I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system. We do not have water resources to supply this project. .

The South Dakota Water Management Board gave 3.2 billion gallons of water from Big Stone Lake plus 3.2 billion gallons of groundwater per year to Otter Tail Power, even though they knew that the total came to more than double the amount required to operate Big Stone I, Big Stone II, and the ethanol plant.

Worse, an agreement from the 70s allows Otter Tail to take water in 'emergency situations' and even from October to April if the lake is at or greater than 965, which is three-feet below current levels! The lake is already very shallow with an average depth of only eight feet. In this worst case scenario, almost half of the lake's level could be gone to help burn more dirty coal!

Please protect our water, not a 1.8 billion dollar (and rising) business plan. It is not possible to 'mitigate' or lessen the environmental impact of what Big Stone II will do to Big Stone Lake. Please deny the Big Stone II interconnection request.

Trever Russell  
Minneapolis, MN 55406

From: Dustin Simpson  
To: <BigStoneEIS@wapa.gov>  
Date: 2/11/2008 4:17 PM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system. We do not have the water to support another dirty burning coal plant. Draining a public water body and groundwater supply to burn more coal places industry wishes over the right of the people to enjoy fishing and recreation, and the right of future generations to an adequate public water supply.

Big Stone Lake is at risk from the water demands of the proposed Big Stone II coal plant. If Big Stone II gets built and we have a dry winter with little or no spring rain again, we could see a three-foot drop in Big Stone Lake levels, contrary to what Otter Tail Power is telling the public.

The South Dakota Water Management Board gave 3.2 billion gallons of water from Big Stone Lake plus 3.2 billion gallons of groundwater per year to Otter Tail Power, even though they knew that the total came to more than double the amount required to operate Big Stone I, Big Stone II, and the ethanol plant.

Worse, an agreement from the 70s allows Otter Tail to take water in 'emergency situations' and even from October to April if the lake is at or greater than 965, which is three-feet below current levels! The lake is already very shallow with an average depth of only eight feet. In this worst case scenario, almost half of the lake's level could be gone to help burn more dirty coal!

Please protect our water, not a 1.8 billion dollar (and rising) business plan. It is not possible to 'mitigate' or lessen the environmental impact of what Big Stone II will do to Big Stone Lake. Please deny the Big Stone II interconnection request.

ALSO

SFL-28a [That water belongs to no one! And if it DID belong to someone, it would be the people of the state and especially that county. That water should not turn into a profit for energy industry.] [There are other types of power plants that could be built and there are more efficient ways to make energy.]  
SFL-28b [Otter Tail Power should have to explore other options. The state of Minnesota is supposed to be at the forefront of clean and renewable energy.]

Dustin Simpson  
Bloomington, MN 55431

From: Judy Swenson  
To: <BigStoneEIS@wapa.gov>  
Date: 2/15/2008 7:26 AM  
Subject: Do not approve Big Stone II interconnection

SFL-29a [ Dear Ms. Werdel  
Please let the rights of people and caring for our precious environment come before big business. Although Big Stone II may bring about some positive effects, the negative consequences far outweigh those minute positives, and thus, ultimately negate any good things it could possibly bring. I personally don't understand how you could even think of going through with the project.

I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system. We do not have the water to support another dirty burning coal plant. Draining a public water body and groundwater supply to burn more coal places industry wishes over the right of the people to enjoy fishing and recreation, and the right of future generations to an adequate public water supply.

Big Stone Lake is at risk from the water demands of the proposed Big Stone II coal plant. If Big Stone II gets built and we have a dry winter with little or no spring rain again, we could see a three-foot drop in Big Stone Lake levels, contrary to what Otter Tail Power is telling the public.

The South Dakota Water Management Board gave 3.2 billion gallons of water from Big Stone Lake plus 3.2 billion gallons of groundwater per year to Otter Tail Power, even though they knew that the total came to more than double the amount required to operate Big Stone I, Big Stone II, and the ethanol plant.

Worse, an agreement from the 70s allows Otter Tail to take water in 'emergency situations' and even from October to April if the lake is at or greater than 965, which is three-feet below current levels! The lake is already very shallow with an average depth of only eight feet. In this worst case scenario, almost half of the lake's level could be gone to help burn more dirty coal!

Please protect our water, not a 1.8 billion dollar (and rising) business plan. It is not possible to 'mitigate' or lessen the environmental impact of what Big Stone II will do to Big Stone Lake. Please deny the Big Stone II interconnection request.

Judy Swenson  
Montevideo, MN 56265

From: Richard Tester  
To: <BigStoneEIS@wapa.gov>  
Date: 2/11/2008 8:39 PM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system. We do not have the water to support another dirty burning coal plant. Draining a public water body and groundwater supply to burn more coal places industry wishes over the right of the people to enjoy fishing and recreation, and the right of future generations to an adequate public water supply.

SFL-30a [ I also think that the Big Stone II coal burning plant should not be built. We do not need any more fossil fuel plants like this. Why not just harness more wind energy and send that through the new transmission lines ?

Big Stone Lake is at risk from the water demands of the proposed Big Stone II coal plant. If Big Stone II gets built and we have a dry winter with little or no spring rain again, we could see a three-foot drop in Big Stone Lake levels, contrary to what Otter Tail Power is telling the public.

The South Dakota Water Management Board gave 3.2 billion gallons of water from Big Stone Lake plus 3.2 billion gallons of groundwater per year to Otter Tail Power, even though they knew that the total came to more than double the amount required to operate Big Stone I, Big Stone II, and the ethanol plant.

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Please protect our water, not a 1.8 billion dollar (and rising) business plan. It is not possible to 'mitigate' or lessen the environmental impact of what Big Stone II will do to Big Stone Lake. Please deny the Big Stone II interconnection request.

Richard Tester  
Eagan, MN 55123

From: Dick Unger  
To: <BigStoneEIS@wapa.gov>  
Date: 2/14/2008 4:02 PM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system. We do not have the water to support another dirty burning coal plant. Draining a public water body and groundwater supply to burn more coal places industry wishes over the right of the people to enjoy fishing and recreation, and the right of future generations to an adequate public water supply.

Big Stone Lake is at risk from the water demands of the proposed Big Stone II coal plant. If Big Stone II gets built and we have a dry winter with little or no spring rain again, we could see a three-foot drop in Big Stone Lake levels, contrary to what Otter Tail Power is telling the public.

The South Dakota Water Management Board gave 3.2 billion gallons of water from Big Stone Lake plus 3.2 billion gallons of groundwater per year to Otter Tail Power, even though they knew that the total came to more than double the amount required to operate Big Stone I, Big Stone II, and the ethanol plant.

Worse, an agreement from the 70s allows Otter Tail to take water in 'emergency situations' and even from October to April if the lake is at or greater than 965, which is three-feet below current levels! The lake is already very shallow with an average depth of only eight feet. In this worst case scenario, almost half of the lake's level could be gone to help burn more dirty coal!

Please protect our water, not a 1.8 billion dollar (and rising) business plan. It is not possible to 'mitigate' or lessen the environmental impact of what Big Stone II will do to Big Stone Lake. Please deny the Big Stone II interconnection request.

SFL-31a [ My children have reactive airway medical problems. This could result from the existing plant. We already can't eat the fish in our beautiful river. We get no money or power from Bigstone, only pollution and water shortages.

SFL-31b [ For once, government could do the right thing.

Thank you.

Dick Unger  
Montevideo, MN 56265



*Volume IV – PUBLIC COMMENTS*

SFL-32. SIERRA CLUB FORM LETTER (214 Signatories)

ADDITIONAL COMMENTS INCLUDED

WITH SIERRA CLUB FORM LETTER

SFL-33. Terry Brueske

SFL-34. George Carleton IV

SFL-35. Dave Councilman

SFL-36. Thomas Donovan

SFL-37. Retha Dooley

SFL-38. Clyde Hanson

SFL-39. Ian Harding

SFL-40. Jo Harrison

SFL-41. Jeffrey Hazen

SFL-42. Mary Holm

SFL-43. Kurt Indermaur

SFL-44. Terry Iverson

SFL-45. Susan Johnson

SFL-46. Liz Keeler

SFL-47. Gary Kirsch

SFL-48. Colleen Krebs

SFL-49. Corinne Livesay

SFL-50. Deb McKay

SFL-51. Phyl Morello

SFL-52. Julie Nester

SFL-53. Dick Ottman

SFL-54. Bob Peterson

SFL-55. Lynn Ritchie

SFL-56. Mary Thacker

SFL-57. Ian Willard

SFL-58. Mardi Bentzen

SFL-59. Lori Braun

SFL-60. Katie Clower

SFL-61. Mary Homan

SFL-62. Shirley Johnson

SFL-63. Mary Lysne

SFL-64. Richard Newmark

SFL-65. Gary Nuechterlein

SFL-66. Carmine Profant

SFL-67. Ellen Shores

SFL-68. David Starr

SFL-69. Don Weirens

## Sierra Club Form Letter-SDEIS

Dear Ms. Werdel:

SFL-32a Please accept my comments on the supplemental draft environmental impact statement for the Big Stone II coal-fired power plant and transmission expansion. I value clean air, clean water, and the interests of public health and our natural legacy over the profits of a utility company.

SFL-32b The vast quantities of water that would be required from groundwater and Big Stone Lake for operating Big Stone II are unacceptable. Tapping this water resource would affect the agricultural community, tourism and recreation, wildlife, and the very water people in the area drink.

SFL-32c Global warming is widely acknowledged as a reality that we must address now. Building another massive, coal-fired power plant will only launch us further in the wrong direction, altering Minnesota's natural resources and our families futures irrevocably.

SFL-32d Lastly, the impact on public health and wildlife remains an undeniable risk in this project. Despite mercury controls, the first few years of Big Stone II's operation would put out quantities of mercury that will stay in Minnesota's water systems for years to come. Coal is a dirty, harmful fuel. From the mining, to the burning, to the fly ash, pollutants from coal fired power contribute to health problems such as asthma and heart disease. We should not invest further in such a harmful industry when the opportunity for a clean, green economy is within our reach.

SFL-32e I ask that these concerns are reflected seriously in the Environmental Impact Statement, indicating a strong recommendation against the Big Stone II power plant and transmission project.

Thank you for your time and consideration.

## Sierra Club Form Letter-SDEIS

### Signatories to the Sierra Club form letter:

Randall Anderson; Minneapolis, MN  
Steve Anderson; Saint Francis, MN  
Jared Asuma; Roseville, MN  
Dan Balluff; Minneapolis, MN  
Jennifer Basch; Little Falls, MN  
Malcolm Bastron; Rochester, MN  
Tim Beattie; Minnetonka, MN  
Wendy Bergeron; Minneapolis, MN  
Eric Betthausen; Saint Paul, MN  
JoEllen Betts; Minneapolis, MN  
Robert Birnstengel; Laporte, MN  
Colin Bogucki; Minneapolis, MN  
Julia Bohnen; Robbinsdale, MN  
Erick Boustead; Minneapolis, MN  
Cyndi Neus Bradley; Shoreview, MN  
Scott Brink; Maple Grove, MN  
Craig Brown; Bloomington, MN  
Daniel Brown; Saint Paul, MN  
Christopher Brueske; Saint Paul, MN  
Brendon Bryan; Saint Cloud, MN  
Jim Bukowski; Saint Paul, MN  
David Burrows; Wadena, MN  
David Burton; Northfield, MN  
Donna Butler; Coon Rapids, MN  
Judith Carlson; Maple Grove  
Jonathan D Carlson; Atwater, MN  
Peter Carlson; Lakeville, MN  
Jack Carrick; North Saint Paul, MN  
Dona Christensen; Maple Grove, MN  
Jason Cintorino; Minneapolis, MN  
Susan Clarke; Saint Paul, MN

Mary Sue Comfort; Mahtomedi, MN  
Jessica Coulter; Hopkins, MN  
Penny Cragun; Duluth  
Audrey Cullen; Minneapolis, MN  
Scott Daby; Minneapolis, MN  
William Dancer; Saint Paul, MN  
Michael Daniels; Plymouth, MN  
Robert Davis; Saint Louis Park, MN  
Timothy DenHerder-Thomas; Saint Paul, MN  
Paul Devine; Eagan, MN  
Connie Diercks; Minneapolis, MN  
Donna Dingle; Saint Paul, MN  
Todd A Dobesh; Minneapolis, MN  
Dottie Dolezal; Minneapolis, MN  
Stephen Donnelly; Easthampton, MA  
Janet Draper; Duluth, MN  
Doug Duncan; Stanton, MN  
Jon Duncan; Saint Paul, MN  
Gary Eagen; New Prague, MN  
Stephen Erickson; Rochester, MN  
Rich Femling; Roseville, MN  
Richard Fish; Minneapolis, MN  
Arline Fobes; West Saint Paul, MN  
Patrick Foley; Minneapolis, MN  
Joe Foss; Mounds View, MN  
Rita Franchett; Minneapolis, MN  
Angela Frandrup; Minneapolis, MN  
Michelle Friessen; Minneapolis, MN  
Joel Fuller; Minneapolis, MN  
Cami Funkhouser; Rush City, MN  
Jason Gainess; Minneapolis, MN  
Lena Gardner; Saint Paul, MN

## Sierra Club Form Letter-SDEIS

Paula Geurts; Wyoming, MN  
P Gibbons; Minneapolis, MN  
Gerry Gingles; Canby, MN  
Bruce Goff, Eagan, MN  
Davie Goon, Bloomington, MN  
Kim Gordon; Minneapolis, MN  
Alfred Gramstedt; Northfield, MN  
Carol Greenwood; Minneapolis, MN  
Peter Griffin; Minneapolis, MN  
Brian Grivna; Edina, MN  
Wendy Haan; Minneapolis, MN  
Mary Haemig; Saint Paul, MN  
Matt Hagen; Minneapolis, MN  
Karen Hannah; Stillwater, MN  
Stuart Hansen; Minneapolis, MN  
John Hanson; Saint Paul, MN  
Karen Harder; Minneapolis, MN  
Lucia Harland; Shorewood, MN  
Sarah Harnden; Minneapolis, MN  
Paul Haugen; Stillwater, MN  
Sean Hawthorne; Wyoming, MN  
Kathleen Henderson; Gilroy, CA  
Thomas Herdtle; Inver Grove Heights, MN  
Kim Hesser; Rochester, MN  
William Higdon; Saint Cloud, MN  
Anne Holzinger; Minneapolis, MN  
Joshua Houdek; Minneapolis, MN  
Nancy Houghton; Nevis, MN  
James Huhtala; Clear Lake, MN  
Germaine Hullerman; Rochester, MN  
Karen Hulstrand, Stillwater, MN  
Mari Ito; Shoreview, MN  
Benjamin Jensen, Coon Rapids, MN  
Matt Johansen; Bloomington, MN  
Craig Johnson; Saint Paul, MN  
Elisabeth Johnson; Watertown, SD  
Lee Johnson; Edina, MN  
Shirley Johnson; Saint Paul, MN

Sherrie Kamm; Minneapolis, MN  
Jan Karon; Saint Paul, MN  
Stacey Kawakami; Saint Paul, MN  
Cesia Kearns; Minneapolis, MN  
Maizie Kelly; Minneapolis, MN  
Edith Kelnhofer; Crystal, MN  
Alisha Kerschbaum; Stillwater, MN  
Scott Kneeskern; Stillwater, MN  
Lucy Knoll; Minneapolis, MN  
Lawrence Krantz; Bemiji, MN  
Eugene Kremer; Saint Paul, MN  
Linda Kriel; Newport, MN  
Richard Krueger; Wayzata, MN  
Andrea Lambrecht; Minneapolis, MN  
Daniel Leanio; Minneapolis, MN  
Janet Lenius; Minneapolis, MN  
Tom Limond; Minneapolis, MN  
James Lohse; Saint Paul, MN  
Hilary MacLeod; Deephaven, MN  
Peter Malen; Saint Paul, MN  
Ann Marshall; Edina, MN  
Jennifer Martin; Plymouth, MN  
Greg Mason; Eden Prairie, MN  
Martha Mathis; Minneapolis, MN  
Hana Matousek; Prior Lake, MN  
John McGowan; Saint Paul, MN  
Victoria Meehan; Shafer, MN  
Chris Messer; Saint Paul, MN  
Veronica Murphy; Minneapolis, MN  
April Narcisse; Bloomington, MN  
Christine Nelson; Coon Rapids, MN  
Maggie Nelson; Brainerd, MN  
Paul Nelson; Saint Paul, MN  
Timothy Nelson; Duluth, MN  
Cecelia Newton; Minneapolis, MN  
Robert Niemi; Crystal, MN  
Carole Nimlos; Vadnais Heights, MN  
Janet Norling; Minnetrista, MN

## Sierra Club Form Letter-SDEIS

Pat Nudd; Cedar, MN  
Ryan O'Connell; Virginia, MN  
Shaun Okeefe; Minneapolis, MN  
Alan Olander; Nevis, MN  
Alis Olsen; Saint Paul, MN  
Peter Olsen; Brooklyn, NY  
James Percich; Saint Paul, MN  
Camille Peterson; Crystal, MN  
James Peterson; Roseville, MN  
Laurie Prettner; Minneapolis, MN  
Tom Prieve; Fergus Falls, MN  
Ian Radtke; Minneapolis, MN  
Jane Ralls; Minneapolis, MN  
Philip Rampi; Saint Paul, MN  
Mike Refsland; Saint Paul, MN  
James Reininger; Saint Louis Park, MN  
Julia Reitan; San Francisco, CA  
Susan Rengstorf; Shoreview, MN  
Tom Resick, Plymouth, MN  
Bill Rickmeyer, Nisswa, MN  
Jacqueline Ricks; Orono, MN  
Sheila Williams Ridge; West Saint Paul, MN  
Erik Rigelhof; Minneapolis, MN  
Virginia Ritchie; Oakdale, MN  
Earl Rosenwinkel; Duluth, MN  
Elizabeth Schaefer; Shoreview, MN  
Joel Schmidt; Pennock, MN  
Karon Schmitt; Saint Paul, MN  
Cristen Schnabel; Forest Lake, MN  
Jen Schnabel; Rochester, MN  
Jennifer Schubert; Minneapolis, MN  
Rebecca Shedd; Minneapolis, MN  
Bruce Sielaff; Minneapolis, MN  
Bennett Siems; Minneapolis, MN  
Shawn Simonson; Lake Crystal, MN  
Stacy Sletten; Mound, MN  
Brett Smith; Minneapolis, MN  
Brad Snyder; Maple Grove, MN  
Mark Snyder; Minneapolis, MN  
Char Sokatch; Saint Paul, MN  
Lynn Sovell; Wells, MN  
Jeremy Stahl; Saint Paul, MN  
Mike Steigerwald; Minneapolis, MN  
John Steinworth; White Bear Township, MN  
Martin Steitz; Forest Lake, MN  
Denise Sterling; Minnetonka, MN  
Rob Stock; Wayzata, MN  
Gerald Striegel; Saint Paul, MN  
Michael Sweet; Saint Paul, MN  
Dan Tanner; Bloomington, MN  
Bethany & Bill Thomas; Saint Anthony, MN  
Joe Thorne; Duluth, MN  
Edi Thorstensson; Saint Peter, MN  
J Thom; Minneapolis, MN  
Jennifer Timmers; Hopkins, MN  
Brian Trusinsky; Richfield, MN  
Maureen Tyra; Plymouth, MN  
Dalton VanBuren; Minneapolis, MN  
Barbara Van Norman; Minneapolis, MN  
Nancy Van Nurden; Marcell, MN  
Ordell Vee; Madelia, MN  
Peter Veilleux; Eagan, MN  
James Vlazny; Rochester, MN  
Mary Vlazny; Rochester, MN  
Erik Voldal; Rochester, MN  
Kris Warhol; Perham, MN  
Diana Watson; Mound, MN  
Clare Welter; Saint Paul, MN  
Alice West; Grand Marais, MN  
Sue Wick; Saint Paul, MN  
Doug & Kathy Wood; Sartell, MN  
Bryan Wyberg; Coon Rapids, MN

## **Sierra Club Form Letter-SDEIS**

Kathleen Zent; Richfield, MN

Mary Zirbes; Saint Cloud, MN

Jennifer Zoss, Brooklyn Park, MN

From: terry brueske  
To: <BigStoneEIS@wapa.gov>  
Date: 2/28/2008 8:52 AM  
Subject: Protect Minnesotas natural resources comments on the supplemental draft environmental impact stat

Dear Ms. Werdel:

Please accept my comments on the supplemental draft environmental impact statement for the Big Stone II coal-fired power plant. I value clean air, clean water, and the interests of public health and our natural legacy over the profits of a utility company.

The vast quantities of water that would be required from groundwater and Big Stone Lake for operating Big Stone II are unacceptable. Tapping this water resource would affect the agricultural community, tourism and recreation, wildlife, and the very water people in the area drink.

Global warming is widely acknowledged as a reality that we must address now. Building another massive, coal-fired power plant will only launch us further in the wrong direction, altering Minnesotas natural resources and our families futures irrevocably.

Lastly, the impact on public health and wildlife remains an undeniable risk in this project. Despite mercury controls, the first few years of Big Stone IIs operation would put out quantities of mercury that will stay in Minnesotas water systems for years to come. Coal is a dirty, harmful fuel. From the mining, to the burning, to the fly ash, pollutants from coal fired power contribute to health problems such as asthma and heart disease. We should not invest further in such a harmful industry when the opportunity for a clean, green economy is within our reach.

I ask that these concerns are reflected seriously in the Environmental Impact Statement, indicating a strong recommendation against the Big Stone II power plant.

SFL-33a [However I am for transmission lines because they are needed to transport electricity for the increasing number of wind turbines across Minnesota.

Thank you for your time and consideration.

terry brueske  
alexandria, MN 56308

From: george Carleton  
To: <BigStoneEIS@wapa.gov>  
Date: 2/26/2008 12:18 PM  
Subject: Protect Minnesotas natural resources comments on the supplemental draft environmental impact statement

Dear Ms. Werdel:

Please accept my comments on the supplemental draft environmental impact statement for the Big Stone II coal-fired power plant and transmission expansion. I value clean air, clean water, and the interests of public health and our natural legacy over the profits of a utility company.

The vast quantities of water that would be required from groundwater and Big Stone Lake for operating Big Stone II are unacceptable. Tapping this water resource would affect the agricultural community, tourism and recreation, wildlife, and the very water people in the area drink.

Global warming is widely acknowledged as a reality that we must address now. Building another massive, coal-fired power plant will only launch us further in the wrong direction, altering Minnesotas natural resources and our families futures irrevocably.

SFL-34a [ it is time to put our money and resources into nuclear electricity. coal is not the future for electricity. no more polution,please.]  
Lastly, the impact on public health and wildlife remains an undeniable risk in this project. Despite mercury controls, the first few years of Big Stone IIs operation would put out quantities of mercury that will stay in Minnesotas water systems for years to come. Coal is a dirty, harmful fuel. From the mining, to the burning, to the fly ash, pollutants from coal fired power contribute to health problems such as asthma and heart disease. We should not invest further in such a harmful industry when the opportunity for a clean, green economy is within our reach.

I ask that these concerns are reflected seriously in the Environmental Impact Statement, indicating a strong recommendation against the Big Stone II power plant and transmission project.

Thank you for your time and consideration.

george carleton iv  
merrifield, MN 56465



From: dl councilman  
To: <BigStoneEIS@wapa.gov>  
Date: 2/26/2008 2:52 PM  
Subject: Protect Minnesotas natural resources comments on the supplemental draft environmental impact stat

Dear Ms. Werdel:

Please accept my comments on the supplemental draft environmental impact statement for the Big Stone II coal-power plant and transmission expansion.

As a parent and physician, I value clean air, clean water, and the interests of public health and our natural legacy over the profits of a utility company.

The vast quantities of water that would be required from groundwater and Big Stone Lake for operating Big Stone II are unacceptable. Tapping this water resource would affect the agricultural community, tourism and recreation, wildlife, and the very water people in the area drink.

SFL-35a

[GLOBAL WARMING IS THE BIGGEST ENVIRONMENTAL CHALLENGE FACING OUR WORLD, AND BUILDING COAL POWER PLANTS IS JUST ONE MORE LAZY WAY TO DELAY OUR DEALING WITH THIS ISSUE.] Building another coal-fired power plant will only launch us further in the wrong direction, altering Minnesotas natural resources and our families futures irrevocably.

Lastly, the impact on public health and wildlife remains an undeniable risk in this project. Despite mercury controls, the first few years of Big Stone IIs operation would put out quantities of mercury that will stay in Minnesotas water systems for years to come. Coal is a dirty, harmful fuel. From the mining, to the burning, to the fly ash, pollutants from coal fired power contribute to health problems such as asthma and heart disease. We should not invest further in such a harmful industry when the opportunity for a clean, green economy is within our reach.

I ask that these concerns are reflected seriously in the Environmental Impact Statement, indicating a strong recommendation against the Big Stone II power plant and transmission project.

Thank you for your time and consideration.

Dave Councilman  
St Louis Park, MN 55426

From: tl donovan  
To: <BigStoneEIS@wapa.gov>  
Date: 2/28/2008 12:44 PM  
Subject: Protect Minnesotas natural resources comments on the supplemental draft environmental impact stat

Dear Ms. Werdel:

Please accept my comments on the supplemental draft environmental impact statement for the Big Stone II coal-fired power plant and transmission expansion. I value clean air, clean water, and the interests of public health and our natural legacy over the profits of a utility company.

The vast quantities of water that would be required from groundwater and Big Stone Lake for operating Big Stone II are unacceptable. Tapping this water resource would affect the agricultural community, tourism and recreation, wildlife, and the very water people in the area drink.

Global warming is widely acknowledged as a reality that we must address now. Building another massive, coal-fired power plant will only launch us further in the wrong direction, altering Minnesotas natural resources and our families futures irrevocably.

SFL-36a

Instead, I would request that the Environmental Impact Statement reflect the October, 2007, decision of the Kansas Department of Health and Environment which became the first government agency in the United States to cite carbon dioxide emissions as the basis for rejecting an air permit for two proposed 700 megawatt coal-fired plants in Holcomb, Kansas. Climate change is a fact and state regulators need to adjust their regulatory oversight accordingly.

Lastly, the impact on public health and wildlife remains an undeniable risk in this project. Despite mercury controls, the first few years of Big Stone IIs operation would put out quantities of mercury that will stay in Minnesotas water systems for years to come. Coal is a dirty, harmful fuel. From the mining, to the burning, to the fly ash, pollutants from coal fired power contribute to health problems such as asthma and heart disease. We should not invest further in such a harmful industry when the opportunity for a clean, green economy is within our reach.

I ask that these concerns are reflected seriously in the Environmental Impact Statement, indicating a strong recommendation against the Big Stone II power plant and transmission project.

Thank you for your time and consideration.

Thomas Donovan  
Newport, MN 55055

From: retha dooley  
To: <BigStoneEIS@wapa.gov>  
Date: 2/27/2008 8:54 AM  
Subject: Protect Minnesotas natural resources comments on the supplemental draft environmental impact stat

Dear Ms. Werdel:

Please accept my comments on the supplemental draft environmental impact statement for the Big Stone II coal-fired power plant and transmission expansion. I value clean air, clean water, and the interests of public health and our natural legacy over the profits of a utility company.

The vast quantities of water that would be required from groundwater and Big Stone Lake for operating Big Stone II are unacceptable. Tapping this water resource would affect the agricultural community, tourism and recreation, wildlife, and the very water people in the area drink. [We already know that in Minnesota the ground water around Granite Falls has been compromised due to processing ethanol.]

SFL-37a

Global warming is widely acknowledged as a reality that we must address now. Building another massive, coal-fired power plant will only launch us further in the wrong direction, altering Minnesotas natural resources and our families futures irrevocably.

Lastly, the impact on public health and wildlife remains an undeniable risk in this project. Despite mercury controls, the first few years of Big Stone IIs operation would put out quantities of mercury that will stay in Minnesotas water systems for years to come. Coal is a dirty, harmful fuel. From the mining, to the burning, to the fly ash, pollutants from coal fired power contribute to health problems such as asthma and heart disease. We should not invest further in such a harmful industry when the opportunity for a clean, green economy is within our reach. What is the resistance to wind power? Must we continue to devastate the environment?

I ask that these concerns are reflected seriously in the Environmental Impact Statement, indicating a strong recommendation against the Big Stone II power plant and transmission project.

Thank you for your time and consideration.

Retha Dooley  
Sauk Centre, MN 56378

From: Clyde Hanson  
To: <BigStoneEIS@wapa.gov>  
Date: 2/26/2008 4:06 PM  
Subject: Protect Minnesotas natural resources comments on the supplemental draft environmental impact stat

Dear Ms. Werdel:

Please accept my comments on the supplemental draft environmental impact statement for the Big Stone II coal-fired power plant and transmission expansion. I value clean air, clean water, and the interests of public health and our natural legacy over the profits of a utility company.

SFL-38a [ I live in a rural area and have a grid-tied 2.5kw solar pannel system.

The vast quantities of water that would be required from groundwater and Big Stone Lake for operating Big Stone II are unacceptable. Tapping this water resource would affect the agricultural community, tourism and recreation, wildlife, and the very water people in the area drink.

Global warming is widely acknowledged as a reality that we must address now. Building another massive, coal-fired power plant will only launch us further in the wrong direction, altering Minnesotas natural resources and our families futures irrevocably.

Lastly, the impact on public health and wildlife remains an undeniable risk in this project. Despite mercury controls, the first few years of Big Stone IIs operation would put out quantities of mercury that will stay in Minnesotas water systems for years to come. Coal is a dirty, harmful fuel. From the mining, to the burning, to the fly ash, pollutants from coal fired power contribute to health problems such as asthma and heart disease. We should not invest further in such a harmful industry when the opportunity for a clean, green economy is within our reach.

I ask that these concerns are reflected seriously in the Environmental Impact Statement, indicating a strong recommendation against the Big Stone II power plant and transmission project.

Thank you for your time and consideration.

Clyde Hanson  
Lutsen, MN 55612

From: Ian Harding  
To: <BigStoneEIS@wapa.gov>  
Date: 2/26/2008 11:38 AM  
Subject: Protect Minnesotas natural resources comments on the supplemental draft environmental impact stat

Dear Ms. Werdel:

Please accept my comments on the supplemental draft environmental impact statement for the Big Stone II coal-fired power plant and transmission expansion. I value clean air, clean water, and the interests of public health and our natural legacy over the profits of a utility company.

The vast quantities of water that would be required from groundwater and Big Stone Lake for operating Big Stone II are unacceptable. Tapping this water resource would affect the agricultural community, tourism and recreation, wildlife, and the very water people in the area drink.

Global warming is widely acknowledged as a reality that we must address now. Building another massive, coal-fired power plant will only launch us further in the wrong direction, altering Minnesotas natural resources and our families futures irrevocably.

Lastly, the impact on public health and wildlife remains an undeniable risk in this project. Despite mercury controls, the first few years of Big Stone IIs operation would put out quantities of mercury that will stay in Minnesotas water systems for years to come. Coal is a dirty, harmful fuel. From the mining, to the burning, to the fly ash, pollutants from coal fired power contribute to health problems such as asthma and heart disease. We should not invest further in such a harmful industry when the opportunity for a clean, green economy is within our reach. [Think of HOW MANY MORE CASES OF THE MISERY OF ASTHMA AND POOR HEALTH this proposed coal plant will cause?]

SFL-39a

I ask that these concerns are reflected seriously in the Environmental Impact Statement, indicating a strong recommendation against the Big Stone II power plant and transmission project.

Thank you for your time and consideration.

Ian Harding  
Mahtomedi, MN 55115

From: Jo Harrison  
To: <BigStoneEIS@wapa.gov>  
Date: 2/26/2008 1:43 PM  
Subject: Protect Minnesotas natural resources comments on the supplemental draft environmental impact stat

Dear Ms. Werdel:

Please accept my comments on the supplemental draft environmental impact statement for the Big Stone II coal-fired power plant and transmission expansion. I value clean air, clean water, and the interests of public health and our natural legacy over the profits of a utility company.

The vast quantities of water that would be required from groundwater and Big Stone Lake for operating Big Stone II are unacceptable. Tapping this water resource would affect the agricultural community, tourism and recreation, wildlife, and the very water people in the area drink.

Global warming is widely acknowledged as a reality that we must address now. Building another massive, coal-fired power plant will only launch us further in the wrong direction, altering Minnesotas natural resources and our families futures irrevocably.

Lastly, the impact on public health and wildlife remains an undeniable risk in this project. Despite mercury controls, the first few years of Big Stone IIs operation would put out quantities of mercury that will stay in Minnesotas water systems for years to come. Coal is a dirty, harmful fuel. From the mining, to the burning, to the fly ash, pollutants from coal fired power contribute to health problems such as asthma and heart disease. We should not invest further in such a harmful industry when the opportunity for a clean, green economy is within our reach.

I ask that these concerns are reflected seriously in the Environmental Impact Statement, indicating a strong recommendation against the Big Stone II power plant and transmission project.

SFL-40a [Please act for the benefit of my children and grandchildren.

Thank you for your time and consideration.

Jo Harrison  
Stillwater, MN 55082

From: Jeffrey Hazen  
To: <BigStoneEIS@wapa.gov>  
Date: 2/27/2008 5:38 AM  
Subject: Protect Minnesotas natural resources comments on the supplemental draft environmental impact stat

Dear Ms. Werdel:

Please accept my comments on the supplemental draft environmental impact statement for the Big Stone II coal-fired power plant and transmission expansion. I value clean air, clean water, and the interests of public health and our natural legacy over the profits of a utility company.

The vast quantities of water that would be required from groundwater and Big Stone Lake for operating Big Stone II are unacceptable. Tapping this water resource would affect the agricultural community, tourism and recreation, wildlife, and the very water people in the area drink.

Global warming is widely acknowledged as a reality that we must address now. It has been said that the best power plant is the one you don't build! Conservation is what we all need to encourage, not increased consumption and therefore production. Building another massive, coal-fired power plant will only launch us further in the wrong direction. We need to decrease energy consumption as a nation. All we seem to have the vision and stomach for is to slow growth increases, altering Minnesotas natural resources and our families futures irrevocably.

Lastly, the impact on public health and wildlife remains an undeniable risk in this project. Despite mercury controls, the first few years of Big Stone IIs operation would put out quantities of mercury that will stay in Minnesotas water systems for years to come. Coal is a dirty, harmful fuel. From the mining, to the burning, to the fly ash, pollutants from coal fired power contribute to health problems such as asthma and heart disease. We should not invest further in such a harmful industry when the opportunity for a clean, green economy is within our reach.

I ask that these concerns are reflected seriously in the Environmental Impact Statement, indicating a strong recommendation against the Big Stone II power plant and transmission project.

SFL-41a [ Conserve! Conserve! Conserve! Innovate!!

Thank you for your time and consideration.

Jeffrey Hazen  
Bloomington, MN 55437-1916

February 27, 2008

Ms. Nancy Werdel

Dear Ms. Werdel:

SFL-42a

The message below, crafted by the Sierra Club, says so well what I want to shout! Please open your eyes! Let's get on the GREEN bandwagon ASAP, so that we have a chance--A CHANCE!--to escape the dire catastrophes which global warming will bring! Environmental scientists are alarmed at how much faster the effects of global warming are occurring than they believed just months ago. The absolute necessity to stop carbon emissions is URGENT! URGENT! Do NOT allow this or any other coal plant to go forward!

Please accept my comments on the supplemental draft environmental impact statement for the Big Stone II coal-fired power plant and transmission expansion. I value clean air, clean water, and the interests of public health and our natural legacy over the profits of a utility company.

The vast quantities of water that would be required from groundwater and Big Stone Lake for operating Big Stone II are unacceptable. Tapping this water resource would affect the agricultural community, tourism and recreation, wildlife, and the very water people in the area drink.

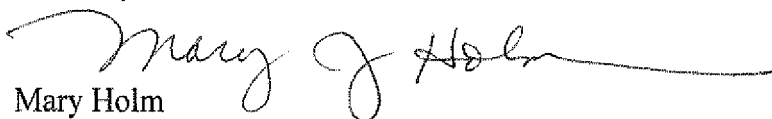
Global warming is widely acknowledged as a reality that we must address now. Building another massive, coal-fired power plant will only launch us further in the wrong direction, altering Minnesota's natural resources and our families' futures irrevocably.

Lastly, the impact on public health and wildlife remains an undeniable risk in this project. Despite mercury controls, the first few years of Big Stone II's operation would put out quantities of mercury that will stay in Minnesota's water systems for years to come. Coal is a dirty, harmful fuel. From the mining, to the burning, to the fly ash, pollutants from coal-fired power contribute to health problems such as asthma and heart disease. We should not invest further in such a harmful industry when the opportunity for a clean, green economy is within our reach.

I ask that these concerns are reflected seriously in the Environmental Impact Statement, indicating a strong recommendation against the Big Stone II power plant and transmission project.

Thank you for your time and consideration.

Sincerely,

  
Mary Holm



From: Kurt Indermaur  
To: <bigstoneEIS@wapa.gov>  
Date: 3/4/2008 9:53 AM  
Subject: comments on supplemental draft environmental impact statement

Dear Ms. Werdel:

Please accept my comments on the supplemental draft environmental impact statement for the Big Stone II coal-fired power plant and transmission expansion. I value clean air, clean water, and the interests of public health.

SFL-43a [Coal, with its attendant air pollution and mercury emissions, is not the best option for expanding power generation in our region. With cleaner alternatives increasingly available (wind, biomass), and the potential for us to lead the nation in renewable energy generation, expanding coal burning just does not make sense.

I ask that these concerns be reflected seriously in the Environmental Impact Statement, indicating a strong recommendation against the Big Stone II power plant and transmission project.

Thank you for your time and consideration.

Kurt Indermaur  
Minnetonka, MN 55305

From: Terry.Iverson  
To: <BigStoneEIS@wapa.gov>  
Date: 2/26/2008 9:30 AM  
Subject: Protect Minnesotas natural resources comments on the supplemental draft environmental impact stat

Dear Ms. Werdel:

Please accept my comments on the supplemental draft environmental impact statement for the Big Stone II coal-fired power plant and transmission expansion. I value clean air, clean water, and the interests of public health and our natural legacy over the profits of a utility company.

SFL-44a

We don't need this new facility. It's just going to be a big eye sore in the near future when/with alternative energy resources (solar, wind) growing and becoming a bigger and better option for America's energy needs.

The vast quantities of water that would be required from groundwater and Big Stone Lake for operating Big Stone II are unacceptable. Tapping this water resource would affect the agricultural community, tourism and recreation, wildlife, and the very water people in the area drink.

Global warming is widely acknowledged as a reality that we must address now. Building another massive, coal-fired power plant will only launch us further in the wrong direction, altering Minnesotas natural resources and our families futures irrevocably.

Lastly, the impact on public health and wildlife remains an undeniable risk in this project. Despite mercury controls, the first few years of Big Stone IIs operation would put out quantities of mercury that will stay in Minnesotas water systems for years to come. Coal is a dirty, harmful fuel. From the mining, to the burning, to the fly ash, pollutants from coal fired power contribute to health problems such as asthma and heart disease. We should not invest further in such a harmful industry when the opportunity for a clean, green economy is within our reach.

I ask that these concerns are reflected seriously in the Environmental Impact Statement, indicating a strong recommendation against the Big Stone II power plant and transmission project.

Thank you for your time and consideration.

Terry Iverson  
Shakopee, MN 55379

From: Susan Johnson  
To: <BigStoneEIS@wapa.gov>  
Date: 2/26/2008 9:21 AM  
Subject: Protect Minnesotas natural resources comments on the supplemental draft environmental impact stat

Dear Ms. Werdel:

Please accept my comments on the supplemental draft environmental impact statement for the Big Stone II coal-fired power plant and transmission expansion. I value clean air, clean water, and the interests of public health and our natural legacy over the profits of a utility company.

SFL-45a [Minnesota needs to become a leader in wind and solar energy, not more polluting plants. People want to be able to eat the fish they catch. Tourism is a big industry in MN, let us work harder to clean up our lakes not pollute them. There is more than enough wind in our great state to provide much needed energy.]

The vast quantities of water that would be required from groundwater and Big Stone Lake for operating Big Stone II are unacceptable. Tapping this water resource would affect the agricultural community, tourism and recreation, wildlife, and the very water people in the area drink.

Global warming is widely acknowledged as a reality that we must address now. Building another massive, coal-fired power plant will only launch us further in the wrong direction, altering Minnesotas natural resources and our families futures irrevocably.

SFL-45b [Lastly, the impact on public health and wildlife remains an undeniable risk in this project. [Our children deserve to have a life free from mercury in their systems.] Despite mercury controls, the first few years of Big Stone IIs operation would put out quantities of mercury that will stay in Minnesotas water systems for years to come. Coal is a dirty, harmful fuel. From the mining, to the burning, to the fly ash, pollutants from coal fired power contribute to health problems such as asthma and heart disease. We should not invest further in such a harmful industry when the opportunity for a clean, green economy is within our reach.

I ask that these concerns are reflected seriously in the Environmental Impact Statement, indicating a strong recommendation against the Big Stone II power plant and transmission project.

Thank you for your time and consideration.

Susan Johnson  
Edina, MN 55424

From: Liz Keeler  
To: <BigStoneEIS@wapa.gov>  
Date: 2/26/2008 7:50 PM  
Subject: Protect Minnesotas natural resources comments on the supplemental draft environmental impact stat

Dear Ms. Werdel:

Please accept my comments on the supplemental draft environmental impact statement for the Big Stone II coal-fired power plant and transmission expansion. I value clean air, clean water, and the interests of public health and our natural legacy over the profits of a utility company.

The vast quantities of water that would be required from groundwater and Big Stone Lake for operating Big Stone II are unacceptable. Tapping this water resource would affect the agricultural community, tourism and recreation, wildlife, and the very water people in the area drink.

Global warming is widely acknowledged as a reality that we must address now. Building another massive, coal-fired power plant will only launch us further in the wrong direction, altering Minnesotas natural resources and our families futures irrevocably. [I would like other options considered so that in the long run MN has a balance of energy options and we never find ourselves too closely tied to one type of energy as we are now tied to oil.] [I am worried about the potentially harmful effects of coal outlined in this letter and I definitely want further consideration of cleaner energy types with less harmful environmental impacts put into play now.]

SFL-46a

SFL-46b

Lastly, the impact on public health and wildlife remains an undeniable risk in this project. Despite mercury controls, the first few years of Big Stone IIs operation would put out quantities of mercury that will stay in Minnesotas water systems for years to come. Coal is a dirty, harmful fuel. From the mining, to the burning, to the fly ash, pollutants from coal fired power contribute to health problems such as asthma and heart disease. We should not invest further in such a harmful industry when the opportunity for a clean, green economy is within our reach.

I ask that these concerns are reflected seriously in the Environmental Impact Statement, indicating a strong recommendation against the Big Stone II power plant and transmission project.

Thank you for your time and consideration.

Liz Keeler  
Saint Paul, MN 55102

From: Gary Kirsch  
To: <BigStoneEIS@wapa.gov>  
Date: 2/26/2008 6:21 PM  
Subject: Protect Minnesotas natural resources comments on the supplemental draft environmental impact stat

Dear Ms. Werdel:

Please accept my comments on the supplemental draft environmental impact statement for the Big Stone II coal-fired power plant and transmission expansion. I value clean air, clean water, and the interests of public health and our natural legacy over the profits of a utility company.

The vast quantities of water that would be required from groundwater and Big Stone Lake for operating Big Stone II are unacceptable. Tapping this water resource would affect the agricultural community, tourism and recreation, wildlife, and the very water people in the area drink.

Global warming is widely acknowledged as a reality that we must address now. Building another massive, coal-fired power plant will only launch us further in the wrong direction, altering Minnesotas natural resources and our families futures irrevocably.

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SFL-47a [ What is the projected cost of the Big Stone II power plant? What would be the impact on research and development toward solar and wind generated power if this tremendous amount of money were to be used for green energy research and development?

I ask that these concerns are reflected seriously in the Environmental Impact Statement, indicating a strong recommendation against the Big Stone II power plant and transmission project.

Thank you for your time and consideration.

Gary Kirsch  
Maplewood, MN 55117

From: C. Krebs  
To: <BigStoneEIS@wapa.gov>  
Date: 2/27/2008 3:42 PM  
Subject: Protect Minnesotas natural resources comments on the supplemental draft environmental impact stat

Dear Ms. Werdel:

SFL-48a

As citizens, business people, and politicians are rapidly coming to realize, the time is past for energy that is either dirty or needing huge amounts of water to produce.

Please accept my comments on the supplemental draft environmental impact statement for the Big Stone II coal-fired power plant and transmission expansion. I value clean air, clean water, and the interests of public health and our natural legacy over the profits of a utility company.

The vast quantities of water that would be required from groundwater and Big Stone Lake for operating Big Stone II are unacceptable. Tapping this water resource would affect the agricultural community, tourism and recreation, wildlife, and the very water people in the area drink.

Global warming is widely acknowledged as a reality that we must address now. Building another massive, coal-fired power plant will only launch us further in the wrong direction, altering Minnesotas natural resources and our families futures irrevocably.

Lastly, the impact on public health and wildlife remains an undeniable risk in this project. Despite mercury controls, the first few years of Big Stone IIs operation would put out quantities of mercury that will stay in Minnesotas water systems for years to come. Coal is a dirty, harmful fuel. From the mining, to the burning, to the fly ash, pollutants from coal fired power contribute to health problems such as asthma and heart disease. We should not invest further in such a harmful industry when the opportunity for a clean, green economy is within our reach.

I ask that these concerns are reflected seriously in the Environmental Impact Statement, indicating a strong recommendation against the Big Stone II power plant and transmission project.

Thank you for your time and consideration.

Colleen Krebs  
Minneapolis, MN 55409

From: Corinne Livesay  
To: <BigStoneEIS@wapa.gov>  
Date: 2/26/2008 9:21 AM  
Subject: Protect Minnesotas natural resources comments on the supplemental draft environmental impact stat

Dear Ms. Werdel:

Please accept my comments on the supplemental draft environmental impact statement for the Big Stone II coal-fired power plant and transmission expansion. I value clean air, clean water, and the interests of public health and our natural legacy over the profits of a utility company.

The vast quantities of water that would be required from groundwater and Big Stone Lake for operating Big Stone II are unacceptable. Tapping this water resource would affect the agricultural community, tourism and recreation, wildlife, and the very water people in the area drink.

Global warming is widely acknowledged as a reality that we must address now. Building another massive, coal-fired power plant will only launch us further in the wrong direction, altering Minnesotas natural resources and our families futures irrevocably.

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I ask that these concerns are reflected seriously in the Environmental Impact Statement, indicating a strong recommendation against the Big Stone II power plant and transmission project. [HARD TO BELIEVE THAT WITH THE REALITY OF GLOBAL WARMING, WE'RE STILL HARPING ON THIS. THERE ARE BENIGN ALTERNATIVES SO THE IDEA OF COAL COMES DOWN TO MONIED INTERESTS, NOT THE GOOD OF THE PLANET.]

SFL-49a

Thank you for your time and consideration.

Corinne Livesay  
White Bear Lake, MN 55110

From: D. McKay  
To: <BigStoneEIS@wapa.gov>  
Date: 2/26/2008 9:41 AM  
Subject: Protect Minnesotas natural resources comments on the supplemental draft environmental impact stat

Dear Ms. Werdel:

Please accept my comments on the supplemental draft environmental impact statement for the Big Stone II coal-fired power plant and transmission expansion. I value clean air, clean water, and the interests of public health and our natural legacy over the profits of a utility company.

SFL-50a

And I put my money where my mouth is. My husband and I have built a totally solar home in rural Minnesota. AND he's joined FreeNerG a new solar-electric venture startup to put 50 solar units on residences in Minneapolis this summer. Please please please stop the building of more coal plants and make it easier for businesses and homeowners to "see the light" of solar and wind energy. We spent over \$30,000 on our solar system, getting a \$2,000 tax rebate. This is why there isn't more solar -- there must be more incentives (REAL incentives) from the government. FreeNerG is making solar electric affordable for the average homeowner. So much more can be done to help push this movement. Look to the European Union for ideas -- they are decades ahead of us "slow thinking" Americans!! (I say that because we seem to be stubbornly marching along in our same "dirty" ways of coal and nuclear energy.)

The vast quantities of water that would be required from groundwater and Big Stone Lake for operating Big Stone II are unacceptable. Tapping this water resource would affect the agricultural community, tourism and recreation, wildlife, and the very water people in the area drink.

Global warming is widely acknowledged as a reality that we must address now. Building another massive, coal-fired power plant will only launch us further in the wrong direction, altering Minnesotas natural resources and our families futures irrevocably.

Lastly, the impact on public health and wildlife remains an undeniable risk in this project. Despite mercury controls, the first few years of Big Stone IIs operation would put out quantities of mercury that will stay in Minnesotas water systems for years to come. Coal is a dirty, harmful fuel. From the mining, to the burning, to the fly ash, pollutants from coal fired power contribute to health problems such as asthma and heart disease. We should not invest further in such a harmful industry when the opportunity for a clean, green economy is within our reach.

I ask that these concerns are reflected seriously in the Environmental Impact Statement, indicating a strong recommendation against the Big Stone II power plant and transmission project.

Thank you for your time and consideration.

D McKay  
Henderson, MN 56044-4415



From: Phyl Morello  
To: <BigStoneEIS@wapa.gov>  
Date: 2/26/2008 2:09 PM  
Subject: Protect Minnesotas natural resources comments on the supplemental draft environmental impact stat

Dear Ms. Werdel:

Please accept my comments on the supplemental draft environmental impact statement for the Big Stone II coal-fired power plant and transmission expansion. I value clean air, clean water, and the interests of public health and our natural legacy over the profits of a utility company.

SFL-51a [ PLEASE GO TO OTHER GREENER WAYS OF ENERGY. COAL IS DIRTY.

The vast quantities of water that would be required from groundwater and Big Stone Lake for operating Big Stone II are unacceptable. Tapping this water resource would affect the agricultural community, tourism and recreation, wildlife, and the very water people in the area drink.

Global warming is widely acknowledged as a reality that we must address now. Building another massive, coal-fired power plant will only launch us further in the wrong direction, altering Minnesotas natural resources and our families futures irrevocably.

Lastly, the impact on public health and wildlife remains an undeniable risk in this project. Despite mercury controls, the first few years of Big Stone IIs operation would put out quantities of mercury that will stay in Minnesotas water systems for years to come. Coal is a dirty, harmful fuel. From the mining, to the burning, to the fly ash, pollutants from coal fired power contribute to health problems such as asthma and heart disease. We should not invest further in such a harmful industry when the opportunity for a clean, green economy is within our reach.

I ask that these concerns are reflected seriously in the Environmental Impact Statement, indicating a strong recommendation against the Big Stone II power plant and transmission project.

Thank you for your time and consideration.

Phyl Morello  
White Pine, TN 37890-4903

From: Julie Nester  
To: <BigStoneEIS@wapa.gov>  
Date: 2/28/2008 12:03 PM  
Subject: Protect Minnesotas natural resources comments on the supplemental draft environmental impact stat

Dear Ms. Werdel:

SFL-52a [Pease stop the Big Stone II coal-fired plant and the increase in mercury it will produce in our water and food. [Coal is not the energy source of the future. We should be developing wind and solar.]

I value clean air, clean water, and the interests of public health and our natural legacy over the profits of a utility company.

The vast quantities of water that would be required from groundwater and Big Stone Lake for operating Big Stone II are unacceptable. Tapping this water resource would affect the agricultural community, tourism and recreation, wildlife, and the very water people in the area drink.

Global warming is widely acknowledged as a reality that we must address now. Building another massive, coal-fired power plant will only launch us further in the wrong direction, altering Minnesotas natural resources and our families futures irrevocably.

Lastly, the impact on public health and wildlife remains an undeniable risk in this project. Despite mercury controls, the first few years of Big Stone IIs operation would put out quantities of mercury that will stay in Minnesotas water systems for years to come. Coal is a dirty, harmful fuel. From the mining, to the burning, to the fly ash, pollutants from coal fired power contribute to health problems such as asthma and heart disease. We should not invest further in such a harmful industry when the opportunity for a clean, green economy is within our reach.

I ask that these concerns are reflected seriously in the Environmental Impact Statement, indicating a strong recommendation against the Big Stone II power plant and transmission project.

SFL-52b [On behalf of our children, stop Big Stone II.

Julie Nester  
Minneapolis, MN 55419

From: Dick Ottman  
To: <BigStoneEIS@wapa.gov>  
Date: 2/26/2008 1:03 PM  
Subject: Protect Minnesotas natural resources comments on the supplemental draft environmental impact stat

Dear Ms. Werdel:

Please accept my comments on the supplemental draft environmental impact statement for the Big Stone II coal-fired power plant and transmission expansion.

The vast quantities of water that would be required from groundwater and Big Stone Lake for operating Big Stone II are unacceptable. Tapping this water resource would affect the agricultural community, tourism and recreation, wildlife, and the very water people in the area drink.

Global warming is widely acknowledged as a reality that we must address now. Building another massive, coal-fired power plant will only launch us further in the wrong direction, altering Minnesotas natural resources and our families futures irrevocably. [We can not afford to have more carbon dioxide put into the air for the life of this coal fired power plant (as much as 50 years).]

SFL-53a

Lastly, the impact on public health and wildlife remains an undeniable risk in this project. Despite mercury controls, the first few years of Big Stone IIs operation would put out quantities of mercury that will stay in Minnesotas water systems for years to come.

I ask that these concerns are reflected seriously in the Environmental Impact Statement, indicating a strong recommendation against the Big Stone II power plant and transmission project.

Thank you for your time and consideration.

Dick Ottman  
White Bear Lake, MN 55110

From: Bob Peterson  
To: <BigStoneEIS@wapa.gov>  
Date: 2/26/2008 10:06 AM  
Subject: Protect Minnesotas natural resources comments on the supplemental draft environmental impact stat

Dear Ms. Werdel:

Please accept my comments on the supplemental draft environmental impact statement for the Big Stone II coal-fired power plant and transmission expansion. I value clean air, clean water, and the interests of public health and our natural legacy over the profits of a utility company.

The vast quantities of water that would be required from groundwater and Big Stone Lake for operating Big Stone II are unacceptable. Tapping this water resource would affect the agricultural community, tourism and recreation, wildlife, and the very water people in the area drink.

Global warming is widely acknowledged as a reality that we must address now. Building another massive, coal-fired power plant will only launch us further in the wrong direction, altering Minnesotas natural resources and our families futures irrevocably.

SFL-54a [Lastly, the impact on public health and wildlife remains an undeniable risk in this project. Despite mercury controls, the first few years of Big Stone IIs operation would put out quantities of mercury that will stay in Minnesotas water systems for years to come. Coal is a dirty, harmful fuel. From the mining, to the burning, to the fly ash, pollutants from coal fired power contribute to health problems such as asthma and heart disease. [Mercury can do neurological damage.] We should not invest further in such a harmful industry when the opportunity for a clean, green economy is within our reach.

I ask that these concerns are reflected seriously in the Environmental Impact Statement, indicating a strong recommendation against the Big Stone II power plant and transmission project.

Thank you for your time and consideration.

Bob Peterson  
Minneapolis, MN 55406

From: Lynn Ritchie  
To: <BigStoneEIS@wapa.gov>  
Date: 2/26/2008 11:44 AM  
Subject: Protect Minnesotas natural resources comments on the supplemental draft environmental impact stat

Dear Ms. Werdel:

Please accept my comments on the supplemental draft environmental impact statement for the Big Stone II coal-fired power plant and transmission expansion. I value clean air, clean water, and the interests of public health and our natural legacy over the profits of a utility company.

The vast quantities of water that would be required from groundwater and Big Stone Lake for operating Big Stone II are unacceptable. Tapping this water resource would affect the agricultural community, tourism and recreation, wildlife, and the very water people in the area drink.

Global warming is widely acknowledged as a reality that we must address now. Building another massive, coal-fired power plant will only launch us further in the wrong direction, altering Minnesotas natural resources and our families futures irrevocably.

Lastly, the impact on public health and wildlife remains an undeniable risk in this project. Despite mercury controls, the first few years of Big Stone IIs operation would put out quantities of mercury that will stay in Minnesotas water systems for years to come. Coal is a dirty, harmful fuel. From the mining, to the burning, to the fly ash, pollutants from coal fired power contribute to health problems such as asthma and heart disease. We should not invest further in such a harmful industry when the opportunity for a clean, green economy is within our reach.

I ask that these concerns are reflected seriously in the Environmental Impact Statement, indicating a strong recommendation against the Big Stone II power plant and transmission project.

SFL-55a [As a winter resident of Florida it is impressive that only 5% of their energy comes from coal, while in Minnesota the use of coal is more than 70%. With so many natural resources to protect, I would think the effort to reduce coal consumption would be a logical goal.

Thank you for your time and consideration.

Lynn Ritchie  
Eden Prairie, MN 55346

From: Mary Thacker  
To: <BigStoneEIS@wapa.gov>  
Date: 2/28/2008 7:06 AM  
Subject: Protect Minnesotas natural resources comments on the supplemental draft environmental impact stat

Dear Ms. Werdel:

Please accept my comments on the supplemental draft environmental impact statement for the Big Stone II coal-fired power plant and transmission expansion. I value clean air, clean water, and the interests of public health and our natural legacy over the profits of a utility company.

The vast quantities of water that would be required from groundwater and Big Stone Lake for operating Big Stone II are unacceptable. Tapping this water resource would affect the agricultural community, tourism and recreation, wildlife, and the very water people in the area drink.

Global warming is widely acknowledged as a reality that we must address now. Building another massive, coal-fired power plant will only launch us further in the wrong direction, altering Minnesotas natural resources and our families futures irrevocably.

Lastly, the impact on public health and wildlife remains an undeniable risk in this project. Despite mercury controls, the first few years of Big Stone IIs operation would put out quantities of mercury that will stay in Minnesotas water systems for years to come. Coal is a dirty, harmful fuel. From the mining, to the burning, to the fly ash, pollutants from coal fired power contribute to health problems such as asthma and heart disease. We should not invest further in such a harmful industry when the opportunity for a clean, green economy is within our reach.

I ask that these concerns are reflected seriously in the Environmental Impact Statement, indicating a strong recommendation against the Big Stone II power plant and transmission project.

SFL-56a [Thank you for your time and consideration. [I am counting on you to do the right thing.]

Mary Thacker  
Greenwood, MN 55331

From: Ian Willard  
To: <BigStoneEIS@wapa.gov>  
Date: 2/27/2008 10:09 AM  
Subject: Protect Minnesotas natural resources comments on the supplemental draft environmental impact stat

Dear Ms. Werdel:

Please accept my comments on the supplemental draft environmental impact statement for the Big Stone II coal-fired power plant and transmission expansion. I am a high school student and I have been taking a class on environmental sciences. I have been learning about how pollution affects our world, and I think we should avoid that at all costs. [My family gets our eletricity from Otter Tali Power, and we would rather pay higher rates than have our state get polluted. Please consider how your customers feel.]

SFL-57a

I value clean air, clean water, and the interests of public health and our natural legacy over the profits of a utility company. The vast quantities of water that would be required from groundwater and Big Stone Lake for operating Big Stone II are unacceptable. Tapping this water resource would affect the agricultural community, tourism and recreation, wildlife, and the very water people in the area drink.

Global warming is widely acknowledged as a reality that we must address now. Building another massive, coal-fired power plant will only launch us further in the wrong direction, altering Minnesota's natural resources and our families futures irrevocably.

Lastly, the impact on public health and wildlife remains an undeniable risk in this project. Despite mercury controls, the first few years of Big Stone II's operation would put out quantities of mercury that will stay in Minnesota's water systems for years to come. Coal is a dirty, harmful fuel. From the mining, to the burning, to the fly ash, pollutants from coal fired power contribute to health problems such as asthma and heart disease. We should not invest further in such a harmful industry when the opportunity for a clean, green economy is within our reach.

I ask that these concerns are reflected seriously in the Environmental Impact Statement, indicating a strong recommendation against the Big Stone II power plant and transmission project.

Thank you for your time and consideration.

Ian Willard  
Miltona, MN 56354

From: Mardi Bentzen <bentzen101@COMCAST.NET>  
To: <BigStoneEIS@wapa.gov>  
Date: 2/17/2008 6:51 AM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system. We do not have the water to support another dirty burning coal plant. Draining a public water body and groundwater supply to burn more coal places industry wishes over the right of the people to enjoy fishing and recreation, and the right of future generations to an adequate public water supply.

SFL-58a [Big Stone Lake is at risk from the water demands of the proposed Big Stone II coal - another resource which is dwindling - plant. If Big Stone II gets built and we have a dry winter with little or no spring rain again, we could see a three-foot drop in Big Stone Lake levels, contrary to what Otter Tail Power is telling the public.

The South Dakota Water Management Board gave 3.2 billion gallons of water from Big Stone Lake plus 3.2 billion gallons of groundwater per year to Otter Tail Power, even though they knew that the total came to more than double the amount required to operate Big Stone I, Big Stone II, and the ethanol plant.

Worse, an agreement from the 70s allows Otter Tail to take water in "emergency situations" and even from October to April if the lake is at or greater than 965, which is three-feet below current levels! The lake is already very shallow with an average depth of only eight feet. In this worst case scenario, almost half of the lake's level could be gone to help burn more dirty coal!

Please protect our water, not a 1.8 billion dollar (and rising) business plan. It is not possible to "mitigate" or lessen the environmental impact of what Big Stone II will do to Big Stone Lake. Please deny the Big Stone II interconnection request.

Mardi Bentzen  
Burnsville, MN 55337



From: Lois Braun  
To: <BigStoneEIS@wapa.gov>  
Date: 2/26/2008 12:21 PM  
Subject: Supplemental Draft Environmental impact stat

Dear Ms. Werdel:

There are three major environmental problems associated with building Big Stone II:

SFL-59a [First, coal burning contributes to global warming,] which is widely acknowledged as a reality that we must address now. Building another massive, coal-fired power plant will only launch us further in the wrong direction.

Secondly, Lastly, the impact on public health and wildlife remains an undeniable risk in this project. Despite mercury controls, the first few years of Big Stone IIs operation would put out quantities of mercury that will stay in Minnesotas water systems for years to come. Coal is a dirty, harmful fuel. From the mining, to the burning, to the fly ash, pollutants from coal fired power contribute to health problems such as asthma and heart disease. We should not invest further in such a harmful industry when the opportunity for a clean, green economy is within our reach.

I ask that these concerns are reflected seriously in the Environmental Impact Statement, indicating a strong recommendation against the Big Stone II power plant and transmission project.

Thank you for your time and consideration.

Lois Braun  
St. Paul, MN 55108

From: Katie Clower  
To: <BigStoneEIS@wapa.gov>  
Date: 2/28/2008 10:55 AM  
Subject: Protect Minnesotas natural resources comments on the supplemental draft environmental impact stat

Dear Ms. Werdel:

I am writing to comment on the supplemental draft environmental impact statement for the Big Stone II coal-fired power plant and transmission expansion.

I oppose building new coal-fired power plants, particularly in an area of the country with so much potential for producing renewable energy. I am also concerned about the environmental impact of the proposed Big Stone II plant. I believe that the resources used and the pollution produced are unacceptable. We need to be promoting sustainable, clean, renewable energy; protection of wildlife habitat; concern for human and environmental health; reduction of global-warming pollutants; and an emphasis on energy efficiency and conservation.

I support the Sierra Club's position on this issues, and I ask that my concerns be reflected seriously in the Environmental Impact Statement, indicating a strong recommendation against the Big Stone II power plant and transmission project.

Thank you for your time and consideration.

Katie Clower  
Minneapolis, MN 55406

SFL-60a

SFL-60b

From: Mary Homan  
To: <BigStoneEIS@wapa.gov>  
Date: 2/28/2008 3:13 PM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

PLEASE THIS IS URGENT FROM SOMEONE THAT LIVES ON BIG STONE LAKE:

I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system. We do not have the water to support another dirty burning coal plant. Draining a public water body and groundwater supply to burn more coal places industry wishes over the right of the people to enjoy fishing and recreation, and the right of future generations to an adequate public water supply.

Big Stone Lake is at risk from the water demands of the proposed Big Stone II coal plant. If Big Stone II gets built and we have a dry winter with little or no spring rain again, we could see a three-foot drop in Big Stone Lake levels, contrary to what Otter Tail Power is telling the public.

The South Dakota Water Management Board gave 3.2 billion gallons of water from Big Stone Lake plus 3.2 billion gallons of groundwater per year to Otter Tail Power, even though they knew that the total came to more than double the amount required to operate Big Stone I, Big Stone II, and the ethanol plant.

Worse, an agreement from the 70s allows Otter Tail to take water in "emergency situations" and even from October to April if the lake is at or greater than 965, which is three-feet below current levels! The lake is already very shallow with an average depth of only eight feet. In this worst case scenario, almost half of the lake's level could be gone to help burn more dirty coal!

Please protect our water, not a 1.8 billion dollar (and rising) business plan. It is not possible to "mitigate" or lessen the environmental impact of what Big Stone II will do to Big Stone Lake. Please deny the Big Stone II interconnection request.

Mary Homan  
Ortonville, MN 56278

SFL-61a

From: Shirley Johnson  
To: <BigStoneEIS@wapa.gov>  
Date: 2/27/2008 8:54 AM  
Subject: Protect Minnesotas natural resources comments on the supplemental draft environmental impact stat

Dear Ms. Werdel:

Please accept my comments on the supplemental draft environmental impact statement for the Big Stone II coal-fired power plant and transmission expansion. I value clean air, clean water, and the interests of public health and our natural legacy over the profits of a utility company.

The vast quantities of water that would be required from groundwater and Big Stone Lake for operating Big Stone II are unacceptable. Tapping this water resource would affect the agricultural community, tourism and recreation, wildlife, and the very water people in the area drink.

Global warming is widely acknowledged as a reality that we must address now. Building another massive, coal-fired power plant will only launch us further in the wrong direction, altering Minnesotas natural resources and our families futures irrevocably.

Lastly, the impact on public health and wildlife remains an undeniable risk in this project. Despite mercury controls, the first few years of Big Stone IIs operation would put out quantities of mercury that will stay in Minnesotas water systems for years to come. Coal is a dirty, harmful fuel. From the mining, to the burning, to the fly ash, pollutants from coal fired power contribute to health problems such as asthma and heart disease. We should not invest further in such a harmful industry when the opportunity for a clean, green economy is within our reach.

I ask that these concerns are reflected seriously in the Environmental Impact Statement, indicating a strong recommendation against the Big Stone II power plant and transmission project.

SFL-62a [ In an area of the state with an abundance of potential for wind energy, let's not increase the problems associated with coal.

Thank you for your time and consideration.

Shirley Johnson  
St Paul, MN 55104

From: Mary Lysne  
To: <BigStoneEIS@wapa.gov>  
Date: 2/27/2008 11:41 AM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

Taking water from Big Stone Lake for a coal burning power plant is the wrong direction for our continent.

I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system. We do not have the water to support another dirty burning coal plant. Draining a public water body and groundwater supply to burn more coal places industry wishes over the right of the people to enjoy fishing and recreation, and the right of future generations to an adequate public water supply.

Big Stone Lake is at risk from the water demands of the proposed Big Stone II coal plant. If Big Stone II gets built and we have a dry winter with little or no spring rain again, we could see a three-foot drop in Big Stone Lake levels, contrary to what Otter Tail Power is telling the public.

The South Dakota Water Management Board gave 3.2 billion gallons of water from Big Stone Lake plus 3.2 billion gallons of groundwater per year to Otter Tail Power, even though they knew that the total came to more than double the amount required to operate Big Stone I, Big Stone II, and the ethanol plant.

Worse, an agreement from the 70s allows Otter Tail to take water in ?emergency situations? and even from October to April if the lake is at or greater than 965, which is three-feet below current levels! The lake is already very shallow with an average depth of only eight feet. In this worst case scenario, almost half of the lake's level could be gone to help burn more dirty coal!

Please protect our water, not a 1.8 billion dollar (and rising) business plan. It is not possible to ?mitigate? or lessen the environmental impact of what Big Stone II will do to Big Stone Lake. Please deny the Big Stone II interconnection request.

Mary Lysne  
Robbinsdale, MN 55422

SFL-63a

From: Richard Newmark  
To: <BigStoneEIS@wapa.gov>  
Date: 2/26/2008 9:46 PM  
Subject: Protect Minnesotas natural resources comments on the supplemental draft environmental impact stat

Dear Ms. Werdel:

Please accept my comments on the supplemental draft EIS for the Big Stone II power plant expansion.

SFL-64a [ Global warming is widely acknowledged as a reality that we must address now. Both MN Governor Pawlenty and the State Legislature, in bi-partisan legislation, passed the Next Generation Act in MN in 2007. Building another coal-fired power plant will make achieving the greenhouse gas reduction goals of the state of MN (30% by 2025) almost impossible to achieve.

SFL-64b [ We should not invest further in coal plants when the opportunity for a clean, green economy is within our reach via conservation, biomass, and wind power. Approving a plant which will produce carbon for the next 50 years without requiring sequestration of the carbon will be an environmental disaster.

SFL-64c ]

Thank you for your time.

Richard Newmark  
Woodbury, MN 55125-5101

From: Gary Nuechterlein  
To: <BigStoneEIS@wapa.gov>  
Date: 2/27/2008 4:06 PM  
Subject: Protect Minnesotas natural resources comments on the supplemental draft environmental impact stat

Dear Ms. Werdel:

SFL-65a [Clean air and water are critical not just to our wildlife and agriculture, but also to our own health.] [The Big Stone II coal-fired power plant and transmission expansion will require large quantities of water that will deplete both the local groundwater as well as Big Stone Lake.] Using this water resource would affect the agricultural community, tourism and recreation, wildlife, and the very water people in the area drink.

SFL-65b

SFL-65c [Building another massive, coal-fired power plant will contribute significatly to global warming, at a time when we should be doing our best to decrease such pollution to protect the future of our state.

More immediately, despite mercury controls, the first few years of Big Stone IIs operation would put out quantities of mercury that will stay in Minnesotas water systems for years to come.

I ask that these concerns are reflected seriously in the Environmental Impact Statement, indicating a strong recommendation against the Big Stone II power plant and transmission project.

Thank you for your time and consideration.

Gary Nuechterlein  
Hawley, MN 56549

From: Carmine Profant  
To: <BigStoneEIS@wapa.gov>  
Date: 2/26/2008 11:26 AM  
Subject: Protect Minnesotas natural resources comments on the supplemental draft environmental impact stat

Dear Ms. Werdel:

Please accept my comments on the supplemental draft environmental impact statement for the Big Stone II coal-fired power plant and transmission expansion. I value clean air, clean water, and the interests of public health and our natural legacy over the profits of a utility company.

[The issue of global warming caused by excessive carbon emissions should be our primary consideration as we try to make wise and sustainable decisions on what types of energy sources to build and use. Building another coal-fired power plant moves us further in the wrong direction, altering Minnesota's natural resources and having a negative impact on our climate, ecosystems, species and human life itself.] [The negative impact on public health and wildlife is certain in this project. Despite mercury controls, the first few years of Big Stone IIs operation would put out quantities of mercury that will stay in Minnesota's water systems for years to come.]

Coal is a dirty, harmful, unrenewable fuel. From the mining, to the burning, to the fly ash, pollutants from coal fired power contribute to health problems such as asthma and heart disease. We should not invest further in such a harmful industry when the opportunity for a clean, green economy is within our reach.

I ask that these concerns are reflected seriously in the Environmental Impact Statement, indicating a strong recommendation against the Big Stone II power plant and transmission project.

Thank you for your time and consideration.

Carmine Profant  
Minneapolis, MN 55417

SFL-66a

SFL-66b



From: Ellen Shores  
To: <BigStoneEIS@wapa.gov>  
Date: 2/27/2008 6:52 PM  
Subject: Protect Minnesotas natural resources comments on the supplemental draft environmental impact stat

Dear Ms. Werdel:

Please accept my comments on the supplemental draft environmental impact statement for the Big Stone II coal-fired power plant and transmission expansion.

SFL-67a [I urge recommendation against the Big Stone II power plant and transmission project based on environmental and health concerns.

Thank you for your time and consideration.

Ellen Shores  
Minneapolis, MN 55406

From: David Starr  
To: <BigStoneEIS@wapa.gov>  
Date: 2/11/2008 1:29 PM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

I am requesting that Western deny Big Stone II Co-owners an interconnection to Western's transmission system. Draining a public water body and groundwater supply to burn more coal places industry wishes over the right of the people, and the right of future generations to an adequate public water supply.

If Big Stone II gets built and we continue having a dry weather, a three-foot drop in Big Stone Lake levels can be anticipated. [This draining of a public resource for private gain is unacceptable.]

The South Dakota Water Management Board has staked Big Stone II to 3.2 billion gallons of water from Big Stone Lake plus 3.2 billion gallons of groundwater per year to Otter Tail Power. Another agreement from the 1970s allows Otter Tail to take water in "emergency situations" including October to April if the lake is at or greater than 965. This level is three-feet below current low levels! With an average depth of only eight feet, this worst case scenario could reduce the lake to half it's current water load.

Protect our water, not a 1.8 billion dollar business plan. It will not be possible to mitigate or lessen the environmental impact of Big Stone II on Big Stone Lake. I urge you to deny the Big Stone II interconnection request.

David Starr  
Chaska, MN 55318

SFL-68a

From: Don Weirens  
To: <BigStoneEIS@wapa.gov>  
Date: 2/11/2008 12:33 PM  
Subject: Do not approve Big Stone II interconnection

Dear Ms. Werdel

SFL-69a [ Please do not let Big Stone II Co-owners have an interconnection to Western's transmission system. [It is a waste of your valuable water resource] to support a dirty burning coal plant. Draining a public water body and groundwater supply to burn more coal places industry wishes over the right of the people to enjoy fishing and recreation, and the right of future generations to an adequate public water supply.

Big Stone Lake is at risk from the water demands of the proposed Big Stone II coal plant. If Big Stone II gets built and we have a dry winter with little or no spring rain again, we could see a three-foot drop in Big Stone Lake levels, contrary to what Otter Tail Power is telling the public.

The South Dakota Water Management Board gave 3.2 billion gallons of water from Big Stone Lake plus 3.2 billion gallons of groundwater per year to Otter Tail Power, even though they knew that the total came to more than double the amount required to operate Big Stone I, Big Stone II, and the ethanol plant.

Worse, an agreement from the 70s allows Otter Tail to take water in "emergency situations" and even from October to April if the lake is at or greater than 965, which is three-feet below current levels! The lake is already very shallow with an average depth of only eight feet. In this worst case scenario, almost half of the lake's level could be gone to help burn more dirty coal!

Please protect our water, not a 1.8 billion dollar (and rising) business plan. It is not possible to "mitigate" or lessen the environmental impact of what Big Stone II will do to Big Stone Lake. Please deny the Big Stone II interconnection request.

Don Weirens  
ST LOUIS PARK, MN 55416

## **PUBLIC HEARING**

**SPH. Milbank, South Dakota – November 3, 2007**

SPH-1. Myrna Thompson

SPH-2. Maggy Harp

SPH-3. Mary Jo Stueve

PUBLIC HEARING  
HELD: November 13, 2007  
MILBANK AREA CHAMBER OF COMMERCE  
1001 E. 4<sup>TH</sup> AVENUE  
MILBANK, SOUTH DAKOTA

**MS. MYRNA THOMPSON**

SPH-1a

My name is Myrna Thompson. Hello. Okay. On page, under the Chapter 6, the Consultation and Coordination. 6-1, I would like to make a correction to the Western participated in the informational meeting with several tribes on March 9, 2007, in Hankinson, North Dakota, to discuss the proposed project and to inform tribal members of groundwater exploration activities. Western held a government-to-government consultation meeting with the Sisseton-Wahpeton Tribal Council on June 20. I would like to make the correction that so as not to sound as if we were all for this project, because we were, in fact, opposed to it, but we were there for an informational meeting with WAPA and Otter Tail, but the meeting was stopped by the tribes because the tribes did not want it to be construed as consultation, a tribal consultation. Because a true tribal consultation is government to government with the tribal leaders of each respective tribe.

And the meeting held on June 20, with the Sisseton-Wahpeton Tribal Council, it was made clear at that meeting that it was not to be considered a tribal consultation and more of an information-sharing meeting, because this was the first actual face-to-face government-to-government meeting with WAPA and Otter Tail. And the tribe was not included from the beginning of the project. And it was stated by Nancy Werdel at that time that they understood that the government-to-government consultation needs to occur with Tribal Council. And Steve, our tribal liaison, had stated that they are trying to establish the government-to-government relationship at that time. But the tribal leadership at that time did not want it to be considered a tribal consultation unless it was identified and agreed upon as such prior to that specific meeting. And this was clearly stated to be an informational meeting for the tribal leadership.

SPH-1b

So I wanted to make that correction in the Supplemental Draft EIS. And I would like to say that the tribe is very concerned and still does oppose the project, because we have no information on long-term environmental impacts over time, as well as the health impacts to our -- not only our people, the human factor, as well as the vegetation and the water, the air quality. And the tribal attorney will be submitting comments in written -- written comments by December 10. Thank you very much.

**MS. MAGGY HARP**

SPH-2a

Director of the Environment for the Lower Sioux Indian Community, which lives on the Minnesota River. And having looked at the consultation, [I'm very concerned that the Lower Sioux Indian Community was not invited to this consultation, so to speak, as we are told in this paper on page 6-1, since we, too, live on the Minnesota River and take our fish and whatever from that river.] We, too, are concerned. Our office, [the Office the Environment is concerned

SPH-2b

about the impact on our relatives in Sisseton, and as Nancy said, it would have no impact on the Minnesota River and the Big Stone River. This year, the Minnesota River was very, very low. We took a canoe down it and had portage across much of it. Some of it was only four to six feet deep. There were big huge trees in it that we didn't know even existed, which is okay, but it's

just the fact that it's supposed to be at 10 to 15 feet, not four to six feet.

So we know that Minnesota as a state is not going to be a resource for us in the future for water. They're just not a state that's not going to have it, if we start looking at droughts. So we are concerned about not only the fact of our relatives not having enough water, but ourselves having enough water. ]

SPH-2c

And the other piece, as Nancy mentioned, in the supplement, is that downstream there would be no impact and the wells in the area, and that this aquifer that you're drawing from is confined and non-confined. And I'm questioning the fact that is it connected to Sisseton? Do your models show that this water may be up in the Sisseton area? And it gets recharged down here. You know, the complexity is mind boggling to me. And that's my comment. Thank you.

**MS. MARY JO STUEVE:**

Program Coordinator, Clean Water Action, South Dakota, out of Sioux Falls. And this is also my home land, as I have a home in Graceville, grew up on Big Stone Lake, and I also have farmland in the area.

SPH-3a

[Clean Water Action still has great concerns on this project, and I'll speak specifically to what we're talking about here with the Supplemental Draft EIS tonight. We have concerns that the applicants failed to consult with or investigate the Sisseton-Wahpeton Oyate water use rights and interests, especially with this groundwater proposal.] [We have concerns that the modeling

SPH-3b

component, engineering, investigation, analysis as done by Barr Engineering, Black and Veatch, etc., used a computer model using past climatological data and did not include years 2000 to 2007, for example, which have been drought years; and had those years been included, we might come out with a different outcome, as far as water table levels and how much the drop might be for groundwater draw. And the computer model also did not account for or project the future prediction with global warming, changes in temperatures that we know we can expect in the Midwest within a range, and our water variations. And that would be helpful to see.]

SPH-3c

Clean Water Action also has concerns that Otter Tail currently with all the water permits it has, which total approximately 28,000-acre-feet per 25 year, according to their own estimate, is actually 15,000-acre feet more than what they say they need in the project design. Nancy mentioned earlier that the Supplemental Draft EIS, and this is the time to take into account different populations or impacts that might come about with the changes, and since Otter Tail has received the permits, and just this last summer, we also realize it could be, this groundwater permit, groundwater draw could be detrimental to a whole other economic opportunity and development in the region, because of the ethanol plant and the expansion use, which also takes water. And can Big Stone Lake, this groundwater draw, sustain coal plant number one, and coal plant number two, co-ed ethanol plant, and we know Otter Tail has in its own interest, and wisely, perhaps, to its business credit, secured rights to cut off water use to the ethanol plant in times of drought.

SPH-3d

So our concern would be what would this mean for the local economy and the local impacts, also. And Clean Water Action sees this water use important and needing more study and analysis, what's for the public good, not only now, but in the future for those who live here. Thank you.