# BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF SOUTH DAKOTA

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IN THE MATTER OF THE APPLICATION BY OTTER TAIL POWER COMPANY ON BEHALF OF BIG STONE II CO-OWNERS FOR AN ENERGY CONVERSION FACILITY PERMIT FOR THE CONSTRUCTION OF THE BIG STONE II PROJECT STAFF'S BRIEF EL05-022

An evidentiary hearing was held beginning on June 26, 2006, and concluded on June 29, 2006, in the above-captioned matter. The Second Scheduling and Procedural Order ordered that all briefs were due to be filed on or before July 9, 2006. Staff submits this brief in accordance with the Second Scheduling and Procedural Order. References to the hearing transcript will be "Tr." followed by the appropriate page number. Exhibit references correspond to exhibits admitted in the above-captioned hearing.

### STATEMENT OF THE CASE

On July 21, 2005, Otter Tail Power Company (Applicant) on behalf of the Project Co-Owners, Central Minnesota Municipal Power Agency, Great River Energy, Heartland Consumers Power District, Montana-Dakota Utilities Co., a Division of MDU Resources Group, Inc., Otter Tail Corporation d/b/a Otter Tail Power Company, Southern Minnesota Municipal Power Agency and Western Minnesota Municipal Power Agency (Project Co-owners) submitted to the South Dakota Public Utilities Commission (Commission) an application for a permit for an energy conversion facility. The proposed energy conversion facility is a nominal 600 MW coal-fired electric generating facility and associated facilities, which the Project Co-Owners have named Big Stone II, to be located on an industrial site adjacent to the existing Big Stone Plant Unit I in Grant County, South Dakota. The proposed site is located East of Milbank and Northwest of Big Stone City, in Grant County, South Dakota.

On July 28, 2005, the Commission electronically transmitted notice of the filing to interested individuals and entities. On August 5, 2005, the Commission electronically transmitted an amended notice which included an intervention deadline of September 19, 2005. On August 25, 2005, the Commission received a Petition to Intervene from Clean Water Action (Clean Water). On September 16, 2005, the Commission received Applications for Party Status from South Dakota Chapter Sierra Club (Sierra Club) and Union of Concerned Scientists (Union). On September 19, 2005, the Commission received Applications for Party Status from Mary Jo Stueve (Stueve), Minnesotans for an Energy-Efficient Economy (Minnesotans), Izaak Walton League of America -Midwest Office (Izaak Walton) and Minnesota Center for Environmental Advocacy (Minnesota Center). At its September 27, 2005, meeting, the Commission granted intervention to Clean Water, Sierra Club, Union, Stueve, Minnesotans, Izaak Walton and Minnesota Center. On September 20, 2005, the Commission received a letter and proposal from the Local Review Committee requesting funds to employ consultants to assist the Local Review Committee in carrying out the Committee's responsibilities, and on October 4, 2005, at its regularly scheduled meeting, the Commission voted unanimously to grant the Local Review Committee's request to hire consultants and to provide \$47,950 for this purpose.

On December 2, 2005, the Commission's Counsel held an initial Pre-Hearing Conference via conference call to discuss schedule and other preliminary procedural issues. Based upon the Pre-Hearing Conference, the Commission established the First<sup>t</sup> procedural schedule. On February 16, 2006, the Commission received a letter from Clean Water Action requesting that its Petition to Intervene be withdrawn. At its

regularly scheduled meeting of February 28, 2006, the Commission granted Clean Water Action's request to withdraw its Petition to Intervene.

On March 31, 2006, the Commission issued its Second Scheduling and Procedural Order, canceling the original procedural schedule, establishing a revised procedural schedule and making certain additional procedural rulings. On May 8, 2006, Minnesota Center for Environmental Advocacy (MCEA) on its own behalf and on behalf of its co-intervenors, Minnesotans for an Energy-Efficient Economy, Izaak Walton League of America - Midwest Office, and the Union of Concerned Scientists, filed a Motion to Compel Discovery and to Extend Deadline for Intervenor Testimony (Motion). On May 12, 2006, Applicant and MCEA filed a Joint Motion and Stipulation to Amend Second Scheduling and Procedural Order (Stipulation). On May 19, 2006, the Commission received a Stipulation from the Sierra Club requesting withdrawal of its intervention.

On May 23, 2006, the Commission approved the Joint Motion and Stipulation to Amend Second Scheduling and Procedural Order. As a part of the above-referenced Motion and Stipulation, the Commission granted Sierra Club's request for withdrawal from the docket.

#### ISSUE

The issue to be decided in this matter is whether pursuant to SDCL 49-41B and ARSD 20:10:22 the energy conversion permit requested by the Applicant on behalf of the Project Co-Owners should be granted, denied, or granted upon such terms, conditions or modifications of the construction, operation or maintenance as the Commission finds appropriate. Staff believes that the energy conversion permit

requested by the Applicant on behalf of the Project Co-Owners should be granted with the conditions that Staff recommended at the hearing.

### ARGUMENT AND AUTHORITIES

Applicant has the burden of proof to establish that the proposed energy conversion facility will comply with all applicable laws and rules; that the energy conversion facility will not pose a threat of serious injury to the environment nor to the social and economic condition of inhabitants or expected inhabitants in the siting area; that the energy conversion facility will not substantially impair the health, safety or welfare of the inhabitants; and that the energy conversion facility will not unduly interfere with the orderly development of the region with due consideration having been given to the views of governing bodies of affected local units of government. See SDCL 49-41B-22.

The general standard of proof for administrative hearings is by a preponderance, that is, the greater weight, of the evidence, and it is error to require a showing by clear, cogent, and convincing evidence. <u>Dillinghan v. North Carolina Dept. of Human</u> <u>Resources, 132 N.C. App. 704, 513 S.E.2d 823 (1999).</u> Each element must be established by reliable, probative, and substantial evidence of such sufficient quality and quantity that a reasonable administrative law judge could conclude that the existence of facts supporting the claim are more probable than their nonexistence. <u>U.S. Steel Min.</u> <u>Co., Inc. v. Director, Office of Worker's Compensation Programs, U.S. Dept. of Labor,</u> 187 F. 3d 384 (4<sup>th</sup> Cir. 1999).

Staff's role is to evaluate this matter to ensure that the public interest is protected, that is, that the interests of the citizens of South Dakota, the electric industry, and the ratepayers are all considered before a recommendation is rendered. Staff's

evaluation of this matter found that the Applicant has met its burden of proof as required

in SDCL 49-41B-22 and ARSD 20:10:22.

Pursuant to SDCL 49-41B-22, provided below, the Applicant has the burden of

proof in this matter:

49-41B-22. Applicant's burden of proof. The applicant has the burden of proof to establish that:

(1) The proposed facility will comply with all applicable laws and rules;

(2) The facility will not pose a threat of serious injury to the environment nor to the social and economic condition of inhabitants or expected inhabitants in the siting area;

(3) The facility will not substantially impair the health, safety or welfare of the inhabitants; and

(4) The facility will not unduly interfere with the orderly development of the region with due consideration having been given the views of governing bodies of affected local units of government.

As for subparagraph 1, the Applicant has repeatedly stated that the proposed

facility will comply with all applicable laws and rules. Applicant's Exhibit 8, 16, 17, 21,

22, 33, 34, and 37. None of the parties to this matter offered any evidence contrary to

Applicant's position regarding subparagraph 1.

Subparagraph 2 and 3 will be addressed together. Subparagraph 2 states that

the Applicant must show that the facility will not pose a threat of serious injury to the

environment nor to the social and economic condition of inhabitants or expected

inhabitants in the siting area. As for subparagraph 3, the statute states that the

Applicant must establish that the facility will not substantially impair the health, safety or

welfare of the inhabitants.

Regarding subparagraphs 2 and 3, Applicant must establish that the Big Stone II facility will not pose a threat of serious injury to the environment nor substantially impair the health, safety or welfare of the inhabitants to the social and economic condition of inhabitants or expected inhabitants in the siting area. Applicant has shown that Big

Stone II will be constructed on a brownfield, therefore the environmental impact to the siting area is small. Applicant's Exhibit 5. Furthermore, the Applicant, by getting all its required permits from the appropriate state agencies, will be required to abide by the conditions, if any, placed upon those permits. Applicant testified that it is required to get an air quality permit, a water appropriations permit, and a solid waste permit from the Department of Environment and Natural Resources (DENR), as well as a facility siting permit from the Commission. Applicant's Exhibit 16.

DENR has determined what the appropriate regulations are to avoid a threat of serious injury to the environment and its inhabitants or expected inhabitants in the siting area. Applicant (and others similarly situated) must follow these regulations and any conditions imposed by DENR in order to remain in compliance with the permits as set forth by DENR and the EPA. DENR is responsible for issuing the regulations that determine what would pose a threat of serious injury to the environment and its inhabitants. It is the Applicant's responsibility to follow the specifications set forth in the permits and the regulations. It is the Commission's responsibility to ensure that the Applicant has its other permits or has permit applications pending before the DENR prior to issuing the siting permit.

The primary issue regarding the siting permit has to do with concerns about carbon dioxide emissions and the judgment about whether the project is beneficial or harmful to the community and environment depends on how much weight the Commission should give to concerns about carbon dioxide. Staff concluded that the permit should be granted as the main negative impact of the project concerns the environment, but the plant is expected to operate within the applicable environmental regulations. Staff's quantitative analysis showed that when the environmental impacts

are estimated in monetary terms, the net benefits of the project (the economic impact minus the environmental impact) are likely to be positive. Staff's Exhibit 2.

One of Staff's witnesses, Dr. Denney, testified that the purpose of her analysis was not to compare generation alternatives, but to evaluate the negative environmental impact of the Big Stone II project and put this impact in perspective by comparing it to the positive economic benefits of the project. Her analysis was conducted under the assumption that Big Stone II is the least-cost generation alternative from the standpoint of "internalized" market costs, and focused on the external costs of the Big Stone II project. Staff Exhibit 2.

Applicant explained that South Dakota is currently an attainment area in terms of the National Ambient Air Quality Ambient Standards (standards set for six criteria pollutants - sulfur dioxide, nitrogen oxides, ozone, carbon dioxide, particulate matter and lead), and that due to the Applicant's plan to install a control technology common with Big Stone Unit I, the addition of Big Stone II will not increase plant-wide emissions of sulfur dioxide and nitrogen oxides, thus not affecting air quality levels. Applicant also explained that according to air dispersion models, Big Stone II's emissions for particulate matter and carbon monoxide would not result in a violation of federal air quality standards for these pollutants. During construction, the Applicant plans to use best management practices for soil erosion. Further, Applicant explained that because of the zero liquid discharge design of Big Stone II, there will be no notable changes in surface water quality. The only notable alteration – the makeup storage pond - will only alter the route of the drainage, but not the source and discharge of surface water. Applicant is working with USACE on the mitigation plan to compensate for some of the wetlands that will be filled. Applicant explained that the impact on fish population will be

minimal. Applicant's Exhibits 15, 16, 17.

With respect to air quality, with the Big Stone II project, the sulfur dioxide would be reduced to approximately one-seventh of current conditions. There would be no increase in nitrogen oxides. Particulates would be removed at about the 99.9 percent removal rate, and recently the Co-owners have committed to a no-net-increase in site emissions as compared to 2004 emissions of mercury for 189 pounds per year. Graumann, Tr. Vol. 1, pg. 118. That would be applicable within three years of commercial operation, which allows the opportunity to test and implement commerciallyavailable, technically-feasible control technologies. In addition to that commitment, the project would also be required to comply with the Clean Air Mercury Rule. This means that the Big Stone II plant would be required to emit mercury within the prescribed mercury budget, or buy additional allowances for each additional unit of mercury emitted. In effect, this rule encourages implementation of greater on-site mercury emission controls. All of these provisions would be enforced by the South Dakota Department of Environment and Natural Resources. The emission control technologies include the most effective commercially-available technologies for emissions control for all air pollutants, including the particulate matter, sulfur dioxide and nitrogen oxides and mercury. Graumann, Tr. Vol. 1, pgs. 118-119.

As for subparagraph 4, which requires that the facility will not unduly interfere with the orderly development of the region with due consideration having been given the views of governing bodies of affected local units of government, Applicant has proposed that the Big Stone II unit be built near the existing Big Stone I site. This proposal means there will be minimal disruption of the land use. Applicant's Exhibit 54. As such, Big Stone II will not unduly interfere with the orderly development of the region. The views

of the governing bodies of the affected local units of government were also given due consideration. Information was collected from all the affected units of government, medical services, and local government officials. Those governing bodies agreed that the benefits of the project outweighed the negatives. Applicant's Exhibit 68; Staff's Exhibit 1. None of the parties to this matter offered any evidence contrary to Applicant's position regarding subparagraph 4.

#### CONCLUSION

A plain reading of SDCL 49-41B-22 leads to the conclusion that the Applicant is entitled to receive the requested energy conversion permit provided all the applicable permits are issued. Commission Staff has recommended a number of conditions to the granting of the permit which include Staff's condition that the siting permit be issued subject to the condition that all the other applicable permits are issued. Staff's recommendation regarding the community impact is that the Applicant submit a plan setting forth its actions to implement the recommendations of the Local Review Committee. The Local Review Committee's recommendations include a housing contingency plan to be developed by the Applicant; the financing of an additional officer to the Grant County's Sheriffs office: drug and alcohol screening of the Big Stone II employees; the provision of fire protection equipment and training for the local fire department; and the appointment of a public relations representative that would facilitate the exchange of information between the project owners and the local communities. In addition, Staff supports the recommendations contained in the Draft Environmental Impact statement that concern plant construction and operation, including the following:

**Vegetation**-- implementation of an integrated weed control plan prior to Construction; **Transportation**--coordination with county authorities to mitigate severe road damage; organization of bus transportation or car pooling to reduce congestion; and delivery of heavy equipment in such a manner as to reduce traffic congestion and unsafe driving conditions; **Public Safety**--establishment of a work safety program; secure after-hours access to construction areas; notification to the public about high-risk operations; and, Noise--work with local residents to develop noise mitigation measures in case of noise complaints. Further, Staff recommends that the Applicant submit semi-annual progress reports to the Commission that summarize the status of the construction, the status of land acquisitions, the status of environmental control activities, and the overall percent of physical completion of the project. Each report shall include a summary regarding the issuance of the required permits. The reports shall list dates and names of each contact contributing to the preparation of the report, and the company's progress in implementing prescribed environmental protection activities or control standards, as well as any substantial changes to the project design. Applicant has agreed to all of Staff's recommendations.

In conclusion, Staff recommends that the Commission find that the Applicant has met its burden of proof and therefore the Applicant should be granted an energy conversion permit pursuant to SDCL 49-41B-22 and ARSD 20:10:22 and that the permit should be conditioned as stated above.

Respectfully submitted,

/s/

Karen E. Cremer Staff Attorney

Dated this 9<sup>th</sup> day of July, 2006.

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