

**SOUTH DAKOTA PUBLIC UTILITIES COMMISSION**

**CASE NO. EL05-022**

**IN THE MATTER OF THE APPLICATION BY OTTER TAIL POWER COMPANY**

**ON BEHALF OF THE BIG STONE II CO-OWNERS**

**FOR AN ENERGY CONVERSION FACILITY SITING PERMIT FOR THE**

**CONSTRUCTION OF THE BIG STONE II PROJECT**

**PREFILED REBUTTAL TESTIMONY**

**OF**

**WARD UGGERUD**

**SENIOR VICE PRESIDENT**

**OTTER TAIL POWER COMPANY**

**JUNE 9, 2006**



**PREFILED REBUTTAL TESTIMONY OF WARD UGGERUD**

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1                   **BEFORE THE SOUTH DAKOTA UTILITIES COMMISSION**  
2                   **PREFILED REBUTTAL TESTIMONY OF WARD UGGERUD**

3   **I.     INTRODUCTION**

4   **Q:     Please state your name and occupation.**

5   A:     Ward Uggerud, Senior Vice President, Otter Tail Power Company.

6   **Q:     Did you provide direct testimony in this proceeding?**

7   A:     Yes.

8   **Q:     In rebuttal, to whose direct testimony are you responding?**

9   A:     I am providing brief rebuttal testimony to issues raised in the testimony of South Dakota  
10 Public Utilities Commission staff witness Dr. Denney, and the Joint Environmental  
11 Organizations' witness Dr. Hausman.

12   **II.    TESTIMONY OF DR. DENNEY**

13           ***COAL DELIVERY***

14   **Q:     Dr. Denney discusses, pp. 8-10, coal delivery problems recently experienced at the**  
15 **Big Stone Plant. Can you comment?**

16   A:     On March 9, 2006, Otter Tail wrote to the South Dakota Public Utilities Commission and  
17 advised the Commission of problems the Big Stone co-owners were experiencing regarding  
18 delivery of coal from the Powder River Basin for operation of Big Stone Unit I. A copy of that  
19 letter is attached to my testimony as Applicants' Exhibit 29-A. Generally, as described in the  
20 letter, the problem that the co-owners were experiencing was that the Burlington Northern Santa  
21 Fe Railway, the only rail line serving the Big Stone Plant, was unable to deliver the quantities of  
22 Powder River Basin coal that the co-owners of Unit I requested. As a result, the coal reserve

1 stockpile at the Big Stone Plant was reduced to a ten-day supply. A normal stockpile level for  
 2 the plant is a 30-day supply. In response to the delivery issue, the co-owners were required to  
 3 cut back some operation of Big Stone Unit I from March 11, 2006 to May 3, 2006, in order to  
 4 conserve coal and build back the stockpile.

5 **Q: What has been done about this immediate supply problem?**

6 A: In addition to the generation curtailments, the co-owners were able to enter into a short-  
 7 term contract with a Montana mine to provide coal to replenish the reserve supply. This mine is  
 8 closer to the Big Stone Plant than the Powder River Basin in Wyoming so that more coal could  
 9 be hauled to the plant with existing equipment over a short time period. In addition, the BNSF  
 10 Railway Company temporarily provided a third train to supply the Big Stone Plant. The co-  
 11 owners are in discussions with the BSNF now to make this third train permanent.

12 **Q: Do you expect these coal delivery problems to continue?**

13 A: While the plant has returned to normal stockpile levels in May, we are watching the  
 14 situation closely. We believe that the addition of a third train set to Big Stone's service would  
 15 help address the short-term coal delivery issues. The long-term-coal delivery issues are being  
 16 addressed by the ongoing BNSF efforts to increase coal deliveries out of the Powder River  
 17 Basin.

18 **Q: Do you anticipate that coal delivery will be an issue in 2011 and beyond when Big  
 19 Stone Unit II is in operation?**

20 A: Because Big Stone Unit II will not be online until 2011, we are confident that the BNSF  
 21 will take the necessary action to ensure reliable and adequate delivery. We expect that with the  
 22 construction of Big Stone Unit II and other coal-fired plants around the country, many of which

1 are in the Midwestern and western part of the country, the railroads will respond to this  
 2 upcoming demand for coal by investing in the capital facilities that will be required to provide  
 3 the necessary fuel.

4 On a more global scale, a reliable and adequate railroad system is a necessity for serving  
 5 the growing needs of this country's agricultural and industrial sectors. An April 26, 2006  
 6 hearing before the U.S. House of Representative's Transportation and Industry Committee dealt  
 7 with the U. S. rail capacity crunch and evidences the critical nature of rail transportation. As a  
 8 matter of public policy, an inadequate rail transportation system will not be tolerated. All  
 9 branches of the government, affected industry, and affected consumers have the ability to take  
 10 actions to affect the necessary changes that would address any inadequacies that the railroads  
 11 alone are not able to. There are many possible avenues that could be pursued to ensure a robust  
 12 rail system. The railroads are best suited to address many of the issues themselves, but they are  
 13 not the only party that can take action.

14 As a long-range matter, there may be opportunities for either railroad initiatives and/or  
 15 legislative and regulatory reform at the federal level to ensure more reliable rail service. The  
 16 problems experienced by the Big Stone co-owners are not unique in the industry and are being  
 17 experienced by many utilities around the country and particularly by those purchasing coal from  
 18 the Powder River Basin.

19 **Q: Would you expect the delivery problems to be any less severe if another site were**  
 20 **chosen for the pulverized coal plant planned for the Big Stone site?**

21 A: No, we don't believe that the coal delivery service issues would be significantly different  
 22 at another site. As Mark Rolfes, the project manager for Big Stone Unit II, testified in his direct

1 testimony (Applicants' Exhibit 8), the Applicants identified 38 potential sites for the new plant,  
 2 and analyzed in depth eight different sites. While some of these sites would be located closer to  
 3 the mine mouth, and presumably would have less serious delivery issues, our analysis showed  
 4 that each of these sites was less preferable than the Big Stone site. Also, we don't think that the  
 5 coal delivery issues are so severe that we should choose another site for the incrementally small  
 6 improvement in delivery that might be realized. In particular, any site that would require an  
 7 entirely new rail line would present a greater concern than exists for Big Stone.

8 **Q: Have you contacted the BNSF about the concern over rail delivery for Big Stone**  
 9 **Unit II?**

10 A: Yes, we certainly have. We have advised the BNSF that the recent coal delivery  
 11 problems with regard to Big Stone Unit I are of concern to the Big Stone Unit II co-owners and  
 12 would likely be a concern to the Commission. We asked the BNSF to provide testimony in this  
 13 matter and to be available for questioning by the Commission and the parties. Mr. Robert  
 14 Brautovich, the Assistant Vice President of Coal Marketing, has provided written rebuttal  
 15 testimony at our request (Applicants' Exhibit 35).

16 ***OTHER RISKS***

17 **Q: Dr. Denney testified, p. 52, lines 16-8, that “the utilities participating in the Big**  
 18 **Stone project can only recover the costs associated with the plant through appropriate**  
 19 **filings with their respective state commissions.” Do you have any comment?**

20 A: Yes. I want to clarify that of the seven utility Applicants in this case, only two – Otter  
 21 Tail and Montana-Dakota – have their rates regulated by this Commission or neighboring state  
 22 commissions. Missouri River Energy Services, Central Minnesota Municipal Power Agency,

1 Heartland Consumers Power District, and Southern Minnesota Municipal Power Agency are all  
 2 municipal utilities – in effect sovereign subdivisions of the state in which they are chartered and  
 3 in which they operate. Municipal representatives, democratically elected, set their respective  
 4 rates. Great River Energy is a private cooperative, formed under the Minnesota cooperative  
 5 corporation statute and is owned by its distribution members, who are in turn owned by its  
 6 customer-members on a patronage basis. Richard Lancaster explains in his rebuttal testimony  
 7 (Applicants' Exhibit 39) how GRE's rates are set.

8 **Q: Why is this clarification important?**

9 A: First, it is simply important to correct the record. While it is true for Otter Tail and  
 10 Montana-Dakota that rate recovery before state commissions will likely be the discussion for  
 11 another day, that is not true for five of the seven Applicants.

12 Even more important, however, is that Dr. Denney's testimony could be interpreted to  
 13 suggest that because utilities have captive customers, they are willing to take greater risk than "if  
 14 the responsibility was to be borne solely by shareholders." Denney Testimony at p. 52, line 20-  
 15 22. I can speak for the entire Applicant group in respectfully disagreeing with Dr. Denney on  
 16 this point.

17 This project is being proposed with the interests of our ratepayer/customers first in mind.  
 18 As I state in my direct testimony, and as stated by the other Applicants, we have proposed  
 19 building, owning and operating the Big Stone Unit II only after exhaustive evaluation of the  
 20 resource needs of our customers. We are proposing a plant that is the least cost, most reliable,  
 21 and most environmentally conscientious a power plant can be. If the interest of our respective

1 customers/citizens/members/owners were not first and foremost on the minds of the Applicants,  
 2 we would not be proposing this project.

3 **III. TESTIMONY OF SYNAPSE WITNESS HAUSMAN**

4 **Q: Do you have a comment on Synapse's Dr. Hausman's testimony?**

5 A: Yes. Dr. Hausman's concluding statement in his testimony is as follows: "In this  
 6 respect, I conclude that Big Stone Unit II will have a significant long-term, and costly adverse  
 7 impact on the environment both in South Dakota and throughout the region, the continent and the  
 8 planet." Testimony, p. 32, lines 13-16. This statement lacks perspective, to say the least.

9 I am informed that Big Stone Unit II will emit approximately 4.7 million short tons of  
 10 carbon dioxide per year. The Energy Information Administration (EIA) reports that U.S.  
 11 anthropogenic carbon dioxide emissions in 2010 are projected to be 6,365 million metric tons.  
 12 (Emissions of Greenhouse Gases in the United States 2004, Energy Information Administration,  
 13 Office of Integrated Analysis and Forecasting, December 2005, at p. 4). This means that Big  
 14 Stone Unit II's share of total U.S. anthropogenic carbon dioxide emissions in 2010 (assuming the  
 15 plant came on line then) would be 0.0007 (0.07%, or seven one-hundredths of one percent).  
 16 According to EIA, global anthropogenic CO2 emissions in 2010 will be 30,005 million metric  
 17 tons. Big Stone Unit II's share of this amount will be 0.00014 (0.014%, or less than two one-  
 18 hundredths of one percent). Id.

19 Carbon dioxide is not the only greenhouse gas. Other gases, such as methane and water  
 20 vapor, also trap heat in the atmosphere. Water vapor is by far the most dominant greenhouse  
 21 gas. Outside of water vapor, USEPA has calculated the total amount of the other non-CO2 and  
 22 non-water vapor gases expected to be anthropogenically emitted in 2010 worldwide and has



1 expressed this amount in terms of carbon dioxide equivalent. EPA estimates that there will be  
 2 11,127 million metric tons of anthropogenic non-carbon dioxide/non-water vapor greenhouse  
 3 gases emitted worldwide in 2010 expressed as carbon dioxide equivalent. (USEPA, Global  
 4 Anthropogenic Non-CO2 Greenhouse Gas Emissions: 1990-2020, December 2005 draft,  
 5 Appendix A-1.) This number *is additive* to the 30,005 million metric tons of carbon dioxide  
 6 expected to be emitted worldwide in 2010, for a total figure of 41,132 million metric tons of  
 7 carbon dioxide and carbon dioxide equivalent greenhouse gases. Big Stone Unit II's share of  
 8 this amount is 0.0104%. This percentage will go down over time as the world continues to  
 9 develop and greenhouse gas emissions increase.

10 Based on the above, the evidence is simply insufficient to conclude that CO2 emissions  
 11 associated with the proposed Big Stone Unit II will cause "costly adverse impact on the  
 12 environment both in South Dakota and throughout the region, the continent and the planet."

13 **Q: Does this conclude your testimony?**

14 A: Yes.