

**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**

**RANDALL M. STUEFEN**

**PROFESSOR EMERITUS**

**UNIVERSITY OF SOUTH DAKOTA**

**JUNE 9, 2006**



1           **BEFORE THE SOUTH DAKOTA PUBLIC UTILITIES COMMISSION**

2                   **PREFILED REBUTTAL TESTIMONY OF RANDALL STUEFEN**

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

4   A:     Randall M. Stuefen. I am Professor Emeritus at the University of South Dakota. I now  
5 own and conduct research as Stuefen Research, LLC.

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

7   A:     Yes. My direct testimony has been marked as Applicants' Exhibit 26.

8   **Q:     In rebuttal, to who's direct testimony are you responding?**

9   A:     I am responding primarily to the direct testimony of Marshall R. Goldberg offered on  
10 behalf of the joint intervenors.

11 **Q:     At page 3, lines 22 through 26, Mr. Goldberg states that 1320 MW of wind power in**  
12 **South Dakota would provide the equivalent amount of electricity generation as a 600**  
13 **megawatt coal-fired power plant. If this is true, how does the 1320 MW wind equivalent**  
14 **affect his analysis of the number of jobs created by wind power?**

15 A:     To the extent it takes 1320 MW of wind power to create an equivalent amount of  
16 generation, Mr. Goldberg states that wind power creates more jobs per MWh of output than coal  
17 fired generation. In addition Mr. Goldberg identifies other potential benefits to the state's  
18 economy that may follow wind generation with greater development of the industry in the state.  
19 If one accepts Mr. Goldberg's economic impact estimate for wind generation and hopes along  
20 with Mr. Goldberg for manufacturing jobs within the state, the overall impact of a more  
21 expensive technology generating electricity on the state and regional economy is less certain.

22 **Q:     What do you mean that the overall economic impacts are less than certain?**

1 A: Labor inefficiencies within a technology can create jobs. For instance, an inefficiently  
2 run coal-fired plant compared to an identical efficiently run coal-fired plant may employ more  
3 people but at an increased dollar cost and that additional cost would be born by consumers. If  
4 the Big Stone Unit II power plant produces electricity and delivers it to final demand at a lower  
5 cost than alternatives per MWh, including renewables such as wind, one expects the increased  
6 cost of power from these alternatives to be born by business, industry and other consumers in the  
7 form of higher electric prices.

8 **Q: What effect would higher electric prices have on South Dakota's economy?**

9 A: Higher prices for inputs, energy costs included, are expected to negatively impact  
10 economic growth and job creation.

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

12 A: Yes it does.