

**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**

**ANDREW J. SKOGLUND**

**ACOUSTICAL ENGINEER**

**BARR ENGINEERING COMPANY**

**JUNE 9, 2006**



**PREFILED REBUTTAL TESTIMONY OF ANDREW J. SKOGLUND**

**TABLE OF CONTENTS**

I. INTRODUCTION ..... 1

II. RESPONSE TO TESTIMONY OF OLESYA DENNEY ..... 1

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

2           **PREFILED REBUTTAL TESTIMONY OF ANDREW J. SKOGLUND**

3   **I.     INTRODUCTION**

4   **Q:     Please state your name and business address.**

5   A:     Andrew J. Skoglund, 4700 West 77th St., Suite 200, Minneapolis, MN 55435-4803.

6   **Q:     By whom are you employed and in what capacity?**

7   A:     I am employed by Barr Engineering Co. as an Acoustical Engineer

8   **Q:     Did you provide direct testimony in this docket?**

9   A:     Yes. My direct testimony is marked as Applicants' Exhibit 20.

10 **Q:     What is the purpose of your rebuttal testimony?**

11 A:     With this testimony I will respond to the comments of Dr. Olesya Denney in her direct  
12 testimony and clarify my previous responses.

13 **II.    RESPONSE TO TESTIMONY OF OLESYA DENNEY**

14 **Q:     What were Dr. Denney's comments regarding your direct testimony?**

15 A:     Dr. Denney points out what she perceives to be an inconsistency between my testimony  
16 that Big Stone Unit II will comply with Minnesota noise standards and section 4.5.4 of the  
17 Application concluding "[i]ncreases from the Project are not predicted to cause any new  
18 exceedances of the reference Minnesota noise standards." Denney Testimony, p. 13, lines 1-13.

19 **Q:     Are these statements inconsistent?**

20 A:     No, the difference between the statement in the Application and my direct testimony  
21 stems from different analyses of the potential noise from the proposed Big Stone Unit II. My  
22 first analysis considered only Big Stone Unit II and did not take into consideration any existing

1 noise at the site from Big Stone Unit I or other sources. In that scenario, Big Stone Unit II, when  
 2 modeled by itself, results in projected noise levels compliant with Minnesota standards. In the  
 3 second analysis scenario, I considered Big Stone Unit II combined with existing noise at the site.  
 4 When combined with existing noise, the addition of Big Stone Unit II is not projected to result in  
 5 any new exceedances of Minnesota standards not already existing around the site, as noted in the  
 6 Application.

7 **Q: Will the addition of Big Stone Unit II to the site result in a noticeable increase at**  
 8 **surrounding receptors?**

9 A: The addition of Big Stone Unit II to the existing noise environment is not projected to be  
 10 discernable. The maximum potential overall nighttime noise increase is at receptor 3. It is  
 11 projected to increase, under ideal propagation conditions, by up to 4 dB while staying well  
 12 within Minnesota standards. An increase of 3 dB is considered the threshold of perception for  
 13 the human ear, with 5 dB considered a noticeable increase. Were Big Stone Unit II to be a  
 14 source that fluctuated regularly, an ear actively listening for change might be able to notice a  
 15 faint variation. However, due to the long-term nature of Big Stone Unit II, any noticeable  
 16 change is unlikely. The similarity to existing plant noise is likely to make any increase  
 17 indistinguishable from current levels. An objectionable noticeable impact on surrounding  
 18 receptors is not projected.

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

20 A: Yes.