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

STAN SELANDER

RESOURCE DEVELOPMENT ADMINISTRATOR

GREAT RIVER ENERGY

JUNE 16, 2006

PREFILED REBUTTAL TESTIMONY OF STAN SELANDER

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BEFORE THE SOUTH DAKOTA PUBLIC UTILITIES COMMISSION

PREFILED REBUTTAL TESTIMONY OF STAN SELANDER

I. INTRODUCTION

Q: Please state you name and business address.

A: My name is Stan Selander. My business address is 17845 East Highway 10, Elk River, MN 55330-0800.

Q: Did you previously submit testimony in this proceeding?

A: No. However, I submitted direct testimony in the related transmission certificate of need proceeding in Minnesota.

II. PURPOSE AND SUMMARY OF TESTIMONY

Q: What is the purpose of your testimony?

A: I will respond on behalf of GRE to the May 26, 2006 testimony of Minnesota Center for Environmental Advocacy (MCEA) witnesses Schlissel and Sommers with regard to the need for baseload capacity, capacity surpluses, and various resource planning issues affecting GRE.

Q: Please summarize your testimony.

A: GRE has a need for the additional baseload capacity and energy that Big Stone Unit II is designed to provide. Moreover, GRE has performed detailed resource planning studies that show this. In addition, GRE has extensive plans for demand-side management (DSM) and renewables, in concert with Big Stone Unit II and other developments.

III. NEED FOR AND TIMING OF BASELOAD CAPACITY

Q: At Pages 3 to 4 of their May 26 testimony, MCEA witnesses Schlissel and Sommers state that the GRE and other Applicants do not need additional baseload capacity in 2011. Do you agree?

A: No. Rick Lancaster's direct testimony on pages 12 and 13 presented GRE's need for base capacity in 2011.

Q: How does GRE know it needs baseload capacity, rather than other sources?

A: GRE has performed detailed system studies to examine their future energy resource needs. These studies, which I describe later in my rebuttal testimony, clearly show the need for Big Stone Unit II's baseload capacity starting in 2011, along with other resources including demand-side management (DSM) and renewables.

IV. DEMAND-SIDE MANAGEMENT (DSM)

Q: MCEA witnesses Schlissel and Sommers advocate the use of demand-side management (DSM) in their testimony. Does GRE use DSM in their resource plans?

A: Yes. The members of GRE have enacted significant DSM measures. And, they will continue to implement additional DSM in future years, in addition to Big Stone Unit II.

Q: What has GRE accomplished in DSM to-date?

A: GRE has done a lot. Taken together, they have reduced peak demand by approximately 369 MW, and reduced energy consumption by 169 GWh as of 2005.

Q: Is GRE subject to the Minnesota Conservation Improvement Program (CIP) legislation?

A: Yes. GRE is subject to CIP for its operations in Minnesota.

Q: What does CIP require GRE to accomplish?

A: We must invest at least 1.5% of our members' annual revenues in customer energy conservation programs.

Q: Are these programs and their progress reviewed by the state of Minnesota?

A: Yes, they are reviewed in detail by the Minnesota Department of Commerce.

Q: Is GRE meeting its CIP requirement?

A: Yes, we are meeting our CIP requirement and, in fact, are exceeding it by 30% to 40%.

Q: How does Great River consider the effects of DSM as part of its resource planning?

A: As part of its 2003 Minnesota IRP GRE conducted a DSM potential study to provide insight into the appropriate levels of DSM. In preparation for its 2007 Minnesota IRP filing GRE is conducting a study to identify DSM resources to include as alternatives in the resource selection process.

Q: What are GRE's plans to do more DSM, in addition to Big Stone Unit II?

A: As shown in GRE's 2005 resource plan, GRE plans to reduce demand by an additional 74 MW and to reduce energy consumption by an additional 88 GWh by 2007.

Q: Please explain Great River's ongoing DSM efforts.

A: Mr. Rick Lancaster addressed this on page 17 of his direct testimony.

V. RENEWABLES

Q: Did GRE assume that wind has capacity value in their system-level studies?

A: No, GRE gave wind no capacity credit in the analysis for its 2005 Minnesota IRP filing. In spite of this conservative assumption, analysis showed adding enough wind to meet the Minnesota Renewable Energy Objective (REO) lowered the overall evaluated costs. As a result

GRE made a public commitment to meeting the voluntary Minnesota REO. Given that MAPP's capacity accreditation process for intermittent resources is an experienced based, after the fact process, we now have more experience on which to base an estimate of what future wind resources may see for a capacity value. In its 2007 Minnesota IRP modeling work, GRE is using a 15% capacity value for wind resources. While our experience shows wind resources may have higher capacity values in some months of the year, in the summer, when everyone wants to run their air conditioner and our annual peak demand typically occurs, a 15% capacity value is more appropriate.

Q: What has GRE done so far in renewables?

A: GRE's 2005 renewable energy generation was 248,816 MWh, which was more than two times GRE's Minnesota REO goal for 2005.

Q: What does GRE plan to do in renewables in future years?

A: GRE expects to have approximately 1.6 million MWh of renewable energy in its portfolio by 2020.

Q: Is GRE subject to the Minnesota Renewable Energy Objective (REO)?

A: Yes.

Q: What does the REO require GRE to accomplish?

A: They must demonstrate good faith efforts to supply at least 10% of their retail sales in Minnesota using renewable energy sources.

Q: Is GRE's progress toward the REO reviewed by the state of Minnesota?

A: Yes, it is reviewed in detail by the Minnesota Department of Commerce.

Q: Describe GRE's efforts in complying with the REO.

A: GRE is purchasing the output from several REO qualifying projects, including the 100 MW Trimont wind project which went into commercial operation late in 2005. In 2005, GRE's production and purchase of renewable energy, net of its non-REO obligations, was 248,816 MWh. This amount was 224% of the level necessary for GRE to meet its commitment to the Minnesota Renewable Energy Objective of 111,072 MWh in 2005.

GRE is currently wrapping up negotiations with projects submitted under its most recent renewable RFP. GRE expects to be able to meet the requirements of the REO well in advance of the timeframes called for under the REO.

VI. RESOURCE PLANNING

Q: Schlissel and Sommers state that GRE and the Applicants have no evidence to suggest you need baseload capacity. Do you agree?

A: No. GRE uses resource planning techniques including sophisticated cost-effectiveness computer models to determine the correct, cost-effective combinations of DSM, renewables and other resources to be used to meet our customers' needs. Those resource planning techniques have recently been expanded to include a capacity expansion optimization model as another sophisticated planning tool we used to verify the need for Big Stone Unit II. The results of these analyses have determined that a baseload resource like Big Stone Unit II is needed in 2011.

Q: Is GRE one of the Applicants that could use more baseload capacity than its proposed share of Big Stone Unit II?

A: Yes. In GRE's recent capacity expansion modeling, the modeling results showed GRE needs 101 MW of baseload and capacity in 2011 and in 2012 needs significantly more than its 116 MW share of Big Stone Unit II – i.e. it needs 191 MW. See the table below:

Base Case

	Combined Cycle	Simple Cycle CT	Base Load - PC	Wind
2006	0	0	0	0
2007	0	0	0	0
2008	0	0	0	0
2009	0	62	0	100
2010	227	62	0	200
2011	227	62	101	217
2012	227	62	191	217
2013	227	62	296	217
2014	233	62	413	217
2015	499	62	428	217
2016	547	62	459	217
2017	575	71	538	217
2018	575	159	560	217
2019	609	200	601	217
2020	689	233	601	217
2021	746	292	601	217
2022	803	351	601	217
2023	872	403	601	217
2024	962	444	601	217
2025	1057	483	601	217
2026	1154	524	601	217

Q: Does this conclude your testimony?

A: Yes.