BEFORE THE MINNESOTA OFFICE OF ADMINISTRATIVE HEARINGS
600 North Robert Street
St. Paul, MN 55101

FOR THE MINNESOTA PUBLIC UTILITIES COMMISSION
121 7th Place East, Suite 350
St Paul MN 55101-2147

IN THE MATTER OF THE APPLICATION FOR CERTIFICATES OF NEED FOR THREE 345 kV TRANSMISSION LINE PROJECTS WITH ASSOCIATED SYSTEM CONNECTIONS

Docket No. ET2,E002, et al./CN-06-1115

SURREBUTTAL TESTIMONY AND EXHIBIT OF HWIKWON HAM

ON BEHALF

OF THE MINNESOTA OFFICE OF ENERGY SECURITY

JULY 3, 2008

I. INTRODUCTION

Q. Please state your name.

A. My name is Hwikwon Ham.

Q. Are you the same Hwikwon Ham who previously submitted direct and rebuttal testimony on behalf of the Minnesota Office of Energy Security (OES) in this proceeding?

A. Yes.

Q. What is the purpose of your surrebuttal testimony?

A. I am offering surrebuttal testimony in response to the Applicants' witness Matt Lacey's rebuttal testimony. As will be shown, my previous conclusion is unchanged that the peak demand forecasts used in engineering studies are reasonable even with Mr. Lacey's supply resource update.

II. SURREBUTTAL TESTIMONY

Q. What is the purpose of your offering surrebuttal to Mr. Lacey's rebuttal testimony?

A. Based on OES witness Mr. Shaw and Ms. Peirce's surrebuttal to Mr. Lacey's rebuttal testimony, I am offering an update to my OES Exhibit No. ___ (HKH-11), and I then review that update in light of Mr. Lacey's supply resource update.

Q. What is the possible range of the non-renewable generation interconnection need based on Mr. Shaw and Ms. Peirce's surrebuttal testimonies?

A. As shown in OES Exhibit No.___ (HKH-SR-14), Minnesota utilities need 1,269 MW to 2,094 MW of non-renewable generation[1] to serve Minnesota ratepayers reliably in addition to the wind generation need by 2020 to meet the RES Statute.

Q. What is the overall generation interconnection need?

A. Based on the above calculation of interconnection need, I conclude that Minnesota utilities need 4,621 MW to 6,817 MW of generation by 2020 to serve Minnesota ratepayers reliably.

Q. Do you have a change in your recommendation based on your OES Exhibit No. ___ (HKH-SR-14)?

A. No. As I stated in my Direct Testimony and Rebuttal Testimony, I conclude that the peak demand forecasts used in the engineering studies are reasonable.

Q. Does this conclude your Surrebuttal Testimony?

A. Yes.

[1] This "non-renewable generation" can include any least cost "non-mandate" resources.

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OES Exhibit No. ____ (HKH-SR-14)

Minnesota Renewable Interconnection Need

Scenarios			2020 (MW)
1% DSM	30%cf	REO Nameplate Capacity Need (MW)	4927
		REO Accredited Capacity Need (MW)	665
1.5% DSM		REO Nameplate Capacity Need (MW)	4580
		REO Accredited Capacity Need (MW)	618
1% DSM	40%cf	REO Nameplate Capacity Need (MW)	3416
		REO Accredited Capacity Need (MW)	461
1.5% DSM		REO Nameplate Capacity Need (MW)	3160
		REO Accredited Capacity Need (MW)	427

Minnesota Non-Renewable Interconnection Need

Scenarios		2020 (MW)
1% DSM	30%cf	**1890**
1.5% DSM		**1269**
1% DSM	40%cf	**2094**
1.5% DSM		**1461**

Minnesota Total Interconnection Need

Scenarios		2020 (MW)
1% DSM	30%cf	**6817**
1.5% DSM		**5849**
1% DSM	40%cf	**5510**
1.5% DSM		**4621**