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Direct Testimony and Schedules
Mark A. Hervey

State of Minnesota
Before the Office of Administrative Hearings
For the Minnesota Public Utilities Commission

In the Matter of a Petition by Excelsior Energy Inc. for Approval of a Power Purchase Agreement Under Minn. Stat. § 216B.1694, Determination of Least Cost Technology, and Establishment of a Clean Energy Technology Minimum Under Minn. Stat. § 216B.1693

OAH Docket No. 12-2500-17260-2
Docket No. E6472/M-05-1993

Rate Impacts

September 5, 2006

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I. INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME.

A. My name is Mark A. Hervey.

Q. BY WHOM ARE YOU EMPLOYED AND WHAT IS YOUR POSITION?

A. I am the Manager of Jurisdictional Revenue Analysis for Xcel Energy Services Inc.

Q. FOR WHOM ARE YOU TESTIFYING?

A. I am testifying on behalf of Northern States Power Company doing business as Xcel Energy ("Xcel Energy" or the "Company").

Q. PLEASE SUMMARIZE YOUR QUALIFICATIONS AND EXPERIENCE.

A. I received my MBA from the University of St. Thomas in 1983. Over the last 30 years, my primary responsibilities have been to perform electric and gas revenue requirements analysis for Northern States Power Company and subsequently Xcel Energy. Currently, I conduct special revenue analysis studies, prepare revenue requirement information for miscellaneous regulatory filings, and consult on jurisdictional revenue requirement issues. I am also responsible for developing long-range electric and gas rate impact studies and providing revenue requirements and economic analyses for use in various Xcel Energy jurisdictions. My resume is included as Exhibit___(MAH-1), Schedule 1.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. I present the incremental impact on Minnesota electric rates of the MEP-I LLC ("Mesaba 1 LLC") purchased power agreement ("Mesaba 1 PPA"). This rate impact reflects the generation-related costs of the Mesaba 1 PPA, the impact that PPA would have on Xcel Energy's capital structure, and an estimate of the transmission-related costs of delivering the output of Mesaba Unit 1 to Xcel Energy's system.

II. REVENUE REQUIREMENT DEVELOPMENT

Q. PLEASE EXPLAIN HOW YOU ESTIMATED THE INCREMENTAL RATE IMPACT OF THE MESABA 1 PPA.

A. Overall, my analysis compares the revenue requirements associated with the Mesaba 1 PPA with the revenue requirements for Xcel Energy under its approved Resource Plan. By comparing the streams of revenue requirements necessary to implement the PPA with those necessary to implement the Company's approved Resource Plan, I am able to isolate the incremental rate impact of the Mesaba 1 PPA in any given year. I chose the year 2012 to compare the revenue requirements because that is the first full year of the Mesaba 1 PPA.

Q. WHAT STEPS ARE INVOLVED WITH DETERMINING THE REVENUE REQUIREMENTS ASSOCIATED WITH THE MESABA 1 PPA AND THE APPROVED RESOURCE PLAN?

A. Determining the rate impacts of the Mesaba 1 PPA and the approved Resource Plan involved the following steps:

- *Determine generation revenue requirements.* To determine the generation-related revenue requirements associated with the Mesaba 1 PPA, I used the annual generation investment revenue requirement, fuel, purchased power, and generation operating and maintenance ("O&M") costs of the Mesaba 1 PPA prepared by Ms. Elizabeth M. Engelking. The generation investment revenue requirement is made up of debt and common equity return requirements, plus depreciation expense, plus income taxes (current and deferred) and property taxes. I added the annual generation investment revenue requirement, fuel, purchased power, and generation-related O&M expenses to arrive at the total annual generation revenue requirements associated with the Mesaba 1 PPA. I used the Company's approved jurisdictional allocation factor for generation costs to allocate the appropriate portion of the total Mesaba 1 PPA generation revenue requirements to Minnesota.

  I followed the same process to calculate the total annual generation revenue requirements for our approved Resource Plan, using the cost information prepared by Ms. Engelking. The difference in revenue requirements of these two alternatives represents the incremental, generation-related cost impact of the Mesaba 1 PPA. This is the first of three incremental cost components associated with the higher cost Mesaba 1 PPA.

- *Determine the cost of the Mesaba 1 PPA's impact on Xcel Energy's capital structure.* Mr. George E. Tyson II and Mr. Marvin E. McDaniel testify as to the financial impacts of implementing the Mesaba 1 PPA.

Mr. Tyson provides an estimate of the increased costs Xcel Energy would incur to adjust its capital structure to accommodate the imputed debt that would result from the PPA's implementation. To reflect this impact in my rate analysis, I compared the costs associated with the higher common equity ratio required with the Mesaba 1 PPA to the costs associated with the lower common equity ratio of the approved Resource Plan. To do so, I first developed a rate base conversion factor for each capital structure. When applied to a particular rate base, this factor yields the revenue requirements (return and income taxes) for that rate base. Next I subtracted the Resource Plan's lower rate base conversion factor from the Mesaba 1 PPA's higher rate base conversion factor to determine the incremental difference in the factors. I then applied this incremental difference in factors to a forecast of the Minnesota rate base for each year from 2007 to 2033 to arrive at the incremental revenue requirements of the higher cost capital structure associated with the Mesaba 1 PPA. The higher revenue requirements resulting from the PPA's higher capital structure costs represent the second incremental cost component of the Mesaba 1 PPA.

- *Determine the incremental transmission costs.* In his testimony, Mr. Richard Gonzalez estimates the costs of delivering the base load capacity to Xcel Energy's system under both the Mesaba 1 PPA and the approved Resource Plan. Mr. Dean E. Schiro discusses how the costs for either scenario would be recovered. For simplicity, I used the entire network upgrade costs estimated by Mr. Gonzalez and the portion of interconnection costs identified by Mr. Schiro for each

scenario. To estimate the net rate impact of this additional transmission, I then determined the revenue requirements associated with the needed transmission investments under both the Mesaba 1 PPA and approved Resource Plan scenarios, and netted the difference. The higher transmission costs associated with the Mesaba 1 PPA represents the third incremental cost component reflected in my rate analysis.

- *Convert Mesaba 1 PPA revenue requirements to a change in retail rates.* I added the incremental, Minnesota-jurisdiction revenue requirements for the Mesaba 1 PPA's generation, capital structure, and transmission costs together, and then expressed this sum as a percentage change in Minnesota retail rates. To do so, I divided this total incremental revenue requirement by projected Minnesota retail revenues, using our current forecast of Minnesota electric revenue through 2011, and a two-percent escalation factor for the years beyond. The percentage difference between the total incremental revenue requirement of the Mesaba 1 PPA and Minnesota revenues represents the overall percentage rate impact of implementing the Mesaba 1 PPA.

Q. DID YOU PERFORM ANY OTHER RATE IMPACT ANALYSIS?

A. Yes. I performed this analysis for the various cost scenarios identified by Ms. Engelking to provide a range of possible rate impacts. In addition, I translated the 2012 rate impact (the first full year of the PPA) into a monthly bill increase for both a typical residential and a representative commercial/industrial customer.

Q. DOES YOUR RATE ANALYSIS CONSIDER POSSIBLE RATE INCREASES OTHER THAN THE INCREMENTAL INCREASES THAT WOULD RESULT FROM THE MESABA 1 PPA?

A. No. I based my analysis solely on the incremental impact of the Mesaba 1 PPA because I sought to identify the change in rates associated with the PPA separate from any other expected rate changes. Implementation of the Resource Plan, which serves as the basis of comparison for the costs of the PPA, will result in increased rates to reflect the costs of meeting increased customer needs through initiatives such as our Metropolitan Emissions Reduction Project. Thus, my analysis identifies the rate impact over and above the rate increases already expected under our approved Resource Plan.

III. RATE IMPACTS

Q. USING THE RANGE OF COSTS DEVELOPED BY MS. ENGELKING, WHAT IS THE INCREMENTAL RATE IMPACT OF THE MESABA 1 PPA?

A. My analysis indicates that Minnesota revenue requirements would increase by $250 million to $365 million, resulting in electric rate increases in the range of 5.9 to 9.6 percent due to the Mesaba 1 PPA in 2012, the first full year of the PPA. This increase converts to monthly bill increases of approximately $5.00 to $7.50 per month for an average residential customer (750 kWhs per month). A representative commercial/industrial customer (400,000 kWh per month, with a 1000 kW demand at a 54.8 percent load factor) would see bill increases ranging from approximately $2,700 to $3,900 per month. These amounts would be incremental additions to rate increases already anticipated in 2012 under the approved Resource Plan. I show a summary of these results in Table 1 below.

Table 1

Mesaba 1 PPA Incremental 2012 Revenue Requirements and Rate Impact		
	Total Incremental Revenue Requirements ($000)	Total Incremental Rate Impact
Low Range Scenario	+$250,589	+5.9%
High Range Scenario	+$365,157	+9.6%

Exhibit___(MAH-1), Schedules 2 and 3 show the results of my rate impact analysis in detail, while Exhibit___(MAH-1), Schedules 4 and 5 contain the calculation of the representative bill increases.

Q. PLEASE DISCUSS THE BASIS FOR YOUR CALCULATED RANGE OF INCREMENTAL RATE INCREASES ASSOCIATED WITH THE MESABA 1 PPA.

A. I have calculated the rate impacts associated with the range of possible cost changes presented in Ms. Engelking's testimony. In doing so, I held the capital structure and transmission cost impacts constant across all scenarios.

Q. HAVE YOU CALCULATED AN INCREMENTAL RATE IMPACT USING MESABA 1 LLC'S ESTIMATED PPA COSTS?

A. Yes. If the actual costs of the Mesaba 1 PPA were to reflect Mesaba 1 LLC's proposed costs, the total of these costs and the transmission and capital structure costs discussed earlier would increase rates incrementally in 2012 by $270 million, a 6.5 percent increase over the approved Resource Plan. This increase converts to a bill impact of approximately $5.50 per month for an average residential customer (750 kWhs per month) and approximately $2900

per month for a representative commercial industrial customer (400,000 kWhs per month, with 1000 kW demand at a 54.8% load factor). I show a summary of these results in Table 2 below.

Table 2

Mesaba 1 PPA Incremental 2012 Revenue Requirement and Rate Impact Compared to the Approved Resource Plan Using Mesaba 1 LLC Estimated Generation Costs ($000)				
Generation Impact	**Capital Structure Impact**	**Transmission Impact**	**Total Revenue Requirement Impact**	**Incremental Rate Impact**
+$202,283	+$39,900	+$27,492	+$ 269,675	+6.5%

Included with my testimony is Exhibit___(MAH-1), Schedule 6, which shows the results of my rate impact analysis in detail, and Exhibit___(MAH-1), Schedule 7, which shows the calculation of the representative bill increases.

Q. DO YOUR ESTIMATED RATE IMPACTS REMAIN CONSTANT OVER TIME?

A. No. The incremental rate impact of the Mesaba 1 PPA would decline over time, as costs are added under the approved Resource Plan to meet growing customer needs. The results presented here represent the first-year impacts of the PPA. The detailed schedules in my Exhibit on the Mesaba 1 PPA's incremental rate impacts show those impacts over the term of the PPA. The schedules on the increase in customer bills show the increases for 2012, the first full year of the PPA.

IV. CONCLUSION

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. I estimate that the Mesaba 1 PPA would increase rates by a range of 5.9 to 9.6 percent in 2012, the first full year of the PPA. This increase would be over and above the rate increases already anticipated under our approved Resource Plan. Accepting Mesaba 1 LLC's cost estimates for the PPA, 2012 rates would be 6.5 percent higher than those under the Resource Plan.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

Mark A. Hervey
Manager, Jurisdictional Revenue Analysis
Xcel Energy
414 Nicollet Mall
Minneapolis, MN

CURRENT RESPONSIBILITIES

Responsible for special revenue analysis studies, preparing revenue requirement information for miscellaneous filings, and consulting on jurisdictional revenue requirements issues. Also responsible for developing long range electric and gas rate case studies for the Revenue Requirements Department. Provide revenue requirements and economic analysis to jurisdictional leaders as requested.

EXPERIENCE

Manager, Jurisdictional Revenue Analysis	2002-Present
Principal Rate Consultant	2000-2002
General Manager, Jurisdictional Revenue Requirements	1992-2000
Manager, Gas Business Operations	1990-1992
Manager, Electric Revenue Requirements	1982-1989
Administrator, Revenue Requirements	1980-1982
Rate Analyst, Revenue Requirements	1977-1980

EDUCATION

College of St. Thomas, Masters Degree in Business Administration
University of Minnesota, Bachelor of Science, Business Administration

PREVIOUS TESTIMONY

	Docket No.
North Dakota – Electric Revenue Requirements	10979
North Dakota – Electric Revenue Requirements	PU-400-91-112
South Dakota – Electric Revenue Requirements	F-3422
South Dakota – Electric Revenue Requirements	F-3764&F-3780
Minnesota – Electric Revenue Requirements	E002/GR-85-558
Minnesota – Electric Revenue Requirements	E002/GR-87-670
Minnesota – Electric Revenue Requirements	E002/GR-91-001
Minnesota – Electric Revenue Requirements	E002/GR-92-1185
Minnesota – NSP/ WEC Merger	E,G002/PA-95-500

Northern States Power Co. d/b/a Xcel Energy
Electric Utility - State of Minnesota
Revenue Requirements of NSP Generation
Mesaba 1 PPA Case
Low Range Rate Impact
(Dollars in Thousands)

Schedule 2 contains trade secret data and has been excised.

Northern States Power Co. d/b/a Xcel Energy
Electric Utility - State of Minnesota
Revenue Requirements of NSP Generation
Mesaba 1 PPA Case
Low Range Rate Impact
(Dollars in Thousands)

Schedule 3 contains trade secret data and has been excised.

Northern States Power Co. d/b/a Xcel Energy
Electric Utility - State of Minnesota
Mesaba 1 PPA Case
Low Range - Customer Bill Impacts

(Dollars in Thousands)

	2006	2007	2008	2009	2010	2011	2012
Minn Jurisdiction Difference		$ 32,795	$ 34,107	$ 35,471	$ 50,346	$ 91,259	$ 250,589
Class Sales							
Residential Sales in MWH's	2.0%				9,538,253	9,756,359	9,951,486
Residential - % of Total Sales							26.7%
Residential $ Impact							$ 67,014
Dollar Impact per kwh							0.0067
Impact on 750 kwh per month Customer							**$ 5.05**
C&I Sales in MWH's	2.0%				25,841,957	26,471,433	27,000,862
C&I - % of Total Sales							72.6%
C&I $ Impact							$ 181,827
Dollar Impact per kwh							0.0067
Impact on 400,000 kwh per month Customer (1000kw demand @ 54.8% load factor)							**$ 2,693.65**
Total Minnesota Retail Sales in MWH's		33,039,476	34,003,057	34,823,257	35,634,575	36,482,157	37,211,800

Northern States Power Co. d/b/a Xcel Energy
Electric Utility - State of Minnesota
Mesaba 1 PPA Case
High Range - Customer Bill Impacts

(Dollars in Thousands)

	2006	2007	2008	2009	2010	2011	2012
Minn Jurisdiction Difference		$ 32,795	$ 34,107	$ 35,471	$ 50,346	$ 110,858	$ 365,157
Class Sales							
Residential Sales in MWH's	2.0%				9,538,253	9,756,359	9,951,486
Residential - % of Total Sales							26.7%
Residential $ Impact							$ 97,653
Dollar Impact per kwh							0.0098
Impact on 750 kwh per month Customer							**$ 7.36**
C&I Sales in MWH's	2.0%				25,841,957	26,471,433	27,000,862
C&I - % of Total Sales							72.6%
C&I $ Impact							$ 264,958
Dollar Impact per kwh							0.0098
Impact on 400,000 kwh per month Customer (1000kw demand @ 54.8% load factor)							**$ 3,925.17**
Total Minnesota Retail Sales in MWH's		33,039,476	34,003,057	34,823,257	35,634,575	36,482,157	37,211,800

Northern States Power Co. d/b/a Xcel Energy
Electric Utility - State of Minnesota
Revenue Requirements of NSP Generation
Mesaba 1 PPA Case
Low Range Rate Impact
(Dollars in Thousands)

Schedule 6 contains trade secret data and has been excised.

Northern States Power Co. d/b/a Xcel Energy
Electric Utility - State of Minnesota
Mesaba 1 PPA Case
Mesaba 1 LLC Estimated Customer Bill Impacts

(Dollars in Thousands)

	2006	2007	2008	2009	2010	2011	2012
Minn Jurisdiction Difference		$ 32,795	$ 34,107	$ 35,471	$ 50,346	$ 94,524	$ 269,675
Class Sales							
Residential Sales in MWH's	2.0%				9,538,253	9,756,359	9,951,486
Residential - % of Total Sales							26.7%
Residential $ Impact							$ 72,119
Dollar Impact per kwh							0.0072
Impact on 750 kwh per month Customer							**$ 5.44**
C&I Sales in MWH's	2.0%				25,841,957	26,471,433	27,000,862
C&I - % of Total Sales							72.6%
C&I $ Impact							$ 195,676
Dollar Impact per kwh							0.0072
Impact on 400,000 kwh per month Customer (1000kw demand @ 54.8% load factor)							**$ 2,898.81**
Total Minnesota Retail Sales in MWH's		33,039,476	34,003,057	34,823,257	35,634,575	36,482,157	37,211,800