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Direct Testimony and Schedules  
Karen T. Hyde

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

**Power Purchase Agreement**

September 5, 2006

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1 I. INTRODUCTION AND QUALIFICATIONS

2  
3 Q. PLEASE STATE YOUR NAME.

4 A. My name is Karen T. Hyde.

5  
6 Q. BY WHOM ARE YOU EMPLOYED AND WHAT IS YOUR POSITION?

7 A. I am employed by Xcel Energy Services Inc., the service company subsidiary  
8 of Xcel Energy Inc., the registered public utility holding company parent of  
9 Northern States Power Company ("Xcel Energy" or "Company"). My title is  
10 Managing Director, Resource Planning and Acquisition.

11  
12 Q. FOR WHOM ARE YOU TESTIFYING?

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

15  
16 Q. PLEASE SUMMARIZE YOUR QUALIFICATIONS AND EXPERIENCE.

17 A. I have been negotiating purchased power agreements since about 1991. In  
18 2001, I assumed responsibility for the purchased power agreements for the  
19 Xcel Energy Inc. operating utility system. I either directly negotiated or  
20 supervised negotiations of Xcel Energy's purchased power agreements that  
21 have been filed with and approved by the Minnesota Public Utilities  
22 Commission ("Commission") since 2001, including a variety of wind and  
23 biomass contracts, and contracts for the purchase of peaking and intermediate  
24 resources. In addition, I am responsible for administering over 200 purchased  
25 power agreements for the purchase of energy and capacity for all of the utility  
26 operating companies owned by Xcel Energy Inc. A copy of my resume is  
27 provided as Exhibit \_\_\_ (KTH-1), Schedule 1.

II. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. I evaluate the terms and conditions of Mesaba 1 LLC's power purchase agreement ("Mesaba 1 PPA") and offer my assessment of their reasonableness and ability to deliver a least-cost energy resource to Xcel Energy. My testimony discusses the terms of the Mesaba 1 PPA, highlighting the material risks they pose for Xcel Energy's ratepayers. To provide a frame of reference, I also compare the terms of the Mesaba 1 PPA with terms typically included in Xcel Energy's purchased power agreements.

Q. WHAT INFORMATION DID YOU REVIEW WHEN PREPARING YOUR TESTIMONY?

A. I reviewed the Mesaba 1 PPA, the Petition, and testimony offered by Mesaba 1 LLC in this proceeding. In particular, I focused my attention on the Mesaba 1 PPA, as well as Section VI of the Petition containing Mesaba 1 LLC's Summary of Key Terms and Conditions.

Q. BASED ON YOUR REVIEW, WHAT CONCLUSIONS DO YOU DRAW REGARDING THE MESABA 1 PPA?

A. I believe that the Mesaba 1 PPA essentially obligates Xcel Energy and its customers to pay all of the [TRADE SECRET BEGINS

TRADE  
SECRET ENDS] Given these terms, which significantly differ from terms typically used to govern purchased power agreements, I conclude that the Mesaba 1 PPA:

- *Transfers an unacceptable level of risk to Xcel Energy and our customers.* The Mesaba 1 PPA's prices for capacity and energy are

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1 not hedged, predictable [TRADE SECRET BEGINS  
2 TRADE SECRET BEGINS ENDS]. Because the terms allow  
3 Mesaba 1 LLC to [TRADE SECRET BEGINS

4 TRADE SECRET  
5 ENDS] the risks of the project are transferred to Xcel Energy and its  
6 customers. To my knowledge, these terms are unprecedented, and  
7 the Commission has previously rejected several of them.

- 8 • *Offers only weak ties to acceptable performance levels for Mesaba Unit*  
9 1. The Mesaba 1 PPA includes no significant performance  
10 requirements for Mesaba Unit 1 to operate [TRADE SECRET  
11 BEGINS

12  
13 TRADE SECRET ENDS] Without such  
14 performance requirements and associated remedies for non-  
15 performance, the Mesaba 1 PPA does not provide Xcel Energy or  
16 our customers adequate protection.

17  
18 In addition to these overall concerns, I list a number of other issues with the  
19 Mesaba 1 PPA that either raise concern or require further clarity. I provide  
20 this list in Exhibit \_\_\_ (KTH-1), Schedule 2.

21  
22 Q. HOW HAVE YOU ORGANIZED YOUR TESTIMONY?

23 A. I first provide an overview of the purpose of purchased power agreements  
24 and the typical provisions that assign risks and responsibilities between the  
25 buyer and seller. Second, I discuss key provisions of the Mesaba 1 PPA,  
26 including the capacity pricing mechanism, fuel supply and [TRADE  
27 SECRET BEGINS

1       TRADE SECRET ENDS] For each key provision, I highlight the risk  
2       transfer and operational concerns posed by the Mesaba 1 PPA, providing  
3       contrast with other approved purchased power agreements where  
4       appropriate. In this way, I offer my assessment of the reasonableness of the  
5       Mesaba 1 PPA's overall risk balance. Finally, I summarize my testimony.

### 7                               III. PURCHASED POWER AGREEMENTS

8  
9       Q.   GENERALLY SPEAKING, WHAT ARE PURCHASED POWER AGREEMENTS?

10      A.   Purchased power agreements are contracts between buyers and sellers of  
11       electricity. They can be for varying terms and quantities, and for various  
12       electricity services, such as peaking, intermediate, or base load. A purchased  
13       power agreement's rights and responsibilities of both the buyer and seller.

14  
15      Q.   WHAT ARE SOME OF THE TYPICAL PROVISIONS OF A PURCHASED POWER  
16       AGREEMENT?

17      A.   Purchased power agreements generally include terms that:

- 18           • *Establish the price*, including payments for capacity and energy.
- 19           • *Define the product*, including amount of electricity to be provided and  
20           the number of hours and days it is available to the buyer.
- 21           • *Provide development milestones*, if the purchased power agreement is  
22           associated with a new power plant.
- 23           • *Assign responsibility and remedies* for the variety of issues that may be  
24           encountered over the term of the agreement, including issues with  
25           development and operations.

1 Purchased power agreements – particularly long-term agreements for the  
2 output of a plant that has not yet been developed – are complex. Given the  
3 importance of the service provided to the utility and its customers, it is critical  
4 that the terms are comprehensive and clearly defined.  
5

6 Q. ARE THERE INDUSTRY STANDARDS FOR PURCHASED POWER AGREEMENTS?

7 A. There is no one set of terms applicable to all purchased power agreements, as  
8 the contracts must be tailored to meet the needs of both the buyer and seller  
9 for the particular electricity product. For example, Xcel Energy has  
10 developed model contracts to be used for the purchase of wind, peaking and  
11 intermediate electricity services to facilitate negotiations with developers and  
12 other electricity suppliers. While these contracts are useful, they provide only  
13 a starting point for negotiations, and suppliers generally negotiate modified  
14 terms before final agreement is reached. Mr. John J. Reed offers testimony  
15 that provides further detail on the terms and conditions typically found in  
16 purchased power agreements.  
17

18 Q. HOW DO YOU TYPICALLY ASSESS THE REASONABLENESS OF PURCHASED  
19 POWER AGREEMENTS?

20 A. I evaluate the reasonableness of a purchased power agreement as a whole, as  
21 opposed to stand-alone provisions. I review the entire collection of each  
22 party's rights and obligations for reasonableness and balance, seeking to  
23 ensure that overall risks and costs are appropriately shared among the parties  
24 over the term of the agreement. In my opinion based on my experience, the  
25 Mesaba 1 PPA should be evaluated in a similar manner.  
26  
27

IV. OVERVIEW OF MESABA 1 PPA

Q. PLEASE PROVIDE AN OVERVIEW OF THE MESABA 1 PPA.

A. The Mesaba 1 PPA would provide for the sale of the capacity and energy output of Mesaba Unit 1 to Xcel Energy. The Mesaba 1 PPA governs the purchase of the entire capacity output of the proposed Integrated Gasification Combined Cycle ("IGCC") plant, claimed to be 603 MWs under specific conditions, as well as the entire energy output. According to Article 2, the 25-year term covers the years 2011 through 2036, subject to the various provisions of the Mesaba 1 PPA relating to extensions and delay.

Q. PLEASE DESCRIBE THE PAYMENTS REQUIRED IN THE MESABA 1 PPA.

A. The Mesaba 1 PPA includes a number of payments required of Xcel Energy to Mesaba 1 LLC throughout the term the contract. These include:

[TRADE SECRET BEGINS

TRADE SECRET ENDS]



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1 Q. DOES THE MESABA 1 PPA SET THE LEVEL OF THESE PAYMENTS?

2 A. [TRADE SECRET BEGINS

3

4

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TRADE SECRET ENDS]

9

10 Q. WHAT IS YOUR ASSESSMENT OF THESE TERMS?

11 A. I believe that these terms shift material risks in [TRADE SECRET  
12 BEGINS

13 TRADE SECRET ENDS] including material risks in the  
14 [TRADE SECRET BEGINS

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27 TRADE SECRET ENDS]

[TRADE SECRET BEGINS]

TRADE SECRET ENDS]

## V. RISK ASSESSMENT

### A. Capacity Pricing

Q. HOW DOES THE MESABA 1 PPA SET THE CAPACITY PAYMENT?

A. The Mesaba 1 PPA provides that the capacity payment [TRADE SECRET BEGINS

TRADE SECRET ENDS]

Q. DOES THE MESABA 1 PPA SPECIFY A [TRADE SECRET BEGINS  
TRADE SECRET ENDS]

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1 A. No. [TRADE SECRET BEGINS

2  
3 TRADE SECRET ENDS] Mesaba 1 LLC expects  
4 that the Material Permits (which include such permits as the site, air, water  
5 discharge permits and zoning variances) can be obtained by [TRADE  
6 SECRET BEGINS TRADE SECRET ENDS] (See  
7 Section 11.4(A)). However, the Mesaba 1 PPA remains in effect as long as  
8 the Material Permits are obtained by [TRADE SECRET BEGINS  
9 TRADE SECRET ENDS] and even as late as [TRADE  
10 SECRET BEGINS TRADE SECRET ENDS] if an  
11 independent engineer provides an opinion that Mesaba 1 LLC is diligently  
12 pursuing all Material Permits. Taken together, these provisions indicate that  
13 the [TRADE SECRET BEGINS

14 TRADE SECRET ENDS]  
15 However, the Mesaba 1 PPA also provides for extensions due to  
16 uncontrollable forces for up to two additional years, which means that the  
17 [TRADE SECRET BEGINS  
18 TRADE SECRET ENDS]

19  
20 Q. WHAT FORMULA WOULD BE USED TO [TRADE SECRET BEGINS

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22 A.

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25  
26  
27 TRADE SECRET ENDS]

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1 Q. LET'S CONSIDER THE VARIOUS COMPONENTS OF THIS FORMULA. [TRADE  
2 SECRET BEGINS

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4 [TRADE SECRET BEGINS

5 A.

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9  
10 TRADE SECRET ENDS]

11  
12 Q. WHAT WOULD YOU EXPECT THIS [TRADE SECRET BEGINS

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14 A.

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17  
18 TRADE SECRET ENDS]

19  
20 Q. CAN YOU DETAIL [TRADE SECRET BEGINS

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22 A.

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24  
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26  
27 TRADE SECRET ENDS]

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1  
2 Q. DO YOU HAVE AN ESTIMATE OF WHAT THE COSTS OF TRANSMISSION WILL BE?

3 A. Yes. As noted by Mr. Dean Schiro, \$43.5 million is likely to be [TRADE  
4 SECRET BEGINS

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6  
7  
8 TRADE SECRET ENDS] As Mr. Schiro testifies, an  
9 additional \$180 million will be invested directly by Xcel Energy and  
10 Minnesota Power and therefore becomes a cost to customers of those utilities  
11 but that amount would not impact payments under the PPA.

12  
13 Q. [TRADE SECRET BEGINS

14 TRADE SECRET ENDS] WHAT DOES "EPC"  
15 MEAN?

16 A. "EPC" refers to Engineering, Procurement, and Construction contracts,  
17 which generally are between a developer and a credit-worthy entity for the  
18 complete turnkey design, engineering, procurement, construction, start-up  
19 and commissioning of a plant. For this project, Mesaba 1 LLC plans to  
20 develop Mesaba Unit 1 by entering into an EPC contract with a consortium  
21 of Fluor, ConocoPhillips, and Siemens.

22  
23 Q. HAS MESABA 1 LLC REACHED AGREEMENT WITH THE CONSORTIUM FOR AN  
24 EPC CONTRACT?

25 A. No. Due to the absence of an EPC contract [TRADE SECRET BEGINS

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1 [TRADE SECRET BEGINS

2 TRADE

3 SECRET ENDS]

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5 Q. HOW WILL THE [TRADE SECRET BEGINS

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7 A.

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11  
12 TRADE SECRET ENDS]

13  
14 Q. [TRADE SECRET BEGINS

15  
16 A.

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21  
22 TRADE SECRET ENDS]

23  
24 Q. HAS THE COMMISSION EVER ACCEPTED [TRADE SECRET BEGINS

25  
26 A.

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1 [TRADE SECRET BEGINS

8 TRADE SECRET ENDS]

10 Q. CAN YOU ESTIMATE THE [TRADE SECRET BEGINS  
11 TRADE SECRET ENDS]

12 A. No, [TRADE SECRET BEGINS

15 TRADE SECRET  
16 ENDS]

18 Q. WHAT DO YOU CONCLUDE ABOUT THE CAPACITY PRICING?

19 A. The Mesaba 1 PPA lacks any of the three ways that the Commission would  
20 typically ensure that the cost of generation was reasonable: [TRADE  
21 SECRET BEGINS TRADE SECRET ENDS] it is not  
22 the result of competitive solicitation, and it is not subject to ongoing  
23 Commission prudence review.

25 Q. ONCE THE [TRADE SECRET BEGINS

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1 A. [TRADE SECRET BEGINS

6 TRADE SECRET ENDS]

8 Q. IS THIS TERM IDENTICAL TO THAT APPROVED IN OTHER PURCHASED POWER  
9 AGREEMENTS?

10 A. No. [TRADE SECRET BEGINS

15 TRADE SECRET ENDS] That

16 structure has proven to closely align the interests of Xcel Energy, our  
17 customers, and the sellers because our system and customers benefit from  
18 facilities being available to economically and reliably produce energy, while  
19 sellers are provided incentives to be available to meet our customers' needs.

21 In contrast, the Mesaba 1 PPA proposes that Mesaba Unit 1 will be  
22 considered [TRADE SECRET BEGINS



1 [TRADE SECRET BEGINS

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6 TRADE SECRET ENDS]

7

8 Q. ARE SUCH ITEMS UNUSUAL?

9 A. Yes.

10

11 Q. PLEASE EXPLAIN THE [TRADE SECRET BEGINS

12 TRADE SECRET ENDS]

13 A. By definition, force majeure events are those beyond the reasonable control  
14 of the parties. However, just because an event is beyond seller's reasonable  
15 control does not mean the seller should receive full capacity payments. Like  
16 other risks, Xcel Energy strives to achieve a reasonable balance by allocating  
17 the risk of force majeure to the party in the best position to manage and  
18 resolve the matter. For example, sellers are in the unique position to insure  
19 against business interruption, so sellers are typically not compensated by Xcel  
20 Energy for such force majeure events. Xcel Energy has found that sellers are  
21 very motivated by a financial incentive to quickly address problems, even if  
22 the cause of the original problem is not in their control. Further, this  
23 structure has been found to be commercially reasonable.

24

25 [TRADE SECRET BEGINS

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1 [TRADE SECRET BEGINS

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4  
5  
6 TRADE SECRET ENDS]

7  
8 Q. ARE THE PROVISIONS THAT FORGIVE THE [TRADE SECRET BEGINS  
9 TRADE SECRET ENDS] UNUSUAL?

10 A. Yes. [TRADE SECRET BEGINS

11  
12 TRADE SECRET ENDS]

13  
14 Q. LET'S TURN TO THE [TRADE SECRET BEGINS  
15 TRADE SECRET ENDS] DO YOU HAVE CONCERNS  
16 WITH THAT PROVISION OF THE MESABA 1 PPA?

17 A. Yes. [TRADE SECRET BEGINS

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25  
26 TRADE SECRET ENDS] The table below shows the operation of this  
27 provision.

1 [TRADE SECRET BEGINS

2 TRADE SECRET ENDS]

3 This provision applies when [TRADE SECRET BEGINS

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12 TRADE SECRET ENDS]

13

14 Q. PLEASE DISCUSS THE [TRADE SECRET BEGINS

15 TRADE

16 SECRET ENDS]

17 A. Mesaba 1 LLC estimates that the Mesaba Unit 1 capacity changes depending  
18 on the fuel used, ranging from 603 MWs [TRADE SECRET BEGINS

19

20 TRADE SECRET ENDS] (These "Reference Conditions" are not summer

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values and would all be lower under summer conditions.) [TRADE  
SECRET BEGINS

TRADE SECRET  
ENDS]

Q. WHAT IS THE RESULT OF ALL OF THESE EXEMPTIONS?

A. They weaken the linkage between [TRADE SECRET BEGINS

TRADE SECRET ENDS]

Q. OVERALL, WHAT IS YOUR ASSESSMENT OF THE CAPACITY PRICING  
MECHANISM?

A. The Mesaba 1 PPA's capacity pricing mechanism transfers risk from Mesaba  
1 LLC to Xcel Energy and our customers through provisions that are  
unprecedented and unusual. In addition, the mechanism does not provide for  
reasonable operating controls, which may in turn significantly increase costs.  
These features pose serious financial implications for Xcel Energy and our  
customers, as discussed by the testimony of Mr. Marvin McDaniel and Mr.  
George Tyson. Consequently, each of these provisions must be carefully  
evaluated, then considered collectively within the Mesaba 1 PPA as a whole,  
to determine whether the Mesaba 1 PPA strikes a reasonable balance of risk.  
Based on my review, I conclude that the capacity pricing mechanism does not  
come close to achieving a reasonable risk balance.

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1

2 Q. DOES THE COMPANY SUPPORT THE USE OF THE CAPACITY PRICING  
3 MECHANISM CONTAINED IN THE MESABA 1 PPA?

4 A. No.

5

6 Q. IS IT POSSIBLE FOR MESABA 1 LLC TO BE PAID MORE THAN 100% OF THE  
7 CAPACITY PAYMENT?

8 A. [TRADE SECRET BEGINS

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TRADE SECRET

23 ENDS]

24

25 B. Fuel Supply Cost and Risk

26 Q. PLEASE DESCRIBE HOW THE MESABA 1 PPA ADDRESSES FUEL COSTS AND  
27 ARRANGEMENTS.

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1 A. Mesaba 1 LLC will be responsible for all [TRADE SECRET BEGINS

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11  
12  
13  
14  
15 TRADE SECRET ENDS] However, I have concerns in the details of these  
16 arrangements, particularly given other provisions of the Mesaba 1 PPA.  
17

18 Q. WHAT ARE THOSE CONCERNS?

19 A. I see the following concerns:

20 [TRADE SECRET BEGINS  
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1 [TRADE SECRET BEGINS  
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22

23 TRADE SECRET ENDS]  
24

25 Q. ARE FUEL COSTS KNOWN AT THE TIME?

26 A. No. As discussed by Mr. Panzarino, Mesaba Unit 1 has no fuel supply or  
27 transportation commitments at this time. As such, the Mesaba 1 PPA does  
28 not offer a hedged and predictable price with respect to fuel costs. Instead,

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1 the [TRADE SECRET BEGINS

2  
3 TRADE SECRET ENDS]

4  
5 Q. HOW DO THESE PROVISIONS COMPARE TO SIMILAR PROVISIONS IN OTHER  
6 PURCHASED POWER AGREEMENTS?

7 A. They are more generous than those contained in biomass contracts, for  
8 example. [TRADE SECRET BEGINS

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16  
17  
18  
19  
20  
21  
22 TRADE SECRET ENDS]

23  
24 C. Other [TRADE SECRET BEGINS  
25 SECRET ENDS] Mechanisms

TRADE

26 Q. ARE THERE PROVISIONS THAT WOULD [TRADE SECRET BEGINS

27 TRADE SECRET

28 ENDS]



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1 A. Yes. Both the [TRADE SECRET BEGINS

2  
3 TRADE SECRET ENDS] The  
4 Commission has approved contracts that include provisions for the seller to  
5 pass-through the cost of environmental taxes, and some biomass contracts  
6 have limited pass through for environmental compliance and by-product  
7 disposal costs. [TRADE SECRET BEGINS

8 TRADE SECRET ENDS]  
9 Exhibit\_\_\_(KTH-1), Schedule 3 compares the costs [TRADE SECRET  
10 BEGINS TRADE SECRET ENDS] in the Mesaba 1  
11 PPA compared to our biomass purchased power agreements.  
12

13 Q. DO YOU HAVE ANY CONCERNS REGARDING THE VARIABLE O&M, FIXED  
14 O&M, OR TURBINE START PRICING PROVISIONS?

15 A. Yes. The Variable O&M price is relatively expensive, especially when  
16 operating on natural gas, compared to other Xcel Energy purchased power  
17 agreements for natural gas plants. The Fixed O&M price is also relatively high  
18 and [TRADE SECRET BEGINS

19  
20  
21 TRADE SECRET ENDS]  
22

23 Q. WHAT HAPPENS AFTER THE INITIAL OPERATION PERIOD?

24 A. These costs may be adjusted. For example, in Section 10.9, Mesaba 1 LLC  
25 could demand that the Variable and Fixed O&M prices under the Mesaba 1  
26 PPA be increased after five years of plant operation, effectively transferring  
27 the risk of long-term O&M cost uncertainty to Xcel Energy customers.

1 Likewise, Section 8.6 [TRADE SECRET BEGINS

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5  
6 ENDS]

TRADE SECRET

7  
8 **D. Completion Risk**

9 Q. WHAT IS COMPLETION RISK?

10 A. It is the risk that a project is not built, is not built on time, or does not readily  
11 satisfy requirements for commercial operation. Completion risk is substantial,  
12 and purchased power agreements typically provide detailed responsibilities of  
13 both parties to ensure this risk is addressed. At a minimum, a late commercial  
14 operation date ("COD") typically deprives a seller of cash flow because  
15 capacity payments generally don't begin until all of the conditions are met and  
16 the facility can be dispatched by the utility. In addition, our purchased power  
17 agreements typically include:

- 18 • Delay damages payable by the seller in the event that the project is late  
19 in reaching COD, typically through liquidated damages for the costs  
20 incurred by the Company and its customers to obtain replacement  
21 capacity and energy.
- 22 • Controls on how late a facility can be in reaching commercial operation  
23 before the Seller faces contract termination.

24 In contrast, the Mesaba 1 PPA is more generous, providing with up to a two-  
25 year extension of the COD date based on force majeure events (Section 13.1),  
26 a [TRADE SECRET BEGINS                      TRADE SECRET ENDS]  
27 extension for permitting delays (Section 11.4), and a

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[TRADE SECRET BEGINS

TRADE SECRET  
ENDS] cure period (Section 11.1(C)) if the facility misses the COD for other reasons. While Xcel Energy would not make payments to Mesaba 1 LLC during any delay period, it would not receive any damages associated with the cost to replace the capacity and energy for customers.

Q. DOES THE MESABA 1 PPA CONTAIN ADEQUATE REQUIREMENTS FOR COMMERCIAL OPERATION?

A. No. The requirement for testing appears minimal for a project of this size and complexity. Section 4.7 (B) only requires one successful start and 16 hours of operation. In addition, while Section 4.7 (F) requires that the solid fuel be in place and available for use by the facility, there is no requirement that the facility be operated on solid fuel prior to COD.

Q. HOW WILL THE AVAILABILITY OF TRANSMISSION AFFECT THE COMMERCIAL OPERATION DATE?

## A. [TRADE SECRET BEGINS

TRADE SECRET ENDS] The

Commission has approved purchased power agreements, for example, for the purchase of wind energy from the Buffalo Ridge, where the transmission upgrades were underway with an expected completion date, but where the transmission would not be in place before the project came on-line. In those cases, curtailment provisions allowed projects to take advantage of federal production tax credits, which provided more value to Xcel Energy customers than the cost of curtailment.

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1 In comparison, the transmission required for this project will require  
2 significant investment by utilities and the schedule for completion is not  
3 known at this time. Unlike the Buffalo Ridge example, Mesaba 1 LLC has not  
4 provided any evidence that benefits accrue to Xcel Energy's customers in  
5 exchange for the [TRADE SECRET BEGINS

6 TRADE SECRET ENDS] capacity that may not be  
7 available for reliability purposes and may not generate energy because of lack  
8 of transmission. Mr. Dean Schiro provides testimony regarding transmission  
9 issues associated with the project.  
10

11 Q. YOU NOTED THAT THE PLANT MIGHT ACHIEVE COMMERCIAL OPERATION  
12 WITHOUT HAVING OPERATED [TRADE SECRET BEGINS

13  
14 A.

15 TRADE SECRET  
16 ENDS]

17  
18 Q. WOULDN'T THIS SITUATION PLACE MESABA 1 LLC IN DEFAULT?

19 A. No. In fact, Section 6.1 provides that [TRADE SECRET BEGINS

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21  
22  
23  
24  
25  
26 TRADE  
27 SECRET ENDS]

1

2 Q. DOES THE MESABA 1 PPA CONTAIN CONSTRUCTION MILESTONES?

3 A. Yes, there are some construction milestones listed in Exhibit B of the Mesaba  
4 1 PPA. However, several typical milestones are not included in the Mesaba 1  
5 PPA. For example, the milestones for financial closing and for providing  
6 copies of equipment purchase orders and EPC contracts are not included.  
7 More importantly, the Mesaba 1 PPA has converted the various milestones to  
8 expected dates, and there are no financial penalties or termination right for  
9 failure to actually meet those dates.

10

11 Q. CAN THE MILESTONES SLIP?

12 A. All of the Exhibit B dates are based on the date that the Material Permits are  
13 received, which can slip [TRADE SECRET BEGINS  
14 TRADE SECRET ENDS] The Mesaba 1 PPA provides no certainty that  
15 the expected schedule is achievable.

16

17 Q. HAS XCEL ENERGY EXPERIENCED DELAYS WITH OTHER PROJECTS?

18 A. Yes. One example is the FibroMinn biomass plant that is several years  
19 delayed. While a much smaller project, FibroMinn is being constructed using  
20 an incremental technology step similar to this proposal.

21

22 **E. Default and Remedy Provisions**

23 Q. DO PURCHASED POWER AGREEMENTS CONTAIN PROVISIONS THAT ADDRESS  
24 DEFAULTS AND REMEDIES?

25 A. Yes. Xcel Energy's purchased power agreement structure generally contains  
26 detailed default and remedy provisions to mitigate the performance risk of the  
27 project. Typical default provisions address project delay, failure to deliver

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1 power or lack of availability, financial distress that creates uncertainty for  
2 performance, and wrongful conduct. Remedies for defaults include actual  
3 damages, liquidated damages, and supply or payment for supply of  
4 replacement power. In addition, availability price adjustments act as remedies  
5 if a project fails to deliver as reliably as expected.

6  
7 Purchased power agreements include such mechanisms to provide certainty  
8 for both the utility and the generator about obligations, defaults and remedies.  
9 Approved purchased power agreements include provisions such as (i) a  
10 security fund to allow Xcel Energy a ready source of funds if a default occurs,  
11 (ii) a subordinated lien on the facility to assist Xcel Energy if the project  
12 becomes financially distressed, and (iii) operational step-in rights to allow Xcel  
13 Energy rights to operate the plant if the project sponsors fail to keep  
14 construction on track or fail to keep the project in good working order. The  
15 Department of Commerce's review of our purchased power agreements  
16 typically examines these provisions in detail to ensure they provide  
17 appropriate ratepayer protection.

18  
19 Q. DOES THE MESABA 1 PPA CONTAIN SUCH DEFAULT AND REMEDY  
20 PROVISIONS?

21 A. Some, but not all. In addition, the included provisions have been modified  
22 significantly from that typically used in our purchased power agreements. For  
23 example, [TRADE SECRET BEGINS

24  
25  
26  
27 **TRADE SECRET ENDS]** The Mesaba 1 PPA does

1 not include any security fund or subordinated lien. I believe the remedies and  
2 default provisions of the Mesaba 1 PPA would require substantial additions  
3 and significant strengthening before it would provide sufficient protection for  
4 our customers.

5  
6 **F. Other Terms and Conditions**

7 Q. DO YOU HAVE ANY OTHER COMMENTS REGARDING THE TERMS AND  
8 CONDITIONS CONTAINED IN THE MESABA 1 PPA?

9 A. Yes. My testimony highlights key issues and concerns regarding the Mesaba 1  
10 PPA. There are a number of other provisions that I believe preclude  
11 adopting the Mesaba 1 PPA. As I previously noted, I have identified those  
12 issues in Exhibit \_\_ (KTH-1), Schedule 2. While I believe the evaluation of  
13 the Mesaba 1 PPA should focus on the key issues highlighted in my  
14 testimony, these other issues are also important flaws in the Mesaba 1 PPA.

15  
16 **VI. CONCLUSION**

17  
18 Q. PLEASE SUMMARIZE YOUR TESTIMONY.

19 A. The Mesaba 1 PPA should be evaluated in its entirety to determine whether it  
20 strikes a reasonable balance when allocating risks between Mesaba 1 LLC and  
21 its consortium and Xcel Energy and our customers. My review indicates that  
22 the terms differ substantially from typical contract terms. Viewed as a whole,  
23 the Mesaba 1 PPA transfers an unacceptable level of risk to Xcel Energy and  
24 our customers, and lacks the necessary operational controls to protect our  
25 customers from the possibility of substantial cost increases. Given the pricing  
26 mechanisms for capacity, fuel, transportation, and environmental and

1 regulatory costs, the Mesaba 1 PPA does not offer a hedged, predictable price  
2 for Xcel Energy and our customers.

3

4 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

5 A. Yes, it does.



## Statement of Qualifications

Karen T. Hyde

I have a Bachelor of Science in Metallurgical Engineering from Lafayette College and a Master of Science in Mineral Economics from the Colorado School of Mines.

I began my career at Xcel Energy almost 17 years ago. I have held various positions including, Research Analyst where I forecasted regional economics as well as customer and sales growth, Planning Engineer and Senior Planning Engineer in System Planning, where I negotiated power purchase agreements, amendments to power purchase agreements and financing documents for PPAs. In System Planning, I also performed production cost and expansion planning modeling and provided expert testimony in resource planning and CON dockets.

In 1995, I worked on a team looking at restructuring various purchased power contracts. I eventually led that team and become Team Lead over Purchased Power administration for New Century Energy. In 1998, I was promoted to Manager, Purchased Power. In 2002, I was promoted to Director, Purchased Power. In this position, I was responsible for all long-term purchased power contract negotiation and administration for all of Xcel Energy's utility operating companies, including over 200 long-term contracts. This year, I was promoted to the Managing Director, Resource Planning and Acquisition. In this role, I have the responsibility of ensuring that all of Xcel Energy's regulated electric operating companies acquire sufficient long term electric resources, gas transportation and storage contracts to meet the needs of their native load, retail, and full requirements wholesale customers and meet the planning reserve standards of state, regional and national reliability organizations. My area of responsibility includes resource planning, power purchasing, gas supply planning, wholesale sales, and transmission access.

Prior to working for Public Service, I worked as a forecaster for Baltimore Gas and Electric and as a Lead Nuclear Engineer for the Department of Defense.

I have provided testimony before the Colorado Public Utilities Commission, the Public Utilities Commission of Texas, and the Federal Energy Regulatory Commission.

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REMAINING PPA ISSUES

This Exhibit lists various other terms Xcel Energy has identified that are problematic in the Mesaba 1 PPA. I have presented these issues in the following categories: terms that differ substantially from those typically contained in Xcel Energy's PPAs and appear unreasonable, terms that appear to be errors, and terms that are unclear or inconsistent and would further clarification.

Disputed Terms

1. [TRADE SECRET BEGINS

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SECRET ENDS]

2. *Availability Issues.* [TRADE SECRET BEGINS

TRADE SECRET ENDS]

3. *Excused Outages.* The breadth and usage of the concept of excused outages is problematic and will allow Mesaba 1 LLC to claim the benefit of being available beyond appropriate limits.

4. *Fuel Supply.* In Section 5.5, [TRADE SECRET BEGINS

TRADE SECRET ENDS]

5. *Lack of Facility Flexibility.* [TRADE SECRET BEGINS

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6. *Damage Limitation.* In Section 11.6, limitation of damages is [TRADE SECRET BEGINS  
TRADE SECRET ENDS] In addition, there is no security fund or other mechanism to provide funds for damages.
7. *Replacement Power.* Section 11.10 provides: "Seller shall not be liable to NSP for any replacement power costs in the event the Facility is for any reason unable to deliver Contract Energy or Contract Capacity under this Agreement." PPAs normally provides for recovery of replacement power costs in certain types of non-performance or termination. Lack of this remedy has negative implications both to ratepayers and the Company.
8. *Representations.* The Company objects to many of the representations in Section 4.10 regarding responsibility for transmission upgrades and costs.
9. *Payment Terms.* The Company is not agreeing to the price setting provisions in the PPA and therefore Section 19.4 is inappropriate.

**Apparent Errors**

1. *Transmission Cost Component.* There is an apparent math error in the formula for setting the [TRADE SECRET BEGINS  
TRADE SECRET ENDS] Mesaba 1 LLC agreed with this change in IR No. 42.
2. *Network Resource.* The PPA calls for receipt of Network Resource Interconnection Service pursuant to Section 4.10. This paradigm is apparently incorrect based on supplemental testimony and failure of MISO deliverability test. The PPA offers no alternative for failure to obtain Network Resource Interconnection Service.
3. *Consistency.* The PPA has a potential internal conflict between Section 5.2, (where capacity payments can be penalized for repeated inaccurate availability reporting of 3%) and

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[TRADE SECRET BEGINS

TRADE SECRET ENDS]

4. [TRADE SECRET BEGINS

TRADE SECRET ENDS] Mesaba 1 LLC

agreed with these changes in IR No. 39.

5. *Combustion Turbines.* The [M + 29 months] milestone in Exhibit B only lists one combustion turbine as delivered to the site. Exhibit C indicates that the facility will need two combustion turbines.

6. *Ramp Rate.* Appendix A indicates that the [TRADE SECRET BEGINS

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ENDS]

Areas of Confusion

1. *Reference Capacity.* PPA lacks clarity of how this factor is calculated and appears to tie only to whatever amount is [TRADE SECRET BEGINS

TRADE SECRET ENDS]

2. *Plant Capacity and availability.* The PPA uses several terms that interrelate and overlap: Contract Capacity, Reference Capacity, Net Capability, and Available Energy. [TRADE SECRET BEGINS

TRADE SECRET ENDS] These terms need to be clarified and understood.

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3. *Dispatchability.* Section 7.3 is confusing and might over-ride some or all of the dispatchability provisions elsewhere in the PPA.

4. *Fuel Losses.* The phrase [TRADE SECRET BEGINS

TRADE SECRET ENDS]

5. *Overlap between O&M and fuel handling.* [TRADE SECRET BEGINS

TRADE SECRET

ENDS]

6. [TRADE SECRET BEGINS

TRADE SECRET ENDS]

7. *Related Commitments.* PPA contains no commitments to (i) sequester carbon, (ii) study or promote carbon sequestration, (iii) produce hydrogen, (iv) produce liquid transportation fuels, chemicals, syngas for industrial processes, etc. If undertaken, these products would all require additional solid fuel but there is no definition of how the fuel cost would be allocated between electric production and these other products.

8. *Test Energy.* Section 4.8 appears to require market prices for test energy, but the PPA does not appear to explicitly require that the cost of fuel and other items for the production of test energy be excluded.

9. *Transmission-related Permits.* Exhibit D lists permits related to transmission lines. Based on the testimony regarding Mesaba 1 LLC's proposed limited obligations related to transmission, it is not clear which permits and filings they propose to make. Because all of the permits in Exhibit D are needed [TRADE SECRET BEGINS TRADE SECRET ENDS] a careful review of the list is required.

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10. *Insurance.* The insurance requirements in Exhibit F may need to change based on a thorough review of the chemicals produced and used in operation of the facility.
11. *Fuel Subcommittee.* Section 5.5 has no provision to [TRADE SECRET  
BEGINS  
TRADE SECRET ENDS]

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**[TRADE SECRET BEGINS**

**TRADE SECRET ENDS]**