

MPUC Docket No. E-6472-/M-05-1993

OAH Docket No. 12-2500-17260-2

BEFORE THE
MINNESOTA OFFICE OF ADMINISTRATIVE HEARINGS
100 Washington Square, Suite 1700
Minneapolis, Minnesota 55401-2138

FOR THE
MINNESOTA PUBLIC UTILITIES COMMISSION
127 7th Place East, Suite 350
St. Paul, Minnesota 55101-2147

In the Matter of the Petition of Excelsior Energy Inc.
and Its Wholly-Owned Subsidiary MEP-I, LLC For Approval of Terms and
Conditions For The Sale of Power From Its Innovative Energy Project Using
Clean Energy Technology Under Minn. Stat. § 216B.1694 and a
Determination That the Clean Energy Technology Is Or Is Likely To Be a
Least-Cost Alternative Under Minn. Stat. § 216B.1693

**PREPARED REBUTTAL TESTIMONY AND EXHIBITS OF
EXCELSIOR ENERGY INC. AND MEP-II LLC**

THOMAS L. OSTERAAS

OCTOBER 10, 2006

1 **EXCELSIOR ENERGY, INC.**

2 **BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION**

3 **PREPARED REBUTTAL TESTIMONY OF**

4 **THOMAS L. OSTERAAS**

5 **Q Please state your name, current employment position and business address.**

6 A Thomas Osteraas, Senior Vice President and General Counsel, Excelsior
7 Energy Inc., 11100 Wayzata Boulevard, Suite 305, Minnetonka, Minnesota 55305.

8 **Q On whose behalf are you testifying?**

9 A I am testifying on behalf of MEP-I LLC and Excelsior Energy Inc. (collectively
10 “Excelsior”), the developers of the Mesaba Energy Project (the “Project”).

11 **Q Have you previously provided testimony in this case?**

12 A Yes, I have previously provided testimony on June 19, 2006 and September 5,
13 2006.

14 Scope and Summary

15 **Q What is the purpose of your rebuttal testimony in this proceeding?**

16 A My rebuttal testimony serves three purposes: (I) to specifically respond to
17 certain contract analysis and risk allocation issues raised in testimony submitted by
18 Karen T. Hyde on behalf of Northern States Power Company (“NSP”); (II) to address
19 the general issue of the Commission’s recent July 28, 2006 Order in NSP’s integrated
20 resource plan docket raised by a number of witnesses for NSP, Minnesota Power, the
21 Minnesota Center for Environmental Advocacy and the Department of Commerce; and
22 (III) to introduce the testimony of Excelsior’s rebuttal witnesses.

1 **Q Please summarize your testimony.**

2 A Part I of my testimony provides a detailed analysis of the risk allocation and
3 related pricing provisions of the Mesaba I PPA, highlighting the fact that compared to
4 the risks and costs imposed on NSP and its customers if NSP builds its own baseload
5 power plant, under the Mesaba I PPA (a) NSP's customers will have much less risk
6 and much greater cost certainty and (b) NSP itself will be insulated from many of the
7 risks and costs associated with a further expansion of the current construction program
8 being undertaken by NSP and its parent holding company, Xcel Energy Inc. ("XEI"),
9 that would lead to further downward pressure on the credit profile of NSP and XEI.

10 Part II of my testimony responds to testimony from various witnesses for NSP,
11 Minnesota Power ("MP"), the Minnesota Center for the Environment ("MCEA") and
12 the Department of Commerce ("DOC") with respect to the need for the facility. The
13 parties argue that the issues in this proceeding have effectively all been decided already
14 in the Commission's July 28, 2006 Order in NSP's recent integrated resource plan
15 docket (the "July 28 Order") and cite this order for the proposition that the
16 Commission found that no new coal baseload generation capacity is needed. I analyze
17 the fact that the Mesaba Project's statutory exemption from the requirements for a
18 certificate of need renders this line of testimony moot as a matter of law. I then
19 demonstrate that contrary to the statements in the testimony of NSP, MP, MCEA and
20 the DOC that the July 28 Order determined that NSP did not have any need for
21 baseload power until 2015, the record in NSP's resource plan docket confirms that the
22 Commission explicitly and affirmatively did *not* adopt any specific forecast or
23 expansion plan in that docket. I demonstrate that the July 28 Order merely requires

1 NSP to make a certificate of need filing on November 1, 2006 to meet need in 2015 –
2 the July 28 Order does not contain any specific finding about when NSP has a baseload
3 need. Finally, I point out that NSP’s preferred expansion plan that was not adopted by
4 the Commission in the July 28 Order does, in fact, identify 320 MW of baseload need
5 between 2011–2015, to apparently be met by planned but by no means certain
6 expansions at its nuclear and Sherco baseload facilities. When the additional 144 MW
7 of baseload demand from Flint Hills is added, NSP itself in the resource plan docket
8 has presented evidence to the Commission of 464 MW of baseload need prior to 2015.
9 As described in the testimony of other Excelsior witnesses, described in Part III below,
10 NSP’s resource plan has radically and inexplicably shifted away from 1800MW of new
11 coal by 2015 to this reduced number. If you add the 464 MW to the 375 MW for 2015
12 subject to the July 28 Order’s CON filing requirement, NSP’s total baseload need by
13 2015 is 839 MW.

14 Part III of my testimony introduces the rebuttal witnesses for Excelsior.
15

16 **I. Risk Allocation and Contract Terms under the Mesaba I PPA**

17 **A. General Reaction**

18 **Q Have you reviewed the testimony of Karen T. Hyde submitted on behalf of NSP?**

19 A Yes, and I agree with many of Ms. Hyde’s statements on pages 4–5 of her
20 testimony about the complexity of any long-term power purchase agreement for output
21 from a plant yet to be constructed, the importance of having clear and comprehensive
22 terms in such an agreement, the fact that there is no one set of terms applicable to all
23 purchased power agreements, and that the reasonableness of any purchased power

1 agreement must be viewed as a whole, seeking to ensure that overall risks and costs are
2 appropriately shared among the parties over the term of the agreement. Each of these
3 observations particularly applies in the case of Mesaba Unit I, the first of a coming
4 fleet of clean coal, baseload IGCC power plants to be built in the nation.

5 **Q Are the terms and conditions of the Mesaba I PPA, taken as a whole, reasonable**
6 **and balanced?**

7 A Yes, they are, for reasons that I will describe in detail below. As stated in
8 Section VI of the Mesaba Energy Project Report filed in December 2005, Excelsior
9 spent well over a year working diligently with a number of knowledgeable experts to
10 craft a thoughtful and principled set of terms and conditions that would work for a
11 baseload IGCC plant while maintaining the key risk-shifting provisions of NSP's
12 model PPA. The result is the Mesaba I PPA.

13 **Q Does Ms. Hyde agree that the terms and conditions of the Mesaba I PPA, taken as**
14 **a whole, are reasonable and balanced?**

15 A No, she does not. Ms. Hyde succinctly summarizes all of her testimony in the
16 two conclusions listed on pages 2–3 of her testimony. She contends that the Mesaba I
17 PPA “[t]ransfers an unacceptable level of risk to [NSP] and our customers,” and that
18 the Mesaba I PPA “[o]ffers only weak ties to acceptable performance levels.”
19 Ms. Hyde presents detailed and specific criticisms of many provisions of the proposed
20 Mesaba I PPA. NSP witnesses Pofertl, Tyson, McDaniel, Reed, Engleking and Hervey
21 then cross-reference Ms. Hyde’s testimony as foundation for almost all of their
22 collective, unequivocal and unanimous opposition to every aspect of the Mesaba I
23 PPA.

1 **Q Were you surprised by the extent of NSP’s criticisms of the Mesaba I PPA?**

2 A Yes. The Mesaba I PPA reflects the collective good faith efforts of a team of
3 professionals who developed a PPA that captures the significant benefits of the IGCC
4 technology to ratepayers and allocates risks in a manner that results in the “sweet spot”
5 balance between the cost of power and the risks borne by ratepayers. Baseload
6 development is by nature a difficult and challenging puzzle, whether undertaken by a
7 utility or an independent power company. Baseload IGCC power plants need to be
8 built in the United States, either by utilities under a rate based model or by independent
9 power companies under a PPA model. But since Mesaba I PPA will be the first
10 commercial arrangement relating to an IGCC plant, there are no industry norms,
11 “standard forms” or conventional standards that apply. This is particularly true in the
12 context of a PPA, under which the construction, completion and ultimate performance
13 risk of the Mesaba facility will be shifted away from ratepayers as directed by the
14 legislature under the IEP Statute.

15 It is surprising, in reviewing the testimony from the 13 NSP witnesses, that
16 there are not any positive observations about the Mesaba Project or the proposed
17 Mesaba I PPA, especially in light of the unprecedented state and national interest in
18 IGCC technology generally and the Mesaba Project in particular. NSP would instantly
19 become the national leader in innovation and tackling climate change issues—leap-
20 frogging ahead of AEP and Duke as the two prominent forward-thinking utilities that
21 have embraced IGCC—if NSP embraced IGCC in Minnesota and shifted its efforts
22 towards implementing the legislature’s directive to have an advanced clean coal, IGCC
23 plant built on the Iron Range. Under the win/win approach represented by the Mesaba

1 I PPA, NSP would get power from the cleanest new baseload coal resource in the
2 country and help to achieve important state policy goals, all while transferring very
3 material risks away from itself and its customers and onto the Seller under the Mesaba
4 I PPA.

5 **Q Can you explain why Ms. Hyde apparently believes NSP and its customers bear**
6 **an unacceptable level of risk under the Mesaba I PPA, and why Ms. Hyde**
7 **apparently believes the Mesaba I PPA only offers weak ties to performance levels**
8 **for Mesaba Unit I?**

9 A I think there are two primary reasons Ms. Hyde reaches the conclusions she
10 does. First, and fundamentally for purposes of this entire proceeding, implicit in
11 Ms. Hyde's analysis is an unwarranted presumption that the only real alternative to the
12 Mesaba I PPA to meet NSP's baseload need, an NSP self-build IGCC or super critical
13 pulverized coal plant, would somehow impose less cost and risk on NSP and its
14 customers than would the Mesaba I PPA. Ms. Hyde's conclusions would make more
15 sense to me if it were true that a self-build plant would not present NSP and its
16 customers with all of the risks Ms. Hyde characterizes as being transferred to NSP
17 under the Mesaba I PPA. The first question that must always be addressed with respect
18 to every issue in this proceeding is, "compared to what?" The Mesaba I PPA cannot be
19 viewed in isolation as though taking no action at all is a viable option, or that a utility-
20 owned coal plant is a risk-free proposition. To meet its public service obligation, NSP
21 can no longer ignore the significant baseload need that it first identified over six years
22 ago in its 2000 integrated resource plan. If NSP has to build its own baseload solid
23 fuel facility, whether it comes online in 2011 or 2013 or 2015, all of the considerable

development, permitting, construction, financing and performance costs and risks will be borne by NSP and its customers. As described in the utility industry expert testimony submitted on behalf of Excelsior by Ms. Meal and Mr. Gale, in light of the ambitious capital spending program announced by NSP and XEI and affiliates in Colorado and Texas over the past two years, the potential adverse credit rating impacts of yet another \$1.5 billion plus self-build initiative here in Minnesota would not only expose the ratepayers to greater risks, it would also have severe consequences that would be worse than whatever consequence may be caused by the Mesaba I PPA.

Q Can NSP’s customers learn anything about the costs and risks they will be asked to assume in a self-build scenario from the recent experience of NSP’s affiliated regulated utility, Public Service Company of Colorado (“PSCo”), in connection with its new Comanche 3 baseload plant in Colorado?

A Yes. PSCo had to go to the Colorado commission to request extraordinary regulatory treatment up-front, before PSCo would agree to move forward to meet its public service obligation by building its Comanche facility. In Colorado, PSCo had to request an exemption from Colorado’s competitive bidding requirements in order to get a Certificate of Public Convenience and Necessity and proceed without soliciting bids from third parties to build the new Comanche unit. But the exemption was not enough. PSCo also required current recovery from ratepayers under a rate rider for funds used during construction. Frederic C. Stoffel, testifying in front of the Colorado Commission in August of 2004 on behalf of PSCo, described the situation as follows:

The Company [PSCo] believes that obtaining a [Certificate of Public Convenience and Necessity] with “plain vanilla” cost recovery through standard rate case filing(s) will create too much financial uncertainty and risk to enable the Company to go forward

1 with the coal plant. Although there may be alternative ways to
2 create the level of certainty demanded by the capital markets,
3 without assurance that the Company will receive timely recovery
4 of its projected \$939 million investment in Comanche 3, [PSCo]
5 does not intend to accept its [Certificate of Public Convenience and
6 Necessity].

7 It is not entirely clear what would have happened if the Colorado commission would
8 have denied PSCo's request for accelerated recovery of its Comanche investment, since
9 all parties agreed that there was a need for baseload power in Colorado that the new
10 Comanche unit was intended to meet.

11 **Q Does the Mesaba I PPA transfer risk to NSP and its customers or does it transfer**
12 **risk away from NSP and its customers?**

13 **A** Any power purchase agreement, including the Mesaba I PPA, contractually
14 transfers risks *away* from the utility and its customers. The starting point for analysis
15 must be the alternative self-build scenario, where the utility and its customers have all
16 risks. For instance, all of the risks cataloged on pages 7–8 of Ms. Hyde's testimony are
17 risks that NSP and its customers undeniably have when NSP builds its own facility. In
18 discussing the terms of the Mesaba I PPA Ms. Hyde says:

19 I believe that these terms [of the Mesaba I PPA] shift material risks in project
20 development, cost, and performance to [NSP] and our customers, including
21 material risks in the costs of:

- 22 • Construction,
- 23 • Financing,
- 24 • Transmission,
- 25 • Fuel and fuel transportation,
- 26 • Natural gas,
- 27 • Long-term O&M,
- 28 • Environmental permitting and operations,
- 29 • Waste disposal,
- 30 • Schedule delays,
- 31 • Compliance with future changes in reliability and environmental
- 32 regulations, and

- Technology uncertainty.

Once again, Ms. Hyde's testimony creates the impression that NSP's customers would not have all of these risks if NSP built its own baseload facility, and that the Mesaba I PPA is somehow creating and then unreasonably allocating risks that NSP and its customers would not otherwise have from the Seller to NSP and its customers. Of the risks listed above, particularly in the case of the first baseload IGCC plant in the country, construction risk, financing risk and technology uncertainty are undoubtedly the three biggest risks of the entire project. And contrary to Ms. Hyde's testimony, as discussed in detail in Section B below, once Mesaba I begins construction (currently scheduled for early 2008), *all of the construction, financing and technology uncertainty risks are contractually allocated away from NSP's customers and to the Seller under the Mesaba I PPA.*

Q What is the second primary reason Ms. Hyde reaches the conclusions she does?

A The second primary reason Ms. Hyde reaches the conclusions she does relates to the more narrow question of interpreting the actual terms and conditions of the Mesaba I PPA itself. Although it is apparent from her comprehensive critique of so many provisions of the Mesaba I PPA that Ms. Hyde took the time to thoroughly review the contract, she does not acknowledge that the PPA provides that once the Seller delivers the Final EPC Certification at the start of construction of the facility, a number of key, potentially catastrophic risks that exist in every construction project and that NSP's customers would bear in a self-build scenario are contractually shifted away from NSP's customers to the Seller.

1 **B. Core IPP Risks Assumed by the Seller under the Mesaba I PPA**

2 **Q What are those key, potentially catastrophic risks that are borne by the Project?**

3 A I think of them as the core IPP risks that independent power producers typically
4 assume responsibility for under a power purchase agreement. As Section VI of the
5 Mesaba Project Report filed in December 2005 indicates, the Mesaba I PPA preserves
6 these key risk-shifting provisions of NSP's model PPA. Risks that the Seller bears
7 once construction begins, that will be borne by NSP's customers if NSP builds a plant,
8 include:

9 (1) All development phase costs and risks, including the costs to secure a site,
10 engineer, license and finance the facility. The Seller will incur more than \$50
11 million of costs prior to start of construction. These high-risk, up-front investment
12 dollars have historically been borne by the utility and then recovered later in rate
13 proceedings; the Commission and NSP's customers can reasonably expect NSP to
14 seek up-front, special rate treatment of any such costs it expends, given the
15 precedent set by XEI's regulated utility subsidiary in Colorado.

16 (2) All carrying costs during the construction phase, including debt and equity costs
17 needed to fund a capital investment in excess of \$1.5 billion during an
18 approximately 4-year construction schedule. Under the Mesaba I PPA, the Seller
19 will bear all such costs until the plant achieves its commercial operation date.
20 Historically, NSP would carry such costs in the form of "allowance for funds used
21 during construction" and seek to recover those costs when the plant was placed into
22 service, and "used and useful." That approach, which places significant incentive
23 on NSP to bring the plant online in a timely manner, appears to have been rejected

1 by XEI and its affiliate regulated utility companies. Given XEI's recovery
2 requirements in connection with the new Comanche facility in Colorado and the
3 MERP and CapEx 2020 investments here in Minnesota, as with the development
4 expenses described in (1) above, the Commission and NSP's customers can
5 reasonably expect NSP to condition its agreement to construct any new facility here
6 (including the recently announced \$1 billion initiative to expand capacity at its
7 nuclear plants) on preferential rate treatment for "construction work in progress"
8 where NSP's customers will begin paying the significant debt and equity costs of
9 construction from day one under a separate rate rider.

10 (3) All capital costs actually expended that are required for the plant to deliver power
11 to the grid, including site preparation, rail, water, natural gas interconnect,
12 transmission lines to the point of interconnect, insurance, project management, and
13 owner's costs.

14 (4) All risks that the actual cost of constructing the facility exceed the projected costs.
15 One hundred percent of this risk is allocated to the Seller under the Mesaba I PPA,
16 which fixes what the Seller can collect under the tariff, shifting the risk of a cost
17 over-run to the Seller. In contrast, in a self-build scenario NSP's holding company
18 shareholders might be required to bear a portion of cost overruns, as was the case in
19 the MERP and Comanche models, but even under such a sharing arrangement,
20 NSP's customers will be exposed to significant risks that have been shifted entirely
21 away from them and to the Seller under the Mesaba I PPA.

22 (5) All fluctuations in interest rate and equity return requirements over the life of the
23 facility, including the cost of financing the plant and the associated financing

1 structure. The capacity payment under the Mesaba I PPA is fixed at the start of
2 construction and will not be subject to any adjustment over time as interest rates or
3 market equity return expectations change over the 25 year term of the contract. In
4 contrast, when NSP analyzes what a facility will cost ratepayers, the amount is
5 based on an assumption that interest rates and equity return requirements will not
6 change over the life of the facility. NSP does not limit, as the Seller does as of start
7 of construction under the Mesaba I PPA, its return on the facility to the profits it
8 forecasts when NSP breaks ground on a new facility.

9 (6) All carrying costs during any period of delay in achieving commercial operation.

10 The Seller does not receive any payments under the Mesaba I PPA until
11 commercial operation is achieved, and each day the facility is delayed translates
12 directly into permanently lost revenue for the Seller. In contrast, under a rate base
13 structure, those carrying costs—including a return to NSP's holding company
14 shareholders—are borne by the NSP ratepayers.

15 (7) The risk that the plant does not achieve the availability levels on which the
16 approval of the facility was based. Under the Mesaba I PPA, the Seller is penalized
17 for every hour below an agreed threshold that the plant is not online, in the form of
18 a reduction in the capacity payment that is pro rated to reflect the full value of the
19 lost production. In the context of a rate-based facility, NSP ratepayers will pay
20 NSP's holding company shareholders rates that reflect 100% of the costs of the
21 plant—including NSP's approved equity return or profit, no matter what actual
22 plant availability is achieved. The only limitation on NSP's ability to recover all
23 costs would be a retroactive prudence review, a review that is unnecessary under

1 the Mesaba I PPA since the contract itself establishes the performance standard that
2 will determine whether or not the Seller receives its full capacity payment. In
3 effect, the PPA provides for an agreement that all such cost will be disallowed,
4 whether or not they were prudently incurred.

5 **Q If the Mesaba I PPA provides these protections, then what is the basis for Ms.**
6 **Hyde’s statement that “the Mesaba I PPA essentially obligates [NSP] and its**
7 **customers to pay all of the costs to own and operate Mesaba Unit I, including**
8 **costs that are unknown at this time?”**

9 A I don’t know. Maybe Ms. Hyde believes that the automatic pricing adjustment
10 proposed under the Mesaba I PPA prior to the start of construction continues
11 indefinitely throughout the term of the contract. Ms. Hyde’s statement ignores the
12 terms of the PPA, suggesting that the factors that can change the capacity price are
13 unlimited, and that even after the start of construction NSP and its customers will be
14 responsible for all costs to own and operate Mesaba Unit I under the Mesaba I PPA.
15 This is an inaccurate reading of the terms of the Mesaba I PPA. Unlike the self-build
16 scenario where NSP and its customers would be responsible for all such costs, the
17 Mesaba I PPA limits the costs that NSP and its customers may bear.

18
19 **C. Capacity Price Mechanism**

20 **Q Can you explain the pricing adjustment proposed under the Mesaba I PPA?**

21 A Yes. Like almost every long-term power purchase agreement, the Mesaba I
22 PPA provides for a “capacity payment” to be made to the Seller that covers the costs
23 associated with maintaining available coal capacity. These costs are fixed as of the

1 start of construction and do not change over the life of a PPA. The Seller has quoted a
2 “Base Capacity Charge” under the Mesaba I PPA. The Seller is assuming all of the
3 risk from the signing date of the contract relating to many of the important cost items
4 that would be for the account of NSP and its customers in a self-build scenario. The
5 Base Capacity Charge is subject to a one-time adjustment just before the start of
6 construction in order to account for three cost uncertainties that are outside of the
7 control of Seller and cannot be resolved until that time.

8 **Q What are the costs and risks that the Seller is assuming from the day the contract**
9 **is signed in quoting a set Base Capacity Charge under the Mesaba I PPA?**

10 A It is a long list, but the main items are the significant “soft” development costs
11 relating to the front end engineering and design or “FEED” work required to establish a
12 firm construction cost for the facility, costs relating to the permitting process, costs
13 relating to building the transmission line needed from the facility to the point of
14 interconnect on the MISO grid, and all of the work required outside the battery limits
15 of the EPC contract in order to operate the facility and deliver power under the contract
16 (e.g., any engineering, design and construction cost associated with the various
17 infrastructure elements required to operate any new power plant, such as water supply
18 arrangements or rail and natural gas line interconnection). These outside of the battery
19 limits or “OSBL” and other soft development costs are material (in the case of Mesaba
20 Unit I, where there is significant existing site infrastructure, these costs are estimated to
21 be approximately \$450 million in the aggregate). As with all of the other material risks
22 that are allocated to the Seller under the Mesaba I PPA, all of these costs are ones that
23 NSP and its customers bear full responsibility for in a self-build situation.

1 **Q Why is an adjustment to the Base Capacity Charge necessary?**

2 A The one-time adjustment mechanism proposed in the Mesaba I PPA is
3 necessary and appropriate because there are three limited, but significant, capital cost
4 areas that are outside of Seller's control and cannot be known with certainty until
5 financing is ready to be put in place and construction is about to begin. After the one-
6 time adjustment is made in accordance with Schedule I to the Mesaba I PPA, the final
7 "Capacity Price" under the contract is set for the full 25-year term of the contract,
8 creating a hedged long-term electricity price that will benefit all of NSP's customers.

9 **Q What is the first of the three areas that could result in an adjustment to the Base**
10 **Capacity Charge?**

11 A Extensive and expensive front end engineering and design work must be
12 completed before the engineering, procurement and construction (EPC) contractor can
13 secure bids from sub-contractors, procure commodities and secure the labor workforce.
14 These costs must be known to determine what the final fixed price, lump-sum turnkey
15 contract price will be to build the facility. No one can know today what the final
16 construction cost for the facility itself will be. The EPC consortium for Mesaba Unit I
17 has conducted significant preliminary engineering, optimization and design work for
18 the facility, allowing the Seller under the Mesaba I PPA to have as much information
19 as possible at the time it submitted the Petition in this proceeding in December 2005 to
20 quote a meaningful target EPC contract cost and Base Capacity Charge. However, as
21 the recent experience of the Big Stone Partners has amply demonstrated, circumstances
22 can change over time and it would not be in any party's interest to establish an absolute
23 fixed EPC cost today for Mesaba Unit I and then hope that that cost would prove to

1 reflect the realities of the construction market in early 2008 when Mesaba Unit I
2 expects to reach financial closing. Excelsior notes that the adjustment mechanism
3 proposed in the Mesaba I PPA is linked to an estimate of the target EPC costs as of the
4 beginning of 2008. The extent that capital costs as of the beginning of 2008 are less
5 than forecasted, for any number of reasons, then it is possible that there will be a
6 downward adjustment to the Base Capacity Charge. The point is that due to the size of
7 the construction contract and the significant time and expense required to finalize the
8 construction contract cost, the parties need to know that a PPA is in place while
9 allowing for an appropriate mechanism to reflect the reality that although a good
10 estimate of costs can be made today, no one can say with certainty today what the
11 actual construction costs will be.

12 **Q What is the second area that could result in an adjustment to the capacity price**
13 **under the Mesaba I PPA?**

14 A United State treasury rates. Because interest rates at the time Mesaba Unit I
15 reaches financial close (early 2008) will dictate a large component of the financing
16 costs to build the facility, and because no one can say with certainty today what actual
17 base market interest rates will be 18 months from now, the Mesaba I PPA also
18 contemplates an automatic, indexed adjustment to the Base Capacity Charge (either up
19 or down) depending on where Treasury rates are at that time.

20 **Q What is the third area that could result in an adjustment to the capacity price**
21 **under the Mesaba I PPA?**

22 A Transmission costs that will be incurred by the Seller in connection with
23 upgrades to the existing high voltage transmission lines beyond the point of

1 interconnection at the Blackberry (in the case of the West Range Site) or Forbes (East
2 Range Site) substations, that the Seller is not entitled to recover from any other source
3 (these costs are defined as “Unreimbursed Transmission Costs” or “UTCs” in the
4 Mesaba I PPA).

5 **Q Is the adjustment mechanism to the Base Capacity Charge consistent with historic**
6 **industry norms for power purchase agreements?**

7 A No, because there is no industry norm for large baseload solid fuel facilities.
8 The Mesaba I PPA may well become the industry norm for these facilities in the future.
9 Because there has never been a baseload IGCC power purchase agreement a number of
10 the terms and conditions of the Mesaba I PPA will necessarily be outside of
11 conventional industry standards for power purchase agreements, most of which relate
12 to intermediate or peaking gas-fired facilities that are fundamentally different in terms
13 of the lead time and capital expense required to construct the facility. The proposed
14 adjustment to the Base Capacity Charge is one of the provisions of the Mesaba I PPA
15 that needs to be different from the normal arrangement found in a standard power
16 purchase agreement. As NSP has acknowledged in its recent 2004 resource plan
17 filings, baseload solid fuel facilities are inherently different and more problematic in
18 terms of the ability of project sponsors to quote fixed-price, binding capacity charges in
19 most cases years before a plant would even start construction, much less be able to
20 deliver power under the contract. In addition, utilities in other jurisdictions have
21 encountered the same problem that the Base Capacity Charge adjustment is addressing
22 in connection with requests for proposals for baseload solid fuel facilities. Merrimack
23 Energy Group, Inc., an independent evaluator that assists regulators with the evaluation

1 of competitive generation resource solicitations, reports that Public Service Oklahoma
2 has recently included bidding instructions for coal resources that would allow bidders
3 to propose an escalation mechanism that would continue all the way until the
4 commercial operation date, a feature that provides even less price certainty than the
5 proposed pricing adjustment under the Mesaba I PPA, but that would also result in a
6 lower bid price since ratepayers in Oklahoma would continue to have escalation risk
7 throughout the entire construction schedule. This example confirms that the industry
8 norm as IPPs continue to propose to help utilities meet their baseload need with solid-
9 fuel resources will likely develop along the lines that have been proposed in the
10 Mesaba I PPA.

11 **Q Are there any other costs, aside from the final EPC contract cost, the costs**
12 **relating to actual treasury rates at the time of financial closing, and Seller's**
13 **Unreimbursed Transmission Costs, that can change the Base Capacity Charge?**

14 **A No.**

15 **Q If NSP builds its own baseload plant, do NSP's customers bear the risk that**
16 **construction costs may change between preliminary estimates and the start of**
17 **construction, or that interest rate changes might increase the costs of the plant, or**
18 **that transmission grid upgrades might increase over time?**

19 **A Yes, and in the self-build scenario those risks remain with NSP's customers**
20 **throughout the four or five year construction period, unlike the Mesaba I PPA proposal**
21 **where there is a one-time adjustment to account for these three cost areas at the start of**
22 **construction, after which time the Seller bears all risk on these issues.**

1 **Q** **At page 7 of her testimony Ms. Hyde says, “Almost no component of the pricing is**
2 **fixed at this time. The capacity charge is subject to significant further adjustment**
3 **based on several factors. The fixed O&M, variable O&M, and turbine-start rates**
4 **are subject to escalation and potential reset, and the fuel costs are not fixed at this**
5 **time. There also appears to be no estimate or limit on the reimbursements for**
6 **environmental costs. As a result, I cannot determine what the price for capacity**
7 **and energy will be.” What is your response to these observations?**

8 **A** First, as described above, the Mesaba I PPA does propose a one-time
9 adjustment to the Base Capacity Charge to account for costs that are unknowable at
10 this time and that no project sponsor (including NSP in a self-build situation) can
11 possibly commit to at this time in a project’s development schedule. So it is correct to
12 say it is not possible to know today with certainty what the final Capacity Price will be
13 under the contract. However, instead of “several factors” that can change the capacity
14 price it would be more accurate to say only three factors, and it is not correct to say that
15 almost no component of the pricing is fixed. As described above there are
16 approximately \$450 million of expenses embedded in the Base Capacity Charge that
17 are fixed at this time, and the Base Capacity Charge represents the best possible
18 estimate that could be made as of the end of 2005, taking into account significant
19 preliminary engineering and design work, as to all of the costs of Mesaba Unit I. In
20 addition, the three adjustments will be made based upon a carefully indexed formula
21 that is fixed today under the PPA. Therefore, reliable sensitivity scenarios can be run,
22 such as those filed by Ms. Sass of Excelsior in her September 5 Supplemental
23 Testimony, that demonstrate a range of capacity pricing possibilities based upon

1 certain assumptions about what the final EPC contract cost, treasury rates and
2 unreimbursed transmission costs could be at the start of construction.

3
4 **D. Specific Provisions of Ms. Hyde's Testimony**

5 **Q How do you respond to Ms. Hyde's testimony in pages 12–13 that she does not see**
6 **any controls over the scope of work of the EPC contract and that there are no**
7 **limits in the Mesaba I PPA as to how high the final EPC cost could be?**

8 **A** Attached to this testimony as Exhibit TLO-1 is a detailed description of the
9 facilities that fall within the scope of work for the EPC contract. This document draws
10 a bright line for costs that are covered in the lump sum EPC price and can change in a
11 manner that will impact the final Base Capacity Charge. As for mitigating factors in
12 overseeing the EPC consortium's execution of the FEED work and preparation of the
13 final EPC price, because Mesaba Unit I has received funding from the U.S. Department
14 of Energy, FEED work will be conducted in accordance with and subject to all federal
15 government regulations and audit requirements. The main factor that could cause
16 negative impacts for NSP's ratepayers by unduly prejudicing the Seller's ability to
17 negotiate the final EPC price would be if parties in this proceeding force Excelsior to
18 publicly disclose the target EPC cost set forth on Schedule I to the Mesaba I PPA.
19 Knowing what has been assumed as the target EPC cost under the contract would
20 benefit the EPC consortium in its negotiation of the final EPC price once the FEED
21 work is completed.

1 **Q How do you respond to Ms. Hyde’s testimony at page 12 that the Commission has**
2 **previously rejected any kind of capacity price adjustment mechanism in**
3 **connection with other PPAs?**

4 A In the context of a conventional combined cycle gas-fired facility with
5 substantially lower capital costs, very little required preliminary engineering, many
6 precedents and a much shorter construction schedule, a project developer can forecast
7 the final costs without undue risk. Up until now the Commission has only considered
8 those types of standard PPAs for standard plants. The situation is completely different
9 with any baseload solid fuel facility, and especially in the case of Mesaba Unit I since a
10 multi-train baseload IGCC plant has not yet been built. As a result, I am not at all
11 surprised that the Commission has never previously approved such a price adjustment
12 mechanism, and I do not believe that fact should preclude approval of the reasonable
13 approach to solving this challenge that is proposed in the Mesaba I PPA.

14 **Q How do you respond to Ms. Hyde’s testimony on page 13 that the Mesaba I PPA**
15 **lacks any of the three ways the Commission would typically ensure that the cost of**
16 **generation was reasonable, namely that there is a fixed price, that the contract**
17 **results from a competitive solicitation, or that the contract is subject to ongoing**
18 **Commission prudence review?**

19 A In reverse order, because the Mesaba I PPA will need to be approved by the
20 Commission at the outset and then no payments at all are made to the Seller until the
21 plant delivers energy, the risk of imprudent spending has been contractually allocated
22 away from NSP and its customers to the Seller under the Mesaba I PPA. In fact, all
23 spending over budgeted amounts is “disallowed” by the contract, whether prudent or

1 not. The contract itself essentially sets the prudence standard. In theory prudence
2 review ensures some level of reasonableness, but from the perspective of an NSP
3 customer it is preferable to have clearly enforceable contract terms determine when
4 payments are required to be made rather than relying on retroactive review of payments
5 that have already been made, and trusting that in practice prudence review will be as
6 effective as it is in theory. Prudence review only divides excessive costs between the
7 ratepayers and the utility shareholders, whereas a PPA shifts the cost entirely to a third
8 party. With respect to the fact that the Mesaba I PPA was not the result of a
9 competitive solicitation I would observe that Minnesota legislation requires that a PPA
10 from an innovative energy project be presented to the Commission, and Excelsior has
11 placed extensive cost analysis evidence into the record in order to allow the
12 Commission to make the required findings in this proceeding. And finally, as to the
13 fixed price criteria, as discussed in detail above the Mesaba I PPA does offer NSP and
14 its customers a fixed capacity price from the start of construction throughout the entire
15 25 year term of the contract.

16 **Q Do you agree with Ms. Hyde's conclusions on page 13-14 of her testimony that the**
17 **monthly capacity payment under the contract is not set for the term of the**
18 **Mesaba I PPA even after the Final EPC Certification is delivered?**

19 **A** Not entirely. The final Capacity Price itself is fixed under the contract for the
20 entire term of the contract, but monthly adjustments to that Capacity Price are
21 contemplated, primarily in the form of payment reductions to account for performance
22 shortfalls by the Seller. The adjustments to the capacity payment will be downward if
23 the facility does not achieve its availability targets, which from NSP's customer

perspective is another positive to the Mesaba I PPA in contrast to an NSP self-build model. Having said that, Excelsior is amenable to two material and specific changes to the Mesaba I PPA recommended by Ms. Hyde. The two changes would address the ability of the Seller to receive a full capacity payment when Mesaba Unit I is not operating on 100% solid fuel, and the ability of the Seller to receive more than 110% percent of the targeted capacity payment when performance exceeds the contractually agreed minimum thresholds. Each of these proposed changes is discussed in more detail in Section E of my testimony below. It should be noted that with this second change the Seller retains unlimited downside in terms of reductions to the capacity payment when contracted availability levels are not achieved, but Seller's upside for achieving availability higher than the contracted levels is capped at a modest amount.

Q Why does the capacity price formula in Section 8.1 provide that the facility is deemed to deliver 100% of the full capacity of the facility anytime it delivers 95% or more of the full capacity during a given month?

A This provision is intended to be a shorthand way to account for seasonal variation and degradation between major maintenance cycles. The alternative to the band of deemed availability would be to agree on a set degradation schedule and use correction curves to tie to actual ambient conditions in any given month. Excelsior believes it is administratively more efficient to simply agree on a band of deemed availability, noting that output from Mesaba Unit I will almost certainly exceed 100% of Net Capability in certain months since the expected Net Capability will be set based upon average ambient conditions.

1 **Q Is the facility deemed fully available during an event of force majeure as Ms.**
2 **Hyde indicates on page 14 of her testimony?**

3 A The facility is deemed available only during the first 30 days of an outage
4 caused by such an event, and the Seller will have a huge incentive to remedy the force
5 majeure event as quickly as possible in order to avoid a capacity payment shortfall that
6 would commence just 30 days after such an event occurs.

7 **Q Why is it reasonable for the maximum output for the facility to change during the**
8 **term of the contract depending on the fuel mix being used?**

9 A Because unlike almost any other solid fuel plant, Mesaba Unit I will be able to
10 process widely different grades of solid fuel, and the expected output of the facility will
11 change in light of the type of fuel being used. This is just another example of the kind
12 of unusual or some might event say extraordinary departures from a conventional,
13 standard form power purchase agreement that are required to take advantage of the
14 beneficial operational characteristics and flexibility of an IGCC plant.

15 **Q How do you respond to Ms. Hyde's general conclusion on page 18 of her**
16 **testimony that the capacity pricing mechanism in the Mesaba I PPA does not**
17 **come close to achieving a reasonable risk balance?**

18 A I would first ask what her basis of comparison is. By saying the Mesaba I PPA
19 does not come close to a reasonable risk balance, her conclusion once again infers to
20 the Commission and NSP's customers that if NSP can be persuaded to build its own
21 baseload resource in Minnesota with the kind of extraordinary regulatory treatment
22 NSP's affiliate utility PSCo received in Colorado, NSP's customers would have less
23 risk than they have under the proposed Mesaba I PPA. It is the need to construct new

1 baseload facilities that creates the risks to be managed, and the PPA structure reduces
2 the extent of risks borne by ratepayers. It simply is not the case that NSP customers
3 will have a more reasonable risk balance by assuming every risk in the self-build
4 scenario and paying XEI's shareholders for it under an accelerated rate rider, instead of
5 shifting all of the core IPP risks described in Section B above to the Seller under the
6 Mesaba I PPA. The capacity price mechanism in the Mesaba I PPA addresses the fact
7 that certain key construction, interest rate and transmission cost information will not be
8 known for some time yet. As soon as it is known and Mesaba Unit I is ready to start
9 construction, there will be a one-time adjustment, after which time the final contract
10 capacity price will be fixed for the entire life of the contract, with all risk of cost
11 overruns, delay in achieving commercial operation, debt and equity financing costs and
12 ultimately performance risk transferred away from NSP customers and to the Seller
13 under the Mesaba I PPA. This permanent risk transfer away from NSP customers
14 occurs at the start of construction, almost four years before the facility is expected to be
15 online. The exact opposite is true in the self-build scenario. As ratepayers in Colorado
16 are currently learning, PSCo will collect a rate rider throughout the construction period
17 of the new Comanche facility. Utilities tout the benefits of prudence review as the
18 ultimate protection for their customers, but customers are better served by avoiding the
19 prudence issue altogether under a power purchase agreement rather than relying on the
20 difficult task regulators have in enforcing a prudence standard long after the money is
21 spent. In light of the strength of Ms. Hyde's conclusion about the unreasonableness of
22 the risk balance offered by the Mesaba I PPA, one is left wondering whether NSP's
23 holding company shareholders in a self-build scenario will offer greater protections and

1 assume greater risks than the core IPP risks that are transferred away from NSP
2 customers under the Mesaba I PPA. I would suggest that NSP's holding company
3 shareholders will not come close to achieving the risk balance set forth in the Mesaba I
4 PPA if NSP can be convinced to build a baseload solid fuel facility in Minnesota. If
5 NSP suggests otherwise, it would be a simple matter for the Commission to devise an
6 explicit regulatory compact reflecting the clear assumption of risk by NSP's holding
7 company shareholders. NSP's customers should take note of the pricing terms and the
8 risks transferred away from them under the Mesaba I PPA in order to properly evaluate
9 the reasonableness of the accommodations NSP will require from customers and
10 regulators if and when NSP decides to build its own baseload plant.

11 **Q What is your reaction to Ms. Hyde's testimony on pages 20-22 regarding fuel**
12 **related issues under the Mesaba I PPA?**

13 A Excelsior's proposal under the Mesaba I PPA is intended to mimic as closely as
14 possible the fuel arrangements of NSP itself. Most of NSP's recent power purchase
15 agreements have been tolling agreements with NSP's customers alone assuming
16 unprecedented and extreme natural gas price volatility and inflation. The fuel cost risk
17 associated with coal and petroleum coke, in contrast, is not great, and should be a
18 welcome relief to NSP customers who will be seeing ever increasing natural gas fuel
19 pass-throughs as NSP's reliance on and usage of natural gas continues to skyrocket
20 over the coming five years. The self-build comparison is again the appropriate
21 standard. NSP's customers should have no more or less fuel risk from the Mesaba I
22 PPA than they currently have with respect to all of NSP's existing or new solid fuel
23 plants.

1 **Q Please explain what the “environmental attributes” and “byproducts” of Mesaba**
2 **Unit I are and how they are treated under the Mesaba I PPA?**

3 A Because Mesaba’s IGCC technology produces significantly less criteria
4 pollutants and mercury than even a state of the art super critical pulverized coal plant, it
5 is likely Mesaba’s emission profile alone will eventually be valuable as power plant
6 emission regulations such as those governing criteria pollutants (such as fine
7 particulates) and mercury continue to tighten. It is even likely that Mesaba will
8 generate net SOx credits. In addition, because the IGCC process creates marketable
9 byproducts in the form of elemental sulfur and vitreous slag, Mesaba Unit I will likely
10 realize some amount of revenues from the sale of those byproducts. Excelsior has
11 proposed in the Mesaba I PPA that all benefits and costs associated with the
12 environmental attributes and byproducts from the facility should be for the account of
13 NSP and its customers. Based upon Ms. Hyde’s testimony it appears that NSP believes
14 the net value of these costs and benefits will be negative and NSP therefore apparently
15 would prefer that these costs and benefits not flow through to NSP’s customers.
16 Excelsior disagrees and continues to believe that there may in the future be significant
17 value associated with the environmental attributes and byproducts from the facility.
18 However, if NSP prefers, Excelsior would not object to adjusting the contract to
19 assume responsibility for all costs and benefits of byproducts and environmental
20 attributes associated with compliance with laws and regulations in effect on the date of
21 signing of the Mesaba I PPA.

22 **Q Is it reasonable for fixed O&M payments to escalate with a general inflation**
23 **index?**

1 A Yes, and in fact the inflation index is taken from the NSP model PPA.

2 **Q Does Section 10.9 allow the Seller to demand that Variable and Fixed O&M prices**
3 **be increased after five years of plant operation, as Ms. Hyde says on page 23 of**
4 **her testimony?**

5 A No, and I'm not sure why Ms. Hyde takes the position that Section 10.9 would
6 allow the Seller to unilaterally demand an increase in the Variable and Fixed O&M
7 prices. Section 10.9 of the Mesaba I PPA provides an understanding that either the
8 Seller or NSP can request a change to the Variable and Fixed O&M prices every five
9 years under the contract. It says, "The operations and maintenance plan for the
10 Facility, the Variable O&M Costs as set forth in Section 8.2 and the Fixed O&M as set
11 forth in Section 8.4 are subject to review and adjustment by the Operating Committee
12 every five years, commencing on the fifth Commercial Operation Year, at the request
13 of any member of the Operating Committee." There is no obligation on the part of
14 either party to agree to a change in these prices, so any actual changes to those prices
15 would have to be made by formal amendment of the PPA. Section 10.5(A) is clear that
16 the Operating Committee itself does not have the authority to modify the terms and
17 conditions of the contract.

18 **Q Does Section 8.6 provide for further adjustments to the capacity price if another**
19 **unit is constructed at the same site as Mesaba Unit I?**

20 A It does provide for good faith negotiations to adjust the pricing under the PPA
21 to potentially reduce the capacity payment under the contract to take into account the
22 fact that there might be shared facilities between Unit I and Unit II. If NSP would
23 prefer to delete this provision Excelsior does not object.

1 **Q Will NSP customers bear all costs of replacement power associated with delay or**
2 **plant performance or outage problems, and transmission interconnect**
3 **completion, if NSP builds its own baseload solid fuel facility?**

4 A Yes, and that same result should apply in the case of Mesaba Unit I since the
5 costs to ratepayers of the Seller internalizing these risks would not provide the
6 ratepayers with commensurate benefit. In addition, Mesaba Unit I would not be able to
7 obtain financing if these risks were allocated to the Seller under the Mesaba I PPA.

8 **Q Why isn't the Seller taking all risks under the Mesaba I PPA?**

9 A As stated in Section VI of the Mesaba Energy Project Report filed in December
10 2005, the goal in allocating risks in a project finance structure is to assign risks so that
11 the least risk-adjusted cost of power is achieved. While the Seller could be assigned
12 additional risks, it would have the effect of increasing the cost of power under the
13 Mesaba I PPA without providing corresponding benefits. In the event that additional
14 risks were to be assumed by the Seller, the tariff would need to be appropriately
15 adjusted.

16 **Q Does Ms. Hyde believe that it is realistic for a seller to take all risks under a PPA?**

17 A No. She states in on page 5 of her testimony that "the contracts must be
18 tailored to meet the needs of both buyer and seller...[f]or example, [NSP] has
19 developed model contracts to be used for the purchase of wind, peaking and
20 intermediate electricity services to facilitate negotiations with developers and other
21 electricity suppliers. While these contracts are useful, they provide only a starting
22 point for negotiations, and suppliers generally negotiate modified terms before final
23 agreement is reached."

1 **Q Does Ms. Hyde recognize the fact that shifting risks to sellers under PPAs can**
2 **increase the cost of power under the contract since sellers will have to internalize**
3 **the risk in their quoted price?**

4 A Yes. In connection with PSCo's resource planning and the Comanche approval
5 in Colorado, Ms. Hyde presented testimony to the Colorado Commission in October of
6 2004 recognizing that simply shifting risks to the owners of a facility is not always
7 optimal for ratepayers, because risk-shifting has the effect of driving up costs to
8 ratepayers in a manner that does not always provide a corresponding benefit. In
9 response to a question about a proposed change to the PSCo Model PPA to clarify that
10 PSCo instead of IPP bidders would have all risk of future carbon regulation, Ms. Hyde
11 says, "we would also reflect the changed policy in the RFP so that we ensured that
12 bidders would not internalize this risk."

13 **Q Please respond to Ms. Hyde's conclusion on pages 29-30 of her testimony?**

14 A I agree with Ms. Hyde's observation that the Mesaba I PPA should be evaluated
15 in its entirety to determine whether it strikes a reasonable balance when allocating risks
16 between the Seller and NSP and its customers. However, her conclusion again fails to
17 properly start the analysis with the understanding that every power purchase
18 agreement, including the Mesaba I PPA, fundamentally and necessarily transfers risk
19 away from NSP and its customers and not to them. PPAs do not create risks; they are a
20 tool for carefully managing risks that exist in all power plant projects. Ms. Hyde's
21 testimony is incomplete since it does not acknowledge that the Mesaba I PPA cannot
22 be viewed in a vacuum, and that the Mesaba I PPA must be evaluated in comparison to
23 the costs and risks that NSP's customers will bear if NSP builds its own baseload

1 facility to meet its public service obligation in Minnesota. Objective evaluation of the
2 cost and risk profile presented by the Mesaba I PPA against the corresponding cost and
3 risk profile of an NSP self-build baseload solid fuel facility will reflect that even
4 though the Mesaba I PPA does leave a number of risks with NSP's customers, on
5 balance NSP customers will bear far less risk and have far more cost certainty under
6 the Mesaba I PPA than they will have under an NSP self-build scenario.

7
8 **E. Proposed Contract Changes**

9 **Q In the course of Ms. Hyde's detailed analysis of every aspect of the Mesaba I PPA**
10 **she discussed approximately 30 different specific issues or provisions of the**
11 **contract that in her view were unacceptable or needed clarification. Were any of**
12 **the points she raised valid points that warrant a change in the terms and**
13 **conditions of the Mesaba I PPA?**

14 **A** Yes. Ms. Hyde highlights a few provisions where there was an error in the
15 proposed PPA or a lack of clarity in language, and she raised a handful of material,
16 substantive points that Excelsior agrees should be corrected.

17 **Q How do you propose to deal with changes that you believe are warranted in**
18 **response to Ms. Hyde's testimony?**

19 **A** Attached as Exhibit TLO-2 is a list of eleven specific language changes that I
20 believe would address some of the points raised in Ms. Hyde's testimony. Exhibit
21 TLO-2 lists the relevant Section reference, the proposed changed language marked to
22 show changes from the Mesaba I PPA filed with the Petition in this proceeding in

December 2005, and a brief description of the purpose of the proposed change with a reference to the appropriate testimony that raised the issue being addressed.

Q What are the main substantive changes in Exhibit TLO-2?

A There are two key substantive changes that are proposed. The first addresses Ms. Hyde's legitimate concern that Mesaba Unit I operate on solid fuel as much as possible, a goal shared by Excelsior. The second addresses Ms. Hyde's concern about the ability of the Seller to in theory receive substantial payments in excess of the target capacity price during the first three years of the contract in the circumstance where the availability targets are exceeded during the ramp-up period of the plant. Both of the changes appear in Section 8.1 of the Mesaba I PPA. In the case of the theoretical payment above the target level, the revised language simply limits the monthly capacity payment adjustment to the lesser of the Capacity Adjustment Factor or 1.1 in order to limit any potential bonus for exceeding availability targets to 10%. This results in a 100% downside / 10% upside payment structure that is favorable to ratepayers. In the case of the incentive to maximize solid fuel operation, the revised language deletes the "AENG" or "Available Energy on Natural Gas" concept and replaces it instead with a new "SFP" or "Solid Fuel Percentage" definition intended to track the percentage of syngas to natural gas delivered to the combined cycle turbines in a given month. The SFP is then used to reflect the total amount of available energy during the month generated using syngas from solid fuel, resulting in an automatic reduction in the monthly capacity payment based upon the amount of natural gas used to generate energy under the contract.

1 **Q What are the other specific provisions of the Mesaba I PPA that in Ms. Hyde's**
2 **view warranted attention?**

3 A Ms. Hyde provides a comprehensive set of observations that reflect a thorough
4 and thoughtful review of the PPA terms and conditions. Attached as Exhibit TLO-3 is
5 a list of each of those provisions with an appropriate reference to Ms. Hyde's
6 testimony.

7
8 **II. The July 28, 2006 IRP Order**

9 **Q Are you familiar with NSP's 2004 integrated resource plan docket, the hearings**
10 **that occurred in that docket at the Commission on June 13 and 15, 2006, and the**
11 **final Order issued on July 28, 2006?**

12 A Yes. I followed the resource plan docket quite closely since the original
13 November 2004 filing first identified baseload need in 2011 and then inexplicably kept
14 pushing that need out with each update of the plan. I attended both days of the
15 hearings in June, I have reviewed Parts I and II of the staff briefing papers for the
16 hearings, I have listened to the tapes of the hearings subsequent to attending them and I
17 have reviewed the Commission's July 28 Order in that docket.

18 **Q Have parties in this proceeding represented that the July 28 Order contained a**
19 **finding that NSP did not have any baseload need prior to 2015?**

20 A Yes, testimony from Ms. Pofert and Ms. Engelking for NSP, Mr. Anderson for
21 MP, Mr. Hamilton for MCEA and Mr. Garvey for DOC have testified to that effect.

22 **Q Do you agree that the Commission found no baseload need until 2015 in the July**
23 **28 Order?**

1 A No, for reasons I will explain in more detail below.

2 **Q Even if it were the case that the July 28 Order found no baseload need until 2015,**
3 **would such a finding preclude a public interest determination in connection with**
4 **the Mesaba I PPA?**

5 A No, it would not in light of the Mesaba Project's exemption from the
6 requirements for a certificate of need ("CON"). By exempting the Mesaba Project
7 from the requirements for a CON and providing an entitlement to a PPA, the legislature
8 has as a matter of law removed the requirement to demonstrate need in the IEP Statute
9 from the statutorily prescribed criteria for approval of the Mesaba I PPA.

10 **Q Did the July 28 Order require NSP to file a CON on November 1, 2006 for 375**
11 **megawatts of baseload capacity with an intended in-service date of 2015?**

12 A Yes it did.

13 **Q Does the July 28 Order adopt a specific finding or forecast or expansion plan**
14 **determining when NSP has a baseload need?**

15 A No it does not. One can infer that the Commission believes there is at a
16 minimum a need for 375 MW of baseload capacity no later than 2015 in light of the
17 July 28 Order's directive to NSP to file a CON, but the Order does not specifically
18 adopt any particular time and amount for NSP's next increment of baseload need (or
19 intermediate or peaking need, for that matter). In my judgment as a person who
20 attended the hearings, paid close attention to the deliberations and subsequently
21 listened to the tapes of the hearings, it would be difficult for an objective, reasonable
22 person who listened to the argument and debate to conclude that the Commission had
23 made a determination that NSP does not have any baseload needs until 2015. To the

contrary I believe the more reasonable conclusion to draw from the circumstances surrounding the hearings, deliberation and decisions in the resource plan docket with respect to baseload need is that the Commission is appropriately concerned about how long it has taken to see a concrete proposal to meet impending baseload need that NSP has consistently identified in each resource plan since 2000.

Q Is it surprising that the July 28 Order does not contain a separate finding of baseload need?

A No, not at all. As the Staff Briefing Paper II plainly demonstrates, the action taken by the Commission at its decision meeting on June 15 intentionally did not adopt any particular forecast or expansion plan relating to the next increment of baseload need. The motion unanimously adopted by the Commissioners at the June 15 meeting included decision alternative 1 under Section D in Part II of the Staff Briefing Paper under the heading “Commission decision alternatives (Forecast and Modeling),” and it read in pertinent part as follows:

Decide not to adopt a specific forecast or expansion plan (apart from the Commission’s decision on wind expansion and the DSM goals), and instead do the following:

- a. Approve the Company’s request to issue an RFP for the 136 MW of gas peaking, intended for an in-service date of 2011.
- b. Approve 375 MW of baseload need for an intended in-service date of 2015.
- c. Require [NSP] to file its CON application, by November 1, 2006, to start the competitive resource acquisition process.

Interestingly, the July 28 Order does not contain the separate finding identified as “b” above, that would have affirmatively and specifically approved a particular amount of need in a particular year. Rather, the July 28 Order modifies “b” and “c” into one

1 paragraph that says, "On or before November 1, 2006, [NSP] shall file a certificate of
2 need application to initiate the competitive resource acquisition process for 375
3 megawatts of baseload capacity with an intended in-service date of 2015."

4 **Q Did NSP present its forecast of need and a "Preferred Plan" for expansion for**
5 **Commission approval at the hearings in June?**

6 A Yes, it did.

7 **Q Did the Commission approve NSP's forecast and Preferred Plan?**

8 A No. As discussed above, the Commission was very clear to *not* approve any
9 particular forecast or expansion plan, including NSP's.

10 **Q Did NSP's Preferred Plan include significant baseload additions prior to 2015?**

11 A Yes, it showed a baseload need of 325 MW that NSP apparently intends to meet
12 with expansions at its nuclear and Sherco facilities.

13 **Q Did NSP's forecast of need include the approximately 144 MW baseload need that**
14 **NSP will begin supplying to the Flint Hills refinery again on January 1, 2007?**

15 A It is my understanding that the forecast and Preferred Plan submitted to the
16 Commission in connection with the resource plan did not include the Flint Hills load.

17 **Q So is it fair to say that even under NSP's Preferred Plan submitted in June of**
18 **2006, if we include the Flint Hills load, NSP identified 325 MW of baseload need**
19 **to be met with expansions of existing facilities and another 144 MW of need that**
20 **was not part of the forecast being used, for a total baseload need of 469 MW?**

21 A Yes, it appears that even the plan NSP most recently presented to the
22 Commission included approximately 469 MW of baseload need before 2015, a fact that
23 conflicts with the testimony of a number of the witnesses testifying on this issue.

1
2 **III. Introduction of Witnesses**

3 **Q Can you please introduce the witnesses who are presenting Prepared Rebuttal**
4 **Testimony on behalf of Excelsior in this Proceeding?**

5 A In addition to my testimony, in light of the many issues raised by other parties,
6 and in an effort to create the fullest and clearest possible record for the Commission on
7 the critically important issues presented in this proceeding, Excelsior presents
8 testimony from a number of nationally-recognized energy industry experts, and from
9 one nationally-recognized legal scholar whose academic career has focused on areas of
10 the law related to Regulated Industries, Administrative Law, Constitutional Law and
11 Statutory Interpretation:

- 12 • *Professor Jim Chen, Associate Dean and James L. Krusemark Professor of*
13 *Law, University of Minnesota Law School.* Professor Chen responds to the
14 testimony of numerous witnesses for all of the parties with respect to the proper
15 reading and interpretation of the statutes at issue in this proceeding as well as
16 the striking parallels between the public policy objectives of the CET and IEP
17 Statutes and PURPA in terms of driving innovation in the regulated electric
18 utility industry and in terms of the incumbent utility response to these statutes.
- 19 • *Andrew Weissman, FTI Consulting, Inc.* Mr. Weissman responds to witnesses
20 for NSP regarding the Strategist modeling methodology and assumptions and
21 the role of the Mesaba Energy Project in the state's energy future.

- 1 • *Edward C. Bodmer, Pace Global Energy Services, LLC.* Mr. Bodmer responds
2 to testimony from the Department of Commerce regarding cost comparison and
3 risk allocation issues.
- 4 • *Roger W. Gale, GF Energy, LLC.* Mr. Gale responds to witnesses for NSP
5 regarding the risk allocation set forth in the Mesaba I PPA, the views of the
6 major credit rating agencies with respect to the risks inherent in utility
7 construction campaigns and the many benefits that the Mesaba Project will
8 provide to NSP customers when compared to a self-build alternative.
- 9 • *Margaret A. Meal, CFA, Finance Consultant to Excelsior.* Ms. Meal responds
10 to witnesses for NSP concerning the credit quality concerns raised by NSP's
11 and XEI's current capital spending campaigns and the impacts to NSP's and
12 XEI's credit quality that could result from the Mesaba I PPA.
- 13 • *Michael J. Hamilton, FTI Consulting, Inc.* Mr. Hamilton responds to witnesses
14 for NSP concerning certain accounting standards relating to variable interest
15 entities, accounting for derivatives and lease accounting.
- 16 • *A. Joseph Cavicchi, FTI Consulting, Inc.* Mr. Cavicchi responds to witnesses
17 for NSP concerning NSP's system analysis of the cost of Mesaba Unit I,
18 focusing particular attention on the apparent inconsistencies and inexplicable
19 results of NSP's analysis.
- 20 • *Maria Scheller, ICF Consulting Group, Inc.* Ms. Scheller responds to
21 witnesses for NSP concerning the validity of the system modeling outputs
22 derived by NSP's resource planning modeling group in evaluating the Mesaba I
23 PPA.

- 1 • *Renee Sass, Excelsior Energy Inc.* Ms. Sass responds to a witness for NSP
2 regarding NSP’s recommendation for advisory credit ratings in connection with
3 the Mesaba I PPA. Ms. Sass also responds to witnesses for the website
4 mncoalgasplant.com and NSP concerning the economic development benefits
5 report prepared by the UMD’s Labovitz School. Finally, Ms. Sass responds to
6 witnesses for NSP in connection with NSP’s trade secret gas price forecasting
7 assumptions and the possible impacts of those assumptions on system cost
8 analysis.
- 9 • *Thomas A. Lynch, ConocoPhillips Company.* Mr. Lynch responds to witnesses
10 for NSP and Minnesota Power concerning the ConocoPhillips E-Gas™
11 technology.
- 12 • *Douglas Cortez, Hensley Energy.* Mr. Cortez responds to witnesses for the
13 website mncoalgasplant.com, NSP, Minnesota Power, and the Izaak Walton
14 League of America – Midwest Office, Fresh Energy and Minnesota Center for
15 Environmental Advocacy (collectively “MCEA”) regarding the technological
16 capabilities of IGCC versus SCPC technologies to potentially capture CO₂ if
17 and when carbon regulation might warrant such action. Mr. Cortez also
18 sponsors a cost analysis report by Fluor prepared in response to testimony from
19 the Department of Commerce.
- 20 • *Ronald H. Wolk, Wolk Integrated Technical Services.* Mr. Wolk responds to
21 testimony from the Department of Commerce concerning technical factors to
22 consider in comparing the Mesaba Project to other coal-fired alternatives.

- 1 • *Edward N. Steadman, Energy & Environmental Research Center, University of*
2 *North Dakota.* Mr. Steadman responds to witnesses for all of the parties
3 concerning the potential ability to capture and sequester CO₂ from the Mesaba
4 Project.
- 5 • *Richard Stone, Excelsior Energy Inc.* Mr. Stone responds to witnesses for all
6 parties regarding the potential ability of the Mesaba Project to capture and
7 sequester CO₂, presenting Excelsior Energy's Plan for Carbon Capture and
8 Sequestration.
- 9 • *Robert S. Evans II, Excelsior Energy Inc.* Mr. Evans responds to witnesses for
10 the website mncoagasplant.com, NSP, Minnesota Power, and MCEA regarding
11 the environmental profile of Mesaba Unit I.
- 12 • *Baxter Jones, ICF Consulting Group, Inc.* Mr. Jones responds to a witness for
13 NSP regarding the methodologies and integrity of results from the ICF Health
14 Benefits Report filed as part of Excelsior's original December 2005 filing.
- 15 • *James A. Skurla, University of Minnesota Duluth's Labovitz School.*
16 Mr. Skurla responds to witnesses for the website mncoalgasplant.com and NSP
17 concerning the economic development benefits report prepared by UMD's
18 Labovitz School, updating the previous report based on current data.
- 19 • *Ralph Olson, Marston & Marston, Inc.* Mr. Olson responds to witnesses for
20 NSP and Minnesota Power concerning fuel supply issues, the fuel flexibility of
21 Mesaba Unit I and the long-term benefits to be realized from Mesaba's fuel
22 flexibility.

1 • *Stephen D. Sherner, Sherner Power Consulting.* Mr. Sherner responds to
2 witnesses for NSP and Minnesota Power concerning transmission issues.

3 **Q** **Does this conclude your testimony?**

4 **A** Yes

Exhibit ____ (TLO-1)

Exhibit ____ (TLO-2)

Exhibit ____ (TLO-3)