

**STATE OF MINNESOTA  
OFFICE OF ADMINISTRATIVE HEARINGS  
FOR THE MINNESOTA PUBLIC UTILITIES COMMISSION**

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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

PUC Docket No. E-6472/M-05-1993  
OAH Docket No. 12-2500-17260-2

**SURREBUTTAL TESTIMONY OF  
DWIGHT D. ANDERSON**

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1           The above matter is before Administrative Law Judges Steve M. Mihalchick and Bruce  
2 Johnson. Pursuant to Minnesota Rules Chapter 1400, the following is submitted as surrebuttal  
3 testimony offered by Minnesota Power.

4   **Q:    Would you state your name, background, and present position at Minnesota Power**  
5           **(“MP”).**

6   A:    My name is Dwight D. Anderson. I have been employed by Minnesota Power for 17  
7           years. My present title is Project Development Manager.

8

9   **Q:    Have you previously provided testimony in this proceeding?**

10   A:    Yes, I provided Direct Testimony on behalf of Minnesota Power, a party to this contested  
11           case, to 1) address issues related to the application of the Integrated Gasification  
12           Combined-Cycle (“IGCC”) technology to the fuels selected by the Mesaba Project; 2)

1 address transmission issues related to the Mesaba Project; and 3) address resource  
2 planning issues related to the Mesaba Project.

3  
4 **Q: What is the purpose of your Surrebuttal Testimony in this proceeding?**

5 A: My surrebuttal testimony will respond to the Rebuttal Testimony and Exhibits of  
6 Excelsior Energy Inc.'s ("Excelsior") witnesses Ralph Olson and Tom Lynch and also  
7 provide a clarification to my September 5, 2005 testimony. Specifically, I will respond to  
8 Mr. Olsen's comments regarding the supply of petroleum coke and the potential use of  
9 high sodium PRB coal; Mr. Lynch's comments regarding the commercial status and  
10 scale-up of the proposed IGCC technology; and a clarification of my Direct Testimony  
11 relative to the commercial status classification of the LGTI project.

12  
13 **Q: Are you sponsoring any documents and exhibits in this filing?**

14 A: Yes

15 **Exhibit DDA-4**, the Long Lake Integrated Upgrading Project: Status Report and  
16 Discussion of Soot Processing by Phil Rettger, *et al.*, presented at the October 2006  
17 Gasification Technologies Conference in Washington, D.C.

18 **Exhibit DDA-5**, the GE Energy, Gasification ...Meeting the Challenges of Oil Sands by  
19 Alma Rodarte from GE Energy, presented at the October 2006 Gasification  
20 Technologies Conference in Washington, D.C.

21

1 **Q: What is your clarification?**

2 A: I inadvertently used different terms to describe the commercial status of the LGTI facility  
3 on line 9 of page 5 of my Direct Testimony and in Exhibit DDA-1. What is shown on the  
4 exhibit is correct and the words “pilot test” on line 9 page 5 should be replaced with  
5 “demonstration”.

6  
7 **Q: What are your comments regarding Mr. Lynch’s Rebuttal Testimony?**

8 A: My comments are related to Mr. Lynch’s statements about commercial status and scale-  
9 up of the technology proposed for use in the Mesaba Project.

10

11 **Q: What are your comments regarding Mr. Lynch’s Rebuttal Testimony regarding**  
12 **commercial status?**

13 A: Mr. Lynch’s statements regarding commercial status of the IGCC technology do not take  
14 into account the point of my testimony concerning the need to consider the specific fuel  
15 type that is used in assessing the commercial status. Regardless of what commercial  
16 status label is assigned to a particular project, with the planned use of low-sodium, sub-  
17 bituminous PRB fuel, the Mesaba Project would only be the second application of the  
18 proposed technology on this fuel and the corresponding risk of the fuel use inexperience  
19 this represents should be taken into account by the Commission.

20

1 **Q: What are your comments regarding Mr. Lynch's Rebuttal Testimony regarding**  
2 **scale-up?**

3 A: Mr. Lynch's statements about scale-up are confusing. After taking issue with my scale-  
4 up discussion by stating that the proposed project would be a 17% scale-up from a syngas  
5 production standpoint, he reiterates my point about the project needing to accomplish a  
6 58% scale-up from a fuel feed standpoint. At the same time, he does not address similar  
7 statements to mine in Xcel Energy's witness Frank Miao's September 5, 2006 Direct  
8 Testimony on pages 11 and 12 that estimates an even higher scale-up, 61%, than what I  
9 stated.

10

11 **Q: Do you have any comments regarding Mr. Olson's Rebuttal Testimony about the**  
12 **growing supply of petroleum coke?**

13 A: Yes. As Mr. Olson states, the shift of petroleum supply from the use of light crudes to  
14 medium to heavy crudes will increase the amount of residuals produced at refineries in  
15 addition to what is produced from the tar sands in Canada. That being said, when  
16 considering impacts to future supply it is important to also consider that the petroleum  
17 industry is also looking to use those same refinery residues as a feed stock to produce  
18 hydrogen and syngas fuel in lieu of using natural gas in their refining process. Evidence  
19 of this shift is provided in Exhibit DDA-4 that details the status of the Long Lake  
20 Integrated Upgrading Project that is scheduled to begin operation in the second half of  
21 2007 and Exhibit DDA-5 that describes General Electric's focus and efforts to meet the

1 needs in the Canadian tar sand industry. As shown in the two exhibits, major efforts are  
2 underway to utilize internally generated waste by-products, such as asphaltenes or pet  
3 coke, within the petroleum facility.

4  
5 **Q: Do you have any concerns over Mr. Olson’s Rebuttal Testimony regarding sub-**  
6 **bituminous coal supply for the Mesaba Project?**

7 A: Yes.

8  
9 **Q: What statements concern you?**

10 A: The following two statements:

11 1) “For example, Xcel and the Mesaba Energy Project, through the Fuel Supply  
12 Committee envisioned by the Mesaba Energy Project, will compare the cost of *Montana*  
13 *PRB [emphasis added]* coal delivered by BNSF against SPRB coal delivered by UP/CN  
14 against petroleum coke delivered by truck or by CN.” (Ralph Olson October 10, 2006  
15 Rebuttal Testimony at page 14.)

16 2) “The Mesaba Energy Project has not committed to any sourced fuel supply but has  
17 maintained the optionality of a diverse and flexible fuel supply including petroleum coke,  
18 western sub-bituminous and Illinois Basin bituminous coals. Because some of these  
19 coals have restricted markets, due to their *higher* sulfur or *sodium [emphasis added]*,  
20 currently available, low cost reserves have not been developed or are not being produced

1 in the quantities that are forecast to be available.” (Ralph Olson October 10, 2006  
2 Rebuttal Testimony at page 16.)

3

4 **Q: What is your concern about these two statements?**

5 A: Mr. Olson is implying that the use of high sodium sub-bituminous PRB coal from  
6 Montana is an option for the Mesaba Project. As I noted in my September 5, 2006 Direct  
7 Testimony, the use of high sodium sub-bituminous coal has not been demonstrated with  
8 the proposed technology for the Mesaba Project.

9

10 **Q: Does this conclude your surrebuttal testimony?**

11 A: Yes.