

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

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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

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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

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**SUPPLEMENTAL TESTIMONY AND EXHIBITS OF**  
**EXCELSIOR ENERGY INC.**

**THOMAS L. OSTERAAS**

**JUNE 19, 2006**

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1 **EXCELSIOR ENERGY, INC.**

2 **BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION**

3 **PREPARED SUPPLEMENTAL TESTIMONY OF**

4 **THOMAS L. OSTERAAS**

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

6 A Thomas Osteraas, Vice President and General Counsel, Excelsior Energy Inc.,  
7 Crescent Ridge Corporate Center, 11100 Wayzata Boulevard, Suite 305, Minnetonka,  
8 Minnesota 55305.

9 **Q Would you please describe your educational and professional background.**

10 A I grew up in Sartell, Minnesota, graduated from St. Johns Preparatory School in  
11 Collegeville, Minnesota, and received my undergraduate degree from Harvard  
12 University and my law degree from the University of Minnesota. I have broad  
13 experience as a transactional lawyer both in and out of the power industry. As senior  
14 counsel at NRG Energy, I provided legal support for its European development  
15 activities in 1997-1998. As General Counsel at Cogeneration Corporation of America, I  
16 helped CogenAmerica during the start-up phase of two facilities, and was responsible  
17 for all legal affairs relating to the sale of eighty percent of the stock of CogenAmerica to  
18 Calpine Corporation. Prior to joining Excelsior Energy, I was a Partner in the Finance  
19 and Restructuring Group at Faegre & Benson LLP in Minneapolis, Minnesota, where  
20 my practice focused on structured finance and securitization of financial assets. I began  
21 my career as a member of the Financial Transaction Group at Morrison & Foerster LLP  
22 in Los Angeles, California. My resume is appended as Exhibit TLO-1.

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

2 A I am testifying on behalf of Excelsior Energy Inc.

3 Scope and Summary

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

5 A There are three purposes for my testimony.

6 The first purpose of my testimony is to provide the overview and foundation for  
7 Excelsior’s original Petition and its three-volume Appendix A (Mesaba Energy Project  
8 Report) and Appendix B (Procedural and Filing Information) which were filed in this  
9 docket on December 27, 2005. These documents were prepared by me or under my  
10 direction and supervision. The public version of the Petition and Appendices A and B  
11 are appended to my testimony as Exhibit TLO-2.

12 Limited portions of Appendix A contain non-public data subject to the  
13 protective order in this docket. Specifically, non-public data has been excised from  
14 Volume I, Section III (“Cost Analysis and Comparison”); Volume III, Section V (the  
15 Power Purchase Agreement); Volume III, Section VI (“Summary of Key PPA Terms  
16 and Conditions”); Volume I, Exhibit F (Fluor Report—Comparison of cost and  
17 performance of IGCC and SCPC technologies); and Volume I, Exhibit G (“Fluor  
18 Addendum--Economic Analysis of SCPC Plant”). The non-public versions of these  
19 sections and exhibits are appended to my testimony as Exhibit TLO-3.

20 The second purpose of my testimony is to introduce Excelsior’s witnesses and  
21 exhibits. The third purpose of my testimony is to introduce supplemental information  
22 obtained after Excelsior’s original filing in December, 2005.

1 Preparation of the Petition and Appendices

2 **Q What portions of the Petition and Appendices did you personally prepare?**

3 I personally prepared substantial portions of these documents and, with respect  
4 to the balance, worked closely with the authors to prepare their portions. I prepared the  
5 Petition, the Executive Summary, Appendix B and the following Sections of Appendix  
6 A (entitled the Mesaba Energy Project Report): (1) the analysis and presentation of  
7 proof relating to the public interest determinations under the Innovative Energy Project  
8 Statute (Section I) and the clean energy technology determinations under the Clean  
9 Energy Technology Statute (Section II); (2) the Power Purchase Agreement  
10 (Section V); (3) the summary of the key terms of the PPA (Section VI); and (4) the  
11 Compendium of Recent Publications Confirming IGCC's Public Interest Benefits  
12 (Section VII). I am incorporating the sections I prepared into my testimony.

13 **Q Please identify the individuals you supervised or directed in the preparation of the**  
14 **Petition and Appendices.**

15 A The table below sets forth the individuals who assisted in the preparation of the  
16 Appendices under my direction and supervision and the portions of the Appendices  
17 each reviewed or prepared. In addition to my testimony, Excelsior is presenting  
18 testimony of individuals who reviewed or prepared each section of the Appendices and  
19 Exhibits for cross examination.

20	Renee Sass (Excelsior)	Volume I, Section III (Cost Analysis and
21		Comparison), and Exhibit A to Section VI (Tariff
22		Description)
23	Michael Wadley (Excelsior)	Volume II, Section IV, Subsections A-D, G-H, J-L
24		(Basic Project Overview)
25	Stephen Sherner (Sherner Power	Volume II, Section IV, Subsection I
26	Consulting, LLC)	(Transmission Infrastructure Requirements)

1		
2	Robert Evans (Excelsior)	Volume I, Subsection E (Emissions Reductions);
3		Volume II, Section IV, Subsections E (Project
4		Discharges and Products), F (Pollution Prevention,
5		Recycling and Reuse Plans) and M (Human
6		Health Benefits of the Project)
7	Douglas Cortez (Fluor)	Volume I, Exhibits G and H (Fluor Report and
8		Addendum)
9	Thomas Lynch (ConocoPhillips)	Volume II, Section IV, Subsection C (Technology
10		Process Description)
11	James Skrula (UMD)	Volume I, Exhibit B (Economic Benefits of the
12		Project)
13	Andrew Weissman (FTI Consulting)	Volume I, Exhibit C (Natural Gas Pricing Risk)
14		and a supplemental report updating Exhibit C
15	Baxter Jones (ICF Consulting)	Volume I, Exhibit D (Relative Health Benefits of
16		IGCC)

17 **Q Please explain how Excelsior’s filing in this docket is organized.**

18 A Excelsior has filed a Petition in the form of a pleading which sets forth the  
19 statutory authority for the Petition, identifies the Parties, sets forth the proposed  
20 procedure for the case, and affirmatively requests three determinations from the  
21 Commission. The first two determinations are the subject of this phase of the contested  
22 case, as follows: (1) Excelsior has requested that the Commission determine that  
23 providing the first 450 MW of capacity from the Project to Xcel under the PPA is in the  
24 public interest; and (2) with respect to the remaining 153 MW of capacity from the  
25 Project, Excelsior has requested that the Commission determine that IGCC is or is likely  
26 to be a least cost resource over the life of the Project, requiring that Xcel supply at least  
27 2% of its retail electric energy from the Project. The factual averments in the Petition  
28 are based on detailed factual and analytical support contained in Appendix A (entitled  
29 “Mesaba Energy Project Report to the Minnesota Public Utilities Commission”), which

1 is incorporated by reference into the Petition. In addition the filing also includes  
2 Appendix B which contains procedural and filing information required by Commission  
3 Rules. Finally, the filing includes a supplemental exhibit, filed January 18, 2006 and  
4 attached to my testimony as Exhibit TLO-4, which is the November 7, 2005, written  
5 innovative energy project designation from the Commissioner of Iron Range Resources  
6 referenced in Minn. Stat. § 216B.1694, subd. 1 (3). Also included as part of Exhibit  
7 TLO-4 is a letter from Iron Range Resources certifying the designation letter and  
8 confirming its support for the Project.

9 **Q Please explain how Appendix A to the Petition, the Mesaba Energy Project Report,**  
10 **is organized.**

11 A An overview of the Report is set forth at pages 6-9 of the Executive Summary in  
12 Volume I of the filing. Volume I of the Report includes Sections I-III plus related  
13 exhibits. In general, Section I of the Report presents Excelsior’s evidence confirming  
14 that the Commission should give great weight to each of the five public interest benefits  
15 of IGCC specifically identified by the Legislature in the IEP Statute, Minn. Stat.  
16 § 216B.1694, subd. 2(a)(7); Sections II and III of the Report present Excelsior’s  
17 evidence that IGCC “is or is likely to be a least-cost resource” under the CET statute,  
18 Minn. Stat. § 216B.1693, in light of comparative cost information for an IGCC plant  
19 and a traditional coal (SCPC) plant, the costs of Minnesota “approved” externalities  
20 (those identified in current Commission regulations) and the costs of other significant  
21 externalities (e.g., mercury, fine particulates and carbon capture) that must be  
22 qualitatively considered as part of a meaningful public interest determination. Volume

1 II of the Report includes only Section IV, a detailed and comprehensive description of  
2 every aspect of the Mesaba Project.

3 Volume III of the Report includes Sections V-VII of the Report. Section V is  
4 the PPA Excelsior has proposed, Section VI is a narrative summary of the PPA's key  
5 terms, and Section VII is a compendium of publications recognizing the many the  
6 public interest benefits of IGCC technology.

7 Summary of Excelsior's Request for an Order in this Phase of the Proceeding

8 **Q Please summarize Excelsior's request to the Commission in this phase of the**  
9 **proceeding.**

10 A Excelsior Energy requests the Minnesota Public Utilities Commission  
11 ("MPUC") to approve the PPA for the first unit of the Mesaba Energy Project, Mesaba  
12 Unit I, which has a capacity of approximately 603 MW. Because Phase I of this  
13 contested case addresses only Mesaba Unit I, in this testimony when I refer to the  
14 "Project" I am referring only to Mesaba Unit I. Approval of the PPA will require an  
15 order of the Commission (1) determining that providing the first 450 MW of capacity  
16 from the Project to Xcel under the PPA is in the public interest, and approving,  
17 amending or modifying the terms and conditions of the PPA under the IEP Statute,  
18 Minn. Stat. § 216B.1694, subd. 2(a)(7); and (2) with respect to the remaining 153 MW  
19 of capacity from the Project, determining that IGCC technology is or is likely to be a  
20 least-cost resource, and requiring Xcel to supply at least that amount of its retail energy  
21 from the Project under the CET Statute, Minn. Stat. § 216B.1693(a) in addition to the  
22 450 MW supplied pursuant to the PPA approved under the IEP Statute.

1 Issues to be resolved in the Contested Case

2 **Q What has created the need for this Contested Case?**

3 A Simply put, (1) urgency to implement the Legislature’s public policy judgment  
4 from 2003 that Minnesota should benefit from the rapid development of IGCC as a base  
5 load technology, (2) the inability to reach agreement with Xcel to jointly petition for  
6 approval of the PPA, and (3) the belief that a contested case offers the most efficient  
7 and expeditious way to resolve anticipated material fact issues to be raised in legal  
8 opposition to the Project from (a) traditional utilities which do not favor entry of  
9 independent power producers into their markets, (b) environmental organizations or  
10 citizens that may oppose any new coal baseload plants, and (c) other independent power  
11 producers or utilities who simply disagree with the Legislature’s final policy  
12 determination that IGCC in northeastern Minnesota is the preferred means to meet  
13 Minnesota’s growing need for electric energy, or who plan to build traditional baseload  
14 coal or natural gas fueled projects outside of Minnesota to supply power to utilities  
15 serving Minnesota citizens.

16 **Q Why is it urgent to resolve the issue of whether the PPA for the Mesaba Energy  
17 Project is in the public interest?**

18 A There are three independent reasons for urgency to resolve this docket: (1) the  
19 public policy directive from the Legislature over three years ago to expedite  
20 development of IGCC in Minnesota; (2) the protection of Xcel ratepayers from the  
21 ever-increasing reliance on natural gas for power generation and the resulting  
22 unnecessary natural gas fuel costs that will be paid by ratepayers for each year beyond  
23 2011 that the Project is delayed; and (3) the need for new baseload capacity to meet

1 Minnesota's future energy demands and the fact that no other new baseload plant can be  
2 built in time.

3 **Q What has the Legislature said about the need for IGCC technology in Minnesota?**

4 A The Legislature made clear in 2003 that, as a matter of public policy,  
5 development of IGCC base load technology should be encouraged and expedited in  
6 Minnesota.

7 **Q Are other states interested in IGCC Technology?**

8 A: Yes. Attached to this testimony as Exhibit TLO-5 are recent announcements  
9 from governors in seven states supporting specific initiatives for IGCC technologies. In  
10 addition, as part of Excelsior's supplemental information updating Section VII of the  
11 Report, we have included a copy of the recently issued draft report from Wisconsin  
12 regulators who have been studying IGCC and super critical pulverized coal alternatives  
13 to meet Wisconsin's impending need for additional baseload capacity.

14 **Q Are other state utility commissions concerned about the increasing reliance on  
15 natural gas for power generation?**

16 A: Yes. Attached to this testimony as Exhibit TLO-6 are brief summaries of recent  
17 relevant statements from utility commissioners or commerce departments in six  
18 different states.

19 **Q Describe the factual issues set forth in the Petition over which Excelsior anticipates  
20 no dispute.**

21 A Excelsior believes there can be no good faith dispute that the Mesaba Project is  
22 "an innovative energy project" as defined by the Legislature. There is also no dispute  
23 that Xcel is a utility that owns nuclear generation facilities in Minnesota. Excelsior

1 further believes there can be no good faith dispute that the five public interest benefits  
2 of IGCC identified by the Legislature in the IEP statute are all reflected in this Project,  
3 namely, that the Project provides substantial economic development benefits to the  
4 State, that it uses abundant domestic fuel sources, that the price of output from the  
5 Project under the PPA will be stable, that the project has the potential to contribute to a  
6 transition to hydrogen as a fuel resource, and that it achieves substantial emissions  
7 reductions compared to other solid fuel base load technologies.

8 **Q Describe the primary factual issues Excelsior anticipates will be in dispute.**

9 A Excelsior believes the primary disputes will fall into one of the following three  
10 categories:

11 (1) Under Minn. Stat. § 216B.1694, subd. 2(a)(7), how much weight should the  
12 Commission give to each of the five public interest benefits identified by the  
13 Legislature and to the other public interest benefits of IGCC that Excelsior will  
14 demonstrate in this proceeding, such as its inherent technological capability to  
15 more cost-effectively capture carbon dioxide at some point in the future when  
16 carbon reductions are required;

17 (2) Under Minn. Stat. § 216B.1694, subd. 2(a)(7), is the cost of electricity under the  
18 Project's proposed PPA reasonable, in light of all of the environmental, human  
19 health and other public interest benefits of IGCC identified by the Legislature  
20 and that will be demonstrated by Excelsior, particularly in light of the fact that  
21 the Legislature did not include any "least cost" language in Minn. Stat.  
22 § 216B.1694, subd. 2(a)(7); and

1 (3) Under Minn. Stat. § 216B.1693, how should the Commission evaluate life-cycle  
2 cost evidence relating to IGCC, including the initial cost of electricity from the  
3 Project, the costs of future environmental compliance by coal plants generally  
4 (such as the costs to achieve the same 90% mercury removal rate achieved by  
5 the Project and the costs to comply with pending tighter limits on fine  
6 particulate matter, and the costs of complying with potential carbon capture  
7 requirements during the expected useful life of a new plant), the costs of  
8 delaying baseload coal additions beyond 2011 in the form of unnecessary and  
9 substantially higher volumes of natural gas consumed for power generation and  
10 the attendant rise in natural gas prices statewide, and how heavily should all of  
11 those life-cycle costs be weighed by the Commission in finding that IGCC as  
12 proposed in the Project is likely to be one of the least-cost resources to meet  
13 baseload need over the coming decades.

14 Presentation of Excelsior's Witnesses

15 **Q Please review the witnesses the company is sponsoring in this proceeding**

16 **A** In addition to my Testimony, Excelsior sponsors the following witnesses:

- |    |                               |   |
|----|-------------------------------|---|
| 17 | 1. Renee Sass (Excelsior)     | Power Plant and Electricity Cost Analysis |
| 18 | 2. Michael Wadley (Excelsior) | Mesaba Project Overview                   |
| 19 | 3. Robert Evans (Excelsior)   | Environmental impacts and benefits        |
| 20 | 4. Stephen Sherner            |   |
| 21 | (Sherner Power Consulting)    | Transmission Infrastructure               |
| 22 |                               |   |
| 23 | 5. Douglas Cortez (Fluor)     | Comparative Capital and Operating Costs   |
| 24 |                               | and cost of electricity of IGCC and       |
| 25 |                               | SCPC Plants; costs of Investor Owned      |
| 26 |                               | Utility SCPC plant                        |



1 Dr. Schrag's sobering, insightful testimony should unite forward-thinking utility  
2 executives and regulators in support of IGCC, since the technology itself will provide  
3 protection to shareholders and ratepayers alike in the face of regulations that could  
4 render even state-of-the-art pulverized coal plants obsolete.

5 **Q Describe the supplemental documentary evidence Excelsior is filing.**

6 A Through the testimony of Andrew Weissman, Excelsior is filing an update of the  
7 FTI Report (Vol. I, Exhibit C) on the risks associated with increasing reliance on natural  
8 gas for power generation. Excelsior is also filing a supplement updating the  
9 Compendium of Publications establishing the public interest benefits of the IGCC  
10 technology (Volume III, Section VII of the Report), which is appended as Exhibit  
11 TLO-7. This supplement was prepared under my direction and supervision by the  
12 individuals who prepared the original Section VII of the Report.

13 Conclusion

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

15 A Yes.

# **EXHIBITS**

**EXHIBIT NO. \_\_\_\_ (TLO-1)**

**Resume**

## Thomas L. Oстераas

### Education

**University of Minnesota Law School**, Minneapolis, Minnesota  
J.D., cum laude, June 1993.  
Admitted to California Bar 1993, Minnesota Bar 1995.

**Harvard University**, Cambridge, Massachusetts, A.B. in European History, June 1988.

### Professional Experience

**Excelsior Energy Inc.**, Minnetonka, Minnesota (2004 – present)

*Vice President and General Counsel*

**Faegre & Benson, LLP**, Minneapolis, Minnesota (2001 – 2004)

*Partner in the Finance & Restructuring Group.* Practice focused on structured finance of financial assets, with particular emphasis on residential home mortgage warehouse lending and securitizations, and the establishment and renewal of commercial paper conduit lending programs in a variety of asset classes ranging from non-agency mortgage products to life insurance settlements to insurance premium finance loans.

**Cogeneration Corporation of America**, Minneapolis, Minnesota  
(1998 – 1999)

*General Counsel and Corporate Secretary.* Responsible for all legal affairs of publicly traded independent power company.

**NRG Energy, Inc.** Minneapolis, Minnesota. Resident in Minneapolis with approximately 75% of time spent working throughout Europe (1997 – 1998)

*Senior Counsel, Europe.* Responsible for oversight of all legal activities relating to electric power generation project development and implementation throughout Europe. Lead sponsor counsel participating in all aspects of negotiating and closing 382 MW coal-fired power generation project in Kladno, Czech Republic, and 396 MW gas-fired power generation project in Enfield, England. Participated in all aspects of planning and negotiation of various projects under development, including projects in the United Kingdom, Germany, the Czech Republic, Poland, Spain, Turkey, Hungary and Estonia.

**Morrison & Foerster**, Los Angeles, California (1993 – 1996)

*Associate in the Financial Transactions Practice Group*, Practice emphasis in a broad variety of secured credit transactions, usually representing the agent bank in a syndicate of lenders. Represented warehouse lenders to mortgage companies in connection with mortgage-backed securitization transactions. Additional experience in general corporate, corporate finance and real estate practice areas.

**EXHIBIT NO. \_\_\_\_\_(TLO-2)**

**Mesaba Energy Project Report (Public Version)**

**[Exhibit Bound Separately]**

# **EXHIBIT NO. \_\_\_\_\_(TLO-3)**

## **Non-Public Sections of Mesaba Energy Project Report**

**Volume I, Section III (“Cost Analysis and Comparison”);  
Volume III, Section V (the Power Purchase Agreement);  
Volume III, Section VI (“Summary of Key PPA Terms and Conditions”);  
Volume I, Exhibit F (Fluor Report—Comparison of cost and  
performance of IGCC and SCPC technologies); and  
Volume I, Exhibit G (“Fluor Addendum--Economic Analysis of SCPC Plant”)**

**EXHIBIT NO. \_\_\_\_\_(TLO-4)**

**Written Innovative Energy Project Designation From the  
Commissioner of Iron Range Resources  
November 7, 2005**

**EXHIBIT NO. \_\_\_\_\_(TLO-5)**

**Recent Announcements From Governors Supporting  
Specific Initiatives For IGCC Technologies**

**EXHIBIT NO. \_\_\_\_\_(TLO-6)**

**Brief Summaries of Recent Relevant Statements From  
Utility Commissioners or Commerce Departments**

**EXHIBIT NO. \_\_\_\_\_(TLO-7)**

**Supplement Compendium of Publications Establishing the  
Public Interest Benefits of the IGCC Technology  
(Volume III, Section VII of the Report)**

**(This Exhibit is provided in CD Rom Format)**