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November 21, 2006

VIA E-MAIL & U.S. MAIL

Ms. Carol A. Overland
Overland Law Office
P.O. Box 176
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Re: *In the Matter of a Petition by Excelsior Energy Inc. for Approval of a Power Purchase Agreement under Minn. Stat. § 216B.1694, Determination of Least Cost Technology, and Establishment of a Clean Energy Technology Minimum Under Minn. Stat. § 216B.1693*


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

Dear Ms. Overland:

Enclosed please find Excelsior's supplemental response to MCGP's First Interrogatories and Document Requests No. 21(#2).

Very truly yours,

LEONARD, STREET AND DEINARD
Professional Association



BYRON E. STARNES

BES/sah
Enclosures
cc (w/enc.): IR Service List (via U.S. Mail)

In the Matter of a Petition by Excelsior Energy, Inc., . . .

INFORMATION REQUEST RESPONSES SERVICE LIST

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EXCELSIOR ENERGY INC.

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

Supplemental Response to MCGP IR No. 21 (#2)

**MNCOALGASPLANT.COM
FIRST INTERROGATORIES AND DOCUMENT REQUEST**

MPUC Docket No.: E6472/M-05-1993

Date of Request: June 21, 2006

OAH Docket No. 12-2500-17260-2

Date of Response: July 6, 2006

Date of Supplemental Response: November 21, 2006

Requested From: Excelsior Energy

Requested For: Mncoalgasplant.com

Representative Requesting Information: Carol Overland

Type of Inquiry: ...Financial ...Rate of Return ... Rate Design
 ...Engineering ...Forecasting ...Conservation
 ...Cost of Service ...CIP ...Other; PPA

EXCELSIOR ENERGY INC.

MPUC Docket E-6472/M-05-1993

Supplemental Response to MCGP IR No. 21

- Non-Public Document – Contains Trade Secret Data**
 Public Document – Trade Secret Data Has Been Excised
 Public Document

mncoalgasplant.com
First Interrogatories and Document Requests No. 21(#2)

Sequestration

21 (#2) October 2005 NETL PowerPoint states that the project is “sequestration adaptable,” and “with retrofit for capture, if greenhouse gas reductions are imposed by future regulations.”

...

EXCELSIOR ENERGY INC.
 MPUC Docket No. E-6472/M-05-1993
 Supplemental Response to MCGP IR No. 21 (#2)

Excelsior Energy
Response to MCGP's First Interrogatories and Document Requests No. 21(#2)

Overland Request No.	Cumulative Request No.	Question	Response
21 (#2)(f)	83	... What geological formations are appropriate for sequestration?	<p>A variety of geological formations are appropriate for sequestration, including partially depleted hydrocarbon reserves, deep underground saline aquifers and basalt formations. PCOR, available at http://www.undeerc.org/pcor/, describes a variety of potential locations in the upper Midwest, including hydrocarbon reserves in the Williston Basin, which stretches through the Dakotas, Montana, and south-central Canada. See Joint Permit, Section 3.1.5.3.5, pages 150-51.</p> <p>The Williston Basin could be utilized for sequestration. The Applicant has contracted with the University of North Dakota Energy and Environmental Research Center ("EERC") to assess CO2 management options for Phase I and II. PCOR is currently undertaking studies to validate the most promising sequestration technologies and infrastructure concepts. See Joint Permit, Section 3.1.5.3.5, pages 150-51.</p>
21 (#2)(g)	84	... Where in the upper Midwest are these formations found?	
21 (#2)(h)	85	... What geographic location could be utilized for sequestration?	

Excelsior Energy
Supplemental Response to MCGP's First Interrogatories
and Document Requests No. 21(#2)

On November 13, 2006, Excelsior discussed potential carbon sinks in the Upper Midwest with Julio Friedmann, the Associate Program Leader of the Carbon Management Program at Lawrence Livermore National Laboratory and Harvey Thorleifson, Director of the Minnesota Geological Survey. Based on those discussions, Excelsior concludes that prospects do exist in Minnesota for geologic formations that may be appropriate for sequestration. At present, the geological understanding of these formations is limited and further study is necessary to determine their suitability for carbon sequestration.

A formation in eastern Minnesota called the Midcontinent Rift holds the potential to be suitable for carbon sequestration and comes within 100 miles of both proposed plant sites (see Fig. 1). It contains significant formations of sedimentary rock that may have adequate porosity for carbon sequestration. At this time, it is not certain whether such formations exist at a suitable depth and with a sufficient degree of geological seals for carbon sequestration to be feasible.

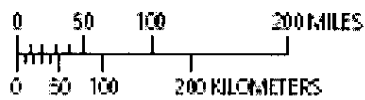
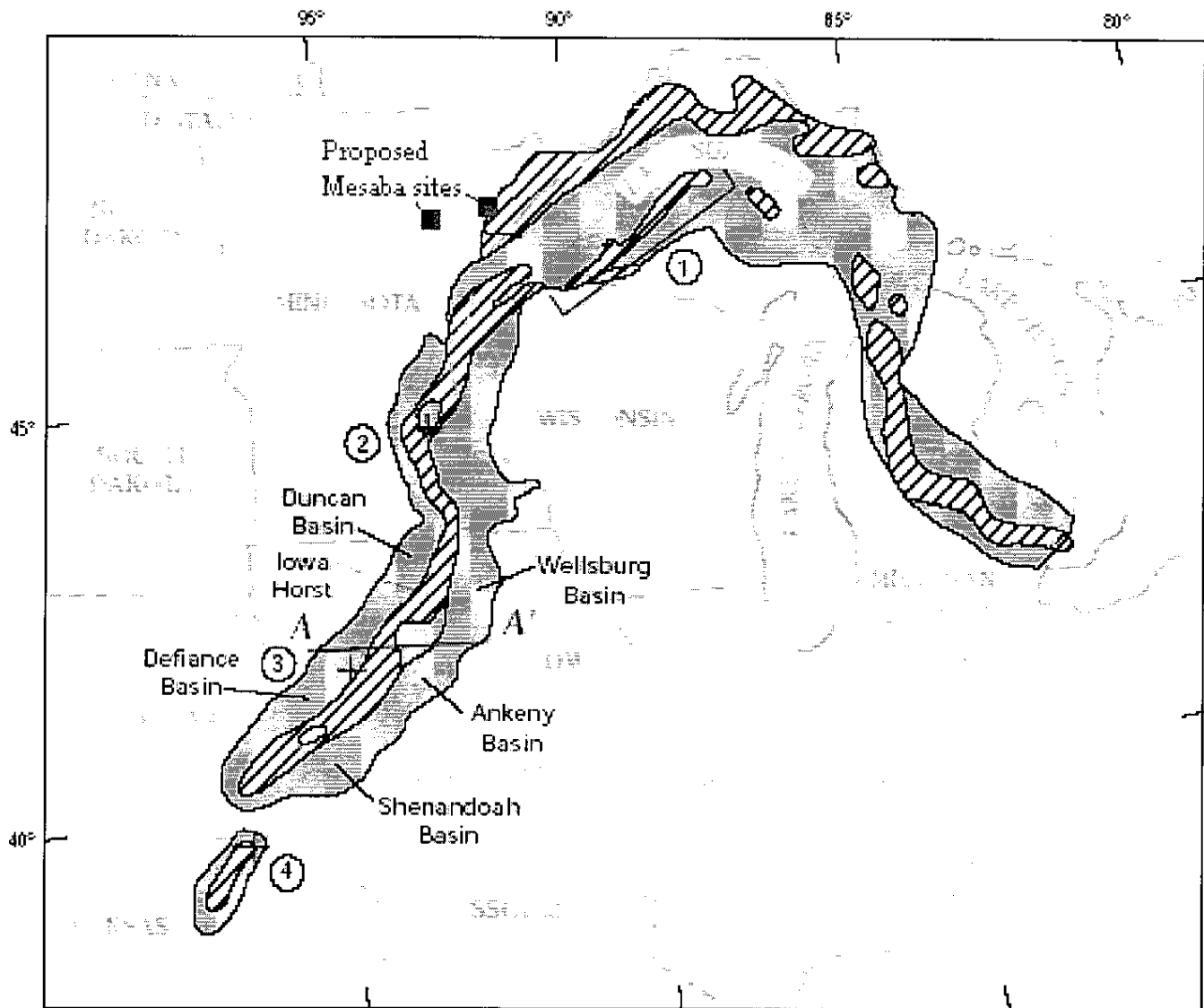
The geological formations and reservoirs that PCOR and other regional initiatives identify as carbon sequestration sinks (and quantify capacity thereof) have been relatively well characterized geologically as part of previous oil and gas exploration activities. Such characterization is expensive and therefore is generally (but not strictly) obtainable because of the economic opportunities that accompany fossil fuel exploration. Because of the lack of oil and gas exploration in the area, the Midcontinent Rift in Minnesota has not been characterized to the degree of other identified and confirmed sinks. Excelsior is exploring ways to facilitate this research. However, until this occurs, the potential to sequester carbon in Minnesota can neither be confirmed nor denied.

Response by: Chris Greenman

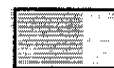
Title: Counsel, Excelsior Energy Inc.

Telephone: (952) 847-2374

Date: November 21, 2006



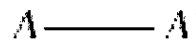
EXPLANATION



Keweenaw clastics



Keweenaw volcanics



Line of cross section



Location of wells

FIG. 1: MIDCONTINENT RIFT FORMATION

Clastic rocks represent potential carbon sequestration areas.

Source: Palacas, J. Source-Rock Potential of Precambrian Rocks in Selected Basins of the United States. US Geological Survey Bulletin 2146-J. 1997.