

**LMFS-94-16
STUDIES & STRATEGIES IN APPEAL
OF MINNESOTA INTERIM EXTERNALITY VALUES**

CONTRACTOR: Lignite Energy Council

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CONTRACT AMOUNT: \$75,000

Project Schedule - 5 Months

Contract Date - 4/5/94

Start Date - 6/15/94

Completion Date - 8/31/94

Project Deliverables

Status Report - 4/15/94 ✓

Status Report - 6/15/94 ✓

Final Report - 8/1/94 ✓

OBJECTIVE / STATEMENT OF WORK

On March 1, 1994, the Minnesota Public Utilities Commission issued an order that established interim environmental externality values. The objective of this study is to provide information and develop expert witnesses in support of the effort to challenge the use of the interim externality values by the State of Minnesota on lignite produced electricity.

STATUS

The imposition of the Minnesota interim externality values could have a significant adverse impact on the use of North Dakota lignite. The Minnesota interim environmental externality values applied to electricity generated from lignite-fired power plants in North Dakota would make lignite generated electricity appear less competitive for decision making purposes. The impact can be seen in the following table as applied to average emissions in North Dakota.

Externality Specie	<u>\$/ton Specie</u>		<u>\$/ton Lignite¹</u>		<u>4/kWhr</u>	
	<u>Low</u>	<u>High</u>	<u>Low</u>	<u>High</u>	<u>Low</u>	<u>High</u>
Sulfur Dioxide, SO ₂	0.00	300.00	0.00	2.08	0.00	0.18
Nitrogen Oxides, NO _x	68.80	1,640.00	0.23	5.54	0.02	0.4
Volatile Organic Carbons, VOC	1180.00	1,200.00	0.05	0.05	0.00	0.00
Particulate Matter, PM-10	166.60	2,380.00	0.04	0.63	0.00	0.05
Carbon Dioxide, CO ₂	5.99	13.60	<u>8.65</u>	<u>19.65</u>	<u>0.74</u>	<u>1.69</u>
TOTAL			8.98	27.96	0.77	2.40

¹ Average weighted values for total 1993 North Dakota lignite emissions.

The impact of these values may be compared to coal and electricity costs. According to "Coal Data 1994", the average 1992 FOB mine price of coal mined in North Dakota was \$7.84/ton. This compares to Minnesota interim environmental externality values of \$8.98 to \$27.96 per ton. According to data in "1993 Production Costs Operating Steam-Electric Plants," the average fuel costs for lignite-fired power plants in North Dakota is 0.851 4/kWhr. This compares to Minnesota environmental externality values of 0.77 4/kWhr to 2.40 4/kWhr.

Since March 1, 1994, a series of Prehearing Orders have been issued by the Administrative Law Judge in the contested case proceedings. Information has been generated in support of the response from the lignite industry to the Prehearing Orders. As of November 11, 1994, the schedule of the contested case was as follows:

Direct Testimony is due Tuesday, November 29, 1994

Rebuttal Testimony is due Monday, February 27, 1995

Surrebuttal Testimony is due Monday, March 27, 1995

Hearings begin Wednesday, April 19, 1995

On February 10, 1995, the Administrative Law Judge issued his seventh prehearing order changing the schedule of the contested case as follows:

Rebuttal Testimony is due Wednesday, March 15, 1995

Surrebuttal Testimony is due Friday, April 28, 1995

Hearings begin Monday, May 8, 1995

This project was continued as FY94-XVI-55, "Development & Presentation of Externality Information Relating to Lignite-Based Generation for Minnesota Externality Proceedings."