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September 21, 1989



North Dakota Industrial Commission State Capitol Building Bismarck, ND 58505

Dear Commissioners:

Enclosed is our proposal to conduct an analysis of the contribution of the North Dakota lignite industry to the state economy. This analysis would be a logical continuation of work we have been conducting in cooperation with the North Dakota Lignite Council over the last seven years. These analyses have provided a factual data base on the past, present, and potential future contribution of the lignite industry to the state economy as measured by in-state expenditures and the business activity, jobs, and tax revenues generated directly and indirectly by the industry.

We propose to conduct the analysis annually for a cost of \$4,000 per year. If you have any questions about our proposed approach, please don't hesitate to contact me.

Sincerely,

F. Larry Leistritz

Professor

P.S.: Our application fee (Check #615013) is being sent under separate cover.

FLL/cjj

c: Mr. Dwyer

Mr. Miller

Mr. Coon

Dr. Cobia

Enclosures

North Dakota Lignite Industry Economic Analysis

A Project Proposal Submitted to the North Dakota Industrial Commission by

> The North Dakota State University Department of Agricultural Economics

> > Principal Investigators:

F. Larry Leistritz

Randal C. Coon

Date: September 1989

Amount Requested: \$4,000

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#### Summary

#### **Objective**

To build a base of factual economic data on North Dakota's lignite industry and its impact on the state's economy.

#### Expected Results

As a result of the economic analysis, North Dakota will have a factual data base of information on lignite development in the state, its past impact, its present impact, and a basis from which to measure potential future impact. The economic analysis will provide planners and developers with data on jobs, tax revenue, in-state expenditures, and business activity generated by the lignite industry.

#### Time Period

Work on the economic analysis begins in January each year and is completed by April.

#### Total Project Costs

Total cost for the lignite industry economic analysis is \$4,000 per year.

#### Major Participants

The Agricultural Economics Department at North Dakota State University with assistance in data collection from the North Dakota Lignite Council and its members.

#### Objectives

Opportunities for additional development of North Dakota's lignite resources would be enhanced by establishing a permanent economic data base on which decisions affecting future development could be supported.

#### Background

Data on the lignite industry's economic impact on North Dakota would be developed by the Agricultural Economics Department at North Dakota State University (NDSU), which would use a computer model to conduct an economic analysis of the state's lignite industry. The approach used would be similar to that used in previous analyses (for example, see Coon and Leistritz 1985, 1986).

#### Goals

The long-term goal is to establish a permanent economic data base detailing the economic development of North Dakota's lignite industry on an annual basis. In addition, compilation of this data will serve as a knowledge base used to support future lignite development.

The economic analysis base would relate to the following areas:

- \* The lignite industry's economic impact on North Dakota; and
- \* The industry's past, present, and future role in North Dakota's development.

#### Methods

The NDSU Department of Agricultural Economics would request the North Dakota Lignite Council to collect data needed for the economic analysis. Detailed questionnaires would be sent to all lignite users and producers. The completed questionnaires would be sent to NDSU for analysis in March. In April, NDSU would provide a written report of its findings.

This data, along with data from other state agencies such as the Tax Department and the Public Service Commission, would be used by decision-makers to determine the lignite industry's economic impact on the state. This includes tax revenue generated by the industry, direct and indirect employment, and business volume.

#### Timetable

The following timetable is proposed:

January Work on revisions or modifications to questionnaires.

February Send questionnaires to all North Dakota lignite users and producers.

producers.

March Receive completed questionnaires. Run data through computer

model.

April Issue final report on economic analysis results.

#### Personnel

F. Larry Leistritz has been a professor of agricultural economics with North Dakota State University since 1977. He has been instrumental in developing the computer model analyzing the economic impact of the lignite industry on North Dakota. Leistritz has a master's degree in agricultural economics and a doctorate in philosophy from the University of Nebraska.

Randal C. Coon, a research economist, has been on the staff of the North Dakota State University Department of Agricultural Economics since 1974. He worked on the environmental impact statement for the Great Plains Coal Gasification project and has developed energy impact assessment models and socioeconomic models for the Bureau of Land Management. He has done research on numerous studies relating to energy and North Dakota's economy.

## Qualifications of Applicants

Resumes of the project researchers are attached.

## Budget (Annual)

### Salary

Research Specialist (1 month) Secretarial (40 hrs.) Fringe Benefits (10%)	\$2,300.00 350.00 265.00
Travel	510.00
Printing	139.00
Supplies	200.00
Application Fee	100.00
Communication	136.00
Total	\$4,000.00

# Previous Analyses Conducted for North Dakota Lignite Industry

- Coon, Randal C., John F. Mittleider, and F. Larry Leistritz. 1983.

  Economic Analysis of the North Dakota Lignite Industry. Agricultural Economics Miscellaneous Report No. 67. Fargo: North Dakota State University, Department of Agricultural Economics.
- Coon, Randal C., and F. Larry Leistritz. 1985. The Contribution of North

  Dakota's Lignite Industry to the State Economy, 1984 and 1985: A

  Statistical Analysis. AE 85016. Fargo: North Dakota State

  University, Department of Agricultural Economics.
- Coon, Randal C., and F. Larry Leistritz. 1986. North Dakota Lignite

  Industry's Contribution to the State Economy. Agricultural Economics

  Miscellaneous Report No. 99. Fargo: North Dakota State University,

  Department of Agricultural Economics.
- Coon, Randal C., and F. Larry Leistritz. 1987. The Contribution of North Dakota's Lignite Industry to the State Economy, 1986 and 1987: A Statistical Analysis. AE 87003. Fargo: North Dakota State University, Department of Agricultural Economics.
- Coon, Randal C., and F. Larry Leistritz. 1988. Economic Contribution of The North Dakota Lignite Industry, 1987 and 1988. Fargo: North Dakota State University, Department of Agricultural Economics.
- Coon, Randal C., and F. Larry Leistritz. 1989. A Statistical Analysis of the North Dakota Lignite Industry's Contribution to the State Economy for 1988 and Projected 1989. AE 89008. Fargo: North Dakota State University, Department of Agricultural Economics.