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September 21, 1990

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 eight 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 \$4,500 per year. The NDSU Finance Office is sending the application fee under separate cover. If you have any questions about our proposed approach, please don't hesitate to contact me.

Sincerely,

F. Larry Leistritz

Professor

FLL/cji

c: Mr. Dwyer

Mr. Miller

Dr. Duncan

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 Investigator:

F. Larry Leistritz

Date: September 1990

Amount Requested: \$4,500

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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 \$4,500 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 1986, 1990).

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.

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. He has directed a number of research projects dealing with economic impacts of natural resource development and is the author of nine books and numerous journal articles and research reports.

Qualifications of Applicant

A brief resume of the principal investigator is attached.

Budget (Annual)

Salary

Research Specialist (1 month)	\$2,640.00
Secretarial (40 hrs.)	270.00
Fringe Benefits (27%)	590.00
Travel	400.00
Printing	150.00
Supplies	200.00
Application fee	100.00
Communication	150.00
Total	\$4,500.00

University Contribution:

North Dakota State University's contribution to the project will include salary and fringe benefits for Dr. Leistritz, as well as access to the physical facilities and equipment necessary to complete the project. Dr. Leistritz' time commitment to the project (estimated to be 0.75 month) exceeds the amount requested from the sponsor:

Salary (0.75 mo.) = \$3,937.50 Fringe benefits (25%) = \$ 984.38

Appendix

Previous Analyses Conducted for North Dakota Lignite Industry

- Coon, Randal C., John F. Mittleider, and F. Larry Leistritz. 1983. <u>Economic Analysis of the North Dakota Lignite Industry</u>. Agricultural Economics Miscellaneous Report No. 67. Fargo: North Dakota State University, Department of Agricultural Economics.
- Coon, Randal C., and F. Larry Leistritz. 1985. <u>The Contribution of North Dakota's Lignite Industry to the State Economy</u>, 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. <u>The Contribution of North Dakota's Lignite Industry to the State Economy</u>, 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

 <u>Dakota Lignite Industry</u>, 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.
- Coon, Randal C., and F. Larry Leistritz. 1990. A Statistical Analysis of the North

 Dakota Lignite Industry's Contribution to the State Economy for 1989 and

 Projected 1990. AE 90004. Fargo: North Dakota State University,

 Department of Agricultural Economics.