MPC
MINNKOTA POWER COOPERATIVE, INC. Box 1318 Grand Forks, ND 58206-1318 Phone (701) 795-4000
One of the Minnkota Power Systems

X

September 27, 1990

Mr. Tim Kingstad
State Land Commissioner
State Capitol
Bismarck, ND 58505

Subject: Marketing of North Dakota Lignite

Dear Mr. Kingstad:

The Lignite/Electric COALition is pleased to submit the enclosed application for a grant from the Lignite Research Council. Members of the COALition are Basin Electric Cooperative, BNI Coal, Knife River Coal Company, Cooperative Power Association, Minnesota Power, Otter Tail Power Company, North American Coal, United Power Association, Montana-Dakota Utilities Company and Minnkota Power Cooperative.

Enclosed are five copies of the grant application. Should you have questions or comments, please refer those to Mr. Jerry Fiskum, at 701-795-4280.

We look forward to reviewing this proposal with you.

Yours very truly,

MINNKOTA POWER COOPERATIVE, INC.

Melvin D. Nelson, Director
Marketing & Public Relations

gae
cc: Ms. Carlene Fine, Secretary
Industrial Commission

AFFIDAVIT

STATE OF NORTH DAKOTA)
) SS
COUNTY OF GRAND FORKS)

David Loer, being first duly sworn, deposes and says:

That I am the General Manager of Minnkota Power Cooperative, Inc., whose post office address is Box 1318, Grand Forks, North Dakota 58206-1318, and as such, have general knowledge of all of the business affairs of the Cooperative, including the status of any taxes owed by the Cooperative to the State of North Dakota;

That I have inquired of appropriate Minnkota personnel relating to taxes and payments thereof by the Cooperative to the State of North Dakota, including income, gross revenue, sales, employment, property or other taxes;

That I have found that there are no taxes currently owing, and that therefore Minnkota Power Cooperative, Inc., has no outstanding tax liability to the State of North Dakota or any subdivision thereof.

Dated this 28th day of September, 1990.

David Loer

General Manager
Minnkota Power Cooperative, Inc.

GLORIA A. ENERVOLD NOTARY PUBLIC STATE OF NORTH DAKOTA

Subscribed and sworn to before me this 28th day of September, 1990.

Gloria A. Enervold

Notary Public
Grand Forks County, North Dakota

My commission expires:

GLORIA A. ENERVOLD
Notary Public Cavalier County ND
My Commission Expires January 16, 1991

Marketing
— of —
North Dakota Lignite

Grant Application to the
North Dakota Lignite Research Council
for the amount of $15,000

submitted by

The Lignite/Electric COALition

members

Basin Electric Power Cooperative
Cooperative Power Association
Minnesota Power
Minnkota Power Cooperative
Montana Dakota Utilities
Otter Tail Power Company
United Power Association
BNI Coal, Ltd.
Knife River Coal Company
North American Coal Corporation

date submitted

October 1, 1990

principal investigator

Jerry L. Fiskum

LIGNITE RESEARCH COUNCIL
GRANT APPLICATION

PROJECT SUMMARY

The primary objective of a lignite marketing program would be to provide economic benefits to North Dakota by maximizing the efficient use of our state's lignite resources. In brief, by increasing lignite-derived electric sales, more lignite is produced, more jobs are created, more business activity results and more tax revenue is realized by the state.

The major market for lignite is the production of electrical energy. The stability of electric energy produced from North Dakota lignite coal is an important feature and advantage of electricity for energy consumers in this region. Availability and pricing of other fuels are heavily influenced by the uncertainties of the world political scene.

A nation-wide survey of public opinion on energy and environmental issues conducted in December of 1989 indicated that "public concerns about dependence on foreign energy supplies still register strongly." This provides a window of opportunity to increase the use of lignite-derived electrical energy.

This project contemplates using a survey of electric consumers to determine the strengths and weaknesses of North Dakota lignite coal, lignite-derived electric energy and associated ideas in the consumer's mind. This information will be used to develop a five-to ten-year marketing program which will take advantage of positive consumer perceptions.

Thus the long-term goal of this project is to develop a five-to ten-year marketing program to increase the use of North Dakota lignite coal. The uncertainties of price and supply of other fuels affords a clear marketing opportunity to stress the long-term stability of locally controlled lignite and lignite-derived energy. This marketing program would be based on consumer perceptions identified through research conducted throughout the region served by the COALition membership.

The research is expected to be carried out the last quarter of 1990 with a research report ready by early 1991. A marketing recommendation would be developed and presented by spring 1991.

The estimated cost for developing a marketing recommendation based on consumer perception research is $30,000. It would be funded by a $15,000 North Dakota Lignite Research Council grant plus matching funds of $10,000 in equal shares from each of the ten Lignite Council major user and producer members. There will also be $5,000 of in-kind work performed by employees of project participants.

The major project participants (hereafter labeled the Lignite/Electric COALition), are Basin Electric Power Cooperative, Cooperative Power, Montana-Dakota Utilities, Otter Tail Power Company, BNI Coal, Ltd., Knife River Coal, Minnesota Power, North American Coal Corporation, United Power Association and Minnkota Power Cooperative.

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OBJECTIVES

The primary objective of a lignite marketing program would be to provide economic benefits to North Dakota by maximizing the efficient use of our state's lignite resources. For example, a successful lignite marketing program would:

1. Increase lignite production to utilize the 4.8 million tons of surplus capacity which could be mined without additional capital investment.

2. Utilize surplus generating capacity at lignite-fueled power plants to improve plant efficiencies and lower electricity costs to consumers of lignite-produced electricity.

3. Create more direct lignite industry jobs and more indirect employment resulting from lignite development (for each direct job in the industry, four indirect jobs are generated).

4. Increase business activity through greater in-state lignite industry expenditures (each dollar spent by the industry generates three dollars in business activity).

5. Provide additional tax revenue to the state through increased lignite production (severance tax) and electrical generation (conversion tax).

6. Establish the connection in the consumer's mind between local lignite production, stability in cost and supply and low-cost electrical generation.

The major market for North Dakota lignite (about 80% of the state's production) is the production of electrical energy. The stability of electric energy produced from North Dakota lignite coal is an important feature and advantage for energy consumers in this region and represents a marketing opportunity for the lignite COALition. A regional consumer survey is an essential first step in establishing a successful marketing program based on this opportunity.

Some of the benefits derived from this research would be to:

1. Establish the current position lignite holds in the consumer's mind.

2. Determine the benefits consumers believe they derive from lignite.

3. Determine the best prospects and target audience for a marketing program.

4. Help develop the best marketing strategy.

5. Determine appropriate messages.

There is a growing need for an effective marketing program for the North Dakota lignite industry. Like any other product, lignite faces competition from other energy sources. We must meet that competition head-on with an effective, well designed and critically focused marketing program if we are to have a thriving and competitive lignite industry in the years to come.

The unique challenge is that the biggest use for lignite by consumers is not in its raw form as coal, but rather in its converted form as electricity.

BACKGROUND

Consumer research is a key ingredient in any successful marketing program. Before a company can successfully market a product, whether it be automobiles, boats, laundry detergent, electricity or lignite coal, the company needs to know what position its product holds in the mind of the consumer. Once this position is known, a marketing program can be designed to use the perceptions a consumer has of a product to promote that product and increase its use.

Minnkota Power Cooperative has been involved in consumer perception research since 1986. Since then, Minnkota has conducted research projects detailing consumer attitudes on a variety of topics. They include price perception of electricity, reliability, the connection between Minnkota Power Cooperative and its local distribution cooperatives, safety issues regarding electricity and other forms of heating fuel, the primary source of electrical generation, the most beneficial energy source in the years to come and where the lignite comes from that produces the consumer's electricity.

Minnkota has used this research plus insights gained from other research, such as national research done by Cambridge Reports, to successfully direct its marketing program.

Since 1974, Cambridge Reports of Cambridge, Massachusetts, has been doing consumer perception research for the Edison Electric Institute (E.E.I.). Most of this research is centered around energy issues such as the importance of fuels in future electrical generation, the importance of alternate energy sources and consumer perception on environmental issues, to name a few. Many of the insights gained from this base of material indicate that there is an opportunity to market coal-derived electricity to a public which is still concerned about our dependence on foreign energy. E.E.I. uses this information to direct a nation-wide marketing effort. (Selected questions, results and reports are included in the Appendix of this application).

Minnkota Power Cooperative is the only COALition member to have done any significant consumer perception research on lignite coal or lignite-derived electricity within the last ten years.

GOALS

The long-term goal of this project is to develop a 5-10 year marketing program which will increase the use of North Dakota lignite coal. This program would be based on consumer perceptions identified through research conducted throughout the COALition membership.

Based on this research, a 5-10 year marketing program would help achieve these results:

1. Increase the end use of lignite-fired electrical generation.

2. Increase the use of already available mining and generating capacity creating jobs, increasing tax revenues and generating additional business activity for the state.

3. Double consumer awareness (in the target market) of the Lignite/Electric connection.

4. Double consumer awareness (in the target market) of the stability and price advantage of using North Dakota lignite to generate electricity.

The specific goals of this grant application are:

1. Develop a comprehensive base of information from which the strongest approach to promoting lignite and lignite-derived electric energy can be developed.

2. Develop a marketing direction and recommendations using the information gained from this survey. This approach will be presented to the Lignite/Electric COALition for consideration and possible implementation in 1991.

To do this we need to:

1. Retain a professional research firm.

2. Retain an advertising agency.

3. Develop a questionnaire.

4. Conduct the research.

5. Analyze the research data.

6. From the research data, develop several marketing ideas and directions.

7. Do focus-group testing of marketing concepts and approaches to determine the best possible ideas.

8. Use information gained from focus-group research to make recommendations for a specific marketing direction.

The project would be considered completed and successful when a marketing direction based on this research was presented to the Lignite/Electric COALition

METHODS

The residential consumer lignite coal research study would utilize the telephone technique in data collection. The telephone technique provides for a high 75% to 80% response rate.

No probability analysis can be done unless at least a 60% response rate is obtained. This means that if one were doing a mail survey and only had a 40% response rate, one could not generalize the results to the population; therefore, the value of a mail survey is very limited because of the risk of not achieving a 60% response rate.

The telephone technique allows for collection of information without having to reveal the sponsoring agent. By sending a mail survey under the utility's name, one obtains biased results. The utility does not have to be identified in a telephone survey and the survey can be disguised in such a manner that the respondent thinks that it's being done by a host of other groups.

A sample of 700 phone surveys could be collected in seven days; whereas, in a mail survey, 4 to 6 weeks would be required to obtain the required 60% response rate. The telephone technique also allows the interviewers to probe with regard to certain questions; whereas, on a mailed survey instrument, respondents simply skip questions they do not like, and these questions generally are the most important questions contained within the survey.

Issues to be researched include:

1. Consumer understanding of lignite.

2. The current position lignite coal has in the consumer's mind.

3. Consumer understanding of the stability of lignite supply.

4. Variations in perception of coal throughout the region.

5. Public understanding of the economic impact coal production has on the region.

6. Which methods and mediums of advertising would be most effective in reaching and educating consumers.

These represent only a few of the questions that need to be answered by the study. The survey itself would take approximately 10 to 12 minutes to administer over the telephone. The research organization would use a 3-strike principle; i.e., a household would be called on three different occasions before an alternative would be used.

All households would be called between 5 p.m. and 10 p.m. to allow for inclusion of those working full time outside the home. A validation study would be conducted as the data is collected. This would represent a 5% sampling of the completed calls.

All questions in the survey would be cross-tabbed by each of the demographic questions such as age, income, household size, and educational level of the respondent, number of people in the household working outside the home, occupation and geographical areas.

A management team has been put together to work directly with the research organization in the development of the survey. This management team will be asked to list what questions they would want the survey to answer to aid the decision-making process. Once a research organization had been chosen, a preliminary survey instrument would be produced. The management team would react to this instrument, and add or subtract any questions they would find necessary.

There would be approximately 80-100 individual responses contained within the marketing survey.

Once this information has been agreed upon, a pretest would be developed. This pretest would be on a sample of the actual customers of the Lignite/Electric COALition members. The results of this pretest would be presented for review to the management team with the recommended changes by the research firm. Any changes that the COALition management team felt necessary would be incorporated, and final approval of the survey instrument would take place. The questionnaire would be finalized and data collection would begin. This information would be summarized in a report of approximately 160-180 pages.

Sampling

It is recommended at this time that a random sample of 700 customers be used by the COALition. An overall sample size of 700 will allow for each of the electric utility systems within the COALition to have an individual sample size of 100. A sample of 1,400 names would have to be drawn so that one could have a completed call list of 700 because of the factors of being unable to contact people and potential refusals. Each electric system (Otter Tail Power Company, Basin Electric Power Cooperative, Montana-Dakota Utilities, Minnkota Power Cooperative, United Power Association, Cooperative Power, Minnesota Power) would therefore need to provide a randomly selected list of 200 of their customers along with their telephone numbers.

The research organization would assume full responsibility for determining how to select the sample; but, the actual selection of the sample would have to be done by each individual system because they're the only ones who have their complete customer file. A sample of 700 is appropriate given the size of the population being surveyed.

A sample of 700 would have an overall error rate of (+) or (-) percent (3.7%). This simply means that if we had 60% agree on a question, the range would be from as low as 56.3 to as high as 63.7 to be right 19 times out of 20.

To insure success of this first phase of a long-term marketing program, it is necessary to retain the expertise of an advertising agency

to help develop the survey questions. Once the survey is complete and data compiled, the agency will help develop a marketing direction, position, positioning statement and the message or messages that should be used. This information will be presented to the Lignite/Electric COALition in 1991 for possible implementation.

TIMETABLE
(1990-1991)

October 10	Lignite Research Council meeting.
November 1	Retain advertising agency.
November 12	Hire research firm.
November 19	Develop preliminary survey instrument.
November 26	Review questions and add or subtract what was necessary.
December 3	Pretest survey.
December 10	Collect survey data.
Dec. 17 - Jan. 6	Computer analysis of data.
January 7	Develop final report.
January 18	Final research report and recommendation presented to Lignite/Electric COALition.
March 4	Agency would develop position, positioning statement, marketing direction and messages for a Marketing Program to be presented to the Lignite/Electric COALition.

PERSONNEL

The principal investigator for this project is Jerry Fiskum. A brief summary of his experience and qualifications are provided as required.

Jerry Fiskum
Experience and Qualifications

Jerry Fiskum graduated from Moorhead State College in 1971 with a degree in Mass Communications and Public Relations. From 1971 to 1979 he worked for a company called Bill Snyder Films. Bill Snyder Films was a motion picture studio which produced educational, training and sales movies, commercial still photography plus T.V. commercials.

His duties included cinematography, editing, script writing, musical scores, mixing tracks and still photography.

His employment with Minnkota began in 1979 as a photographer. In the past eleven years, he has had the opportunity to work in the Communications, Public Relations and Marketing areas. April 1, 1988, he was promoted to Communications Manager.

In 1986, Minnkota commissioned Dr. Dennis Hein of A.H.P. Research Associates to do the first comprehensive Consumer Perception Survey for its affiliated systems. Fiskum worked on developing the questions for that survey.

Since that time he has been involved in 27 research projects which have helped set Minnkota's marketing direction. His duties involve him on a continuing basis in all aspects of marketing including setting budgets, developing research, implementing strategies and creating and placing media.

Fiskum is currently on the Board of Directors, serving as Secretary-Treasurer, of the Electric Information Council and recently served five years as Treasurer on the Board of Directors of the North Dakota Power Use Council. Other affiliations include the National G&T Communicators Association and the North Dakota Lignite Council Public Relations Committee. He has also served on the Board of Directors of the Valley Advertising and Marketing Federation.

Research Firm

AHP Systems Market & Opinion Research of Lincoln, Nebraska, will be the research firm of choice for this project. Dr. Dennis Hein is their chief researcher and statistical analyzer. A brief summary of his qualifications are provided.

Dr. Dennis Hein
Experience and Qualifications

Dr. Dennis Hein is a graduate of Peru State College, Peru, Nebraska, with majors in math and physical science. He received his doctorate degree from the University of Northern Colorado where he majored in research and statistical methodology.

His work experience includes being principal of Diller High School, Diller, Nebraska, Advanced Systems Analyst for GE, assistant in the Bureau of Research at the University of Northern Colorado, full professor of statistics in the Department of Business Administration and Economics at Augustana College, Sioux Falls, South Dakota, and Director of Research for the National Rural Electric Cooperative Association.

He has served as an expert witness for the South Dakota Banking Commission, for the controller of the currency in New York City, for Sunbank of Sioux Falls, South Dakota, for Farmers and Ranchers Bank in Pierre, South Dakota, for the State of South Dakota, for Home Stake Mine and for the South Dakota Public Utilities Commission.

From 1986 through 1989, Dr. Hein directed 350 consumer attitude, marketing and energy end-use market research studies.

QUALIFICATIONS

Basin Electric Power Cooperative is a consumer-owned regional cooperative that supplies wholesale power to 117 rural electric member systems in eight states--Colorado, Iowa, Minnesota, Montana, Nebraska, North Dakota, South Dakota and Wyoming. The member systems serve 440,000 homes, farms, ranches, irrigation installations and businesses--about 1.2 million people--in a 400,000 square mile area. Basin Electric's jointly and wholly owned facilities include 11 electrical generating units at 5 plant locations. Wholly owned subsidiaries include: Dakota Gasification Company which owns and operates the Great Plains Synfuels Plant near Beulah, ND; Basin Cooperative Services which owns and operates the Glenharold Mine near Stanton, ND, and Dakota Coal Company which is the lignite supplier for the Great Plains plant and the Antelope Valley Station near Beulah, ND. Basin Electric is headquartered at Bismarck, ND.

Cooperative Power (CP) headquartered at 14615 Lone Oak Road, Eden Prairie, Minnesota, is a wholly owned electric power supplier serving 17 member rural electric distribution cooperatives in central and southern Minnesota. More than half a million Minnesotans receive electric energy generated at CP's Coal Creek Station, a 1,100 MW lignite fired power plant located in central North Dakota. Energy is delivered from the power plant to central Minnesota via a 435 mile direct current transmission line. Other capacity sources include CP's 50 MW St. Bonifacius peaking plant, a maximum annual allocation of 110 MW from the Western Area Power Administration (WAPA) and a 50% share in Dairyland Power Cooperative's 346 MW Genoa 3 plant.

Minnesota Power headquartered in Duluth, Minnesota, is a diversified utility whose core business is to provide electric energy to consumers in central and northeastern Minnesota. Their company serves 120,000 electric customers in a 26,000 square mile service area. The service area includes the northeast portion of the state and stretches south and west into the Mississippi River Valley. Minnesota Power is a winter peaking utility with a current system peak of 1,273 MW which occurred in December of 1989. The system has installed generating capacity of 1,568 MW. 1,452 MW is fossil steam and 116 MW is hydro.

Minnkota Power Cooperative (MPC) is a generation and transmission cooperative wholesaling electric energy to 12 distribution cooperatives. They in turn serve over 76,000 rural electric consumers located in the eastern third of North Dakota and the northwest corner of Minnesota. The 12 distribution cooperatives currently hold 87% of the water heating and 37% of the space heating market. 37% of total annual kWh sales are for water heating and space heating. MPC operates the lignite fired Milton R. Young Station located at Center, North Dakota. The Young Station has two generating units with a combined generating capacity of 650 MW. In addition, Minnkota receives 120 MW of capacity from the Coyote station and 87 MW of capacity from Garrison Dam. They also have a 34 MW peaking plant located at Larimore, North Dakota, plus additional diesel generation located at their Grand Forks headquarters.

MDU Resources Group, Inc., is a diversified natural resource company composed of several companies. They include an oil exploration and acquisition group, a wholly-owned subsidiary coal mining company that mines between four and five million tons of coal annually, and a utility energy distribution division (Montana-Dakota Utilities) which serves 251 communities in Montana, North Dakota, South Dakota and Wyoming with natural gas and electricity. It also operates electric power generation and transmission facilities. MDU also has a wholly-owned subsidiary engaged in marketing energies as well as enhancing and retaining present markets for natural gas and a four state interstate pipeline company with 4,100 miles of pipeline system serving Montana, North Dakota, South Dakota and Wyoming.

Otter Tail Power Company (OTPCo.) is an operating public utility engaged in the production, transmission, distribution and sale of electrical energy in western Minnesota, eastern North Dakota and northeastern South Dakota. The company, through its subsidiaries, is also engaged in certain non-utility operations. Headquartered in Fergus Falls, Minnesota, OTPCo. serves over 122,000 consumers in the three-state area. The company operates the coal fired 127 MW Hoot Lake plant. It also has a 35% interest in the 414 MW Coyote Station located near Beulah, North Dakota, and a 54% interest in the 414 MW Big Stone plant. Otter Tail also has 4 MW of hydro capacity plus 87 MW of peaking capacity.

United Power Association (UPA) is an electric generation and transmission cooperative who supplies wholesale electricity to 15 member cooperatives who in turn provide power to 230,000 consumers in central and northeastern Minnesota and northwestern Wisconsin. UPA's headquarters is in Elk River, Minnesota. Generating stations include two lignite coal-fired facilities in North Dakota, one refuse derived fuel-fired station in Elk River and three combustion turbine peaking stations in Minnesota.

BNI Coal. Ltd., a wholly-owned subsidiary of Minnesota Power of Duluth, Minnesota, is a lignite coal surface mining company with one producing mine (Center Mine) located near Center, North Dakota. Company headquarters are located at 1136 West Divide Avenue, Bismarck, North Dakota. The company produces approximately 3.8 million tons annually for two electrical generating stations; Minnkota Power Cooperative, Inc. and Square Butte Electric Cooperative.

Knife River Coal Mining Company is a wholly-owned subsidiary of MDU Resources Group, Inc. The company headquarters is in Bismarck, North Dakota. The Beulah lignite mine which serves the Coyote and Heskett stations produces 2.4 million tons annually, and the Gascoyne mine which serves the Big Stone Station produces 2.1 million tons annually. Knife River has a third lignite mine which is located in Savage, Montana. Knife River controls approximately 271 million tons of economically recoverable lignite reserves.

North American Coal Corporation is an independent coal company headquartered in Dallas, Texas, and produces approximately 22 million tons of lignite coal annually from mines in North Dakota, Texas and Louisiana. Its primary customers in North Dakota include the UPA-CP Coal Creek Power Station, Basin Electric's DGC Gasification Plant and Antelope Valley Power Station and the UPA Stanton Power Station.

BUDGET

The consortium is requesting a $15,000 grant from the Lignite Research Council to help fund the cost of consumer research to be completed in 1990. The results of the research will be used as the basis for development of a marketing program to enhance the use and development of North Dakota lignite.

The total project cost is estimated at $30,000. The costs are detailed as follows:

Survey Development, Implementation and Report	$16,000
Advertising Agency Development Work & Marketing Proposal	9,000
COALition Labor	5,000
Total	$30,000