

MEETING MINUTES
LIGNITE RESEARCH COUNCIL
March 29, 2001
Doublewood Inn, Bismarck, ND

MEMBERS (or their authorized alternates) PRESENT:

John Bluemle, North Dakota Geographical Survey
Linda Butts, North Dakota Department of Economic Development and Finance
Senator Randy Christmann, North Dakota Senate – District 33
John Dwyer, Lignite Research Council
Senator Layton Freborg, North Dakota Senate – District 8
Terry Hildestad, Knife River Corporation
Carlyle Hillstrom, North Dakota Farm Bureau
Stephen Hovey, BNI Coal, Ltd.
Marlowe Johnson, Otter Tail Power Company
Doug Kane, MDU Resources Group, Inc.
Vernon Laning, Basin Electric Power Cooperative
Al Lukes, Dakota Gasification Company
Gary L. Nelson, Ironworkers Local 793
Mark Nygard, Coal Conversion Counties Association
Dean Peterson, The North American Coal Corporation
Fritz Schwindt, North Dakota Department of Health
Stephen Sherner, Minnesota Power
David Sogard, Minnkota Power Cooperative
Susan Wefald, North Dakota Public Service Commission
Gordon Westerlind, Great River Energy

OTHERS PRESENT:

David Allard, Lignite Energy Council
Jim Deutsch, North Dakota Public Service Commission
Lauren Donovan, The Bismarck Tribune
Karlene Fine, North Dakota Industrial Commission
Mel Giberson, TRI Transmission & Bearing Corporation
Vicki Gilmore, Lignite Energy Council
Bruce Imsdahl, Montana-Dakota Utilities Co.
Carmen Miller, North Dakota Attorney General's Office
John Pelerine, Great River Energy
Clifford Porter, Lignite Research Council
Tony Rude, Lignite Energy Council
Dick Shaffer, Basin Electric Power Cooperative
Martin Schock, North Dakota Department of Health
Duane Steen, Montana-Dakota Utilities Co.
Rich Voss, Lignite Energy Council
John Weeda, Great River Energy – Coal Creek Station
Dale Wetzel, Associated Press

Lignite Research Council (LRC) chairman John Dwyer called the LRC meeting to order on March 29, 2001 at Doublewood Inn, Bismarck, North Dakota.

The first agenda item considered at the meeting was non-confidential information concerning Great River Energy's Grant Round XL project application for LRC-XL-A, titled "Lignite Vision 21 Power Plant Project" (co-principal investigators: Richard Lancaster and Gordon Westerlind; request for: \$10,000,000; total project costs: \$730,897,000).

Prior to discussion about LRC-XL-A, Clifford Porter gave background information about Grant Round XL available funding from the 1999-2001 biennium. There is still \$270,000 available for small research projects and \$10,165,000 for demonstration projects. Already committed from '99-'01 funding are \$400,000 for administration of the North Dakota Lignite Research, Development and Marketing Program (Program) and the \$500,000 for lignite marketing feasibility studies. Porter also summarized availability of future Program funds that would be needed if more than one Lignite Vision 21 power plant project is considered for funding. Between now and 2009, there is an estimated total of \$23,509,000 in Program funds available for Lignite Vision 21 power plant grant applications. This breaks down as follows: \$10,165,000 estimated from the '99-'01 biennium; \$1,080,000 from 2001-2003 biennium demonstration project funds; \$4,200,000 minimum repayment by 2005 from Dakota Gasification Company's anhydrous ammonia project; \$1,609,000 in 2003-2005 biennium demonstration project funds; \$2,686,000 in 2005-2007 biennium demonstration project funds; and \$3,769,000 in 2007-2009 biennium demonstration project funds.

Porter said that the objective of the Lignite Vision 21 Project is the construction of new 500MW, lignite-fired base load power plants in North Dakota. For project LRC-XL-A ("Lignite Vision 21 Power Plant Project"), Great River Energy requests \$10,000,000 from the North Dakota Industrial Commission. This is \$2,857,750 for the estimated two-year Phase I of Great River Energy's project and \$7,142,250 for the estimated six-year Phase II. Total project cost is estimated at \$730,897,000. Phase I involves detailed feasibility studies in the areas of environmental/siting, generation, transmission, and business development activities. Phase II is the project implementation phase, involving permitting/siting, plant engineering, construction, transmission engineering, transmission construction, and startup.

As technical advisor, Porter recommended the \$10,000,000 request from Great River Energy be funded, subject to the following guidelines:

Technical Advisor's Recommendation – FUND:

I. I recommend funding Phase I of the GRE project in an amount not to exceed \$2,857,750 subject

to the following guidelines:

- 1. Approval of the Phase I detailed scope of work, budget and milestone chart by the Industrial Commission Technical Representative;***
- 2. Approval of progress reports:***
 - a. Progress reports should be submitted on the basis of activities and tasks; and***
 - b. Reports should be submitted no less than quarterly;***
- 3. Funds must only be used for the development and use of North Dakota lignite:***
 - a. Activities and studies should promote economic, efficient and clean use of North Dakota lignite that can create jobs and economic growth in North Dakota; and***
 - b. Activities and studies must evaluate North Dakota lignite-fueled generation options;***
- 4. Studies and activities to maximize efficient use of available state and industry funds and avoid duplication:***
 - a. To the extent practical and consistent with timely completion and to the mutual benefit of the parties while protecting each parties confidentiality, environmental, generation and transmission studies should be done in cooperation with other entities; and***
 - b. The state should not fund duplicative studies by approved multiple LV 21 applicants.***

II. I recommend that funding for Phase II of the GRE project be approved in an amount not to exceed \$7,142,250 upon receipt of a written commitment from GRE to construct a new lignite-fired power plant subject to the following guidelines:

- 5. Approval of the Phase II detailed scope of work, budget and milestone chart by the Industrial***

Commission Technical Representative and Lignite Research Council;

- a. Approval of progress reports;*
 - b. Progress reports should be submitted on the basis of activities and tasks; and*
 - c. Reports should be submitted no less than semi-annually; and*
- 6. Commencement of Phase II during the first quarter of 2003.**

Funding is subject to continuing legislative appropriations for the lignite research, development and marketing program and continuing Industrial Commission support for the Lignite Vision 21 Project.

Susan Wefald asked if Great River Energy's project proposal is public information. Porter said that Great River Energy has requested confidentiality for certain portions of their feasibility study work to protect their business interests, and this request for confidentiality has been approved by the North Dakota Industrial Commission. Great River Energy's proposal, as well as Lignite Vision 21 Project power plant proposals from both Montana-Dakota Utilities Co. and Westmoreland Power, Inc., may be accessed on the North Dakota Industrial Commission's web site.

Vernon Laning asked if a procedure has been developed to involve sharing of preliminary information with other potential Lignite Vision 21 power plant project applicants so that unnecessary duplication is eliminated. Porter said that grant recipients are encouraged whenever possible to share their sub-contractors. For example, two entities would use the same transmission study sub-contractor to the extent practical.

Dwyer said that minimizing duplication of studies will be a proposed condition in the contract that will be developed between the grant recipient and the North Dakota Industrial Commission.

Layton Freborg asked if there would be a repayment provision to the state of North Dakota that would be stipulated in the contract for the \$10,000,000 in matching funds that are available for the Lignite Vision 21 Project through the Program. Technical Advisor Porter said that his recommendations do not include a repayment stipulation. Dwyer said that if repayment or other requirements are to become part of the contract, such issues would be explored in the contract negotiations between the Industrial Commission and the project applicant. He said that the LRC makes recommendations to the Industrial Commission. The Industrial Commission may approve the LRC recommendations, add new conditions, or delete LRC-recommended conditions. By state law, the Industrial Commission cannot fund a proposal unless the LRC recommends the proposal be funded. Francis Schwindt asked if a motion is needed to include a repayment requirement in the LRC's recommendations to the Industrial Commission. Dwyer said that the minutes of the March 29, 2001 LRC meeting will reflect that there was discussion about that topic.

Mark Nygard asked if enough funds are available to fund more than one Lignite Vision 21 Project power plant grant application. Dwyer said that if the LRC and the Industrial Commission decide to fund at least two Lignite Vision 21 power plant projects, there would be enough demonstration project funds available between now and the end of the 2007-2009 biennium. There will be a total estimated available demonstration project funding of \$23,509,000 for Lignite Vision 21 projects between now and the end of the 2007-2009 biennium. Depending on cash flow requirements, there would be room to do the feasibility study parts of possibly three such projects. Porter said that there are three grant application requests for Lignite Vision 21 Project funds. The requests are from Great River Energy, Montana-Dakota Utilities Co., and Westmoreland Power, Inc.

Wefald said that it is her understanding that the Industrial Commission has already committed \$10,000,000 for Lignite Vision 21 Project power plant proposals. She asked what the Industrial Commission would need to do to commit more money. Dwyer said that the Industrial Commission could decide to make additional funding commitments to the Lignite Vision Project if it chooses to do so. He said that the Industrial Commission has approved Lignite Vision 21 Project grant guidelines for potential grant applicants.

Porter reviewed the independent technical peer reviewers' comments concerning proposal LRC-XL-A (Great River Energy's "Lignite Vision 21 Power Plant Project"). The reviewers gave the proposal an average weighted score of 181 out of 250 points. Reviewer 01-G-1 recommended funding be considered; reviewer 01-G-2 recommended the proposal not be funded, and reviewer 01-G-3 recommended the proposal be funded. Porter said that Great River Energy is the potential conflict-of-interest party for this proposal. Steve Sherner asked if the other two grant applicants (Montana-Dakota Utilities Co. and Westmoreland Power, Inc.) would also be considered conflict-of-interest parties. Porter said that they would not be considered conflict-of-interest parties because their grant applications are not being considered at this LRC meeting.

Gordon Westerlind gave a presentation in support of Great River Energy's proposal ("Lignite Vision 21 Power Plant Project"). Senator Randy Christmann asked if the completion of the proposal's feasibility phase could be done more quickly, which would also benefit other applicants since the feasibility phase information would not need to be duplicated. Westerlind said that Great River Energy hopes to accomplish the feasibility phase by the end of the first quarter of 2003. He said that Great River Energy will work with other applicants so as not to reinvent the wheel, and that Great River Energy will be looking for partnership opportunities. Schwindt said that the North Dakota Department of Health is doing some rough modeling work regarding permitting more than one new power plant in North Dakota. Sherner said that existing North Dakota power plants will also need to work on environmental efforts.

Closed, Confidential Session: Lignite Vision 21 Project – Phase II Transmission Studies Update

Dwyer asked for a motion to close the meeting pursuant to NDCC 54-17.5 –06 so that the LRC could read and consider the confidential information contained in the "Lignite Vision 21 Power Plant Project" grant application submitted by Great River Energy, and to receive a confidential report on "Lignite Vision 21 Project – Phase II Transmission Studies", which was submitted by the Lignite Energy Council. Both Great River Energy's grant application and the confidential information obtained from the "Lignite Vision 21 Project – Phase II Transmission Studies" have been granted confidentiality by the Industrial Commission pursuant to NDCC 54-17.5-06. Dean Peterson so moved; seconded by Doug Kane. Motion carried. Numbered copies of the confidential information from Great River Energy's proposal were distributed. Tony Rude gave a presentation about "Lignite Vision 21 Project – Phase II Transmission Studies". The numbered copies of Great River Energy's proposal's confidential information were collected.

Dwyer asked for a motion for re-opening the LRC meeting. Sherner so moved; seconded by David Sogard. Motion carried. Dwyer announced that the meeting was now open, and that those who had been asked to leave the room prior to the confidential session could now return if they wished to do so.

Lignite Vision 21 Project Update

Rude gave a presentation concerning an update on non-confidential Lignite Vision 21 Project information. The Lignite Vision 21 Project is an industry/government partnership between the state of North Dakota and the Lignite Energy Council to revitalize the lignite industry by constructing state-of-the-art base-load power generating facilities in North Dakota. Phase I of the Lignite Vision 21 Project is complete; Phase II ends July 1, 2001. To date, three grant applications have been received from companies who wish to construct Lignite Vision 21 Project power generating facilities: Great River Energy (grant application received by the North Dakota Industrial Commission on February 1, 2001), Montana-Dakota Utilities Co. (received March 1, 2001) and Westmoreland Power, Inc. (received March 1, 2001).

Porter said that on August 24, 2000, the Industrial Commission adopted the concept of giving priority consideration to the first Lignite Vision 21 Project power plant grant applications submitted. On October 19, 2000, the Industrial Commission agreed to facilitate the grant application process by setting the first day of each month from December 2000 through December 2001 as Lignite Vision 21

Project grant application deadline dates. On January 23, 2001, the Industrial Commission adopted Lignite Vision 21 Project grant guidelines to provide guidance to grant applicants.

North Dakota Geological Survey Mapping Project

During the balloting for LRC-XL-A (“Lignite Vision 21 Power Plant Project”), John Bluemle gave a short report about a North Dakota Geological Survey mapping project. The maps will show the distribution of strippable lignite in each of the state’s counties. To date, maps of 16 counties have been completed.

Recommendation re: LRC-XL-A: “Lignite Vision 21 Power Plant Project”; Submitted by: Great River Energy; Principal Investigators: Richard Lancaster and Gordon Westerlind; Project Duration: Eight Years; Request for: \$2,857,750 for Phase I and \$7,142,250 for Phase II; Total Project Costs: \$730,897,000.

Karlene Fine announced the results of balloting for LRC-XL-A (“Lignite Vision 21 Power Plant Project”; Submitted by: Great River Energy). The LRC vote was unanimous to recommend that the Industrial Commission fund the proposal and adopt Clifford Porter’s Technical Advisor guidelines concerning the proposal.

Financial Summary

Porter showed slides that summarized the financial status of the Program as of February 28, 2001. The \$18,194,647 financial cash basis balance remaining in the budget for the following four Program areas for the 1999-2001 biennium breaks down as follows: \$114,336 for administration of the Program; \$230,000 for lignite marketing feasibility studies; \$1,603,550 for small research projects; and \$16,246,761 for demonstration projects. For small research projects, there is \$269,461 available in uncommitted '99-'01 biennium funds. Porter said that \$2,140,707 has been paid thus far in the '99-'01 biennium for the Lignite Research Program Series 1995 A bonds. The bonds will mature on November 15, 2005. For demonstration projects, there is \$8,488,975 in available funds. The total available for all project funding areas (lignite marketing feasibility studies, small research projects, and demonstration projects) is \$8,758,436.

Approval of 10-25-00 LRC Minutes

Dwyer asked for a motion to approve the minutes of the October 25, 2000 LRC meeting. Dean Peterson so moved; seconded by Vernon Laning. Motion carried. Dwyer said that no motion was needed for approval of the January 24, 2001 LRC Executive Committee minutes because those minutes will be approved by the LRC Executive Committee when it next meets. Porter said that the January 24, 2001 LRC Executive Committee meeting minutes were included in the materials for this March 29, 2001 LRC meeting because the minutes include the Lignite Vision 21 Project grant guidelines.

Lignite Research, Development and Marketing Program Updates

Porter said that summaries of the Program’s projects are accessible on the North Dakota Industrial Commission’s web site.

In the lignite marketing feasibility studies area, one project during the current biennium was completed from 1997-1999 biennium funds, and five new projects (all Lignite Vision 21 Project-related) were started with 1999-2001 biennium funds. Four of these five projects are completed.

In the small research projects area, 25 projects have been active thus far in the '99-'01 biennium. The Lignite Research Fund has granted \$4,093,283 to these small research projects. The projects have a total project cost of \$21,144,005, which is a funding ratio of \$1 in state funds for every \$5.1 in total project costs.

There are currently three demonstration projects. The Lignite Research Fund granted \$1,730,000 to these projects, which have a total project cost of \$7,868,621 (a funding ratio of \$1 in state funds for

every \$4.5 in total project costs.) One cancelled demonstration project (Dakota Gasification Company's carbon dioxide pipeline project) resulted in \$6,000,000 returned to the state of North Dakota.

LRC-XXXIX-A: Amended Application FY99-XXXIII-92 - "Variable Speed Fluid Drives for Induced Draft Fans at the Leland Olds Station of Basin Electric Power Cooperative – An Amended Application"; Submitted by: Basin Electric Power Cooperative and TRI Transmission & Bearing Corporation; Principal Investigators: Dick Shaffer (Basin Electric Power Cooperative) and Melbourne F. Giberson (TRI Transmission & Bearing Corporation); Amended Request for an Additional \$100,000; Original Request: \$180,000; Total Project Costs: \$1,290,671; Original Time Frame: Nine Months.

Porter said that the original project involved the demonstration of variable speed fluid drives between each motor and induced draft fan. The purpose of the variable speed fluid drives was to demonstrate reduced emissions, increase plant efficiency, and reduce fan maintenance. The original grant application was submitted in January 1999, with a request for \$180,000. The amended grant application requests an additional \$100,000. Since the original grant application, the project was designed, installation completed and the system is operational. Total costs for the project have increased from an estimated \$384,000 to \$1,290,671. Porter said that the variable speed fluid drive has resulted in an apparent potential savings of 1.6 MW at 445 NMW to 3.9 MW at 200 NMW, an approximate 0.5% improvement in overall heat rate and a corresponding 0.5% reduction in unit emissions.

As technical advisor, Porter recommends Do Not Fund for this proposal. He said the Program did not control project design and cost estimation and should not be responsible for the cost overrun, the project was re-designed and the cost increased after the grant application was approved, and Basin Electric Power Cooperative is not matching the \$100,000 request. The conflict-of-interest party is Basin Electric Power Cooperative.

Mel Giberson of TRI Transmission & Bearing Corporation gave a presentation in support of the proposal.

Vernon Laning said that Basin Electric Power Cooperative has invested more than \$500,000 in the project, and will invest more. While Basin has not paid TRI additional monies beyond the contract price, it has made significant additional contributions to the project from the original plan. Al Lukes asked if the variable speed fluid drives technology is available to anyone who buys the variable speed fluid drives. Giberson said that it is available.

Legislative Update

Dwyer said that the Lignite Energy Council has worked closely during the 2001 North Dakota Legislative session with LRC members Senators Randy Christmann and Layton Freborg concerning Senate Bill 2299, a bill that was designed to make lignite more competitive by reducing the coal severance tax in half and increasing the coal conversion tax. Christmann said that as of March 28, 2001, Senate Bill 2299 had its final approval in the Senate and is on its way to Governor John Hoeven's office for his signature. Dwyer said that Senate Bill 2015, which includes the \$10,000,000 for Lignite Vision 21 Project power plant grant applications as well as Program funding, will be dealt with at the end of the Legislative session, as are other appropriations bills.

Grant Application Deadline Dates; Upcoming LRC Meetings

Dwyer announced that the remaining grant application deadline dates for 2001 are May 1 and September 1. In addition, the North Dakota Industrial Commission added monthly grant application deadlines from December 1, 2000 through December 1, 2001, to facilitate Lignite Vision 21 Project grant applications.

At the next LRC meeting (3:00 p.m. April 26, 2001 at Country Suites, Bismarck), the Lignite Vision 21 Project power plant grant applications from Montana-Dakota Utilities Co. and Westmoreland Power, Inc., will be considered. Other upcoming LRC meetings will be at 1:30 p.m. July 25, 2001 at Doublewood Inn, Bismarck, and at 10:30 a.m. October 30, 2001 at Radisson Inn, Bismarck.

Balloting re: LRC-XXXIX-A: Amended Application FY99-XXXII-92 – “Variable Speed Fluid Drives for Induced Draft Fans at the Leland Olds Station of Basin Electric Power Cooperative - An Amended Application”

Dwyer announced the results of the balloting for LRC-XXXIX-A. The LRC voted to make the following recommendation to the Industrial Commission concerning LRC-XXXIX-A:

13 votes: Do Not Fund.

6 votes: Fund.

Other Business

Schwindt said that the North Dakota Department of Health will submit its proposed State Implementation Plan (SIP) modeling profile to the U. S. Environmental Protection Agency (EPA) by April 1, 2001, and a summary of the SIP modeling analysis by February 1, 2002. He said that if revisions to the modeling are needed, they would be submitted to EPA by August 1, 2003.

Wefald asked if it was appropriate for the LRC to make a recommendation that the Industrial Commission consider requiring a repayment provision for the contract for the \$10,000,000 Lignite Vision 21 Project matching funds that are available under the Program. Dwyer said that it is not inappropriate, but that the Industrial Commission will be considering that issue as well as the time frame issue. Porter said that for the contract, the Industrial Commission may also negotiate other items, such as cash flow.

Adjournment

There being no further business, Dwyer asked for a motion to adjourn the meeting. Sherner so moved; seconded by Christmann. Motion carried.

Vicki Gilmore, Recording Secretary
