

**MEETING MINUTES**  
**LIGNITE RESEARCH COUNCIL**  
**November 19, 2007**  
**Best Western Doublewood Inn, Bismarck, ND**

**MEMBERS (or their authorized alternates) PRESENT:**

Steve Benson, Energy & Environmental Research Center  
Randel Christmann, ND Senate  
Kevin Cramer, ND Public Service Commission  
Carroll Dewing, The Falkirk Mining Company  
John Dwyer, Lignite Energy Council/Lignite Research Council  
Layton Freborg, ND Senate  
Joe Friedlander, The Coteau Properties Company  
L. David Glatt, North Dakota Department of Health  
Shane Goettle, North Dakota Department of Commerce  
Carlyle Hillstrom, North Dakota Farm Bureau  
Mike Hummel, BNI Coal, Ltd.  
Luther Kvernen, Minnkota Power Cooperative, Inc.  
Vernon Laning, Basin Electric Power Cooperative  
Claudia Miller, Dakota Gasification Company  
Ed Murphy, ND Geological Survey  
Allan Rudeck, Minnesota Power  
Dave Smith, SaskPower  
Jenny Tennant, U. S. Department of Energy – National Energy Technology Laboratory  
Robert Tollefson, ND Coal Conversion Counties Association  
Rich Voss, Great Northern Power Development  
Bill Weaver, Westmoreland Coal Company  
John Weeda, Great River Energy  
Alan Welte, Montana-Dakota Utilities Co.

**OTHERS PRESENT:**

Dave Allard, Lignite Energy Council  
Wade Boeshans, BNI Coal, Ltd.  
Jeff Burgess, Lignite Research Council  
Jim Deutsch, North Dakota Public Service Commission  
Karlene Fine, North Dakota Industrial Commission  
Vicki Gilmore, Lignite Energy Council  
Mike Jones, Ph.D. – Energy & Environmental Research Center  
Chuck Kerr, Great Northern Power Development  
Al Lukes, Great Northern Power Development/Allied Syngas  
Maggie Olson, ND Attorney General's Office  
Debra Pflughoeft-Hassett, Energy & Environmental Research Center  
Rehm Wooten, Allied Syngas

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Lignite Research Council (LRC) chairman John Dwyer called the LRC meeting to order at 12:05 p.m. (Central Time) November 19, 2007, at the Best Western Doublewood Inn, Bismarck, ND.

**Approval of May 21, 2007 LRC Meeting Minutes**

Dwyer asked for a motion to approve the minutes of the May 21, 2007 LRC meeting. Rich Voss so moved; seconded by Vernon Laning. Motion carried.

## **Program Financial Summary**

Karlene Fine, executive director and secretary of the North Dakota Industrial Commission (NDIC), briefly discussed a hand-out concerning the financial status of demonstration projects for the 2007-2009 biennium as of November 19, 2007.

Jeff Burgess, technical advisor for the NDIC and the LRC, summarized the Lignite Research, Development and Marketing Program (Program) financial information. From 1987 to present, there have been 124 small research projects (\$16.2 M from NDIC for the 124 projects; \$98 M total project costs; \$1 in state funds to \$6 total investment); 18 demonstration projects excluding LV21 projects (\$16.1 M from NDIC for the 18 projects; \$219 M total project costs; \$1 in state funds to \$14 total); and seven LV21 projects (\$24.9 M from NDIC; \$952 M total project costs.) He said that the current technical advisor activities involve 29 projects (\$34.7 M in project funds). There are 17 small research projects (\$4.8 M from NDIC; \$40.7 M total project costs); 11 demonstration projects (\$2 M (non LV21 projects); \$93 M total project costs); \$22 M (LV21 projects); \$952 M total project costs); and one marketing project (\$2.4 M from NDIC; \$4.8 M total project costs).

### **Grant Round LXII (62) Grant Application LRC-LXII-A: “Demonstration of Coal Combustion Products for Green Roadbuilding in Medora, North Dakota”; Submitted by: Energy & Environmental Research Center (EERC); Project Manager: Debra Pflughoeft-Hassett; Request for: \$125,000; Total Project Costs: \$377,725; Project Duration: 17 Months.**

Burgess said that with this project, EERC proposes to demonstrate environmentally sustainable (green) roadbuilding using multiple coal combustion product (CCP) utilization applications and, in the process, educate North Dakota industry, state agencies, and the public about environmentally sustainable construction. These are roadbuilding technologies that are commercially available and many of which are currently approved for use in North Dakota. This project will apply these technologies in a single site to demonstrate that a North Dakota product, CCPs, can be effective in constructing durable roads that meet North Dakota transportation needs and meet environmentally sustainable or green roadbuilding objectives: 1) watershed-driven storm water management, 2) reuse and recycling of materials, and 3) conservation and protection of ecosystems.

Burgess said that the three technical peer reviewers gave the proposal an average weighted score of 175 out of 250 points. (The weighted scores were 175 out of 250 points from reviewer 07-22, 167 out of 250 points from reviewer 07-23 and 183 out of 250 points from reviewer 07-34.) Technical peer reviewers 07-23 and 07-24 recommended that the project be funded; technical peer reviewer 07-22 recommended funding may be considered.

Burgess said that the use of CCPs, specifically fly ash, in roadbuilding has essentially been approved for commercial use as a result of previous R&D projects. He said that this is a great project for Medora and the state of North Dakota. However, unless the Principal Investigator can clearly demonstrate what is new to be researched or demonstrated to use fly ash and bottom ash in roads, soil stabilization, or building materials, it is difficult for him as Technical Advisor to outright recommend NDIC funding of this project.

As technical advisor, Burgess recommended funding may be considered, not to exceed \$125,000 from demonstration funds. Dwyer said that it should be indicated that funding should be contingent upon including in the project a public communications component that will include coordination with state agencies (i.e. the North Dakota Department of Health and the North Dakota Department of Transportation.) By consensus, the LRC agreed this should be a contingency. Jenny Tennant said that a contingency should be that in addition to the use of North Dakota lignite, the project site is to be in North Dakota. By consensus, the LRC agreed this should be a contingency.

Burgess said that EERC and Great River Energy are conflict-of-interest parties for this proposal.

Debra Pflughoeft-Hassett of EERC gave a presentation in support of the proposal.

### **Grant Round LXII (62) Grant Application LRC-LXII-B: “Center for Air Toxic Metals Program Affiliates Membership for the North Dakota Industrial Commission (NDIC)”; Submitted by: Energy & Environmental Research Center (EERC); Project Manager: John H. Pavlish ; Request for: \$45,000; Total Project Costs: \$270,000; Project Duration: 3 Years.**

Burgess said that the primary goal of the Center for Air Toxic Metals Program (CATM) is to develop key information on the behavior of air toxic substances that allows for the prediction of the fate of air toxic metals, the enhancement of existing control technologies, the demonstration of advanced control technologies, the optimization of utilization and disposal of residuals, and pollution prevention. The mission of CATM is to provide a nationally coordinated and practically oriented multidisciplinary research and development and training program on the prevention, formation, behavior, and control of public health and the environment through partnerships developed with industry, academia, and government.

Burgess said that the three technical peer reviewers gave the proposal an average weighted score of 203.7 out of 250 points. (The weighted scores were 232 out of 250 points from reviewer 07-25, 180 out of 250 points from reviewer 07-26 and 199 out of 250 points from reviewer 07-27.) All three technical peer reviewers recommended that the project be funded.

As technical advisor, Burgess recommended that the proposal be funded at a level not to exceed \$45,000 (small research funds from the Lignite Research Fund), contingent upon written confirmation of project participants'/affiliates' funding.

Burgess said that EERC, Basin Electric Power Cooperative and Otter Tail Power are conflict-of-interest parties for this proposal.

Mike Jones, Ph.D., of EERC gave a presentation in support of the proposal.

**Grant Round LXII (62) Grant Application LRC-LXII-C: “Lignite Vision 21 Feasibility Project Phase IV – Engineering, Business Development and Design”; Submitted by: Great Northern Power Development, L.P.; Principal Investigator: Charles Kerr; Request for: \$7,328,807; Total Project Costs: \$50,987,741; Project Duration: 16 Months.**

Burgess said the objective of the project is to show the feasibility of constructing a state-of-the-art coal gasification project making pipeline quality natural gas that utilizes North Dakota lignite in an environmentally sensitive manner, while providing significant economic benefit to North Dakota, specifically western North Dakota. Phase IV work will be comprised of Pre-FEED (front-end engineering and design) and FEED studies, continued permitting, mine planning and business development as well as pursuit of customers and strategic partners.

The technical peer reviewers' ratings and the technical advisor's recommendation regarding proposal LRC-LXII-C were among the non-confidential documents that had been posted on the NDIC web site prior to this meeting. Burgess said that the three technical peer reviewers gave the proposal an average weighted score of 175.3 out of 250 points. (The weighted scores were 161 out of 250 points from reviewer 07-28, 178 out of 250 points from reviewer 07-29 and 187 out of 250 points from reviewer 07-30.) Technical peer reviewer 07-28 recommended that the project not be funded; technical peer reviewer 07-29 recommended that funding may be considered; and technical peer reviewer 07-30 recommended that the project be funded.

As technical advisor, Burgess said that he recommends that the proposal be funded at a level not to exceed \$7,328,807 (demonstration funds from the Lignite Research Fund) subject to the following conditions:

- Submittal of periodic progress reports, including certification of industry matching funds;
- NDIC funds to be used only for South Heart coal gasification project, utilizing ND lignite;
- If GNPD does not construct and operate the coal gasification plant using ND lignite, the NDIC will recapture \$467,993 (17.52%) of \$2,671,193 received from NDIC in Phases I, II & III and \$3,664,404 (50%) of \$7,328,807, pro rata, received from NDIC in Phase IV, for a total of \$4,132,397. Recapture of said funding will occur over 3 years; with 1/3 of the total amount due on the date of abandonment of the project and 1/3 due and payable each year thereafter on the anniversary date of the abandonment. The project will be deemed abandoned if: 1) construction of the project does not begin by the end of December 2010, which is one year later than indicated in the GNPD Phase IV application, or 2) GNPD fails to commence operations using ND lignite within the timeframe specified in the Phase IV application or as mutually agreed by GNPD and NDIC.
- If GNPD constructs and operates the coal gasification plant, using ND lignite, the NDIC will waive payback of its investment at the rate of \$1 million for each year the plant is in operation for a period of 10 years (100% waiver of the total state investment of \$10 million if the plant operates using lignite as its primary fuel for 10 years);
- GNPD will pay \$1,000,000 per year for each of the first 10 years in operation that it does not use North Dakota lignite as a primary fuel.

Burgess said that Great Northern Power Development is the conflict-of-interest party for proposal LRC-LXII-C.

**Motion to Close LRC Meeting for Confidential Session to Consider Grant Round LXII (62) Grant Application LRC-LXII-C**

Dwyer requested a motion to close the LRC meeting for the LRC members to proceed into confidential session to read and discuss confidential proposal LRC-LXII-C (“Lignite Vision 21 Feasibility Project Phase IV – Engineering, Business Development and Design”), pursuant to ND Century Code 54-17.5-06. Luther Kvernen so moved; seconded by Mike Hummel.

Karlene Fine took a roll-call vote of the LRC. The roll-call results regarding the motion were as follows (yes: 23; no: 0); motion carried:

Benson, Steve: YES.  
Christmann, Senator Randel: YES  
Cramer, Kevin: YES.  
Dewing, Carroll: YES.  
Dwyer, John: YES.  
Freborg, Senator Layton: YES  
Friedlander, Joe: YES.  
Glatt, L. David: YES.  
Goettle, Shane: YES.  
Hillstrom, Carlyle: YES.  
Hummel, Mike: YES.  
Kvernen, Luther: YES.  
Laning, Vernon: YES.  
Miller, Claudia: YES.  
Murphy, Ed: YES.  
Rudeck, Allan: YES.  
Smith, Dave: YES.  
Tennant, Jenny: YES  
Tollefson, Robert: YES.  
Voss, Rich: YES.  
Weaver, Bill: YES  
Weeda, John: YES.  
Welte, Alan: YES.

The confidential session regarding proposal LRC-LXII-C started at 1:15 p.m. (Central Time) November 19, 2007.

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**Motion to Open LRC Meeting**

After a slide presentation and discussion concerning proposal LRC-LXII-C, Dwyer requested a motion to end the confidential session and open the LRC meeting. Laning so moved; seconded by John Weeda. Motion carried. The LRC meeting returned to open session at 2:55 p.m. (Central Time) November 19, 2007.

**Energy & Environmental Research Center Request for Special Grant Round Application Date**

Dwyer asked for a motion regarding the Energy & Environmental Research Center’s request for an additional grant round for 2007 (12-1-07 grant application deadline date) to submit a grant application for funding regarding the Plains CO2 Reduction Partnership Phase III. Kevin Cramer so moved; seconded by Al Rudeck. Motion carried.

The grant application date will be December 1, 2007. The LRC will meet on January 24, 2008 in regards to proposals submitted no later than the 12-1-07 grant application deadline.

**Ballot Results re: Grant Round LXII (62) Proposals**

Dwyer announced the results of the LRC's confidential ballots concerning recommendations for NDIC funding of the three Grant Round LXII (62) proposals:

**Grant Round LXII (62) Grant Application LRC-LXII-A: “Demonstration of Coal Combustion Products for Green Roadbuilding in Medora, North Dakota” -**

**Fund:** 20 votes. **Do Not Fund:** 3 votes.

**Grant Round LXII (62) Grant Application LRC-LXII-B: “Center for Air Toxic Metals Program Affiliates Membership for the North Dakota Industrial Commission (NDIC)” -**

**Fund:** 23 votes. **Do Not Fund:** 0 votes.

**Grant Round LXII (62) Grant Application LRC-LXII-C: “Lignite Vision 21 Feasibility Project Phase IV – Engineering, Business Development and Design” -**

**Fund:** 22 votes. **Do Not Fund:** 1 vote.

**NDIC Meeting – November 20, 2007**

The LRC's recommendations concerning the Grant Round LXII (62) requests will be considered by the NDIC on November 20, 2007.

**Grant Application Deadline Dates for 2008; LRC Meetings for 2008**

April 1<sup>st</sup> and October 1<sup>st</sup> are the grant application deadline dates for 2008. LRC meetings will be held May 20, 2008 and November 25, 2008. In addition, there will be the additional LRC meeting at 12:00 p.m. January 24, 2008, as per discussion and vote at today's (11-19-07) LRC meeting.

**Adjournment**

There being no further business, Dwyer requested a motion to adjourn the LRC meeting. Laning so moved; seconded by Randel Christmann. Motion carried.

Vicki Gilmore, Recording Secretary

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