

MEETING MINUTES
LIGNITE RESEARCH COUNCIL
May 17, 2011
Best Western Doublewood Inn, Bismarck, ND

MEMBERS (or their authorized alternates) PRESENT:

Al Anderson - ND Department of Commerce
Wade Boeshans - BNI Coal, Ltd.
Sheldon Buck – Prairie Mines & Royalty, Ltd.
Randel Christmann, North Dakota State Senate (District 33); Lignite Research Council Vice-Chairman
Jim Deutsch – ND Public Service Commission
Carroll Dewing - The Falkirk Mining Company
John Dwyer - Lignite Energy Council; Lignite Research Council Chairman
Bob Eriksen – Basin Electric Power Cooperative
Bob Fagerstrom - Dakota Gasification Company
Layton Freborg - North Dakota State Senate (District 8)
Joe Friedlander - The Coteau Properties Company
L. David Glatt - ND Department of Health
Mark Hager – International Brotherhood of Electrical Workers (IBEW)
John Harju – Energy & Environmental Research Center
Carlyle Hillstrom - North Dakota Farm Bureau
Luther Kvernen - Minnkota Power Cooperative, Inc.
Bob Montgomery - Westmoreland Coal Company
Ed Murphy - North Dakota Geological Survey
Al Rudeck – Minnesota Power
Jan Rudolf - Otter Tail Power Company
Dave Smith, Ph.D. - SaskPower
Jenny Tennant - U. S. Department of Energy – National Energy Technology Laboratory
Rich Voss - Great Northern Project Development
John Weeda - Great River Energy

OTHERS PRESENT:

Dave Allard - Lignite Energy Council
Karlene Fine - North Dakota Industrial Commission
Chad Fretheim – North Dakota Oil & Gas Producing Counties
Vicki Gilmore - Lignite Energy Council
Mike Holmes - Energy & Environmental Research Center
Michael L. Jones, Ph.D. - Lignite Research Council
Floyd Robb – Basin Electric Power Cooperative
Josh Skelton – Minnesota Power
Vicky Steiner – North Dakota Oil & Gas Producing Counties and ND Coal Conversion Counties Association
Steven A. Van Dyke - Lignite Energy Council

Lignite Research Council (LRC) chairman John Dwyer called the LRC meeting to order at 12:05 p.m. (CST) May 17, 2011 at the Best Western Doublewood Inn, Bismarck, ND.

Approval of November 15, 2010 LRC Meeting Minutes:

Dwyer asked for a motion to approve the minutes of the November 15, 2010 LRC meeting. Luther Kvernen so moved; seconded by Al Rudeck. Motion carried.

Program Financial Summary:

Karlene Fine and Michael L. Jones gave a brief financial summary regarding the Lignite Research, Development and Marketing Program (Program).

Fine said that available funding for the 2009-2011 biennium (as of 5/17/11) is: \$198,556 for administration of the Program; \$361,064 for litigation (Minnesota); \$0 for non-matching Lignite Marketing Feasibility Study (LMFS) projects; \$901,300 for Small Research projects; \$0 for marketing projects; and \$4,658,200 for Demonstration Projects. (The \$4,658,200 for Demonstration Projects does not include the commitment of \$12,506,717 over future biennia for the Lignite Vision 21 Program projects (the Coal-to-Liquids project, the Spiritwood Energy project and the Great Northern Project Development project).

Program's Project Updates:

Jones, technical advisor to the NDIC and the LRC, gave updates about the Program's active R&D projects (eight of which concern carbon capture and storage; six demonstration projects, four Lignite Vision 21 Program-related projects, two gasification projects and one NOx-related project.) He also briefly discussed the Lignite Vision 21 Phase VI studies (Beneficial Use of CO₂; contract signed with EERC in February 2011, and Advanced Power Options for a Greenfields 175 MW Lignite-Fired Power Plant; request for proposal is to be issued in May 2011).

Grant Round LXXI (71) Applications:

Grant Round LXXI (71) Grant Application LRC-LXXI-A: "Field Evaluation of Novel Approach For Obtaining Metal Emission Data"; Submitted by: Energy & Environmental Research Center (EERC); Request for: \$235,120; Total Project Costs; \$573,000; Project Manager: John H. Pavlish, EERC; Project Duration: 12 Months.

Jones said that objectives of the project are two-fold:

- 1) To evaluate the EERC-developed multi-element sorbent trap (ME-ST) technology at two North Dakota lignite-fired full-scale sites, and
- 2) At the same time provide metal and halogen emission data for these two sites.

Jones said that the three technical peer reviewers for this proposal gave the proposal an average weighted score of 199 out of 250 points. The weighted score was 202 out of 250 points from reviewer 11-01, 230 out of 250 points from reviewer 11-02 and 165 out of 250 points from reviewer 1103. Technical peer reviewers 11-01 and 11-02 recommended that the project be funded; technical peer reviewer 11-03 recommended that funding may be considered.

As technical advisor to the NDIC and LRC, Jones recommended that the project be funded, contingent on the following:

- Technical summary demonstrating the viability of the proposed method for measurement of halides received and accepted by the Technical Advisor;
- Matching Funding received from all parties; and
- Demonstrate the potential cost savings of the proposed method as compared to existing techniques currently in use for determining metals.

Jones said that EERC, Basin Electric Power Cooperative and Great River Energy are conflict-of-interest parties for proposal LRC-LXXI-A.

Mike Holmes of the EERC gave a presentation in support of proposal LRC-LXXI-A.

**Grant Round LXXI(71) Grant Application LRC-LXXI-B: “Water Recovery from Lignite Drying”;
Submitted by: Energy & Environmental Research Center (EERC); Request for: \$266,520; Total Project Costs; \$897,335; Project Manager: Joshua J. Ziman, EERC; Project Duration: 18 Months.**

Jones said that this project has two overall goals. They are: 1) to demonstrate that water produced during the drying of North Dakota lignite can be economically recovered, and 2) to develop baseline data that will provide new marketing strategies for North Dakota lignite.

Jones said that the three technical peer reviewers for this proposal gave the proposal an average weighted score of 174.3 out of 250 points. The weighted scores were 215 out of 250 points from reviewer 11-04, 161 out of 250 points from reviewer 11-05 and 147 out of 250 points from reviewer 11-06. Technical peer reviewer 11-04 recommended that the project be funded; technical peer reviewers 11-05 and 11-06 recommended that funding may be considered.

As technical advisor to the NDIC and LRC, Jones recommended that the project be funded, contingent on the following:

- Program Management Plan including milestone chart, schedule, financial plan including detailing of labor hours, organization and communication charts, submitted and approved by the Technical Advisor;
- Matching Funding received from all parties; and
- Demonstrate that the project is addressing “Process specific” issues related to the coal drying operation as the technology has already been demonstrated in other applications.

Jones said that the EERC and Great River Energy are conflict-of-interest parties for proposal LRC-LXXI-B.

Mike Holmes of the EERC gave a presentation in support of proposal LRC-LXXI-B.

Dwyer turned over the leading of the LRC meeting to LRC Executive Committee Vice Chairman Senator Randel Christmann during the presentations and discussion about agenda item IV. C (re: LRC-LXXI-C - “Annual Lignite Energy Council Education Seminar: Energy, Economics & Environment”), and for agenda item V (re: Consideration of amendment to Contract 170 – “Implementation of North Dakota Lignite Energy Marketing Plan”; Contractor: Lignite Energy Council; Request for an additional \$47,000).

**Grant Round LXXI(71) Grant Application LRC-LXXI-C: “Annual Lignite Energy Council Education Seminar: Energy, Economics & Environment”;
Submitted by: Lignite Energy Council; Request for: \$160,000 (\$80,000 Annually for Each of Two Years); Total Project Costs; \$320,000 (\$160,000 Annually for Each of Two Years); Principal Investigator: John W. Dwyer, President and CEO, Lignite Energy Council; Project Duration: Two Years.**

Jones said that this grant application requests funding to continue the annual education seminars for two more years. The Teachers Seminar is held in June of each year for four days and includes presentations on the Bismarck State College campus for three days and a one-day tour of Coal Country. Presentations range from basic information about lignite, electrical generation, environmental issues, economics and job opportunities.

Fine said that the two technical peer reviewers appointed to review this proposal gave the proposal an average weighted score of 191.5 out of 250 points. The weighted scores were 193 out of 250 points from reviewer 1-01 and 190 out of 250 points from reviewer 1-02. Both of the technical peer reviewers recommended that the project be funded. Fine said that technical peer reviewer 1-01 recommended funding the proposed education seminars based on the proposal’s alignment with LRC’s goals and purposes. She said that technical peer reviewer 1-02 commented that the education seminar is a value to the lignite industry and to the state of North Dakota, and should be funded.

As executive director of the ND Industrial Commission, Fine said that she recommends that proposal LRC-LXXI-C be funded.

Steven A. Van Dyke of the Lignite Energy Council gave a presentation in support of proposal LRC-LXXI-C.

Consideration of amendment to Contract FY10-LXVIII-170 – “Implementation of North Dakota Lignite Energy Marketing Plan”; Contractor; Lignite Energy Council; Request for an additional \$47,700; Total Project Costs: \$95,400; Project Duration: One Year. -

As executive director of the ND Industrial Commission, Karlene Fine said that she recommends approval of the request for an additional \$47,000.

Representing Partners for Affordable Energy, Floyd Robb of Basin Electric Power Cooperative gave a presentation in support of the amendment.

Christmann returned the leading of the LRC meeting over to Dwyer.

Legislative Update:

Dwyer briefly summarized North Dakota, Minnesota and federal legislative updates from the 2011 legislative sessions.

Grant Application Deadline Dates; Next LRC Meeting:

The remaining grant application deadline date for 2011 is October 1. The next LRC meeting has been scheduled for November 15, 2011 at the Best Western Doublewood Inn, Bismarck.

NDIC Meeting :

Dwyer said that the LRC's recommendations concerning the Grant Round LXXI(71) requests will be considered by the NDIC at its next meeting.

Other Business

Dave Smith of SaskPower gave a brief update about SaskPower's CCS demonstration project.

Ballot Results: LRC's Recommendations to NDIC Regarding Grant Round LXXI(71) Proposals:

Dwyer announced the results of the LRC's confidential ballots concerning the LRC's recommendations to the NDIC regarding the Grant Round LXXI(71) proposals and the consideration of amendment to Contract 170, as follows:

Grant Application LRC-LXXI-A: “Field Evaluation of Novel Approach For Obtaining Metal Emission Data”; Submitted by: Energy & Environmental Research Center (EERC); Request for: \$235,120; Total Project Costs; \$573,000; Project Manager: John H. Pavlish, EERC; Project Duration: 12 Months.

Fund: 24 votes. **Do Not Fund:** 0 votes.

Grant Round LXXI(71) Grant Application LRC-LXXI-B: “Water Recovery from Lignite Drying”;
Submitted by: Energy & Environmental Research Center (EERC); Request for: \$266,520; Total Project
Costs; \$897,335; Project Manager: Joshua J. Ziman, EERC; Project Duration: 18 Months.

Fund: 12 votes. **Do Not Fund:** 12 votes.

(Dwyer said that grant application LRC-LXXI-B will not go to the NDIC for its consideration.)

Grant Round LXXI(71) Grant Application LRC-LXXI-C: “Annual Lignite Energy Council Education
Seminar: Energy, Economics & Environment”; Submitted by: Lignite Energy Council; Request for:
\$160,000 (\$80,000 Annually for Each of Two Years); Total Project Costs; \$320,000 (\$160,000 Annually
for Each of Two Years); Principal Investigator: John W. Dwyer, President and CEO, Lignite Energy
Council; Project Duration: Two Years.

Fund: 24 votes. **Do Not Fund:** 0

Consideration of amendment to Contract FY10-LXVIII-170 – “Implementation of North Dakota Lignite
Energy Marketing Plan”; Contractor; Lignite Energy Council; Request for an additional \$47,700; Total
Project Costs: \$95,400; Project Duration: One Year.

Fund: 21 votes. **Do Not Fund:** 0 **Abstained:** 3

Adjournment:

There being no further business, Dwyer requested a motion to adjourn the LRC meeting. Rich Voss so moved; seconded by Carlyle Hillstrom. Motion carried. The meeting adjourned at 1:20 p.m. (CDT) May 17, 2011.

Vicki Gilmore, Recording Secretary