

MEETING MINUTES
LIGNITE RESEARCH COUNCIL
November 17, 2009
Best Western Doublewood Inn, Bismarck, ND

MEMBERS (or their authorized alternates) PRESENT:

Randel Christmann, North Dakota State Senate (District 33); Lignite Research Council Vice-Chairman
Kevin Cramer, North Dakota Public Service Commission
Carroll Dewing, The Falkirk Mining Company
Tom Durham, Dakota Westmoreland Corporation
John W. Dwyer, Lignite Energy Council; Lignite Research Council Chairman
Bob Fagerstrom, Dakota Gasification Company
Layton Freborg, North Dakota State Senate (District 8)
Joe Friedlander, The Coteau Properties Company
L. David Glatt, North Dakota Department of Health
Shane Goettle, North Dakota Department of Commerce
Mark Hager, International Brotherhood of Electrical Workers (I.B.E.W.)
Carlyle Hillstrom, North Dakota Farm Bureau
Michael Holmes, Energy & Environmental Research Center
Mike Hummel, BNI Coal, Ltd.
Luther Kvernen, Minnkota Power Cooperative, Inc.
John Phillips, ND Coal Conversion Counties Association
Al Rudeck, ALLETE/Minnesota Power
Jan Rudolf, Otter Tail Power Company
Dave Smith, SaskPower
Andrea Stomberg, Montana-Dakota Utilities Co.
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
Donald Anthony, GreatPoint Energy
Wade Boeshans, BNI Coal, Ltd.
Charlie Bullinger, Great River Energy
Karlene Fine, North Dakota Industrial Commission
Vicki Gilmore, Lignite Energy Council
Michael L. Jones, Ph.D. Lignite Research Council
Shin Kang, Ph.D., Alstom Power
Armand Levasseur, Alstom Power
Rick Matteson, MDU Resources Group
Clifford Porter, Lignite Research Council
Josh Skelton, Minnesota Power
Sandi Tabor, Lignite Energy Council
Amanda Tetlak, KFYZ-TV

Lignite Research Council (LRC) chairman John Dwyer called the LRC meeting to order at 12:05 p.m. (CST) November 17, 2009 at the Best Western Doublewood Inn, Bismarck, ND.

Approval of July 23, 2009 LRC Meeting Minutes:

Dwyer asked for a motion to approve the minutes of the July 23, 2009 LRC meeting. Luther Kvernen so moved; seconded by Mike Hummel. Motion carried.

Program Financial Summary:

Karlene Fine and Clifford Porter gave a brief financial summary regarding the Lignite Research, Development and Marketing Program (Program).

Available funding for the 2007-2009 biennium (as of 11/17/09) is \$600,000 for administration of the Program; \$416,621 for litigation; \$1,000,000 for non-matching feasibility studies (Lignite Energy Council Lignite Vision 21 Program, transmission, litigation, etc.); \$1,296,300 for small research projects; \$546,000 for marketing projects; and \$7,907,700 for demonstration projects. (The \$7,907,700 for demonstration projects does not include the commitment of \$16,053,087 over future biennia for the Lignite Vision 21 Program projects (the Coal-to-Liquids project, the Spiritwood Energy project or the Great Northern Project Development project).

Proposed Future Budget Allocations for 2009-2011 Biennium – Overview:

Fine briefly discussed the Lignite Research Program's (Program) proposed future budget allocation of \$5,750,000 for the 2009-2011 biennium. The \$5,750,000 = \$273,000 (marketing), \$648,150 (small research projects), \$375,000 (Program administration), \$500,000 (Lignite Energy Council Lignite Vision 21) and \$3,953,850 (other demonstration projects).

Project Updates:

Porter, acting technical advisor to the ND Industrial Commission and the LRC, gave updates about active R&D projects (six of which concern carbon capture and storage, six demonstration projects, two Lignite Vision 21 Program-related projects, two concerning mercury, two gasification projects, one NOx-related project and two other projects.)

Overview: Proposals LRC-LXVIII-A, LRC-LXVIII-B

Prior to the LRC's closed confidential session, Porter gave an overview of Grant Round LRC-LXVIII grant applications LRC-LXVIII-A and LRC-LXVIII-B:

Grant Round LXVIII (68) Grant Application LRC-LXVIII-A: "Lignite Catalytic Hydromethanation Development Project"; Submitted by: GreatPoint Energy; Principal Investigator: Pattabhi Raman; Original Request for: \$3,923,884; Original Total Project Costs: \$7,847,769; Amended Request for: \$3,947,579 (Phase I - \$458,500; Phase II - \$3,489,079); Amended Total Project Costs: \$7,895,158; Project Duration 17 Months.

Porter said that with this project, GreatPoint Energy proposes to qualify North Dakota lignite as a suitable feed for the GreatPoint Energy (GPE) Catalytic Hydromethanation process. The GPE process is designed to produce a synthetic natural gas from solid fuels.

Porter said that the three technical peer reviewers for this proposal gave the proposal an average weighted score of 177.3 out of 250 points. The weighted scores were 195 out of 250 points from reviewer 09-13, 180 out of 250 points from reviewer 09-14 and 157 out of 250 points from reviewer 09-15. Technical peer reviewers 09-13 and 09-15 recommended Funding to Be Considered; technical peer reviewer 09-14 recommended Do Not Fund.

As acting technical advisor, Porter recommended Do Not Fund.

Porter said that Energy & Environmental Research Center is the conflict-of-interest party for proposal LRC-LXVIII-A.

Grant Round LXVIII (68) Grant Application LRC-LXVIII-B: “Oxy-Combustion Boiler Development for Tangential Firing of North Dakota Lignite”; Submitted by: Alstom Power, Inc.; Principal Investigator: Armand A. Levasseur; Request for: \$490,000; Total Project Costs: \$8,716,523; Project Duration: 10 Months.

Porter said that with this project, Alstom Power, Inc. proposes to test an oxy-combustion system for tangentially-fired boilers while firing partially dried North Dakota lignite. The basic concept of oxy-combustion is to replace combustion air with a mixture of oxygen and recycled flue gas creating a high CO2 content flue gas stream that can be more simple processed for CO2 capture and storage.

Porter said that the three technical peer reviewers for this proposal gave the proposal an average weighted score of 199.3 out of 250 points. The weighted scores were 197 out of 250 points from reviewer 09-10, 210 out of 250 points from reviewer 09-11 and 191 out of 250 points from reviewer 09-12. All three technical peer reviewers recommended that the project be funded.

As acting technical advisor, Porter recommended that the project be funded (demonstration project funds).

Porter said that the conflict-of-interest parties are Great River Energy, Energy & Environmental Research Center and U. S. Department of Energy – National Energy Technology Laboratory.

Confidential Session:

Dwyer called for a motion to close the meeting for a confidential session regarding discussion and presentations about the confidential portions of proposals LRC-LXVIII-A and LRC-LXVIII-B, as well as the entire confidential proposal LRC-LXVIII-C.

It was moved by Tom Durham and seconded by John Weeda that the Lignite Research Council meeting be closed to consider the confidential portions of Proposals LRC-LXVIII-A and LRC-LXVIII-B and the entire proposal LRC-LXVIII-C (“Implementation of Regional Lignite Energy Marketing Plan”) which include requests for confidentiality pursuant to North Dakota Century Code 54-17.5-06. The confidential session began at 12:30 p.m. and ended at 2:00 p.m., returning to open session.

Vote re: Consideration of Proposed Future Budget Allocations for 2009-2011:

Dwyer called for a motion for approving the Program proposed annual budget allocation of \$5,750,000 for the 2009-2011 biennium. Rich Voss so moved; seconded by Mike Holmes. Motion carried

Ballot Results: Recommendations for NDIC Funding of Grant Round LXVIII Proposals:

Dwyer announced the results of the LRC's confidential ballots concerning the LRC's recommendations for the NDIC to consider funding, as follows:

Grant Round LXVIII (68) Grant Application LRC-LXVIII-A: “Lignite Catalytic Hydromethanation Development Project”; Submitted by: GreatPoint Energy; Principal Investigator: Pattabhi Raman; Original Request for: \$3,923,884; Original Total Project Costs: \$7,847,769; Amended Request for: \$3,947,579 (Phase I - \$458,500; Phase II - \$3,489,079); Amended Total Project Costs; \$7,895,158; Project Duration 17 Months:

Fund: 1 vote. **Do Not Fund:** 21 votes. **Abstained:** 1.

or

Technical Advisor Alternative Recommendation for a Baseline Study. LRC contribution to not exceed \$150,000 with the following conditions:

- . Cash funds from others greater than \$150,000
- . Must have lignite Industry participation
- . GreatPoint Energy existing “Proof of Concept” DATA reviewed and approved by LRC Technical Advisor
- . Baseline Study Program Statement of Work using NDL reviewed and accepted by LRC Technical Advisor
- . Baseline Study Program deliverables including: technical reports characterizing all solid, liquid and gas feeds; reporting operating parameters, rates, conditions, products and catalysis feed, performance and recovery
- . Baseline Study Program deliverable includes an economic analysis

Fund: 10 votes. **Do Not Fund:** 12 votes. **Abstained:** 1.

Grant Round LXVIII (68) Grant Application LRC-LXVIII-B: “Oxy-Combustion Boiler Development for Tangential Firing of North Dakota Lignite”; Submitted by: Alstom Power, Inc.; Principal Investigator/Project Manager: Armand A. Levasseur; Request for: \$490,000; Total Project Costs: \$8,716,523; Project Duration: 10 Months. (Demonstration Project):

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

Grant Round LXVIII (68) Grant Application LRC-LXVIII-C: “Implementation of North Dakota Lignite Energy Marketing Plan”; Submitted by: Lignite Energy Council; Principal Investigator: Lignite Energy Council; Request for: \$265,000 Annually for 3 Years; Total Project Costs: \$795,000; Project Duration: 36 Months. (Marketing Project):

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

NDIC Meeting – December 18, 2009:

Dwyer said that LRC's recommendations concerning the Grant Round LXVIII (68) requests will be considered by the NDIC at its meeting scheduled for December 18, 2009.

Grant Application Deadline Dates; Next LRC Meeting:

The next grant application deadline date is April 1, 2010. The next LRC meeting has been scheduled for 12:00 p.m. (CDT) May 17, 2010 at the Best Western Doublewood Inn, Bismarck.

Adjournment:

There being no further business, Dwyer requested a motion to adjourn the LRC meeting. Carlyle Hillstrom so moved; seconded by Rich Voss. Motion carried. The meeting adjourned at 2:15 p.m. November 17, 2009.

Vicki Gilmore, Recording Secretary
