MEETING MINUTES
LIGNITE RESEARCH COUNCIL
Thursday, August 3, 2017 1:00 p.m. (CT)
Ramada Bismarck Hotel (Judicial Room), Bismarck, ND

LIGNITE RESEARCH COUNCIL MEMBERS (or their authorized alternates) PRESENT:
Jason Bohrer – Lignite Energy Council (LEC)
Jeff Delzer – N.D. House of Representatives
Matthew Greek – Basin Power Electric Cooperative
Randy Christmann- North Dakota Public Service Commission
Jay Kost – The Falkirk Mining Company
Senator Ray Holmberg – North Dakota Senate
Dave Farnsworth – Great River Energy
Randy Bartsch – IBEW
Rita Faut – Landowners
Jay Skabo – Montana Dakota Utilities
Wade Boeshans – BNI Energy
Ned Kruger – North Dakota Geological Society
Gerry Pfau – Minnkota Power Cooperative
Brian Kalk- EERC
Al Rudeck – ALLETE
Terry O'Clair – ND Dept. of Health
Bryan Walter – The Coteau Properties
Brad Zimmerman - Otter Tail

OTHERS PRESENT:
Karlene Fine – North Dakota Industrial Commission
Mike Holmes – Lignite Research Program
Laney DeGraw- LEC
Dave Allard – LEC
Jason Laumb – EERC
Bill Sawyer – ALLETE Clean Energy
Stacey Dahl – Minnkota Power Cooperative
Tim Thomas- Mitsubishi Heavy Industries, America
Mike Fowler- Mitsubishi Heavy Industries, America
Dan Laudal – UND Institute for Energy Studies
Dave Stadem – Microbeam Technologies, Inc.
Jason Ehler – ND State Building & Construction Trades Council

Lignite Research Council (LRC) Chairman, Jason Bohrer, called the LRC meeting to order at 1:01 p.m. (CDT) on August 3, 2017 at the Ramada Inn, Bismarck, North Dakota.

Approval of May 18, 2017 LRC Meeting Minutes:

Bohrer asked for a motion to approve the minutes of the May 18, 2017 LRC meeting. Al Rudeck so moved; seconded by Matt Greek. Motion carried.
Program Financial Summary:

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

Fine stated that the LRC Cash Balance as of June 30, 2017 (the end of the 2015-2017 biennium) is $21,425,417.60. Outstanding commitments total $8,068,772.00 leaving $13,356,645.60 that is uncommitted at this time. This amount does not include any of the new funding that should be available in the 2017-2019 biennium. She noted that there is sufficient funding available should the Council wish to recommend funding for the projects being considered today. (A copy of the financial report is available in the Industrial Commission files.) She stated that at the November meeting she will provide, after consulting with Mike Holmes and Council Chairman Bohrer, a proposed 2017-2019 budget for the Council's consideration.

Grant Round LXXXIV (84) Grant Application

LRC-LXXXIV (84)-A "Project Carbon" Submitted by: Energy & Energy Research Center - UND; Request for: $3,200,000; Total Project Costs: $12,700,000; Principal Investigator: Jason Laumb; Project Duration: 14 Months.

Holmes stated that the overall objective of Project Carbon is to enable carbon capture, utilization, and storage projects to move forward in the state of North Dakota by determining the best capture technology options and system configurations for an existing North Dakota lignite-fired system. Project Carbon will assess the final barriers relating to efficiency and economics for implementation of post combustion capture on the existing fleet of power systems.

Holmes said that the three technical peer reviewers for this proposal gave the proposal an average weighted score of 222 out of 250 points. The weighted score was 201 out of 250 points from reviewer 18-16, 225 out of 250 from reviewer 18-17, and 240 out of 250 from reviewer 18-18. Technical peer reviewers 18-16, 18-17 and 18-18 all recommended funding the project.

As the Technical Advisor to the NDIC and LRC, Holmes recommended that the project be Fund with the following contingencies: Approve funding of $3,200,000, with the Lignite Research Program funding to be provided prior to final commitment of match funding being received from the federal government, and with a contingency of an additional $2,000,000 award. The Lignite Research Program funding up to $3,200,000 will be provided upon confirmation of DOE NETL match funding of $2,500,000 and industry match funding of $500,000 in cash and the commitment of industry match in-kind funding of $500,000. If the $6,000,000 anticipated from the federal government is not fully awarded to this project, additional funding of up to $2,000,000 may be authorized by the Industrial Commission based on a dollar to dollar match and after presentation of a revised work scope explaining how this project will be completed with reduced funding. Subject also to: technical advisor participation in the advisory group and technical advisor reviewing the project management plan with the project manager.

Holmes said that ALLETE, Inc, BNI Energy, EERC and Minnkota Power Cooperative have conflicts of interest for proposal LXXXIV-A.

Jason Laumb from the EERC, Bill Sawyer from ALLETTE Clean Energy & Stacey Dahl from Minnkota did a presentation in support of LRC-LXXXIV-A.
LRC-LXXXIV (84)- C: Development of Low-Cost Rare Earth Element Analysis and Sorting Methods" Submitted by: Microbeam Technologies Inc.; Request for: $224,767; Total Project Costs: $449,534; Principal Investigator: Shuchita Patwardhan; Project Duration: 2 years

Holmes said the primary goal of this project is to develop novel REE fingerprinting algorithms via Portable X-ray Fluorescence (pXRF) and gamma ray analysis that will enable low-cost field/mine identification of high REE-content coals and associated sediments, combined with selective mining and on-belt sorting or REE-rich from run-of-mine coals.

Holmes said that the three technical peer reviewers for this proposal gave the proposal an average weighted score of 224.3 out of 250 points. The weighted score was 218 out of 250 points from reviewer 18-22, 226 out of 250 from reviewer 18-23, and 229 out of 250 from reviewer 18-24. Technical peer reviewers 18-22 and 18-24 recommended funding the project, while reviewer 18-23 recommended funding may be considered.

As the Technical Advisor to the NDIC and LRC, Holmes recommended that the project be Fund with the following contingencies: Matching Funding received, Technical advisor participating in Advisory Group, and technical advisor reviewing the project management plan with the project manager.

Holmes said that North Dakota Geological Survey, Minnkota Power Cooperative, Inc., BNI Energy, SaskPower and Great Northern Properties, Inc. have conflicts of interest for proposal LRC-LXXXIV (84) - C.

David Stadem from Microbeam Technologies, Inc. and Dr. Dan Laudal of the Institute for Energy Studies UND did a presentation in support of LRC-LXXXIV (84) - C.

Next LRC Meeting & NDIC meeting to consider LRC's recommendations, 2017 Grant Round deadlines:

Bohrer announced that the next LRC meeting is scheduled for November 16, 2017.

The application deadline date for submitting proposals to the NDIC for the next grant rounds is October 1, 2017.

Ballot Results:

Bohrer announced the results of the LRC's non-confidential ballots concerning the LRC's recommendations to the NDIC regarding the Grant Round LXXXIV (84) proposals as follows:

- LRC-LXXXIV (84)- A "Project Carbon" Submitted by: Energy & Energy Research Center - UND; Request for: $3,200,000 with an additional $2,000,000 funding contingency; Total Project Costs: $12,700,000; Principal Investigator: Jason Laumb; Project Duration: 14 Months
  
  Fund: 17 votes  Do Not Fund: 0 vote  Abstain: 1 vote

- LRC-LXXXIV (84)- C: Development of Low-Cost Rare Earth Element Analysis and Sorting Methods" Submitted by: Microbeam Technologies Inc.; Request for: $224,767; Total Project Costs: $449,534; Principal Investigator: Shuchita Patwardhan; Project Duration: 2 years
  
  Fund: 18 votes  Do Not Fund: 0 vote  Abstain: 0 vote
Adjournment:

There being no further business, Bohrer requested a motion for adjournment of the LRC meeting at 2:30 p.m. Matt Greek so moved; seconded Wade Boeshans. Motion carried.

Laney DeGraw, recording secretary