

MEETING MINUTES
LIGNITE RESEARCH COUNCIL – GRANT ROUND 99
Special Grant Round

Friday, February 18, 2022 - 10:00 a.m. (CT) via Microsoft Teams

LRC VOTING MEMBERS (or their authorized alternates) PRESENT:

Jason Bohrer – Lignite Research Council, Chairman
Gavin McCollam – Basin Electric Power Cooperative
Dale Johnson – Dakota Gas
John Bauer – Great River Energy
Mike Heger – BNI Coal, Ltd.
Randy Christmann – North Dakota Public Service Commission
Rita Faut – ND Farm Bureau
Tom Erickson – Energy & Environmental Research Center (EERC)
Jeff Delzer – ND House of Representatives
Jay Kost – Falkirk Mining Company
Gerry Pfau – Minnkota Power Cooperative
Ray Holmberg – ND Senate District 17
Ed Murphy – North Dakota Geological Survey
Brad Zimmerman – Otter Tail Power Company
John Phillips – Coal Conversion Counties
Jay Skabo – Montana-Dakota Utilities Co.
Bryan Walther – North American Coal Company
Mark Hager – IBEW 11th District (ND)

OTHERS PRESENT:

Karlene Fine – North Dakota Industrial Commission
Mike Holmes – Lignite Research Council
Angie Hegre - Lignite Energy Council
Jonathan Fortner – Lignite Energy Council
Dave Allard – Lignite Energy Council

GUESTS:

Craig Bleth, Minnkota
David Greeson, CCS Consultant
John Weeda, NDTA
Jason Ehlert, ND Bldg. Trades Union

I. CALL TO ORDER

Meeting called to order:

Lignite Research Council (LRC) Chairman, Jason Bohrer, called the LRC meeting to order at 10:00 a.m. (CT) on February 18, 2022, via Microsoft Teams.

II. APPROVAL OF MINUTES

Approval of January 20, 2022 LRC Meeting Minutes:

Bohrer asked for a motion to approve the minutes from the above listed meetings. John Phillips so moved; seconded by Randy Christmann. Motion carried.

III. PROGRAM FINANCIAL SUMMARY

Program Financial Summary:

Karlene Fine shared the financial summary regarding the Lignite Research, Development and Marketing Program. (A copy of the financial summary is available in the Lignite Research Program files, on the NDIC website, and in the meeting packet provided.)

Fine shared the 2021-2023 budget spreadsheet with the group. Since she shared the complete financial report a month earlier, she focused on the Advanced Energy Technology Projects budget. She shared the balance of \$15 million and stated that this is the budget we will be looking at when considering today's project. Fine stated that there is sufficient funding to fund this project being presented today if we choose to do so.

Angie Hegre emailed the financial spreadsheet one week prior to the meeting to the LRC members so the group saw all the details provided by Karlene Fine.

IV. SPECIAL GRANT ROUND XCIX (99) APPLICATION

- **LRC-XCIX (99) A: Project Tundra “CREST” Study**
Submitted by: Minnkota Power Cooperative
Request for: \$5,415,000
Total Project Costs: \$10,830,000
Principal Investigator: Craig Bleth
Project Duration: 10 months

Holmes shared the objective of the proposed work is to produce construction ready engineering, scheduling, and pricing terms (CREST) for a commercial carbon capture system retrofitted to a power plant fueled by North Dakota Lignite. ongoing work in Project Tundra is to complete a front-end engineering design (FEED) study for a commercial carbon capture system retrofitted onto a power plant fueled by North Dakota lignite. This project would include steam turbine modelling, steam system integration design, engineering for other impacts of the steam supply strategy, design integration of optimization opportunities to reduce costs, and detailed emissions analysis and icing studies. All efforts are focused on supporting possible start of construction for Project Tundra by the end of 2022. The goal of Project Tundra is to demonstrate post combustion carbon capture (PCCC) and storage in North Dakota, preserving the use of lignite and the associated jobs, ensuring enough reliable and dispatchable power is on our grid, and moving North Dakota closer to its carbon neutral goal.

As the Technical Advisor for this project, Holmes recommended fund. Holmes shared that all three of the technical reviewers recommended funding, and the proposal received an average score of 218.6 out of 250. All of the reviews were positive. The project represents the next step toward commercial carbon management in North Dakota, and would benefit the entire lignite industry as well as oil, in the long term. The work would help reduce risk and uncertainty associated with a unique technology application for North Dakota lignite and move toward commercial readiness.

Holmes recommended that funding be subject to the Technical Advisor participating in project reviews and the Technical Advisor reviewing the projects management plan with the Project manager including commitment and agreements with contractors, budget and work scope details and standards of success.

Holmes stated conflicts of interest include Minnkota Power and EERC.

Craig Bleth, Vice President of Power Supply at Minnkota Power Cooperative presented on behalf of the applicant. (A copy of their Power Point presentation is available in the LRP files.)

V. VOTING PROCESS

Voting: Due to the meeting being virtual in a Microsoft Teams format, and not in person, ballot selections were sent to Karlene Fine, ND Industrial Commission via email.

VI. 2022 CALENDAR

Bohrer announced that the next NDIC meeting is scheduled for February 22, 2022. Bohrer reminded the group that the upcoming grant application deadline is April 1, 2022 and the next LRC meeting is scheduled for May 12, 2022.

VII. OTHER BUSINESS

VIII. TRANSMISSION AUTHORITY UPDATE

John Weeda shared with the group a Power Forecast update. He included an independent look at electric power forecast for western North Dakota. He shared graphs and the studies performed by Barr Engineering both in 2019 and 2021. Weeda shared the impact of the activity in the Bakken, Clean Sustainable Energy and other projects, impacts of carbon capture and sequestration and the impact of change to the Dakota Gasification facility. He concluded with the demand increases due to potential development of Clean Sustainable projects and other demand is substantial.

IX. ADJOURNMENT There being no further business, Jason Bohrer requested a motion for adjournment of the LRC meeting. Randy Christmann so moved; seconded by John Phillips. Motion carried.

SPECIAL GRANT ROUND XCVIII (98) Ballot Results: Jason Bohrer announced (via email) following the meeting the results of the ballots concerning the LRC's recommendations to the NDIC for the Grant Round XCIX (99) proposals as follows...

LRC-XCIX (99) A: Project Tundra "CREST" Study

Submitted by: Minnkota Power Cooperative

Request for: \$5,415,000

Total Project Costs: \$10,830,000

Principal Investigator: Craig Bleth

Project Duration: 10 months

FUND: 16

DO NOT FUND: 0

ABSTAIN: 2

The North Dakota Industrial Commission meeting, when these recommendations will be considered, will be held on February 22, 2022.

Angie Hegre, recording secretary