

MEETING MINUTES
LIGNITE RESEARCH COUNCIL – GRANT ROUND 98
Special Grant Round

Thursday, January 20, 2022 - 1:30 p.m. (CT) via Microsoft Teams

LRC VOTING MEMBERS (or their authorized alternates) PRESENT:

Jason Bohrer – Lignite Research Council, Chairman
William Sawyer – ALLETE Energy
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
Charlie Gorecki – Energy & Environmental Research Center (EERC)
Ed Steadman - Energy & Environmental Research Center (EERC)
Jeff Delzer – ND House of Representatives
Jay Kost – Falkirk Mining Company
Jim Sheldon – Basin Electric Power Cooperative
Ned Kruger – North Dakota Geological Survey
Andrew Freidt – Minnkota Power Cooperative
John Phillips – Coal Conversion Counties
Jay Skabo – Montana-Dakota Utilities Co.
Bryan Walther – North American Coal Company
Kai Xia – Great Northern Properties LP
Mark Hager – IBEW 11th District (ND)
Dave Glatt – ND Department of Environmental Quality

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:

Alexander Azenkeng – UND EERC (presenter)
Kevin Connors – UND EERC (presenter)
Jason Laumb - UND EERC
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 1:32 p.m. (CT) on January 20, 2022 via Microsoft Teams.

II. APPROVAL OF MINUTES

Approval of November 17, 2021 LRC Meeting Minutes and July 19, 2021, CSEA Appointment Meeting Minutes:

Bohrer asked for a motion to approve the minutes from the above listed meetings. John Phillips so moved; seconded by Charlie Gorecki. 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. On July 1, 2021 the cash balance was \$21.8 million. As of November 30, 2021 revenues totaled \$1.5 million. Currently it is forecasted that the Fund will receive \$18.7 million during the biennium. As of November 30, 2021 the total expenditures are approximately \$1.5 million. She shared there are outstanding commitments that total \$18 million which includes the three projects approved in November, so non-committed cash funding available is \$3.7 million. Fine stated that the budget for the 2021-2023 biennium has \$4.8 million in the small research category remaining. This is the category the EERC project 98A would come from. The PCOR Incremental funding request had been previously approved in the total amount of \$2 million with the understanding that as additional federal funding is received each \$500,000 increment and scope of work would come back to the Council and Industrial Commission for approval.

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 XCVIII (98) APPLICATION

LRC-XCVIII (98) A: “Advanced Processing of Coal and Coal Waste to Produce Graphite for Fast-Charging Lithium-Ion Battery Anode”

Submitted by: Energy and Environmental Research Center (EERC)

Request for: \$500,000

Total Project Costs: \$1,545,000

Principal Investigator: Alexander Azenkeng

Project Duration: 36 months

Holmes shared that the Energy and Environmental Research Center (EERC) is proposing to lead a team with UND and North American Coal, targeting high-grade graphite from North Dakota Lignite materials for application as battery anodes. The target market is fast charging electric vehicle applications and other rapidly growing lithium-ion battery applications, with other graphite markets as additional considerations. The team has received notice of award from the DOE, providing a strong leveraging of any NDIC project funding. In addition to the material development and evaluation, the overall effort includes a techno-economic evaluation to gauge the commercial potential for the technology.

As the Technical Advisor for this project, Holmes recommended fund. Holmes shared that the proposed project is a great fit for the Lignite Research Program, as part of the pursuit of emerging markets for North Dakota lignite. The project targets the rapidly growing market for carbon materials, with a focus on materials for battery applications. All three of the technical reviewers recommended funding, and the proposal received an average score of 223.6 out of 250. The weighted score was 227 out of 250 points from reviewer 28-01, 234 out of 250 points from reviewer 28-02, and 210 out of 250 points from reviewer 28-03. The project provides strong leveraging of state funding with \$1,000,000 from the U.S. Department of Energy (DOE) and \$45,000 from North American Coal.

Holmes recommended that funding be subject to the Technical Advisor participating in project reviews and reviewing the project management plan with the project team.

Holmes stated conflicts of interest include EERC and North American Coal.

Alexander Azenkeng, EERC, presented on behalf of the applicant. (A copy of their Power Point presentation is available in the LRP files.)

FY20-XCI-226

Title: “PCOR Initiative to Accelerate CCUS Deployment” Request for project incremental funding of \$500,000 of the previously approved \$2,000,000 based on additional scope of work and receipt of matching funds

Date Awarded: 11/25/2019

Submitted By: UND EERC

Request for: Third Increment of \$500,000 of \$2,000,000 award

Principal Investigator: Kevin Connors

Total Project Funding: \$18,752,874

This includes \$15,000,000 DOE, \$1,500,000 NDIC LRP, \$1,500,000 NDIC OGRP, and cost share from University of Wyoming and University of Alaska Fairbanks.

Holmes shared the EERC – through its Plains CO₂ Reduction (PCOR) Partnership –teamed with partners in the lignite industry to secure \$500,000 initially from the Lignite Research Council with another \$1.5 million set aside for anticipated increased funding from the DOE. The goal of this project is to accelerate and facilitate the buildout of CCUS infrastructure in North Dakota and neighboring states. The PCOR Partnership includes the primary players in North Dakota’s lignite industry who have been working with the EERC over the last 18 years to validate the technical and economic viability of CCUS technology. This phase of the project – which is largely funded by the DOE – benefits North Dakota by working towards monetizing recently passed Federal legislation that provides tax credits for energy companies to capture and geologically store CO₂. This phase of the project is planned for a five-year time frame. The current request is for the third increment of \$500,000 bringing the NDIC funding total to \$1,500,000 of the previously approved \$2,000,000.

Holmes stated the original three reviewers recommended funding with an average score of 229.3 out of 250 and noted that the facilitating of commercial CCUS is a primary focus for sustaining use of North Dakota’s vast lignite reserves. Carbon management is a primary focus of the lignite industry R&D Roadmap and the Lignite Research Program, and the project was previously approved. With the additional scope of work and federal funding this incremental funding would continue to provide strong leveraging of NDIC funding.

Holmes recommended that funding be subject to the Technical Advisor participating in project reviews and the remaining \$500,000 contingent upon approval of final work scope and receipt of additional DEO and industry funding at the initial match rate.

Holmes stated conflicts of interest include EERC and most of the lignite industry as PCOR partners.

Kevin Connors, EERC, presented on behalf of the applicant. (A copy of their Power Point presentation is available in the LRP files.)

V. 2022 CALENDAR

Bohrer announced that the next NDIC meeting is scheduled tomorrow, January 21, 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. Bohrer mentioned the possibility of another meeting in the late February timeframe.

VI. OTHER BUSINESS

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.

Adjournment: There being no further business, Jason Bohrer requested a motion for adjournment of the LRC meeting. Jay Kost so moved; seconded Randy Christmann. 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 XCVIII (98) proposals as follows...

LRC- XCVIII (98)-A: "Advanced Processing of Coal and Coal Waste to Produce Graphite for Fast-Charging Lithium-Ion Battery Anode"

Submitted by: Energy and Environmental Research Center

Principal Investigator: Alexander Azenkeng

Project Duration: 36 months

Request for: \$500,000

Total Project Costs: \$1,545,000

FUND: 15

DO NOT FUND: 0

ABSTAIN: 2

FY20-XCI-226

"PCOR Initiative to Accelerate CCUS Deployment" Request for project incremental funding of \$500,000 of the previously approved \$2,000,000 based on additional scope of work and receipt of matching funds

Submitted by: Energy and Environmental Research Center

Principal Investigator: Kevin Connors

Project Duration: 5 years

Request for: Third increment of \$500,000 of \$2,000,000 award

Total Project Funding: \$18,752,874

This includes \$15,000,000 DOE, \$1,500,000 NDIC LRP, \$1,500,000 NDIC OGRP, and cost share from University of Wyoming and University of Alaska Fairbanks.

FUND: 15

DO NOT FUND: 0

ABSTAIN: 2

The North Dakota Industrial Commission meeting, when these recommendations will be considered, will be held on January 21, 2022.

Angie Hegre, recording secretary