

MEETING MINUTES

LIGNITE RESEARCH COUNCIL – GRANT ROUND 107

Wednesday, May 7, 2025 – 1:30 p.m. (CT)

Bismarck State College NECE Room 335 or Microsoft Teams

LRC VOTING MEMBERS PRESENT:

Jonathan Fortner – Lignite Energy Council, Chairman
Jay Kost – The Falkirk Mining Company
Mike Heger – BNI Energy
Ethan Vaagene – Rainbow Energy Center
Reese Boehm – Nexus Line, LLC
Darcy Neigum – Montana Dakota Utilities Co.
Randy Christmann – North Dakota Public Service Commission
Tom Oakland – North Dakota Commerce
Dave Glatt – NDDEQ
Donn Steffen - Coyote Creek Mine
Trinity Turnbow – Dakota Gasification
Gavin McCollam-Basin Electric Power Company
Brad Zimmerman – Otter Tail Power Company
Todd Porter – North Dakota House of Representatives
Charlie Gorecki - EERC
Dale Patten – North Dakota Senate
Bill Sawyer – ALLETE (on-line)
Joseph Heringer – Land Board
Rita Faut – North Dakota Farm Bureau (on-line)
Brad Hawk-Indian Affairs Commission
Ed Murphy – North Dakota Geological Survey
John Phillips-ND Coal Conversion Counties Assn.

OTHERS PRESENT:

Jordan Kannianen – North Dakota Industrial Commission
Brenna Jessen – North Dakota Industrial Commission
Erin Stieg – North Dakota Industrial Commission
Mike Holmes – Lignite Research Council
Angie Hegre - Lignite Energy Council
Geoff Simon – WDEA
Alison Riter - WDEA
Andy Freidt – Minnkota Power Cooperative
Brad Erickson – North American Coal – Coteau
Jason Laumb - EERC (presenter)
Tony Snyder – EERC (presenter)
Greg Henthorn – AmeriCarbon
Joseph Harris - Bismarck Tribune

I. CALL TO ORDER

Meeting called to order:

Lignite Research Council (LRC) Chairman Jonathan Fortner called the meeting to order at 1:33 p.m. (CT) on May 7, 2025.

Fortner introduced the new LRC appointees to the committee.

New LRC appointees:

- Jonathan Fortner, Lignite Research Council (Research Representative)
- Brad Zimmerman, Otter Tail Power Company (Processing Representative)
- Donn Steffen, Coyote Creek Mine (Mining Representative)
- Darcy Neigum, Montana-Dakota Utilities Company (Processing Representative)
- Ethan Vaagene, Rainbow Energy Center (Processing Representative)
- Trinity Turnbow, Dakota Gasification Company (Processing Representative)
- Reese Boehm, Nexus Line LLC (Transmission Representative)

II. APPROVAL OF MINUTES

Approval of March 17, 2025, LRC Meeting Minutes:

Fortner requested a motion to approve the minutes from the above-listed meeting. Randy Christmann so moved; seconded by John Phillips, motion carried.

III. UPDATES

Program Management & Financial Report:

Jordan Kannianen shared the financial summary for the Lignite Research, Development, and Marketing Program. (A copy of the financial summary is available in the Lignite Research Program files and the meeting packet provided.)

Kannianen displayed a high-level dashboard view summary of all the Industrial Commission-managed funds to the committee. Kannianen shared that the Lignite Research Fund availability as of May 2025, is \$6.5 million, which is the amount available to commit to new projects. Kannianen shared that there are two projects before the committee today with an ask of \$2.9 million.

Kannianen brought forth to the committee the Lignite Research fund cash balance of \$28.9 million with \$22.4 million of that having outstanding project commitments. Kannianen shared that the total of \$6.5 million is uncommitted and available while considering new projects.

For the Lignite Research Fund, Kannianen provided a cumulative view of the fund. Since the program's inception in 1987, 261 cumulative projects have been funded. Each of those projects brings private capital and private match back to the state of North Dakota. That private match has equaled \$2.8 billion project value that has been invested in the state of ND, thanks to projects approved through this program. Currently, there are 20 active projects.

In addition, Kannianen shared the 2023-2025 biennium appropriation and forecasted income. Sharing a graphic showing the Lignite research fund money coming from the Coal Severance Tax, Coal Conversion Tax, Research Tax, and formula funding from Oil Production and Extraction Taxes, showing a total of \$18.5 million through the course of the biennium. Of which \$16.7 million to date.

The financial data was emailed before the meeting to the LRC members.

R&D Overview

Holmes provided an overview of current and historical efforts under the Lignite Research, Development & Marketing Program. He highlighted several long-standing technical challenges that

have been successfully addressed through past research investments, noting the importance of the Lignite Industry Technology Roadmap in guiding priorities and ensuring alignment with industry needs.

He reviewed the portfolio of active projects, outlining the range of technology areas currently supported by the program. These include environmental improvements, operational reliability, value-added products, carbon management, and next-generation coal utilization initiatives. Holmes emphasized that the active portfolio reflects strong collaboration among industry, universities, and state partners.

Holmes also presented the funding status for active projects, summarizing total program commitments and the distribution of state and industry cost-share. He noted that projects continue to leverage significant non-state funding, underscoring the value and competitiveness of the program.

IV. CONSIDERATION OF PROJECTS – MIKE HOLMES

LRC-107A: Development of Next-Generation Carbon Capture Technologies for Efficiency Improvement and Cost Reduction

Submitted by: EERC

Principal Investigator: Tony Snyder

Request for: \$1,462,500

Total Project Costs: \$6,095,833

Project Duration: 1 year

The EERC is proposing the first year of a five-year project to augment their existing carbon dioxide test systems as part of efforts to reduce costs, mitigate risks, and accelerate the deployment of cost-effective commercial-scale carbon capture systems. The EERC has received funding from the DOE and industry support, providing the leveraging of NDIC project funding. The current evaluations of commercial readiness have identified uncertainties in equipment needs and economic challenges. This project would work toward addressing these areas before large commercial investments are made.

Holmes shared that all three reviewers recommended funding. The proposal received an average score of 222.3 out of 250. Holmes stated this project is a great fit for the LRP, as part of the pursuit of carbon capture, utilization and storage (CCUS) options for North Dakota's lignite industry. Commercial applications are challenged by technical and economic risks that the extended project could address. Holmes shared that the funding would be subject to the Technical Advisor participating in the project reviews and reviews the project management plan with the project team. The project leverages state funding by obtaining funding from the DOE and industry. Holmes stated the conflicts of interest included EERC, North American Coal, and BNI.

Jason Laumb and Tony Snyder from EERC presented on behalf of the applicant.

A copy of the PowerPoint presentation is available in the LRP files.

LRC-107B: Commercial Plant Design Optimization: Lignite to Critical Carbon Materials

Submitted by: AmeriCarbon

Principal Investigator: Greg Henthorn

Request for: \$1,499,653

Total Project Costs: \$2,999,653

Project Duration: 1 year

Holmes shared AmeriCarbon is proposing a one-year project to complete the engineering design for a first-of-a-kind commercial facility to convert ND lignite into ECO-Pitch™ for use in carbon materials. Their technology would make coal tars and pitch for use in production of graphite, asphalt binder, and other carbon materials. They are evaluating the opportunity for an initial plant in McLean County, ND. The proposed work builds on pilot-scale operations, prior engineering design, and previous NDIC-supported Research. The end goal is to position AmeriCarbon and its partners to proceed with the execution phase of the project, pending investment and standard contingencies.

Holmes shared that all three of the technical reviewers recommended funding, and the proposal received an average score of 233.3 out of 250. The project would leverage state funding through funding from the project participants. Holmes stated that AmeriCarbon is proposing to optimize their commercial design as they move toward commercial application in North Dakota. Their technology would make coal tars and pitch for use in production of graphite, asphalt binder, and other carbon materials. The technology could provide spin-off manufacturing opportunities in the state, and would integrate well with rare earth and critical mineral opportunities, as well as other emerging market opportunities for North Dakota lignite. This project would provide 50% match with in-kind funding from AmeriCarbon and in-kind cost services from North American Coal.

Holmes shared that the funding would be subject to the Technical Advisor participating in the project reviews and reviews the project management plan with the project team. Holmes stated the conflicts of interest include North American Coal-Falkirk Mine.

Greg Henthorne presented on behalf of the applicant.

A copy of the PowerPoint presentation is available in the LRP files.

A motion to waive the conflict of interest for members was made by Charlie Gorecki and seconded by Dale Patton; the motion carried.

V. Voting Process – Ballots distributed, returned and tabulated.

VI. RESULTS

LRC-107A: Development of Next-Generation Carbon Capture Technologies for Efficiency Improvement and Cost Reduction

Submitted by: EERC

Fund: 21

Do Not Fund: 0

Abstain: 0

LRC-107B: Commercial Plant Design Optimization: Lignite to Critical Carbon Materials

Submitted by: AmeriCarbon

Fund: 21

Do Not Fund: 0

Abstain: 0

VII. LEGISLATIVE OVERVIEW

HB 1592 – LRC Policy Bill Overview

Report by Jonathan Fortner

Fortner provided an overview of HB 1592 and its proposed updates to the Lignite Research Council (LRC) statutes. He reviewed updated legislative findings reflecting current lignite industry impacts, including revised production, employment, and economic figures, and noted the added language affirming the state's role in defending the continued development and use of lignite.

He summarized changes to LRC appointments, confirming that all members would continue to be appointed by the Governor from a list provided by the Lignite Energy Council, and outlined the updated membership categories. Governance amendments include election of a chair and vice chair, establishment of a seven-member Executive Committee, and a requirement that the Council meet at least twice annually.

Fortner noted that the LRC will continue to recommend grants and other funding actions to the Industrial Commission, and that gubernatorial appointees serve at the Governor's pleasure. Legislative members would receive statutory per diem.

He reviewed amendments guiding the selection of independent technical reviewers based on expertise and experience.

Fortner concluded with provisions granting the Industrial Commission authority to retain a technical advisor, adopt necessary policies, and maintain financial records, along with confidentiality protections for proprietary information and the identities of technical reviewers and LRC recommending members.

VIII. OTHER BUSINESS

Fortner announced that the next North Dakota Industrial Commission meeting, where these recommendations will be considered, is scheduled for May 22, 2025.

Fortner reminded the group that the fall grant application deadline is October 1, 2025, and the next LRC meeting is scheduled for November 18, 2025.

IX. ADJOURNMENT

There being no further business, Fortner requested a motion to adjourn the LRC meeting. Jay Kost so moved, seconded by Joe Heringer. The motion carried.

Angie Hegre, recording secretary

