

MEETING MINUTES
LIGNITE RESEARCH COUNCIL – GRANT ROUND 101
Thursday, November 17, 2022 - 1:30 p.m. (CT)
NDACo Building
1661 Capitol Way, Bismarck, ND

LRC VOTING MEMBERS (or their authorized alternates) PRESENT:

Jason Bohrer – Lignite Research Council, Chairman
Gavin McCollam – Basin Electric Power Cooperative
Dale Johnson – Dakota Gasification Co.
Mike Heger – BNI Energy
Randy Christmann – North Dakota Public Service Commission
Joshua Strege – Energy & Environmental Research Center (EERC)
Gerard Goven – Falkirk Mining Company
Andy Freidt – Minnkota Power Cooperative
Ned Kruger – North Dakota Geological Survey
Jay Skabo – Montana-Dakota Utilities Co.
Bryan Walther – North American Coal Company
Tom Oakland – North Dakota Commerce
Chuck Hyatt – ND Department of Environmental Quality (NDDEQ)
John Bauer- Rainbow Energy Center
Bill Sawyer – ALLETE

CALL-IN MEMBERS

Rita Faut – ND Farm Bureau
Charlie Gorecki – Energy & Environmental Research Center (EERC)
John Phillips – ND Coal Conversion Counties

OTHERS PRESENT:

Karen Tyler – North Dakota Industrial Commission
Reice Haase – North Dakota Industrial Commission
Brenna Jessen – North Dakota Industrial Commission
Mike Holmes – Lignite Research Council
Angie Hegre - Lignite Energy Council
Jonathan Fortner – Lignite Energy Council

GUESTS:

Alex Benson, Microbeam (presenter)
Steve Benson, Microbeam (presenter)

I. CALL TO ORDER

Meeting called to order:

Lignite Research Council (LRC) Chairman, Jason Bohrer, called the LRC meeting to order at 1:36 p.m. (CT) on November 17, 2022.

II. APPROVAL OF MINUTES

Approval of May 12, 2022 LRC Meeting Minutes:

Bohrer asked for a motion to approve the minutes from the above-listed meeting. Jay Skabo so moved; seconded by Randy Christmann. Motion carried.

III. PROGRAM FINANCIAL SUMMARY

Program Financial Summary:

Reice Haase 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, and in the meeting packet provided.)

Haase reviewed the 2021-2023 budget spreadsheet with the group. The beginning balance as of July 1, 2021, was \$21.8 million. He stated the cash balance as of September 30, 2022, was \$29.9 million after adding in revenue of an additional \$15.2 million and then deducting the expenditures of \$7.1 million. Then deducting the outstanding commitments of \$19.3 million, the non-committed cash balance is \$10.5 million. Haase shared with the group that this is the amount they have available for consideration. Haase explained if you extrapolate that to the end of the biennium, and use the estimated budget for the remaining biennium, you would get a remaining cash balance of \$13.9 million.

Angie Hegre emailed the financial spreadsheet a week prior to the meeting to the LRC members so the group saw all the details provided by Reice Haase.

IV. GRANT ROUND 101 APPLICATIONS

LRC 101A: “Enhance, Preserve and Protect, Research & Development, Environmental, Legal, Power Markets and Transmission Planning Services”

Submitted by: Lignite Energy Council

Request for: \$3,519,189 (non-matched funds)

Principal Investigator: Mike Holmes

Project Duration: 3 years

Holmes stated this project builds on previous work to preserve and protect the existing lignite fleet in North Dakota and to identify opportunities to enhance the future of the state’s lignite resources. Previous regulatory policy jeopardized the future of North Dakota’s lignite resources, and that regulatory environment continues to be dynamic. This project will allow for flexibility and timeliness in working with the industry and regulators so that North Dakota can make the best use of its vast lignite resources.

In order to achieve project objectives, Holmes shared the six outlined tasks of the EPP Plan. 1) Project Management 2) Research and Development 3) Environmental Strategies 4) Markets and Planning Strategies 5) Legal Strategies 6) Transmission Activities. He shared that the EPP Project team will work with the ongoing AET Program partners; develop strategies and oversee legal activities that may require litigation due to state and federal statutes and regulations including, if needed, legal support; and participation in the planning processes focused on the development of new transmission infrastructure and other related transmission activities.

Holmes shared the proposed project purpose is to continue to build on the ongoing commitment and cooperation among government agencies, elected leadership and the lignite industry to insure the long-term viability of the ND lignite industry.

Holmes shared to objectives s follows:

- Build on previous work to preserve and protect the existing lignite fleet in ND.
- Employ and update Advanced Energy Technology (AET) Program.
- Identify opportunities to enhance the future of the state’s lignite resources.
- Monitor regulatory policy that could jeopardize the future of lignite.
- Be flexible and timely, working with industry and regulators to make the best use of lignite.

Holmes also shared the opportunities already identified as follows:

- Rare Earth Elements and Critical minerals
- Developing carbon materials from lignite
- Using CO₂ for Carbon Capture Utilization and Storage (CCUS)
- Evaluating next generation lignite conversion systems

As the Executive Director's Recommendation for this project, Haase recommended funding with contingencies. Haase shared that all three of the technical reviewers recommended funding. The proposal received an average score of 200 out of 250. Haase stated it was his recommendation to fund with contingencies because this is non-match funding. He asked for semi-annual reporting be provided to the Industrial Commission. Haase also asked for a minimum of one presentation per year be made to the Lignite Research Council and the Industrial Commission. Another request was for funding of studies in excess of \$100,000 be approved by the Office of the Industrial Commission.

Haase stated conflicts of interest include Lignite Energy Council members.

Mike Holmes, Lignite Energy Council, presented on behalf of the applicant. (A copy of their Power Point presentation is available in the LRP files.)

LRC 101B "Lignite Resource Evaluation for Advanced Utilization Opportunities"

Submitted by: Microbeam Technologies Inc.

Request for: \$1,238,994.18

Total Project Costs: \$2,477,994.18

Principal Investigator: Alex Benson

Project Duration: 36 months

Holmes shared Microbeam Technologies Incorporated (MTI) is proposing to lead a team in collaboration with North American Coal, to characterize the resource in existing coal mines to provide information on critical elements (including rare earths). The aim of this project is to work with North American Coal Company to collect drill core samples for characterization to determine the abundance and mode of occurrence of critical minerals in major and minor seams as well as in the associated clay and shale materials. The drill core samples will be scanned onsite as well as analyzed in the laboratory. Currently there is an insufficient understanding of the critical mineral abundance and associations to be able to determine the true resource and opportunity for commercial recovery.

As the Technical Advisor for this project, Holmes recommended funding. He 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 enhances the potential value of Rare Earth Element extraction by evaluating the quantities and availability of the various elements of interest. One technical reviewer recommended funding, and two technical reviewers recommended funding be considered. The proposal received an average score of 219 out of 250. Resource evaluation is not presently funded by the DOE but is a major need as industry evaluates the viability of a commercial plant in North Dakota.

Holmes stated that funding be subject to the Technical Advisor participating in project reviews, the Technical Advisor reviews the project management plan with the project team and discuss standards of success and make them measurable. After further discussion within the Lignite Research Council committee members, it was added that the funding of \$1,238,994.18 would also be contingent upon the technical advisor review of the Lignite Research Program Rare Earth Element – Critical Mineral project portfolio to maximize synergies and prevent duplication.

Holmes stated conflicts of interest include North American Coal.

Alex Benson, Microbeam Technologies Inc, presented on behalf of the applicant. (A copy of their Power Point presentation is available in the LRP files.)

V. RESULTS

LRC 101A: “Enhance, Preserve and Protect, Research & Development, Environmental, Legal, Power Markets and Transmission Planning Services”

Submitted by: Lignite Energy Council
Request for: \$3,519,189 (non-matched funds)
Principal Investigator: Mike Holmes
Project Duration: 3 years

Fund: 15 votes

Do Not Fund: 0 votes

Abstain: 1 vote

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Principal Investigator: Alex Benson
Project Duration: 36 months

Fund: 15 votes

Do Not Fund: 1 vote

Abstain: 0 votes

VI. 2022-2023 CALENDAR

Bohrer announced that the next NDIC meeting is scheduled for November 18, 2022. Bohrer reminded the group that the spring grant application deadline is April 1, 2022, and the next LRC meeting is scheduled for May 11, 2023.

VII. OTHER BUSINESS

VIII. ADJOURNMENT

There being no further business, Jason Bohrer requested a motion for adjournment of the LRC meeting. Mike Heger so moved; seconded by Jay Skabo. Motion carried.

The North Dakota Industrial Commission meeting, when these recommendations will be considered, will be held on November 18, 2022.

Angie Hegre, recording secretary