



INDUSTRIAL COMMISSION OF NORTH DAKOTA

Doug Burgum
Governor

Wayne Stenehjem
Attorney General

Doug Goehring
Agriculture Commissioner

NEWS

November 29, 2021

North Dakota Industrial Commission approves funding for three Lignite R&D grants

The North Dakota Industrial Commission (Commission) today approved funding for three lignite research projects totaling \$632,500. The largest award is \$550,000 to develop lignite coal-based pitch for high-value carbon products.

AmeriCarbon Products, LLC, will use its pilot-scale, proprietary liquid carbon pitch process to demonstrate the successful and economical conversion of North Dakota lignite coal into a valuable pitch intermediate chemical used in carbon products manufacturing. A secondary objective will be to outline a development pathway based on performance and technoeconomic results for a next-stage commercial pitch plant based in North Dakota to enhance lignite coal production, high-wage jobs and increased economic opportunities with pitch and downstream carbon manufacturing.

AmeriCarbon, headquartered in Morgantown, West Virginia, would team with North American Coal Corp. – parent company of three lignite mines in North Dakota – on the project. The total cost is \$1.2 million, and the project duration is 18 months.

The second project approved by the Commission involves the development of coal-based building materials. The Commission would invest \$62,500 in the \$650,000 project that has a duration of one year. Microbeam Technologies Inc. of Grand Forks will lead a team that includes the University of North Dakota and North American Coal.

The team is developing a method for producing high-value, carbon-based building materials by using a flexible process that can be adapted into either a batch or continuous manufacturing process. Preliminary analysis shows great opportunity for the technology to be scaled up to the pilot scale and eventually the commercial level. These materials show great potential to be used in masonry brick veneer applications as well as others.

The third project would also be led by Microbeam to develop a conceptual design of a process to extract, separate, recover and purify germanium and gallium from lignite coal-derived rare earth element concentrates. The team – which includes UND and North American Coal – received an earlier award from the Department of Energy. The process will be integrated into UND's rare earth extraction process and will be designed to co-produce germanium and gallium concentrates. The Commission will invest \$20,000 in the \$190,000 project which will last nine months.

In a joint statement, the three members of the Commission, Gov. Doug Burgum, Attorney General Wayne Stenehjem and Agriculture Commissioner Doug Goehring, stated, “The lignite industry has increasingly been focused on emerging markets to diversify coal products. Currently, the majority of the lignite mined in the state is used as a feedstock for coal-based power plants. The projects we funded today will expand and continue the success of this industry that is so important to the state and its citizens.”

The Lignite Research Council recommended funding the grant proposals at its meeting on Nov. 17 in Bismarck. Prior to that meeting, each of the proposals was peer reviewed and recommended for funding.

The Commission also approved an additional special grant round with an application deadline of Dec. 15, 2021.

The Commission is a partner with the regional lignite industry in the Lignite Research Program. State dollars are leveraged with industry investments for research and demonstration projects. Since 1987 when the partnership began, the state has invested more than \$90 million in lignite research funds. Total investment in more than 200-plus projects is in excess of \$750 million.

Besides state dollars, R&D funding also comes from industry sources such as mines and utilities, research entities such as the Energy & Environmental Research Center and the Department of Energy.

For further information contact Mike Holmes 701-258-7117