

Industrial Commission Approves Two Lignite R&D Projects

Governor Edward T. Schafer, Attorney General Heidi Heitkamp and Commissioner of Agriculture Roger Johnson approved funding for two lignite projects that will help keep the existing lignite power plants competitive and ensure lignite use in future plants, while maintaining North Dakota's air quality. On March 8, 2000, the North Dakota Industrial Commission approved \$361,000 from the Lignite Research, Development and Marketing Program for the two projects.

Evaluation of Potential SCR Catalysis: SCR is a process that can remove nitrogen oxides from coal combustion flue gas. The process has not been demonstrated with lignite, and experience with coal similar to lignite has not been encouraging, yet EPA is forcing industry to adopt stringent guidelines that meet SCR standards.

According to Clifford R. Porter, Director of the Lignite Research Program, the Energy and Environmental Research Center of Grand Forks will evaluate SCR or Selective Catalytic Reduction techniques that preserve the catalytic process and achieve high nitrogen oxide removal.

Attorney General Heidi Heitkamp said, "We are fortunate to have the ability to provide the financial resources and research facilities in North Dakota to meet the challenge imposed by the EPA regulation." The Industrial Commission approved funding of \$200,000 for the two-year project which will be matched by federal research dollars. EERC must also raise an additional \$200,000 from private industry matching funds to complete the project, which has a total cost of \$733,333.

Lignite Moisture Reduction: The Falkirk Mining Company and Great River Energy, both of Underwood, and The Coteau Properties Company, Beulah, are developing a process to reduce the moisture content of lignite. Moisture reduction of lignite prior to combustion improves plant efficiency in several different ways. The moisture in lignite is converted to steam and consumes heat during combustion. Also, one of the larger consumers in the plant is the energy required to handle the large volumes of flue gas, which is primarily steam. Heat not lost during combustion and energy not consumed in operation of the plant can be converted to electricity for utility customers. Moisture reduction offers the possibility of increased plant efficiency.

Agriculture Commissioner Roger Johnson said, "The use of plant waste heat to remove the moisture is an innovative concept I find particularly interesting. Farmers are always interested in ways to make their operations more efficient, and I am excited to see the same concept in the power plants." The Industrial Commission funding of \$161,000 is being matched by The Falkirk Mining Company, The Coteau Properties Company, and Great River Energy for the eight-month project, which has a total cost of \$322,666.

Governor Edward Schafer commented, "These projects are an example of industry and the State working together to further technology, promote economic growth, increase the use of the state's natural resources and preserve our environment."

May 1 and September 1 are the remaining grant application deadlines for projects to be considered in 2000. Funds remaining for the 1999-2001 biennium are \$2,669,103 for demonstration projects and \$344,957 for small research projects. The Lignite Research Council will meet to consider grant applications submitted for the May 1 and September 1 deadlines, respectively.

For more information, contact Clifford R. Porter, Director of the Lignite Research, Development and Marketing Program, at 701-258-7117 or e-mail: cporter@lignite.com. Visit the following web site for information about the Lignite Research, Development and Marketing Program: www.lignite.com/ResDev/index.html.

The Lignite Research Program is overseen by the North Dakota Industrial Commission, consisting of Governor Edward T. Schafer, Attorney General Heidi Heitkamp and Commissioner of Agriculture Roger Johnson. The program is a cooperative state/industry effort concentrating on near-term, practical projects to enhance development of the state's abundant lignite resources.

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