

**Grant Round Application for LRC-LXXIII(73)-B**

**TECHNICAL ADVISOR’S SUMMARY and RECOMMENDATION**  
**LRC-LXXIII (73) – B**

**“Novel In-situ Sorbent Activation Process (SAP) – An Evaluation of North Dakota Lignite and Lignite Byproduct Feasibility to Reduce Mercury in Exhaust Gases Over an Extended Period of Time”**

Submitted by: Great River Energy;  
Request for: \$400,000; Total Project Costs: \$1,045,000;  
Principal Investigators:  
Greg Archer, Charlie Bullinger, Ramsay Chang, Diane Stockdill;  
Project Duration: 12-16 Months.

**Description of the Project:**

The overall objective of the proposed project is to test the commercial application of EPRI’s patented mercury control technology (SAP) at commercial scale and over a longer duration on North Dakota lignite at Great River Energy’s Coal Creek Station. Specific objectives are; 1) to confirm that ND lignite is a viable feedstock for a commercially scaled SAP providing activated carbon (AC) for Hg control, 2) to evaluate the Coal Creek Station’s baghouse fines that are collected from DryFine processing 3) to confirm SAP generated carbon will preserve ash sales, 4) to assess CaBr<sub>2</sub> optimization as a boiler additive versus as a SAP additive, and 5) to complete an economic analysis and provide a full-scale design.

**Technical Advisor’s Recommendation: Fund**

Fund subject to the following:

- Matching Funding received from all the parties.

**Conflict of Interest:**

Great River Energy