

**Grant Round Application for LRC LXXIX (79)-E**

**TECHNICAL ADVISOR'S SUMMARY and RECOMMENDATION**

**LRC-LXXIX (79)-E**

***“Pathway to Low-Carbon Lignite Utilization”***

**Submitted by: Energy and Environmental Research Center**

**Request for: \$1,480,000; Total Project Costs: \$3,180,000**

**Principal Investigator: Michael Holmes.**

**Description of the Project:**

This project will focus on answering key questions on technical issues with the next generation on lignite based, low carbon options for energy generation systems. This specific project work is a key step on the path to develop the revolutionary technology which is referred to as the Allam Cycle. While the end goal is focused on the development of a mature lignite-based Allam Cycle, the work identified during this phase can largely be applied to other supercritical CO<sub>2</sub> (sCO<sub>2</sub>) power cycles

**Technical Advisor's Recommendation: Fund**

Fund subject to the following:

- Matching Funding received from all the parties
- Technical advisor participates in Advisory group
- Question on in-kind contributions are acceptable to the Technical Advisor

**Conflict of Interest:**

Minnesota Power  
BNI  
Basin  
Dakota Gasification  
EERC