

Grant Round Application for LRC-LXXVIII (78)-B

TECHNICAL ADVISOR'S SUMMARY and RECOMMENDATION

LRC-LXXVIII (78)-B

***“Demonstration of Pilot-Scale Hydrogen and CO₂ Separation
Membrane Technology on Lignite-Derived Syngas”***

Submitted by: Energy and Environmental Research Center

Request for: \$225,000; Total Project Costs: \$2,039,608

Principal Investigators: Joshua J. Stanislawski, Tyler J. Curran,
Michael L. Swanson

Description of the Project:

The goal of the proposed project is to conduct a pilot-scale demonstration of coal-to-hydrogen production technology using warm-gas cleanup techniques and hydrogen separation membranes. Five separate tasks will be performed to enable the demonstration of the technology. Tasks 1 and 2 will involve membrane acquisition and installation, and additional modifications to the TRDU and warm-gas cleanup system will be needed to facilitate the test runs. The test runs will occur in Task 3, and the data derived will be used in an economic analysis to be conducted in Task 4. Task 5 is for management and reporting. Tasks 1 and 2 are currently under way with the project sponsors, and Tasks 3 and 4 will begin in December 2014.

Technical Advisor's Recommendation: Fund

Fund subject to the following:

- Matching Funding received from all the parties
- Technical advisor participates in an Advisory group

Conflict of Interest:

Basin Electric