"Demonstration of Gas-Powered Drilling Operations for Economically Challenged Wellhead Gas and Evaluation of Complementary Platforms"

Submitted by:

Energy & Environmental Research Center

- ☐ Request for \$750,000
- □Total Project Costs \$1,900,000

PROJECT DESCRIPTION

The proposed project will explore, identify, and demonstrate technologies for utilizing wellhead gas. The project will demonstrate collection, transportation, and fueling of a diesel engine power system for a drilling operation using pipeline or "lean" gas and demonstrate the powering of a drilling operation utilizing delivery of compressed Bakken Formation associated gas. The results are intended to encourage and promote the use of new technologies that have a positive economic and environmental impact on oil and gas exploration. Results will provide producers with a technical evaluation of gas-fired bi-fuel diesel power for drilling operations, a demonstration of compressed natural gas (CNG) transport and delivery, and expanded markets for Bakken Formation associated gas.

TECHNICAL REVIEWERS' RATING SUMMARY

| | | Technical Reviewer | | | <u>Average</u> |
|----------------------------|---------------|--------------------|---------------|---------------|-----------------|
| Rating | Weighting | <u>24A-04</u> | <u>24A-05</u> | <u>24A-06</u> | <u>Weighted</u> |
| Category | <u>Factor</u> | | | | <u>Score</u> |
| Objectives | 9 | 4 | 4 | 4 | 36 |
| Availability | 7 | 4 | 4 | 2 | 21 |
| Methodology | 8 | 4 | 4 | 2 | 24 |
| Contribution | 8 | 4 | 3 | 3 | 24 |
| Awareness / Background | 5 | 3 | 3 | 3 | 15 |
| Project Management | 3 | 4 | 3 | 2 | 9 |
| Equipment / Facilities | 2 | 3 | 4 | 4 | 6 |
| Value / Industry-Budget | 4 | 4 | 4 | 4 | 16 |
| Financial Match – Budget | 4 | 3 | 4 | 4 | 12 |
| Average Weighted Score | | 189 | 184 | 151 | 174 |
| Maximum Weighted Score | | | | | 250 |

TECHNICAL REVIEWER TOTALS

24A-04

Average Weighted Score: 189 out of 250

FUND

24A-05

Average Weighted Score: 184 out of 250

FUND

24A-06

Average Weighted Score: 151 out of 250

FUNDING MAY BE CONSIDERED

DIRECTOR'S RECOMMENDATIONS

Recommendation:

To fund in the amount \$750,000