## **Technical Reviewers' Rating Summary**

Proposal Number G-029-07

Application Title Bakken Production Optimization Program

Submitted By Energy and Environmental Research Center

Request For \$3,000,000.00

Total Project Costs \$6,000,000.00

## **Section A. Scoring**

DO NOT FUND

Statement	Weight	G-029-E	G-029-F	G-029-G	Avg. Score
1. Objectives	9	3	5	3	33
2. Achievability	7	3	4	4	25
3. Methodology	8	3	4	3	26
4. Contribution	8	4	5	4	34
5. Awareness / Background	5	5	4	5	23
6. Project Management	3	2	3	3	8
7. Equipment / Facilities	2	5	4	4	8
8. Value / Industry - Budget	4	3	4	4	14
9. Financial Match - Budget	4	4	5	4	17
Avg. Weighted Score		173	218	185	192
OVERALL					
FUND		X	X	X	
TO BE CONSIDERED					

## **Section B. Ratings and Comments**

1. The objectives or goals of the proposed project with respect to clarity and consistency with North Dakota Industrial Commission/Oil and Gas Research Council goals are:

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- Reviewer: G-029-E
- Rating: 3 (Clear)
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- Applicant

"The program is specifically designed to promote efficient, economic, and environmentally sound exploration, development, and use of North Dakota's oil and gas resources. This end is clearly demonstrated by the producer support for the project."

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- Reviewer: G-029-F
- Rating: 5 (Exceptionally Clear)
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- Applicant

"The proposal casts a wide net across the Bakken development landscape. One could say it doesn't provide clear objectives in any of the specific focus areas, but taken together represents a set of efforts targeted at some of the most important needed improvement areas."

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- Reviewer: G-029-G
- Rating: 3 (Clear)
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2. With the approach suggested and time and budget available, the objectives are:

6699

- Reviewer: G-029-E

- Rating: 3 (Likely Achievable)

6699

- Applicant

"As the industry is entering the efficiency stage of development & investigating cost improvements. The proposed program is timely. The objectives are parallel to the producer's interests which are expected to continue in the coming years. The objectives are likely achievable within the time and budget."

- Reviewer: G-029-F

- Rating: 4 (Most Likely Achievable)

6699

- Applicant

"The EERC has the track record of identifying and working on projects that are well supported and participated by industry. These set of focus areas are very timely for the phase of development the Bakken is moving into...efficiency improvement and cost reduction."

- Reviewer: G-029-G

- Rating: 4 (Most Likely Achievable)

6699

3. The quality of the methodology displayed in the proposal is:

6699

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- Reviewer: G-029-E
- Rating: 3 (Average)
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- Applicant

"It is understood that the project is longer term and flexible. The specific method is to pursue the areas of: Site logistics, hydrocarbon utilization, water management, well optimization, & outreach."

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- Reviewer: G-029-F
- Rating: 4 (Above Average)
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- Applicant

"The proposed focus areas are well defined and represent important challenges in the Bakken development. A challenge for EERC will be to balance the needs of many parties who often have different priorities, resources, interests and timetables....to allow time for scientific inquiry but also to drive for closure on specific projects and deliverables. It is not clear how this methodology works at EERC."

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- Reviewer: G-029-G
- Rating: 3 (Average)
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4. The scientific and/or technical contribution of the proposed work to specifically address North Dakota Industrial Commission/Oil and Gas Research Council goals will likely be:

- Reviewer: G-029-E

- Rating: 4 (Very Significant)

6699

- Applicant

"The EERC has a demonstrated track record of providing meaningful scientific and technical contributions to the NDIC."

- Reviewer: G-029-F

- Rating: 5 (Extremely Significant)

6699

- Applicant

"The identified focus areas, along with the EERC track record, will result in many scientific and technical contributions that are of interest to NDIC."

- Reviewer: G-029-G

- Rating: 4 (Very Significant)

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5. The background of the principal investigator and the awareness of current research activity and published literature as evidenced by literature referenced and its interpretation and by the reference to unpublished research related to the proposal is:

- Reviewer: G-029-E- Rating: 5 (Exceptional)

- Applicant

"The principal investigator demonstrates an awareness of the pulse of the oil and gas industry in North Dakota and utilizes published literature to illustrate the justification of the research approach. Specifics may have been illustrated in an appendix to provide case studies, or examples of the methodology proposed."

- Reviewer: G-029-F - Rating: 4 (Better Than Average)

- Applicant

"The participants have extensive and relevant backgrounds for the scope of projects proposed."

- Reviewer: G-029-G - Rating: 5 (Exceptional)

6. The project management plan, including a well-defined milestone chart, schedule, financial plan, and plan for communications among the investigators and subcontractors, if any, is:

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- Reviewer: G-029-E
- Rating: 2 (Inadequate)

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- Applicant
"management plan is adequate."
- Reviewer: G-029-F
- Rating: 3 (Adequate)
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- Applicant

"As mentioned, each focus area has somewhat open ended objectives and, therefore, ill-defined project management plans. However, given the consortium nature of these studies this flexibility is required. The benefits of having active participation by leading oil operators outweighs the looseness of the plan."

- Reviewer: G-029-G - Rating: 3 (Adequate)

8. The proposed budget "value"1 relative to the outlined work and the commitment from other sources is 6699 - Reviewer: G-029-E - Rating: 3 (Average Value)

- Applicant

"A 50/50 cost share is proposed."

- Reviewer: G-029-F - Rating: 4 (High Value)

- Applicant

"Most of Budget dedicated to Labor for researchers and Fees/Services. This is explained clearly and will be well documented in reports for the various individual projects."

- Reviewer: G-029-G - Rating: 4 (High Value)

- 9. The "financial commitment"2 from other sources in terms of "match funding" have been identified:
  - Reviewer: G-029-E - Rating: 4 (High Value)
  - Applicant
  - "60% of the funds for the entire 3-year program have been committed by the largest producers in the Williston Basin."
  - Reviewer: G-029-F
  - Rating: 5 (Very High Value)

6699

- Applicant
- "Matching 50/50 funding with leading industry oil operators is a good balance. The operators will also donate significant internal resources to the projects, which means the NDIC dollars are well leveraged."
- Reviewer: G-029-G - Rating: 4 (High Value)
- Applicant

## **General Comments**

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- Reviewer: G-029-E

"Significant support from the producers is provided for this project. The EERC has an excellent track record with the NDIC and is fully expected to deliver a high quality project. It is recommended that the OGRC obtain deadlines for topical reports as the topics are elucidated over the course of the project."

- Reviewer: G-029-F

"The proposal differs from most in that it represents a multi-year program of loosely defined projects. However, given the excellent track record of EERC, participation by three leading oil operators, and the timely focus areas to be addressed this proposal has high value to NDIC."

- Reviewer: G-029-G

1 "value" – The value of the projected work and technical outcome for the budgeted amount of the project, based on your estimate of what the work might cost in research settings with which you are familiar. A commitment of support from industry partners equates to a higher value.

2 "financial commitment" from other sources – A minimum of 50% of the total project must come from other sources to meet the program guidelines. Support less than 50% from Industrial Commission sources should be evaluated as favorable to the application; industry partnerships equates to increased favorability.