

# Technical Reviewers' Rating Summary

Proposal Number  Application Title  Submitted By  Request For  Total Project Costs

## Section A. Scoring

Statement	Weighting Factor	G-51-05B	G-51-05B	G-51-05C	Average Weighted Score
1. Objectives	9	4	4	3	27
2. Achievability	7	4	4	4	28
3. Methodology	8	5	4	3	32
4. Contribution	8	5	5	4	32
5. Awareness / Background	5	3	4	4	15
6. Project Management	3	4	4	5	12
7. Equipment / Facilities	2	5	4	3	8
8. Value / Industry - Budget	4	4	4	5	16
9. Financial Match - Budget	4	5	5	5	20
<b>Average Weighted Score</b>		<b>217</b>	<b>212</b>	<b>192</b>	<b>207</b>

Total: 50

**250 possible points**

## OVERALL RECOMMENDATION

FUND X X X  
 FUNDING TO BE CONSIDERED  
 DO NOT FUND

## 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:

Leak detection and prevention is a key challenge facing the industry and ND. Developing new options to deal this issue clearly is consistent with the goals of the NDIC and OGRC.

- Reviewer: G-51-05B

- Rating: 4

This project is critically important with respect to achieving the NDIC/OGRC goals. To identify, evaluate and implement the best technology to insure pipeline integrity is of utmost importance to continue responsible energy development in North Dakota.

- Reviewer: G-51-05B

- Rating: 4

The proposed iPIPE project is a logical extension of prior legislatively mandated work performed by EERC, and is aligned with a directive from Governor Burgum to expedite research and development of pipeline monitoring systems to prevent and detect leaks.

- Reviewer: G-51-05C

- Rating: 3

The iPIPE Executive Committee appreciates the comments of the reviewers. We look forward to continuing to exceed expectations.

- Applicant

2. With the approach suggested and time and budget available, the objectives are:

Based on the success to date of the program and the additional industry support noted it appears that the commitment of additional dollars should result in a program that should meet the objectives outlined in the project.

- Reviewer: G-51-05B

- Rating: 4

I believe the timeline and budget to be reasonable, and since this project is underway and has demonstrated some early successes, the project risk is less than a start-up.

- Reviewer: G-51-05B

- Rating: 4

The approach, timeline, and budget are reasonable, with the possible caveat that all present members retain a presence in North Dakota, and are able to attract and engage additional members, as suggested. The EERC is a well known quantity with a proven record of quality work on past and current ND OGRP projects, but could potentially be handicapped by a loss of iPIPE members and corresponding access to their pipelines.

- Reviewer: G-51-05C
- Rating: 4

The iPIPE Executive Committee appreciates the comments of the reviewers. We look forward to continuing to exceed expectations. A significant portion of iPIPE membership will always have significant North Dakota footprint, but we are welcoming participants from other states. All results serve North Dakota priorities.

- Applicant

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

The fact that there is a yearly review of emerging technologies with "users" of the technologies voting on the potential benefit of testing and evaluation by a third party should lead to a unbiased evaluation. In addition since the end users were involved in selection of technologies to be evaluated implementation based on successful testing should be more likely. The goal is implementation not just evaluation.

- Reviewer: G-51-05B
- Rating: 5

The methodology outlined employs significant upstream and midstream industry involvement as well as EERC/Research talent, providing broad knowledge, exposure and experience. This should provide balanced recommendations and insure that technology that is evaluated and recommended will be readily accepted by industry.

- Reviewer: G-51-05B
- Rating: 4

Management methodology and approach to the project are satisfactory, but specifics are necessarily vague, due to uncertainty of the type and number of pipeline monitoring technologies to be evaluated. EERC has existing experience in this area of pipeline monitoring, due to prior work on a legislatively mandated study, providing knowledge of working methodologies.

- Reviewer: G-51-05C
- Rating: 3

The iPIPE Executive Committee appreciates the comments of the reviewers. We look forward to continuing to exceed expectations.

- Applicant

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:

Leak prevention and rapid detection remains a key challenge for the State of ND and the industry. A proactive program to evaluate new technologies under development has the potential to contribute greatly to address the goals of the NDIC and OGRC.

- Reviewer: G-51-05B
- Rating: 5

As mentioned above, continuation of this project is critically important with respect to achieving the NDIC/OGRC and industry goals. To identify, evaluate and implement the best technology to insure pipeline integrity is of utmost importance to responsible energy development in North Dakota.

- Reviewer: G-51-05B
- Rating: 5

Advances made by this project will directly result in scientific and technological advancements that will help to meet stated goals of the ND OGRP, and specifically those set out by Governor Burgum, of making North Dakota an industry leader, in regard to pipeline spill prevention and detection.

- Reviewer: G-51-05C
- Rating: 4

The iPIPE Executive Committee appreciates the comments of the reviewers. We look forward to continuing to exceed expectations.

- Applicant

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:

The reputation of the group running the program is very good but additional information on principals like the point of contact was not included.

- Reviewer: G-51-05B
- Rating: 3

The project has strong commitment from industry and EERC investigators.

- Reviewer: G-51-05B
- Rating: 4

The founding industry members of the consortium include oil and gas operators and midstream companies representing some of the largest and most successful within North Dakota, and the EERC managing entity is a proven standard in the management of research projects within North Dakota, as well as around the nation. The program practice of rotating leadership of the executive committee regularly will increase the likelihood of the full spectrum of ideas and innovations being addressed.

- Reviewer: G-51-05C
- Rating: 4

The iPIPE Executive Committee appreciates the comments of the reviewers. We look forward to continuing to exceed expectations.  
- Applicant

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:

The proposers have a well established set of milestones and plans for assuring good communication between the participants in the program

- Reviewer: G-51-05B

- Rating: 4

No comment

- Reviewer: G-51-05B

- Rating: 4

All aspects of this portion are well addressed as is typical of all programs involving the EERC in a management role. The financial plan includes contingencies for the addition of new members and funding, while being fair to the original founding members foresight and initiative to begin funding for this project. A very detailed planning chart is included with documented points for starting each technology demonstration, and for ND OGRP reporting.

- Reviewer: G-51-05C

- Rating: 5

The iPIPE Executive Committee appreciates the comments of the reviewers. We look forward to continuing to exceed expectations.  
- Applicant

7. The proposed purchase of equipment and the facilities available is:

No equipment will be purchased under this program. A trailer was equipped for monitoring testing is pipeline test equipment under a earlier program and will be used in this activity.

- Reviewer: G-51-05B

- Rating: 5

The nature of the project is to be forward looking by evaluating cutting edge technologies that will increase pipeline integrity, so it isn't possible to specifically identify the proposed purchase of equipment and facilities. I believe the proposal and methodology is appropriate to the goals in this area.

- Reviewer: G-51-05B

- Rating: 4

The equipment required for the project is expected to be primarily in-kind contributions from the organizations providing the technologies, and existing member owned pipelines facilities, already in operation. The EERC will use an existing trailer equipped with necessary monitoring and recording equipment need to evaluate the technology performance. Equipment purchases appear to be minimal for the project.

- Reviewer: G-51-05C

- Rating: 3

The iPIPE Executive Committee appreciates the comments of the reviewers. We look forward to continuing to exceed expectations.  
- Applicant

8. The proposed budget "value"1 relative to the outlined work and the commitment from other sources is of:

No comment

- Reviewer: G-51-05B

- Rating: 4

This project being a forward looking project, it is difficult to project the value of the technologies that may identified over time. However, the project with help insure that the best and most effective technologies for pipeline integrity are evaluated and and implemented in a timely fashion.

- Reviewer: G-51-05B

- Rating: 4

The value of the data obtained from this project is very high. It is extremely unlikely an evaluation of multiple technologies, by any combination of oil and gas industry operator and supplier, would ever be attempted, with the same wide scope, and rapid data availability to the industry, as could be realized by this public and private industry funded cooperative project.

- Reviewer: G-51-05C

- Rating: 5

The iPIPE Executive Committee appreciates the comments of the reviewers. We look forward to continuing to exceed expectations.  
- Applicant

9. The "financial commitment"2 from other sources in terms of "match funding" have been identified:

The success in adding additional companies to the consortium indicates that the industry sees real value in this activity. Total funding from industrial sources is at least 50%.

- Reviewer: G-51-05B  
- Rating: 5

The original proposal anticipated increased industry financial participation, which has occurred. The project managers have done a good job of attracting participation with very impressive cash and in-kind participation.

- Reviewer: G-51-05B  
- Rating: 5

The project has committed to never exceeding 50% funding level from the ND OGRP. Plans are in place to incrementally add additional ND OGRP funds as new members join the consortium and contribute their funding requirements. The ND OGRP and new member contributions will be incrementally adjusted to maintain the required maximum 50% ND OGRP funding, while also being fair to the original founding members, who initially funded the project.

- Reviewer: G-51-05C  
- Rating: 5

The iPIPE Executive Committee appreciates the comments of the reviewers. We look forward to continuing to exceed expectations.  
- Applicant

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.

## **General Comments**

Pipeline safety is a key challenge for the continued growth of the oil and gas industry in the state. The way this program is structured with a consortium of industrial companies and the State of ND means cost for each party are less and results are available to both parties. State participation allows the state to be aware of advances in technology that can be used to enhance the safety of pipelines within the state and the companies are aware of new technologies that they can implement. Both parties will see real value by working together on this project.

- Reviewer: G-51-05B

I believe this is an important project that should be funded, and is well supported by a structure with broad industry and technical participation.

- Reviewer: G-51-05B

The potential data from this project is needed for the oil and gas industry to continue operating around the state and even the nation. Failure to show any attempt to reduce or prevent pipeline leaks will be viewed by the public as more reason to oppose those infrastructure needs like pipeline construction. Technologies evaluated by this program potentially could provide both prevention and detection, while helping to convince the public of the industry's desire to do the same. Politicians and regulators are heavily swayed by public opinion, regardless of the accuracy of that opinion, and any efforts to provide the public with assurances of industry diligence in the area of spill prevention and detection will yield benefits to the oil and gas industry.

- Reviewer: G-51-05C