

TECHNICAL REVIEWERS' RATING SUMMARY

R001-B

Landfill Gas Renewable Energy Project

Submitted by City of Fargo

Principal Investigators: Terry Ludlum

Request for \$500,000; Total Project Costs \$1,090,000

<u>Rating Category</u>	<u>Weighting Factor</u>	<u>Technical Reviewer</u>		<u>Average Weighted Score</u>
		<u>1</u>	<u>2</u>	
Objectives	9	1	3	18.00
Achievability	9	4	5	40.50
Methodology	7	3	5	28.00
Contribution	7	2	2	14.00
Awareness	5	3	1	10.00
Background	5	4	5	22.50
Project Management	2	4	5	9.00
Equipment Purchase	2	2	5	7.00
Facilities	2	3	5	8.00
Budget	2	2	2	4.00
Average Weighted Score		137	185	161.00
Maximum Weighted Score				250.00

OVERALL RECOMMENDATION

Fund	
Funding May Be Considered	X
Do Not Fund	X

R001-B
Landfill Gas Renewable Energy Project
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- 1. The objectives or goals of the proposed project with respect to clarity and consistency with North Dakota Industrial Commission/Renewable Energy Council goals are: 1 – very unclear; 2 – unclear; 3 – clear; 4 – very clear; or 5 – exceptionally clear.**

Reviewer 1 (Rating: 1)

Because this proposal is simply a duplication of a project the Fargo City Landfill already has in place, it doesn't appear to meet most, if not all, of the Renewable Energy Council's goals and objectives for grant priority. It is a good project for the City of Fargo, but it doesn't seem to be a fit for this program.

Reviewer 2 (Rating: 3)

The objectives are very clear – to use an alternative energy source and demonstrate the process. The project expands a functioning methane capture and utilization project, so no new technology is used.

- 2. With the approach suggested and time and budget available, the objectives are: 1 – not achievable; 2 – possibly achievable; 3 – likely achievable; 4 – most likely achievable; or 5 – certainly achievable.**

Reviewer 1 (Rating: 4)

The approach suggested is clearly achievable because again it is simply a duplication of a project the Fargo Landfill implemented in 2007.

Reviewer 2 (Rating: 5)

Expands an existing similar methane project.

- 3. The quality of the methodology displayed in the proposal is: 1 – well below average; 2 – below average; 3 – average; 4 – above average; or 5 – well above average.**

Reviewer 1 (Rating: 3)

The methodology has already been demonstrated.

Reviewer 2 (Rating: 5)

The methodology is proven.

- 4. The scientific and/or technical contribution of the proposed work to specifically address North Dakota Industrial Commission/Renewable Energy Council goals will likely be: 1 – extremely small; 2 – small; 3 – significant; 4 – very significant; or 5 – extremely significant.**

Reviewer 1 (Rating: 2)

Because a duplicate project is already in place and operating, there is not real additional scientific or technical contribution to be attributed to this project.

Reviewer 2 (Rating: 2)

It expands an existing system that is essentially the same.

- 5. The principal investigator's 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: 1 – very limited; 2 – limited; 3 – adequate; 4 – better than average; or 5 – exceptional.**

Reviewer 1 (Rating: 3)

There is certainly no issue with the project manager's ability to oversee this project or with his knowledge of current research activity and published data related to the capture and use of landfill gas.

Reviewer 2 (Rating: 1)

No research is required – it uses existing technology.

- 6. The background of the investigator(s) as related to the proposed work is: 1 – very limited; 2 – limited; 3 – adequate; 4 – better than average; or 5 – exceptional.**

Reviewer 1 (Rating: 4)

As stated previously, the project manager is well suited to oversee the proposed work.

Reviewer 2 (Rating: 5)

Fargo has an existing project.

- 7. 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: 1 – very inadequate; 2 – inadequate; 3 – adequate; 4 – very good; or 5 – exceptionally good.**

Reviewer 1 (Rating: 4)

Again, because this is a duplication of a previous undertaking, the project management plan, financial plan, and communications plan is based on very recent past experience and is well stated.

Reviewer 2 (Rating: 5)

Management plan utilizes standard operating procedure.

- 8. The proposed purchase of equipment is: 1 – extremely poorly justified; 2 – poorly justified; 3 – justified; 4 – well justified; or 5 – extremely well justified. (Circle 5 if no equipment is to be purchased.)**

Reviewer 1 (Rating: 2)

The equipment to be purchased is a 925 kilowatt generator which would match the one already at the landfill. What is not justified is the need for Renewable Energy Council funding of the generator, since the first phase of the project was estimated to have a very short payback period for the City of Fargo.

Reviewer 2 (Rating: 5)

The generator is required to use the methane to generate electricity.

- 9. The facilities and equipment available and to be purchased for the proposed research are: 1 – very inadequate; 2 – inadequate; 3 – adequate; 4 – notably good; or 5 – exceptionally good.**

Reviewer 1 (Rating: 3)

The proposal does not involve research per se, but the equipment to be purchased is adequately justified.

Reviewer 2 (Rating: 5)

Repeats a functioning system.

- 10. The proposed budget “value” relative to the outlined work and the financial commitment from other sources is of: 1 – very low value; 2 – low value; 3 – average value; 4 – high value; or 5 – very high value. (See below)**

Reviewer 1 (Rating: 2)

Total project costs are \$1,090,000 and the proposal requests \$500,000 (46%) of the funding from the Renewable Energy Fund. There is no private sector funding involved. Again, the first phase of the project had a very short estimated payback period, so there doesn't appear to be adequate justification of the need for state Renewable Energy Council funding.

Reviewer 2 (Rating: 2)

The project will be environmentally beneficial and will reduce the city's electrical cost. However, the technical/research value of the project is very low.

Financial commitment from other sources – A minimum of 50% of the total project must come from other sources to meet the program guidelines. Higher priority is to be given if the application has private industry investment equal to or at least 50% or more of total cost.

The minimum 50% cash match is demonstrated.

Section C. Overall Comments and Recommendations:

Please comment in a general way about the merits and flaws of the proposed project and make a recommendation whether or not to fund.

Reviewer 1 (Do Not Fund)

In the opinion of this reviewer, this proposal is simply a duplication or second phase of a project the City of Fargo has already implemented which appears to be operating well. It doesn't meet the intent of the Renewable Energy Council's program and should not be funded.

Merits

- The original project involving the capture of landfill gas and using it to generate electricity for landfill use and sale back to the local rural electric cooperative was unique to North Dakota. It serves as great example of utilizing a readily available renewable energy resource in a manner that benefits the citizens of Fargo both economically and environmentally.
- The proposed duplication of that original project and the outlined timeframe, budget, and project management are certainly well established and based on historical data.

Flaws

- This project does not appear to address the goals and objectives of the Renewable Energy Council's funding program. It doesn't create new renewable energy jobs, it doesn't generate new information and knowledge to bring new companies and investment to ND, it doesn't develop renewable energy technologies not currently used in ND, it doesn't develop new baseline information that will lead to other projects, etc.
- The previous landfill gas capture project in Fargo had a very positive economic return and short payback period, so it is difficult to understand why state funds are needed to accomplish the follow-up phase.
- There is no added value or new approach to this project that would be realized by the Renewable Energy Council program.

Reviewer 2 (Funding May Be Considered)

The project uses a renewable energy, but since the project duplicates an existing system, the project does not meet priorities for funding.