

R028-B: Integrated Carbon Capture and Storage for North Dakota Ethanol Production

Submitted by EERC

Principal Investigator: Kerryanne Leroux

Request for \$490,000; Total Project Costs \$980,000

Technical Advisor Comments

- All 3 reviewers recommended fund.
- Of the 50% match, \$290,000 comes from Red Trail Energy (cash & inkind) and \$200,000 comes from DOE (cash).
- All 3 reviewers felt the objectives were achievable. However, 1 reviewer felt that the timeline was a bit short.
- All 3 reviewers felt the methodology was appropriate.
- All 3 reviewers felt that the project team was knowledgeable. 1 reviewer commented, "EERC is a national leader in carbon sequestration technology." Another commented, "They have brought in the most knowledgeable companies in North America on each of the specialties needed."
- 2 reviewers were comfortable with the management plan. 1 reviewer stated, "For such a short time frame they will need tight communications and agreed milestones. Not a lot of these are documented, although they are noted as something needed."
- Overall, 1 reviewer stated "This is an excellent project, which has the potential to expand markets and carbon storage potential in the State of North Dakota."
- Overall, another reviewer stated "...The direct value of carbon sequestration to the government and peoples of North Dakota, and the timing thereof, are dependent upon politics at the national level, particularly relating to carbon taxes and the like. This project would serve as an investment by the state government in green technology that may pay dividends in the future."

Technical Advisor Recommendations

Fund. This project provides an excellent opportunity to partner a premier ND research facility with a ND industry. If successful, the project could benefit ND's ethanol industry overall. While there is uncertainty in national policy regarding carbon, the issue of carbon is not likely to go away. It is therefore in the best interest of the industry to move forward in researching options of dealing with carbon.

Additionally, the fact that DOE is providing funding for the project enhances the significance and credibility of the project even further. This is an opportunity for ND to be a leader in the nation.

The indirect cost is high (\$164,419 proposed for the NDIC and \$265,279 total.) It would be nice if more of the indirect costs could be shifted to DOE's match.

Suggested Contingencies If Funded

- If the applicant is able, shift indirect expenses to DOE and Red Trail.