

TECHNICAL REVIEWERS' COMMENTS LRC-LXXIV (74) – B

"Annual Lignite Energy Council Education Seminar: Energy, Economics & Environment"

1. OBJECTIVES

The objectives or goals of the proposed project with respect to clarity and consistency with North Dakota Industrial Commission/Lignite Research Council goals are: 1 – very unclear; 2 – unclear; 3 – clear; 4 – very clear; or 5 – exceptionally clear.

Reviewer 01-01 (Rating 4)

Goals of the seminar are to educate teachers with the result of information dissemination to students to promote job opportunities and maintain a positive public image. Effective promotion of the lignite industry helps to create a favorable environment for continued growth and development of the industry. Additionally, promotion of job opportunities helps ensure a steady workforce.

Reviewer 01-02 (Rating 4)

Yes, the Education Seminar addresses Lignite Research Council's job goals by providing education professionals with information and resources that grant them the ability to encourage students to explore a career in the lignite energy industry.

2. ACHIEVABILITY

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 01-01 (Rating 5)

The individuals responsible for coordinating the seminar have a great deal of experience and should have no issues organizing the event based on available time & resources. A plan of action is not included in the timetable.

Reviewer 01-02 (Rating 4)

The four-day timeline provides adequate time for a variety of activities – tours, lectures, and providing educational resources – that expose the seminar attendees to the industry.

While the educators are encouraged to develop lesson plans so they can earn college credits for attending the seminar, no follow-up appears to be made to see if these lesson plans are used.

3. METHODOLOGY

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 01-01 (Rating 3)

Rationale for purpose and benefits of seminar fit with LRC goals. Plan includes brief overview of activities to be part of seminar. Additional details on components of seminar should be included.

Ability to measure success of seminar could be improved. It would be interesting to survey past attendees to see if including lignite education in their curriculum has had an effect on how many of their students go into industry-related careers.

Also a survey of attendees' opinions of the industry should be done prior to the seminar so results can be compared with post-seminar survey.

Reviewer 01-02 (Rating 4)

A good variety of activities are presented to expose the educators attending the seminar to the industry. However, the teachers attending do not appear to represent a targeted group, very broad – superintendents, principals and teachers at all grade levels. Targeting of specific educators – math and science teachers, and guidance counselors – may help get more of a “career” focus.

4. **CONTRIBUTION**

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

Reviewer 01-01 (Rating 3)

The seminar will promote the lignite industry in North Dakota and raise awareness of job opportunities and the economic impact of the industry.

Reviewer 01-02 (Rating 3)

While this activity is more public relations focused, it does support the Lignite Research Council’s job and marketing goals.

5. **AWARENESS**

The principal investigator’s awareness of other 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 01-01 (Rating 4)

Purpose and mission of LEC connected to ND legislation. Results of most current economic impact study of the lignite industry show significance of industry and importance of maintaining an environment favorable to industry growth.

Reviewer 01-02 (Rating 5)

Yes, as the industry trade association, the Council is the appropriate entity, possessing the knowledge and having the resources needed, to perform the proposed activity.

6. **BACKGROUND**

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 01-01 (Rating 5)

Investigator’s experience includes 25+ years of industry knowledge and serving as LRC chair. Others on staff who assist with the seminar also have significant industry experience applicable to the goals of the seminar.

Reviewer 01-02 (Rating 5)

The Lignite Energy Council representatives involved in the project have a more than adequate background to conduct the proposed work.

7. **PROJECT MANAGEMENT**

The project management plan, including a well-defined milestone chart, schedule, financial plan, and plan for communications among the parties involved in the project, is: 1 – very inadequate; 2 – inadequate; 3 – adequate; 4 – very good; or 5 – exceptionally good.

Reviewer 01-01 (Rating 3)

Project management plan includes financial plan and responsibilities on individuals involved; no milestone chart or schedule are included.

Reviewer 01-02 (Rating 4)

Barring the evaluation completed at the close of the seminar, the project appears to lack an instrument to determine the effectiveness of the program.

8. **EQUIPMENT PURCHASE**

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 01-01 (Rating 5)

N/A.

Reviewer 01-02 (Rating 4)

No response

9. **FACILITIES**

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 01-01 (Rating 5)

Use of Bismarck State College NECE facilities ties nicely into seminar. Tours included are appropriate and key to adding value to the seminar.

Reviewer 01-02 (Rating 4)

The budget for the seminar is realistic.

10. **BUDGET**

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.

Reviewer 01-01 (Rating 5)

Proposed budget including matching and in-kind contributions is well documented by categories and appropriate for the planned activities.

Reviewer 01-02 (Rating 4)

Supporting the lignite energy industry, which the principal investigator purports comprises nearly 7 percent of North Dakota' total economic base, is critical particularly if the industry is facing a 50 percent retirement bubble in the near future. The cost of providing this educational seminar is minor in comparison to the need to increase career interest in the industry.

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 01-01 (Rating: FUND)

It appears the seminar will be successful at accomplishing the goals outlined in the abstract. However, additional information should be included detailing specific components of the planned curriculum. Additional more measureable success standards should be incorporated.

Reviewer 01-02 (Rating: FUND)

I believe the goals of the seminar and the proposed budget are realistic, and the need to foster interest in the industry is evident. I would support continued funding for the project. That said, there is always room for improvement.

While the proposed seminar obviously has excellent industry support as evidenced by the variety of activities the Lignite Energy Council is able to offer and while the seminar attendees are encouraged to write lessons plans to receive credit for participation, the program lacks an instrument to measure its effectiveness. Follow-up should be made down the road, months after the seminar has been completed, to ask how the attendee has incorporated the material into their lesson plans. If they are not using the material, why?

The seminar is also open to a broad group of education professionals without an indication if an effort is made to break the material out into what are appropriate grade levels. Suggest that the Lignite Energy Council work with the Department of Public Instruction to ensure that the material presented is appropriate for the grade levels of the educators that attend the seminar. Targeting particular educators and providing materials appropriate to particular grade levels will make the seminar more effective.