

Minutes of the
RENEWABLE ENERGY COUNCIL

Wednesday, March 4, 2009

Great River Energy
Bismarck, North Dakota

CALL TO ORDER

Shane Goettle, Chairman, called the Renewable Energy Council meeting to order at 8:30 am.

Members Present: Shane Goettle, Al Christianson, Terry Goerger, Mark Nisbet, and Randy Schneider.

Others Present:

Jim Boyd, Department of Commerce
Andrea Pfennig, Department of Commerce
Karlene Fine, Industrial Commission
Joleen Leier, Department of Commerce
Norm Miller, ComPAKco
Chris Martin, EERC
Zac Smith, Atty. General – Natural Resources Division
Jack E. Johnson, ComPAKco
John Weeda, Great River Energy
Jeff Zueger, Blue Flint Ethanol
Mike Briggs, The Falkirk Mining Company
Valerie Kummer, American Lung Assoc. of ND

WELCOME

Shane Goettle welcomed the members of the Renewable Energy Council. Roll call was taken and introductions were made by those present.

APPROVAL OF MINUTES

January 5, 2009 meeting minutes were reviewed. **Randy Schneider moved to approve the minutes. Terry Goerger seconded the motion. Motion passed.**

PRESENTATION OF FINANCIAL SUMMARIES

Fine reviewed the balance of the Renewable Energy Fund. There is currently \$309,221 available prior to this grant round.

Fine reviewed the balance of the Biomass Incentive and Research Fund. There is currently \$1.9 million funds available.

Conflicts – Schneider with Ethanol fuels and Christianson will all projects except Biomass Gasification.

CONSIDERATION OF GRANT ROUND 5 APPLICATIONS

R005-B: "Corn Oil Extraction"; Submitted by Headwaters Incorporated and Great River Energy; Principal Investigator: Jeff Zueger; Project Duration: 5 months; Total Project costs: \$2,000,000; Request for: \$500,000

Pfennig reviewed the objectives of this grant application. All reviewers felt funding may be considered. The average weighted score was 167 out of 250.

Commerce's recommendation is not to fund. The main goal of the REP is to provide funding for research, development, marketing, and education. (1) Given that the technology is already established, we do not feel that the objective of the proposal clearly resonates with the main goal of the REP. (2) Because the project is only cost-effective with a grant award, it appears that this is more a financing project as opposed to a research, development, marketing, or education project.

Jeff Zueger presented for Blue Flint Ethanol. Blue Flint had contacted Goettle earlier. Goettle made recommendations to them for presentation points for today.

Goettle asked Zueger to expand on extraction process that is unique to this process.

In response to a question from Goettle, Zueger stated it has been employed minimally at this point. Has been done on a pilot basis by two companies. Heat exchanger and dewaxing is unique in this process.

In response to a question from Goettle, Zueger discussed balancing the amount of oil removed and the impact on distillers grains. This process will bring protein level up.

In response to a question from Goettle, Zueger stated fat is more essential in this climate. Product is sold in ND and MT generally. All corn is purchased from ND.

In response to a question from Goettle, Zueger stated a lot of seed companies are looking for higher starch content. Looking at yield, drought tolerance, short growth cycle, etc. in ND. Oil is secondary in ND. Looking to customize as to what the customers' needs are.

In response to a question from Goettle, product is moved by truck.

In response to a question from Goettle, has a lower carbon footprint.

In response to a question from Nisbet, dewax then is reused.

John Weeda of Great River Energy also presented.

In response to a question from Goettle, Weeda stated selling into a commodity market, last summer economics looked different than today. Need to look at risk management. 1.5 million gallons to extract of oil. It was indexed off biodiesel market. If moving to feed market, it was indexed off comparable oils.

In response to a question from Goettle, Weeda stated of \$150 million of annual revenue, this would be 1 percent of that revenue.

In response to a question from Goerger, Weeda explained products is \$1-2 per pound; \$2 might

be a little strong. Will have to compete with other oils. Looking to have a long term contract so they won't be out in the market.

In response to a question from Goerger, Weeda explained there is very strong feedstock in northern climates, cold flow properties are very good. They expect to gain ½ to 1 center for dewaxing.

In response to a question from Nisbet, Weeda stated they don't anticipate developing patents. Would like to promote additional corn oil extraction.

In response to a question from Goettle, Weeda stated if they have ICM technology they could match this process but will still have some differences. In older plants, this could be relevant but process would be different.

In response to a question from Goerger, Weeda explained the products is not food grade. Fractionation did not work for them. Fractionation is a challenge; does not currently work for economics.

In response to a question from Goettle, Weeda stated a cost project analysis could be done. Quotes from providers can be obtained.

In response to a question from Schneider, Weeda stated the product meets grade for biodiesel fuels.

In response to a question from Schneider, Weeda explained they met with nutritionists, Cenex market grains, and local users of distillers grains. They gave them guidelines to follow.

Schneider stated this is a great project, ethanol industry under great stress at this time. Great example of creating revenue stream. Great example of carbon footprint.

In response to a question from Goerger, Weeda stated they have letters of support. Biodeisel is the target.

Schneider pointed out they would not have to move product very far. Created and used in ND.

In response to a question from Goerger, this supports farm producers.

In response to a question from Goettle, 1 percent could mean the profit for the facility. Return time depends on the markets. Right now looking at 15 percent return on investment.

After much discussion, it was pointed out that one of the main reasons for consideration of this project is due to introducing new technology.

Christianson moved to include the following recommendations: (1) a detailed cost/profit analysis of the project is provided to the NDIC prior to contract; (2) a centrifuge system will be utilized; (3) the NDIC will be provided with a detailed quote from the selected technology provider prior to contract; (4) NDIC will receive recognition in all project related public relation efforts with the following reference: funded in part by the ND Industrial Commission Renewable Energy Program and (5) Project data and reports shall be provided to the NDIC & Commerce in both electronic and hard-copy formats with permission for unrestricted distribution. The electronic versions shall be in a suitable format for hosting on the Department of Commerce and Renewable Energy /council websites. Schneider seconded the motion. Roll call vote was taken. Motion passed.

R005-A: "Phase I Biomass Enhanced Refined Lignite Demonstration Project"; Submitted by ComPAKco, LLC; Principal Investigator: Norman Miller; Project Duration: 7 months; Total Project Costs: \$550,000; Request for: \$275,000.

Pfennig reviewed the objectives of this grant. Two reviewers felt funding may be considered and one reviewer felt the request should not be

funded. The average weighted score was 138.67 out of 250.

Commerce's recommendation was that funding may be considered if the presenters cleared up some issues from the technical review.

John Weeda from Great River Energy presented. Weeda introduced the team present.

In response to a question from Schneider, Weeda explained they extracted moisture and mercury sulfur.

Norm Miller of ComPAKer also presented.

In response to a question from Goettle, Miller stated the machine size is 4 ½ x 4 ½ x 7 ½ .

In response to a question from Schneider, Miller stated the breakdown is a blend of beneficiated coal, bioblend , and the balance is additives. The product does retain its structure in shipment.

In response to a question from Goerger, Miller stated they are more interested in grass products because it is plentiful in ND.

Mike Briggs from The Falkirk Mining Company also presented.

In response to a question from Goettle, Briggs explained that binders serve more than just binding. Process is crucial.

In response to a question from Schneider, Briggs stated grasses and binders are equal.

In response to a question from Schneider, Briggs explained enhanced density of material increases energy value. This is beneficial to transportation.

Schneider stated he feels comfortable that this is two separate projects. Also briquettes for grilling might be a possibility. Miller stated

there are broad horizons for many opportunities.

In response to a question from Schneider, stated there are no restrictions as to fund buildings.

In response to a question from Goettle, Briggs stated these would be new dollars for new project, no ties to previously funded project.

In response to a question from Nisbet, Briggs explained the coal is very clean coal.

In response to a question from Goerger, Briggs explained to get about the same BTUs it is approximately 1/3 cost for fuel itself.

Schneider stated he feels comfortable with the presentation; he feels it fills in the gaps. Schneider asked if we feel the Industrial Commission will also feel comfortable with all information present. Goettle state it would be their responsibility to thoroughly present to the Industrial Commission. Schneider feels prepared to vote today.

Commerce suggested the following contingencies if funded: (1) A detailed budget that delineates exact amounts for costs of the project, and who is responsible for each cost will be provided. (2) A revised project management plan providing a detailed timetable, tasks and milestones, as well as a communication plan demonstrating project interaction and chain of command will be provided. (3) Industrial Commission and the Renewable energy Program will receive recognition in all literature, and other project related public relation efforts with the following reference: funded in part by the North Dakota Industrial Commission Renewable Energy Program. (4) The project data and reports shall be provided to the Department of Commerce & Renewable Energy Council in both electronic and hard-copy formats with permission for unrestricted distribution. The electronic versions shall be in a suitable format for hosting on the

Department of Commerce and Renewable Energy Council web sites.

Schneider moved to include contingencies as outlined above, Goerger seconded the motion. Roll called vote was taken. Motion passed.

ADMINISTRATIVE BUSINESS

R002-007 (Development of Economically Sustainable Distributed Power from Biomass Gasification for North Dakota): Proposed Amendment to Eliminate Long Term Data Collection.

Chris Martin of EERC presented modifications.

Project has been approved and some revisions have been made. Intent of project was to monitor day-to-day operation. Thought technology was there to turn project over to Truss plant personnel. Prepare Education materials and then reporting.

Development time is the gap; too much R&D testing.

In response to a question from Schneider, Martin stated the money has not been spent. They will be moving to a smaller system. Gasifier does not have capabilities to burn multiple feedstock.

In response to a question from Christianson, Martin explained three months of testing was covered under separate project. Funding was from elsewhere. The budget submitted in original proposal isn't changing. The focus of output changes, but it's not day-to-day changes. Christianson recommends going back for re-approval.

R003-A (Promoting Ethanol Fuels in ND): Proposed Amendment to Reduce Budget and Scale Down Activities Accordingly.

Valerie Kummer from the American Lung Association of ND presented.

Questions from Goettle, Kummer stated funding was reduced by a third.

Kummer stated they reduced trade shows by half. They will attend large tradeshow.

Scaled back advertising, no tv broadcasting. Budget reduced significantly due to inability to match.

Baseline assumptions are changing.

In response to a question regarding budget from Goettle, travel increases and new materials for booth.

In response to a question from Nisbet, Kummer stated blender pump will be the promotion. E85 will be the focus.

Proposed Move to 3 Regular Meetings to Decrease "Special Rounds"

Proposed new due dates: Jan. 1, May 1, and Sept. 1

New meeting dates would be March, July, and November.

The next council meeting is scheduled for **July 13, 2009, 10:30 am.**

Christianson motioned to hold three regular meetings. Schneider seconded the motion. Roll call vote was taken. Motion passed.

Potential Amendment to REC Policy 6.05 delayed to next meeting.

Karlene Fine presented the following Legislative Update:

Two bills have been introduced specifically related to the Renewable Energy Program:

Senate Bill 2014 – This is the appropriation bill for the Industrial Commission and those entities that are overseen by the Industrial Commission.

Included in this bill is an appropriation of \$5,000,000 from the General Fund for the Renewable Energy Program. SB 2014 has passed the Senate and is to be heard by the Government Operations Division of the House Appropriations Committee.

Senate Bill 2129 – This is the bill to combine the Renewable Energy Fund and the Biomass Incentive and Research Fund. Also contained in this bill are some provisions to combine the two programs and some "housekeeping" language in the law. The Senate made a few changes to what we had originally proposed and it passed the Senate 44-3.

There are a number of other bills that relate to renewable energy issues but these are the only two that deal directly with the program.

Appropriation of \$5 million passed Senate. Questions have been raised about the level of funding and funding sources. Council members may want to contact legislators informing them of the value of the Program.

Jim Boyd commented on the Stimulus Bill. Dollars will have to go through DOE. There will be three plans.....All plans have to go to DOE. It is premature to commit stimulus dollars for this program at this time.

Andrea Pfennig will notify the Council of the hearing date for Senate Bill 2129.

OTHER BUSINESS

Goerger requested reports as to see updates on status of projects that have received funding; touring site if possible. Could be useful in legislative process.

COMPLETION OF BALLOT

R005-B: "Corn Oil Extraction"

Fund: 5 Do Not Fund: 0

