Iowa Power Fund Board - Due Diligence Committee (DDC)
Meeting Minutes
April 22, 2009

Iowa Utilities Board, Hearing Room
Des Moines, IA

Call to Order
Roya Stanley, Chair, called the meeting to order at 12:32p.m.

Roll Call

Member	Present	Absent
Franklin Codel	X	
Ted Crosbie	Conf. Call	
Vern Gebhart	Conf. Call	
Patricia Higby	Conf. Call	
Fred Hubbell	X	
William (Curt) Hunter		X
Kevin Nordmeyer	X	
Roya Stanley	X	

Also in attendance from the Office of Energy Independence: Brian Crowe, Mary Lewis.

Approval of Agenda
Ms. Stanley asked for a motion to approve the agenda. Mr. Codel motioned to approve; Mr. Hubbell seconded the motion. The motion passed unanimously.

Approval of Minutes
Ms. Stanley asked for a motion to accept the February 25th minutes. Mr. Codel motioned to approve; Mr. Hubbell seconded the motion. The motion passed unanimously.

Ms. Stanley then asked for a motion to accept the March 3rd minutes. Mr. Hubbell motioned to approve; Mr. Codel seconded the motion. The motion passed unanimously.

Chair's Remarks
None

Full-Application Review

08-12-1165 Biodiesel Education Program, Iowa Biodiesel Board, Urbandale, IA

Randy Olson, Executive Director of Iowa Biodiesel Board gave the presentation for the project. The Iowa Biodiesel Board is a representative association of Iowa's biodiesel industry. Members of the Board include biodiesel producers, suppliers, and end users- member dues fund state activities and policy work.

- 2008 Iowa produced 150 million gallons of biodiesel.
- US consumption is roughly 300 million gallons of biodiesel per year.
- Most US biodiesel went to Europe in previous years, but that market has been closed due to trade complications.
- Iowa consumption of biodiesel is about 1% of Iowa's total diesel consumption
- 2009 production will be much different due to severe excess of capacity in the biodiesel industry

- FDIC has classified all biodiesel loans as high risk, leaving many biodiesel producers unable to access credit markets
- There are some reasons for optimism in the current market conditions- mainly due to new federal policies
- The Iowa Power Fund proposal is a diesel mechanics education program which seeks to remove barriers/beliefs mechanics in Iowa have about biodiesel
- The project will develop curriculum, use materials to train the trainer, One-Source coordinators will deploy the curriculum at 20 sessions across Iowa
- The program will work with community colleges for the instructional sessions
- To monitor success a survey will be done before and after the trainings
- Updates to the program would be done annually
- The project will collaborate with various Iowa stakeholders
- The instructional sessions will be offered as a night class for free

Q. Are there biodiesel boards in other states? Yes, there is a program in MN, but there is not a program in IL, the two leading consumers of biodiesel. There is the need to expand the program, and IA would eventually be willing to work with MN, and other states to deploy the program. The program can be replicated as a model for other cities, states, and regions. The National Biodiesel Board is eager to get the program off the ground.
Q. What number of mechanics would go through this program? It's hard to know. There is not a really strong Iowa mechanics association. But, there is no way to know how many mechanics will take advantage of the program.
Q. Are there any lessens to be learned from MN? Iowa would be taking a step beyond MN in education with this program. There has been some biodiesel laboratory testing in MN, but education programs are not in place.
Q. Would a $50,000 grant from the Iowa Power Fund be used between now and spring 2010? A train the trainer program could be done in the summer. The training would then get implemented in the fall, before the winter when there can be handling issues with biodiesel.
Q. How many years is there a commitment of funding from partners? Three years.
Q. Is there any kind of certification process that would be associated with the education? It has been considered, but it has not yet been attempted. But, the applicant would certainly be willing to implement a certification program.
Q. What is One-Source, how were they selected? One-Source is an organization that is associated with the Iowa Community College Trustees that distributes information about programs in the state.
Q. How can the Iowa Biodiesel Board gauge programmatic success? There will be the pre- and post survey, to see if any knowledge was gained. But, more broadly, the end goal can be told if there is better press and perceptions of biodiesel.
Q. Any idea of the number of mechanics that would attend trainings? Hopefully 10-15 mechanics would participate per training; which would equate to 200-250 total mechanics participating in the program. There is an agreement in place with One-Source. If there are more than 20 participants per session, the group would offer a second session; conversely there must also be at least 10 participants per session.
If the project were considered, there may be a contingency to equate funding to subsequent years. The subsequent years of funding would be contingent on delivering results in previous years.

Vote:
Yes – Nordmeyer, Codel, Hubbell – on the condition that funding is for one year only
Table –
No – Crosbie, Gebhart

Mr. Hubbell then posed the question to DDC members: "How much more should we put into biodiesel and biofuels?" He then stated that the DDC needs to make it clear that its education and that the applicant will need to have a component for measurements and feedback.

Review of Pre-application

09-02-1177 21st Century Green Energy Project, City of Cedar Rapids, Cedar Rapids, IA
Reviewed by Stanley

The project proposed is for a detailed assessment to develop the business and technical basis for the creation of a renewable cogeneration solution for downtown Cedar Rapids. Many industrial energy users in Cedar Rapids relied on a steam power plant prior to the 2008 floods. Cedar Rapids is interested in a feasibility study to determine what type of power generating facility would best fit the needs of Cedar Rapids industrial energy users.

- The DDC needs to determine the value in a feasibility study
- Not sure if the board should dedicate Iowa Power Fund resources for a feasibility study that may never happen.
- There is a belief that Cargill and Quaker Oats will make a decision in the coming weeks on whether or not to install individual heat boilers. If the companies make the switch, there is not a real need for a steam plant, or a feasibility study.
- Alliant studied 16 long-term and short-term scenarios to determine how to get heat to industrial consumers. The low cost option was a $74 million coal option. Industrial users were then interested in a natural gas option that was cost effective. Alliant came to users with a natural gas solution, but there were concerns about capitol costs.

There needs to be more information as to whether or not the large industrial users will develop their own systems for heat production.

The DDC is moving the application forward in the Iowa Power Fund process, to the Iowa Power Fund Board, but is not endorsing or rejecting the proposal. The committee would like the Board to evaluate the proposal and determine whether this project fits within the parameters of Iowa Power Fund goals. Also, in the interim, if there is any indication between April 22nd and the May 13th (dates between Due Diligence Committee meeting and the Iowa Power Fund Board meeting) that Cedar Rapids large-scale industrial users will implement their own energy systems, the feasibility study may not be necessary.

Vote:
Yes – Codel, Nordmeyer, Hubbell, Crosbie, Gebhart
Yes, if –
No, but -
No –

09-04-1178 Trees Forever Recover, Replant, Restore: Post-Disaster Plantings for Energy Efficiency, Trees Forever Inc., Marion, IA

Reviewed by Hubbell
Recusal - Gebhart

The project would be a partnership between Trees Forever and ten communities impacted by natural disasters to assist in the development of long-term tree planting efforts that maximize energy savings and carbon sequestration. This is a re-application to the Iowa Power Fund. This application is a smaller request, has more match dollars, and has engaged a lot of partners. It seems that the match is a bit short of promised cost share (approx. $120,000). There was no indication as to how committed the cities listed in the application are to the project. The project seems more manageable than the previous application.

- There is a federal organization that develops matrices for tree carbon sequestration and kilowatt hours of energy saved, depending on the type of tree planted- this method has been validated by the Iowa Department of Natural Resources.
- A clearer indication about how kilowatt hours saved and carbon sequestration is calculated would be better served in a full application.

Vote:
Yes -
Yes, if - Hubbell – they need to raise other funding for consideration, ***Nordmeyer, Higby***
No, but -
No - Codel, Crosbie

The vote is a tie. The DDC will revisit the issue after Ms. Higby joins the meeting.

Issue is revisited and Ms. Higby elects to vote "Yes, if"

09-04-1179 Independent Efficiency Testing, Waters Hot, Inc., Orange City, IA
Reviewed by Gebhart

This project is seeking funds to support independent testing of a new product that has the ability for heating, cooling, and water heating simultaneously if warrented. The proposed testing would demonstrate the product's energy efficiency standards needed under new national tax standards. There was not a lot of information in the application but there was some information on the web. It appears that there are some rebates that would be applicable to the technology from utilities.

- For a home this looks just like a heat pump. For a commercial operation there would be heat collected from a heating system.
- Small commercial installations may be a better use of technology.
- It seems like there would only be benefit to one company, which would counter to a key principal of the Iowa Power Fund Board which is to provide benefit across the state, not just to one company.

Vote:
Yes -
Yes, if -
No, but -
No – Codel, Nordmeyer, Hubbell, Crosbie, Gebhart

09-04-1191 Renewable Energy: Education and Information, Central College, Pella, IA
Reviewed by Codel
Recusal - Nordmeyer

The proposed project is for the addition of a kiosk as a supplemental educational tool to a new building at Central College in Pella that's already under construction. The kiosk would serve as an educational center on solar power and energy efficiency in the new building.

- There appears to be a kiosk already in place in Pella.
- The project would just replicate other efforts currently in place at the college.
- This project would offset the demands on the current kiosk at Central College.

Vote:
Yes -
Yes, if -
No, but -
No – Hubbell, Codel, Gebhart, Crosbie

09-04-1184 Manufacture of Composite Hydroelectric Power Generation, Amjet Turbine Systems, LLC (ATS), Keokuk, IA
Reviewed by Gebhart

The project is for the production of proprietary integrated hydroelectric turbines/generators that substantially lowers acquisition/installation costs for hydroelectric systems. The benefit of the design is that static head systems can be installed over existing dams and in-stream systems in river currents. Both types of systems can be built for a fraction of current installed cost per kW. While the project may

hold merit, the business plan is missing information that would distinguish the project from other companies working on this type of technology.

- There are permitting issues, as well as generation issues.
- These are smaller units that may need to be tested first.
- It seems that they would manufacture a test unit that could be tested before actually implemented at utility scale. Potentially at the Iowa Hydro Laboratory.

This project would need a business plan. And, while it may be viable, without a business plan, it is impossible to accurately determine if it fits the mission of the Iowa Power Fund. The two options for the DDC are to ask for a business plan and to refer the applicant to the Department of Economic Development.

Vote:
Yes -
Yes, if -
No, but – Codel**, **Hubbell, Nordmeyer, Gebhart, Crosbie
No -

09-04-1190 Community Revitalization Through Energy Efficiency Improvements, Agren, Inc., Carroll, IA
Reviewed by Gebhart

The proposed project is to facilitate community-wide energy efficiency education and improvements in Rockwell City as a means for community revitalization and sustainability. Their five goals outline their approach of coordination, promotion, education, investigation and evaluation. What seems to be missing from the applicant's proposal is a partnership with the communitiy's energy supplier, Mid-American, who has available, at low or no cost through their energy efficiency program, some of the same programs. Since reading some of the recent legislative updates at the federal and state levels, part of this project may fall under ARRA/Federal recovery funding, in particular the local government's energy block grant which stresses less duplication of efforts and more collaboration with the local utility.

Vote:
Yes -
Yes, if -
No, but -
No – Hubbell, Codel, Nordmeyer, Crosbie, Gebhart

09-04-1196 Renewable Energies, Daryl D. Brandt, Hazelton, IA
Reviewed by Gebhart

The proposed research project is to turn waste and pollution into pollution free renewable energies.

- The reviewer doesn't believe that the pre-application has any information in which to draw an opinion.

Vote:
Yes -
Yes, if -
No, but -
No – Codel, Nordmeyer, Hubbell, Crosbie, Gebhart

09-04-1180 Enhanced Corn Ethanol Production – Modifications to an Iowa Ethanol Plant to Eliminate Fossil Fuel Use and Improve Plant Economics and Energy Yield, NewBio Systems Inc., Edina, MN
Reviewed by Nordmeyer

This project is from a Minnesota company that wants to modify an existing idled Iowa ethanol plant so that, when brought back on-line, it would not use any fossil fuel. Instead, the plant's systems would include co-generation and anaerobic digestion processes to off-set any need for fossil fuel systems.

- The company has started small, and then increased the technology as they have moved forward; seem to have a good approach to scalability of the technology.
- The application was a well written proposal.
- The proposed technology seems to fit existing technology at an ethanol plant.
- There is a question as to whether or not an entire ethanol plant would need to be purchased in order to move the technology forward.
- A question for the applicant could be whether or not the ethanol plant would need to be purchased in order to execute technology integration, or whether the technology could be implemented without the purchase of an ethanol plant. It would seem to be more cost competitive to partner with an ethanol producer to integrate the technology, as opposed to acquiring an entire existing idled ethanol facility.
- Recommendation would be to partner with an ethanol facility.

Vote:
Yes -
Yes, if -
No, but – Codel – if they have another partner
No – Hubbell, Nordmeyer, Crosbie

09-04-1182 Riksch BioFuels LLC – Biomass Boiler Project, Riksch BioFuels LLC, Crawfordsville, IA
Reviewed by Codel

This is a project that would help a biodiesel manufacturer become more sustainable by allowing the biodiesel company to use co-generation to power the biodiesel plant. The Iowa Power Fund request would enable the company to install the equipment.

- The return on investment is approximately 2 years.
- There may be some funding in the ARRA funding for improvement.
- There could be an opportunity for EPACT 2005 funding for this project.
- While innovative for biodiesel, there are many industrial applications that are testing the feasibility of CHP.
- Not clear what killowatt hours would be produced.
- Appears to be a shovel ready project and perhaps better geared towards ARRA funding.

Vote:
Yes -
Yes, if -
No, but -
No – Higby, ***Crosbie, Codel, Nordmeyer, Hubbell***

09-04-1185 Waste-to-Energy from Pyrolyzation, IA Waterloo WXE, LLC, Waterloo, IA
Reviewed by Codel

This proposed project would build a pyrolizer for landfill waste to generate about 20MW of electricity. The project would create gas and energy from waste products that are typically flared. This project would develop a research center for pyrolizers as an education component.

- The technology has been tested on a small-scale; questions about how the testing was done would be helpful in making a decision about this proposal.
- There does not seem to be evidence of the results of the testing on the smaller scale.

- The project seems to be at a very large scale without an incremental increase in project size. The project is going very large scale very quickly.
- There needs to be more evidence of environmental implications and testing completed, and test yet to be undertaken in future applications.
- Unclear if the individuals listed are funding the $42 million match.

Vote:
Yes **–**
Yes, if – Higby – find additional funding and give more science behind the technology
No, but – Codel – recharacterize the application to a smaller scale, ***Hubbell, Nordmeyer***
No – Crosbie

09-04-1189 I-Renew Energy & Sustainability Expo 2009 & 2010, Iowa Renewable Energy Association (I-Renew), Iowa City, IA
Reviewed by Codel
Recusal – Higby

This project is a request for the Iowa Power Fund to fund two years of the I-RENEW annual energy fair. The goals would be to provide Iowans with more information. It is expected that the assitance with funding would increase attendance by 20%.

- There are a variety of statewide forums; this is a way to support energy education efforts in the state.
- Applicant hasn't submitted an invoice yet for last year's award.
- A smaller amount may be beneficial.
- Because Iowa Power Fund will not exist forever, one approach may be to phase the project funding out in subsequent years of funding.

Vote:
Yes -
Yes, if – Codel – if potentially, a lower amount is requested and if they take care of last year's business, ***Nordmeyer, Hubbell*** – if they ask for $20 thousand and not $40 thousand and if they develop a plan on how they can be more self-sufficient
No, but - Crosbie
No -

09-04-1195 Extrusion of Distillers Grains for Feed Trials and Pharmaceutical Research, Russell J. Meier & Associates, Davenport, IA
Reviewed by Codel

This project would process DDGs for food consumed by humans. The project would test food quality and durability. The applicant believes that there is potential for using distillers grains for human consumption.

- The product is too raw for human consumption; it could never pass FDA requirements for human consumption.
- There is no QA/QC process in ethanol plants that would be adequate for human consumption.
- There should be an ethanol company or some other company involvement.

Vote:
Yes -
Yes, if -
No, but -
No – Codel, Nordmeyer, Hubbell, Crosbie, Higby

09-04-1181 Iowa DNR Trails Program Biodiesel Project, Whitney S. Davis, Des Moines, IA
Reviewed by Hubbell

This project is requesting funds to support the production of biodiesel for use in DNR vehicles and equipment, and to promote clean energy practices throughout Iowa. This is project would fund the DNR trails program at state parks. The biodiesel produced would be used by trail crews and would be a good way to educate those that are visiting Iowa parks.

- It is questionable if the DNR should be making biodiesel
- There may be some concerns with individual production and safety requirements
- There are already colleges making their own biodiesel, which should be a good model to replicate.

Vote:
Yes - Higby
Yes, if -
No, but – Nordmeyer
No – Codel, Hubbell, Crosbie

09-04-1188 Iowa Energy and Sustainability Academy, Des Moines Public Schools/Central Campus, Des Moines, IA

Due to Ms. Higby's recusal, quorum is lost and the pre-application cannot be reviewed at this meeting. Another meeting could be called sometime in the near future to discuss this project otherwise it would need to wait until the June 24th meeting.

09-04-1183 Amaizing Pioneer Biomass Project, Amaizing Energy LLC (AEL), Denison, IA
Reviewed by Nordmeyer

This project is requesting the Iowa Power Fund to fund the production of bio-butinal for fuel. The applicant would like the Iowa Power Fund to fund 20% of the project to leverage Department of Energy dollars. The project would utilize bolt-on technology. No Iowa Power Fund dollars would be used until DOE funded the project.

- The funding construct is similar to that of Poet that the company may go out to get funding from the DOE, but unlike Poet there is no debt or equity in this project.
- Out of a $12 million dollar project, the applicants are putting in $150,000. (If DOE and the Iowa Power Fund were not involved, the Iowa Power Fund would not put in funds.)
- All the contribution to the project is in-kind. There should be outside investors that would contribute to the cost of the project.
- This is an interesting technology, but would need a thorough technical review.

Vote:
Yes- Higby
Yes, if- Hubbell –1) we need to hear from Hemken if he thought there were a number of researchers and opportunities and 2) applicant needs to find a sizeable piece of the $2.5 million project cost**,** ***Nordmeyer***
No, but-
No- Crosbie

09-04-1187 Integrated Pyrolysis-to-Synthetic Fuels Demonstration, Iowa State University, Ames, IA
Reviewed by Nordmeyer

The proposal makes reference to the technology and work at BECON that's already happened. The committee is questioning where the new biorefinery would be located. There are similar issues as with pre-application # **09-04-1183.**

- Applicant should look for more funding on their side of the project.
- There should be more partnerships with outside companies.

- Not sure if this is a demonstration project is for research and education or commercialization purposes. The full application should include more background and context surrounding the project.

Vote:
Yes –
Yes, if – ***Nordmeyer, Crosbie, Hubbell*** – need clarity from ISU research priorities and the intersection with the Iowa Power Fund, ***Higby***
No, but –
No –

09-04-1186 Refuse-Derived Alternative Fuel Processing System, Phoenix C & D Recycling, Inc., Des Moines, IA

Reviewed by Nordmeyer

In this proposal for the project, the applicant seeks funding to improve the commercialization and product development of refuse-derived alternative fuel for sale in the local and national marketplaces. Construction waste is taken to their shop and once all recyclable items are removed, the remainder is ground-up. The applicant then develops fuel from the ground waste. The issue not addressed is that the product might not necessarily be certified LEED. The applicant is asking the Iowa Power Fund to help them commercialize the product.

- Questions if there may be air quality issues from the result of using the product.
- The Iowa Power Fund has also done other pelletizing projects.
- The pre-application is unclear about the term for developing the product commercially.
- Not sure this project is advancing the technology for the recycling industry or its processes.

Vote:
Yes -
Yes, if -
No, but – Hubbell
No – Higby, Crosbie, Nordmeyer

09-04-1192 Quantification of Marketable Greenhouse Gas Emission Reductions Resulting from Production and Usage of Biodiesel from Different Feedstocks, Iowa Biodiesel Board, Urbandale, IA

Reviewed by Hubbell

In this project, the applicant wants to create a web based carbon credit/offset accounting and marketing system. The system will enable accurate quantification of GHG emission reductions for biodiesel producers. In theory, it would help producers track, and potentially reduce, their carbon footprint while helping them save or trade carbon credits. They're asking for two-thirds the cost of the project.

- Everyone will want carbon tax credits in the future
- A lot of questions are associated with this proposal
- At some point, this level of analysis will need to be done
- Benefit for Iowa would be standardizing the low carbon fuel standard in which Iowa could possibly export more biofuels to California.

Vote:
Yes -
Yes, if -
No, but – Hubbell – if they can get a lot more match funding and if they can explain where their proposal fits in the national scheme, ***Nordmeyer, Higby***
No - Crosbie

09-04-1193 Growth Design Biofuels – McGyan Process Commercialization, Growth Design Corporation, Forest City, IA

Reviewed by Hubbell

In this project proposal, the applicant wants to launch an initiative to demonstrate a new type of biodiesel technology which would strengthen the biodiesel industry. The biodiesel production is based on the McGyan process which claims that it would require less energy; it would use a different type of catalyst, as well as, less water. The applicant wants to build this new demonstration plant in Greenfield, Iowa.

- The project can use different types of feedstock in order to facilitate the process.
- It would have low carbon emissions during production.
- The project would need a thorough technical review.

Vote:
Yes –
Yes, if – Nordmeyer, Hubbell – if we have a lot more information on the economic side as well as the technical side, ***Higby, Crosbie***
No, but –
No –

09-04-1194 Davenport Public Library – Eastern Avenue Branch Library, Davenport Public Library, Davenport, IA
Reviewed by Nordmeyer

This project is going through the LEED process to design and construct a branch library. There would be a savings on geothermal system and parking lot lighting and the project could be used as a teaching tool.

- The level of LEED certification is not listed.
- There is other financing available for municipal projects like this particular project.
- There may be an opportunity for a buy down in the costs from the ARRA funds if the project is net-zero.

Vote:
Yes -
Yes, if -
No, but -
No – Higby, Nordmeyer, Hubbell, Crosbie

Other Business
Ms. Stanley reminded DDC members to watch for email traffic from the Office of Energy Independence for a possible meeting to review the pre-application that could not be discussed at today's meeting. Otherwise, the next scheduled DDC meeting would be June 24, 2009. Time and place to be determined.

Adjournment
Meeting adjourned 5:06p.m.

Respectfully Submitted,

Brian Crowe & Mary Lewis, Recorders