Summary West Central CERTs Meeting

Clean Renewable Energy Bonds (CREBs): A Tool for Renewable Energy Financing

Tuesday, April 29th, 2008

Sunburg Community Center (Old Fire Hall), Sunburg, Minnesota

Attendees: Steve Wagner, Bob Bonawitz, Dave Opsahl, Martin Heidelburger, Jason Rothers, Dave Pederson, Dean Shuck, Brian Yager, Dan Tepfer, Brad Madsen, Chris Hettig, Becky West, Graden West, Dorothy Rosemeier, Phil Lord, Jared Martis, Cory Marquart, Jim Jacques, Jacqui Coleman, Arif Quraishi, Cheryl Glaeser, Mike Hubbard, Bev Alquist, Cheryl Kuhn, Loren Hacker, Chuck Walters, Steve Nelson, John Haas, Val Pilorski, Brent Olson, Mike Kumm, Andrew Martin, Dawn Hegland, Wes Hompe, Stan Simon, Dick Hagen, Greg Schmidt, Cheryl Kittle, Barb Gjerde

Clean Renewable Energy Bonds (CREBs)

History & Overview

The Clean Renewable Energy Bond (CREB) program is administered by the Internal Revenue Service and provides bond authorization for public entities on a competitive basis for renewable *electricity* projects. The benefit of the CREB program is that public entities receive the bonds at "zero" percent interest. The revenue or cost savings from the renewable electricity systems are utilized to pay off the bonds.

The program was initially authorized via the Energy Policy Act of 2005 and designed as an alternative to the Production Tax Credit (PTC) – which can be utilized by private renewable energy developers and investor-owned utilities – to be used by cooperative electric and public power utilities. Beyond these utilities other eligible entities include schools, local governments, tribal governments. The program has provided two rounds of bonding authorization – 610 projects during the first round and 312 projects in the second round.

Project Examples

Cory Marquart – U of M Morris and the West Central Research and Outreach Center received three CREBs for a 2nd wind turbine, a steam turbine to couple with their biomass facility, and third turbine in partnership with the Mille Lacs Band of Ojibwe. Cory outlined the entire CREB application process (Cory's presentation will soon be posted on the CERT website: www.cleanenergyresourceteams.org). He also provided a number of tips to applicants…

- Aim small: CREBs are awarded to the smallest projects first. It makes sense to partner with other organizations and divide up your projects. UMM and the WCROC divided up their projects and only asked for 50% of the funding they needed to improve their chances for success. Morris, for example, asked for $499,950 to stay under a $500,000 cap.
- Must be renewable *electricity* projects: wind, solar, geothermal, biomass to electricity
- "Near" zero interest. It's not REALLY zero interest – see more on this in Arif's presentation.
- Need both *commencement* date and *placed in service* date.
- MISO: Midwest Independent System Operator is defined as the "on ramp" to the transmission system (they also govern market pricing). MISO is overseen by the Federal Energy Regulatory Commission (FERC). FERC is an independent agency that was initially set up to deal with bringing on large-scale power plants, not myriad wind projects – and the system therefore doesn't work well for these types of projects.
- Morris was able to "side-step" some of the MISO issues because much of their energy is used by the University of Minnesota Morris and is therefore utilized on the back-side of the meter.

Wes Hompe – Willmar Municipal Utilities received one CREB for two wind turbines. Wes stepped through WMU's experiences with CREBs thus far.

- American Public Power Association represents municipalities and public power districts. APPA lobbied for an equivalent to the Production Tax Credit (PTC). To encourage "local" projects wanted the funds to go toward the smallest projects first.
- During the first round of CREBs not many municipalities/coops got funding (e.g., Willmar partnered with Ridgewater in first round but the project was too big ($), but through the first round these public utilities gained more savvy with the "unwritten rules" and were more successful during the second round of funding.
- In 2007 split out parts of project and asked for less money. They were awarded authorization for bonding for two projects in two locations with two different grid connections. Some of the unwritten rules here:
  - ✓ Can't have more than one project in one location.
  - ✓ Must have different grid connections.
- FAA issues: after WMU got approval for their projects they found out that one of their turbine locations is in the flight path of a potential future runway. They're now evaluating whether or not they can use the authorization for an alternative project location.
- All projects authorized during this last round have until Dec 31st to get moving.
- WMU, because they only want 2 turbines, have had problems even getting a response to their RFP for turbines. Companies just feel their project is too small to both. Al Junke is working on a bill to aggregate multiple community projects so that they could jointly purchase turbines (and appear as larger projects do).
- Each project will incur a number of *front end costs* before even getting started:
  - ✓ feasibility study or more specifically for WMU a wind study; collected 18 months of data @ 40 meters; spent $26,000 to hire EAPC to project that data up to 80 meters
  - ✓ Pay licensed professional engineer, consulting fees, etc.
- Other issues to consider: *citizen concerns*
  - ✓ zoning laws
  - ✓ look at shadow flicker
  - ✓ noise – much noise masked by wind noise itself

Arif Quraishi with Johnson Controls and Ted L. Suss, Superintendent of Wabasso School District and Chairman of Minnesota Schools Energy Cooperative – Johnson Controls has received 40 CREBs (!) to work with 40 school districts around Minnesota to procure a utility-scale wind turbine project (and bulk purchase/ co-locate them). Phase I of this project secured authorization for $3 million/school for 14 schools and Phase II secured authorization for $1.5 million/school for 26 schools. Johnson Controls introduced this model as a means of lessoning the risk for schools interested in doing renewable energy development by taking on the risk of development costs and pooling resources to facilitate project development for multiple schools at once.

Since CREBs hasn't really been used before, Johnson Controls and the schools they work with are still working through the process and figuring out how it all works. They've found that 0% financing isn't *really* 0%. There is a 1% fee on repayment over 16 years and as Ted indicated, if schools need to sell the bonds to acquire the turbines, they may have to start repayment before the turbines are actually in production (must start repayment in the same year the bonds are issued). Indeed, Arif mentioned that schools can now get competitive loans that might offer similar rates. Details on some of these "hidden" costs and considerations:

- CREB payback must commence in same calendar year at bonds are issued
  - ✓ If issued in Jan 2010, must pay back by Dec 2010
  - ✓ If use CREBs to buy turbine, will have to issue bonds immediately – might have to make payments (3) before turbine is up.
  - ✓ Bridge financing – lease purchase agreements.

- ✓ Where can/*should* school districts invest money? Into turbine without financial sale deals made? Invest in equipment even if it might not work? Is that ethical?

- IRS security certify an IRS tax credit at 10% cost to issuer:
  - ✓ Financial advisor said to sell bonds ($42 million). Would need to pay 1-1.25% (or $3 million) on discount coupon
  - ✓ Credit is pegged to corporate double A bonds
  - ✓ Tax credit becomes taxable income

Johnson Controls and its Phase I school partners planned to build a 20 MW wind farm with 2.2 MW turbines. The schools thought they'd get the bonds, sell the bonds and then get a turbine up and running in their district within a year. BUT, plans change and along the way they've faced a number of hurdles with *TIME* being the biggest risk factor:

- MISO study – now looking a total of 24 months for their study; originally MISO said they'd review it within 9 months, then another 18 months, now they don't expect the study to be completed until December 2009
- Must wait another two years for turbines as demand for turbines has skyrocketed and one doesn't want to buy turbines until they know the project will actually move forward (based on the MISO study)
  - ✓ companies want 20% down for turbines
  - ✓ turbines themselves are 80% of the project costs
  - ✓ falling value of the dollar makes turbines purchased from Europe even MORE expensive (JC is buying turbines from Germany – dollar dropped by 26% in the past year)
- Utilities don't want to negotiate a power purchase agreement (PPA) until a project has turbines and a successful MISO study, but getting financing is often dependent upon having a PPA
- Nullify land lease agreements if projects don't move forward within five years
- All of these costs, and this agreement to sell the electricity factor into the proforma (which lays out the costs) and whether or not a project will cash flow

Ted indicated that, in his opinion, CREBs just don't work for schools. Indeed their Board, the Minnesota Schools Wind Energy Coop (a joint powers of the Phase I fourteen schools), has passed a resolution to drop CREB financing as an option and instead go with an equity investor (MN Flip Model – more details here: http://windustry.advantagelabs.com/minnesota-flip) to use the PTC to tune of $12 million plus $12-13 in depreciation. They feel it's a better deal than CREBs (as long as the PTC gets extended).

Panel Q & A

Q: Would CREBs work for smaller projects, like a 30-40 kW turbine?

A: Probably. The hurdles faced by large wind projects are not as applicable to small wind projects – or solar project or biomass projects. It really depends upon ones motivation for doing the project.

Q: What are the actual costs for large wind vs. small wind projects?

A: Large wind projects cost currently range from $1500 to $2000 per installed kilowatt. Small wind systems typically cost closer to $3000 per kilowatt.

Q: What about schools pursuing biomass projects?

A: There have been a number of large east coast schools who have been looking @ biomass projects. The concern is that CREBs authorize only electricity projects and it's typically less efficient to convert biomass to electricity than it is to use it for a thermal/heating load.

Q: Can municipal and cooperative utilities avoid the potential power purchase agreement (PPA) pitfalls?

A: Yes, if you conduct the project in your service territory it stays on the "back side" of the meter and appears to MISO as simply a reduction in load. The same may be true for other projects where a project can directly utilize the electricity it generates rather than injecting it into the grid.

Q: What's the likelihood that CREBs will be reauthorized?

A: It seems the Ways and Means Committee Staffers wants to re-authorize the program while also addressing some of the issues – like removing the time limit and aligning CREBs more with the Q-ZAB (Qualified Zone Academy Bond) program.

CERT Incentive

The West Central CERT steering committee has designated $12,000 to help 2-6 schools within the West Central region to help buy down the costs of the engineering work they will need to secure a CREB. At the meeting we opened up this idea to the larger group for comment. Several school representatives indicated that given the content of the meeting, they weren't sure they'd still apply for CREBs. Others indicated that perhaps the primary lesson was that large wind projects for schools weren't a good fit, not that all school projects would be an issue (like solar or smaller wind projects).

A couple of comments focused on whether or not funding feasibility studies was too narrow and whether or not we might also consider funding construction cost estimates and/or in-depth engineering studies. Others suggested that funding services that are directed to help a variety of schools as opposed to an individual project – like a uniform template application so that each school wasn't always starting from scratch would be useful. The WC CERT Steering committee will meet again in June to discuss refining this strategy.