Use of State Development Finance Agency Tools to Support Renewable Energy

Rob Sanders

Clean Energy Group

Robert Sanders Associates

CleanEnergyGroup
Innovation in Finance, Technology & Policy

Discussion Points

1. CESA-ITAC (Interstate Turbine Advisory Council)
2. Bond Financing vs. Traditional Bank Financing
3. QECBs and Pre-Payment Bond Financing
4. Case Studies
5. Needed Fixes
6. CDFA Partnership (Council of Development Finance Agencies)

CESA-ITAC (Interstate Turbine Advisory Council)

- A collaborative group of state wind incentive programs and utility incentive providers working to create a national unified list of small and mid-sized wind turbines that would be eligible for program funding.
- ITAC evaluates the technical specifications, design, performance characteristics, operational history, and customer support of these turbines.
- ITAC pools resources to engage experts in technical review.

Participating State Wind Incentive Programs

- Energy Trust of Oregon
- New York State Energy Research & Development Authority (NYSERDA)
- New Jersey Board of Public Utilities, Office of Clean Energy
- Massachusetts Clean Energy Center
- NV Energy
- California Energy Commission
- Minnesota Office of Energy Security
- Wisconsin

The Unified List

- A list of small and mid-sized wind turbines that meet the performance, durability, and customer experience expectations of incentive providers
- Certification to AWEA 9.1 will be required for all small turbines
- Program listing is more than just certification
    - Warranties
    - Include service after the sale
    - Training of installers

MANUFACTURER	MODEL
Bergey Windpower	Excel 10
Endurance Wind Power	S-343
Evance	E9000
Gaia-Wind	133-11
Seaforth Energy	AOC 15/50
Southwest Windpower	Skystream 3.7
Wind Turbine Industries	Jacobs 31-20
Xzeres Wind	442SR

How to Get Involved

- Membership - Restricted to incentive programs and associated groups
- Self-funded by participating programs
  - Cover administration, insurance, and technical assistance contractor costs
  - Fee for new applications to help cover cost of review

For more information, or if you are interested in joining ITAC:

Val Stori

ITAC Administrator

val@cleanegroup.org

(802) 223-2554 ext.204

http://www.cleanenergystates.org/projects/ITAC/

CleanEnergy States Alliance

Bond Financing vs. Traditional Bank Financing[1]

- **Tenor** – Bond investors commit capital for longer amortizations than commercial banks
  - Up to the lesser of the asset life or the length of the PPA.
  - The shorter financing term from commercial banks exposes borrower to higher debt service payments & refinancing risk when loan balloon payment is due.
- **Fixed Rate** – Bond investors lend at a fixed rate for up to 20 years; no interest rate risk for the borrower.
  - Commercial banks typically lend for a shorter term, often with an interest rate swap embedded, requiring the borrower to refinance at the end of the initial term and subjecting the borrower to interest rate risk and swap risk.

[1]http://www.gkbaum.com/renewableEnergy/Capital.html

Bond Financing vs. Traditional Bank Financing[1]

- **Continuing Finance Access Risk** - Commercial bank loan docs often allow the bank to call or reprice the loan under certain circumstances. Bond docs do not include these types of provisions and borrowers are not at risk for regulatory changes that are outside of their control.

- **Cash Flow Distributions** – Bond docs allow the project owner to receive excess cash flow distributions out of the project on a quarterly or semi-annual basis. Commercial bank financing typically only allows for excess cash flow distributions annually. More frequent distributions allow project owners to recapture their investment more quickly.

[1]http://www.gkbaum.com/renewableEnergy/Capital.html

Qualified Energy Conservation Bonds (QECBs)

- QECBs are state or municipal-issued bonds that qualify for federal subsidies that typically reduce net interest rate by more than half.
- State/local agencies issue taxable bonds that are priced at market; interest payments to investors are then subsidized by the federal government.
- QECBs have largely financed renewable energy projects and municipal building EE projects.
- $3.2 billion was authorized under ARRA, which was allocated to states on per capita basis and then sub-allocated to local governments (>100,00 pop.)
- This balkanization, plus vague definitions, have made it difficult to fully deploy. ~80% of allocation is unused.

Pre-Payment Bond Financing

- Two key wind development challenges are addressed with pre-payment bond financing:
  - Provides upfront cash for capital-intensive RE projects.
  - Financing future PPA energy payments with low-cost tax exempt bonds reduces the cost of energy to end users.

- **White Creek Wind Project** (205 MW, Washington, Nov. 2007)
  - 4 public utilities/cooperatives arranged construction financing with a consortium of financial institutions.
  - The utility partnership group floated bonds; proceeds pre-paid a set amount of energy over a 20 year period.
  - The developer used the pre-payment to replace construction debt with permanent bond financing.
  - Institutional investors provided the tax equity needed to complete the total $364 million project financing.

Case Studies (cont.)

- **Windy Flats** (400 MW, Washington, March 2010)
  - 2 municipal utilities entered into 20-year PPA with developer/owner (Canon Power Group).
  - Utilities issued >$500 million in tax exempt bonds to pre-pay a set amount of energy.
  - Federal government provided a Section 1603 grant of $218 million (cash-in-lieu of tax credit).

Case Studies (cont.)

- **Scituate Wind** (1.5 MW community wind project, Massachusetts, March 2012)
  - MassDevelopment issued a $3.1 million QECB provided through allocations from two jurisdictions.
  - The single turbine provides energy under a 15-year PPA to the Town of Scituate for its adjacent wastewater treatment plant and other municipal load.
  - Developer/owner is Solaya Energy (Lumus Construction, Inc.).

Needed Fixes

- **Obtain clarification from Treasury Department & IRS re: QECBs**
  - Clarification of what constitutes a “green community” and how to determine that a public building EE project has complied with required 20% energy reduction.
  - Treasury’s proposed regulations are now being reviewed by the IRS, with guidance to be issued by end of July.
- **Update Industrial Development Bonds (IDBs) to cover clean energy**
  - IDBs are the primary public financing tool for small to medium sized manufacturers
  - Have seen a marked decline in issuance over the past decade due to outdated definitions of manufacturing, limited project size caps ($10 million per project)
  - Simple changes to the IRC explicitly including renewable energy for IDBs would result in the development of thousands of onsite renewable energy facilities.

Needed Fixes (cont.)

- **Create a Renewable Energy Facilities qualifying purpose for private activity bonds.**
  - Significantly greater use of tax exempt Private Activity Bonds (PABs) for renewable energy project finance would occur if regulations were expanded to allow “renewable energy facilities” to be financed with PABs.

CDFA Partnership

- Council of Development Finance Agencies (CDFA) is partnering with CEG and the Clean Energy States Alliance to adapt and accelerate the use of bond financing for clean energy.
  - CDFA members have placed RE/EE financing at the top of their priorities when requesting additional training and financing assistance.
  - CDFA has responded by providing:
    - Introduction to Energy Finance Course
    - Renewable Energy Finance Webcast Series
    - www.cdfa.net
- An example: At CEG's urging, NJ Economic Development Authority (a CDFA member) is exploring the possible issuance of bond financing for their offshore wind development.

Contact

Rob Sanders

Clean Energy Group

50 State St, Suite 1

Montpelier, VT 05602

802-223-2554

www.cleanegroup.org

Robert Sanders Associates

7022 McCallum Street

Philadelphia, PA 19119

215-870-3257

sanders.robtg@gmail.com

CleanEnergyGroup

Innovation in Finance, Technology & Policy