Community Wind: Once Again Pushing the Envelope of Project Finance

~ Report Summary ~

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Report Overview

1) Community Wind as a “Test Bed” for Innovation
2) Policy Changes Have Facilitated Financial Innovation
3) Recent Community Wind Projects Across the US Exemplify the Breadth of Innovation
   - Case studies of five projects in five states
   - Projects range in size from 4.5 MW to 25.3 MW
   - All selling power on the wholesale market (report does not cover behind-the-meter projects)
4) Common Observations and Lessons Learned

Community Wind as a "Proving Grounds"

Community wind has historically been a "proving grounds" for new utility-scale wind turbines *and* project financing structures

1) **Turbines:** Community wind projects deployed the first US installations of Suzlon (2003), DeWind (2008), AWE/EWT (2008/2010), Goldwind (2009), AAER (2009), Nordic (2010), Unison (2010), and Alstom (2011)

2) **Project Financing Structures:**

- A variation of the "partnership flip structure" that is now common in the US wind sector was developed by community wind projects in Minnesota a decade ago
- This past year has seen a second wave of financial innovation in the community wind sector – ***this is the topic of the report***

Recent Policy Changes Have Facilitated Financial Innovation

The American Recovery and Reinvestment Act of 2009 ("the Recovery Act"):

- Choice of ITC or Section 1603 cash grant instead of PTC
- Lease financing is permissible under ITC/grant (but not PTC)
- Eliminates ITC/grant haircut for subsidized energy financing

New Markets Tax Credits: First allocation in 2001, but have only recently been used for solar, and now wind

2008 Farm Bill: Allows USDA to make loans for RE projects that sell power to either rural ***or nonrural*** residents (nonrural previously restricted)

Case Studies: 5 Projects in 5 States

1) Fox Islands Wind, LLC (Maine)

- First RUS loan to a wind project (and combined with tax equity)

2) Ridgewind Power Partners, LLC (Minnesota)

- First sale/leaseback of a wind project

3) South Dakota Wind Partners, LLC (South Dakota)

- First intrastate offering combining debt and equity

4) Coastal Energy Project, LLC (Washington)

- First wind project to use New Markets Tax Credits (NMTCs)
- First "inverted lease" structure for a wind project

5) PáTu Wind Farm, LLC (Oregon)

- Effectively piecing together state and federal incentives

Fox Islands Wind, LLC

First Project to Combine RUS Loan with Tax Equity

4.5 MW (3 x 1.5 MW GE turbines) on Vinalhaven Island, ME

Project Sponsor – Fox Islands Electric Cooperative

- Buys the wind project's power at cost
- Balances its load with spot sales/purchases to/from the mainland

Project Owner – Fox Islands Wind, LLC

- A for-profit subsidiary of the Cooperative
- Members are the Cooperative (1%) and a local tax equity investor (99%)

Operating since November 2009

Fox Islands Wind, LLC

First Project to Combine RUS Loan with Tax Equity

Estimated installed project cost of $14.5 million ($3,222/kW)

Development/Construction Debt:

- $350k in seed capital from contingent promissory notes with locals
- $9 million construction loan from Cooperative Finance Corporation

Permanent Debt:

- $9.5 million RUS 20-year loan (interest rate = Treasuries plus 0.125%) pays back construction loan and promissory notes

Equity:

- $5 million tax equity investment from local Maine business
- Takes ITC and just $5 million in depreciation loss (S-corp basis limitations)
- Will stay invested at least 5 years to avoid recapture ($25k/year dividend)
- Cooperative will buy out tax equity after 5 years

Ridgewind Power Partners, LLC
First Sale/Leaseback of a Wind Project

Project Overview:

- 25.3 MW (11 x 2.3 MW Siemens turbines) in SW Minnesota
- Developed and constructed by Project Resources Corporation (PRC)
- Power and RECs to be sold to Xcel Energy for 20 years
- Achieved commercial operations in December 2010

Financing Overview:

- Union Bank provided $51 million in construction financing, to be repaid by the sale of the capital assets to a Union Bank affiliate (the lessor)
- Ridgewind Power Partners, LLC (the lessee) will lease the assets back, and operate and manage the overall project
- 20-year single-investor lease:
  - Lessor gets 30% cash grant, depreciation deductions, and lease payments
  - Lessee gets cash revenue net of operating costs and lease payments

Ridgewind Power Partners, LLC
First Sale/Leaseback of a Wind Project

- Using just one entity – Union Bank – for both construction and permanent financing simplified the financing process (and eliminated the potential for inter-creditor issues)
- Year-to-year variability of wind is often cited as a barrier to lease financing, but with the 30% cash grant, the risk is similar to that of project-level debt
  - Both involve fixed payments that are independent of how well project performs
  - 30% cash grant reduces capital needs and performance risk relative to PTC
- Turbine choice is important – sale/leaseback might not have been possible with unproven, or even second-tier, turbines
- PRC's use of an experienced financial consultant helped to "get its foot in the door" at Union Bank
- Once the project is operational, PRC will seek to expand community participation and benefits by implementing its *Minnesota Windshare* program (eliminates development risk)

South Dakota Wind Partners, LLC
First Intrastate Offering Combining Debt and Equity

Project Overview:

- 10.5 MW (7 x 1.5 MW GE turbines) project, piggybacking on Basin Electric Power Cooperative's adjacent 151.5 MW "PrairieWinds SD1" project
- Basin will construct and operate both projects (all 162 MW) and will also buy the power from SDWP's 10.5 MW
- SDWP will pay Basin 6.48% (=10.5/162) of total construction and operating costs (but power sale will be from 7 specific turbines)
- SDWP's 6.48% portion of overall project is expected to cost ~$23.5 million
- SDWP initially formed by 4 organizations to enable their members (and other SD residents) to directly invest in wind power
  - East River Electric Power Cooperative initiated and championed the project
  - Joined by SD Corn Utilization Council, SD Farmers Union, SD Farm Bureau

South Dakota Wind Partners, LLC
First Intrastate Offering Combining Debt and Equity

- 3 share classes offer varying combinations of equity and 6.5-year note:
  - Class A: $750 equity, $14,250 note paying 7% (~$7 million raised in 2 weeks)
  - Class B: $1,500 equity, $13,500 note paying 6.75% (~$4.5 million in 4 weeks)
  - Class C: $14,250 equity, $750 note paying 5.5% (~$5.3 million in 8 weeks)
- At 6.5 years, mutual buyout option (either party can trigger) at formula-based price – likely to be exercised
- Intrastate offering raised ~$16.8 million in 8 weeks (Aug-Sep 2010)
  - Through a series of 27 public meetings, >600 investors (mostly individuals) from across the state invested an average of ~$27k each
  - ~$11 million in debt and ~$5.8 million in equity
  - Remainder (~$6.7 million) will come from Section 1603 cash grant
- Cash grant critical to success (reduces need for tax appetite)
- Novel way for distribution cooperatives to facilitate member investment in wind power without confronting “all requirements” issues

Coastal Energy Project, LLC
First Use of NMTC and Inverted Lease for Wind

6 MW (4 x 1.5 MW GE turbines) in Grayland, WA (~$18.8 million)

First Wind Project to Combine New Markets Tax Credit (NMTC) *and* 30% Section 1603 Grant…

- NMTC is a 39% ITC taken over 7 years (5% first 3 years, 6% next 4)
- Intended to encourage private investment in low-income communities
- NMTC's flow from investment in a Community Development Entity (an intermediary) rather than a project (i.e., NMTC's are once-removed)

…Within an "Inverted" or "Pass-Through" Lease Structure

- Sponsor is the lessor and tax equity is the lessee – i.e., the opposite of a normal lease
- Lessor passes through the cash grant (or ITC) to lessee
- Lessee makes lease payments out of power sales revenue
- When lease expires, lessor retains ownership – no buyout needed

Coastal Energy Project, LLC
First Use of NMTC and Inverted Lease for Wind

Very complex structure – *don't try this at home!*

- Two different tax equity investors, two different CDEs
- Potential tax risk and significant transaction costs

Replicability of this structure depends on *two* extensions:

- NMTC program must be extended beyond 2011
- Access to the ITC and/or cash grant must be extended beyond 2012, because leasing is not permissible under the PTC

Complexity and potentially limited replicability not a promising mix for community wind

- But still good to have NMTC's on the radar screen (they offer big value)
- NMTC's will likely not cause a PTC haircut (useful if ITC/grant expires)

PáTu Wind Farm, LLC
Piecing Together State and Federal Incentives

- 9 MW (6 x 1.5 MW GE turbines) project in Sherman County, Oregon
- Power to be sold to PGE under 20-year PURPA contract
- Surrounded by 850 MW of commercial wind (Klondike and Biglow Canyon)
  - Enables sharing of cranes and other infrastructure
- LLC comprised of Oregon Trail Wind Farm, LLC (the project sponsor) and high-net-worth individuals (only some of whom have tax appetite)
- 5-year development process, plagued by many twists and turns
  - Pre-financial crisis, had partnered with MMA Renewable Ventures to take PTC
  - When that deal fell apart, brought in Vert Investment Group to pull together the current financing package
  - Early applications to state BETC and loan program paid off, as project was grandfathered against subsequent reductions in the BETC
- Oregon Trail Wind Farm will manage the project, with enXco handling O&M
- Achieved commercial operations in December 2010

PáTu Wind Farm, LLC
Piecing Together State and Federal Incentives

- Estimated cost of project is ~$23 million (some of which incurred earlier)
- Construction Financing:
  - $16.5 million loan from CoBank (part of the Farm Credit System)
  - $5.685 million preferred equity investment from high-net-worth individuals
- Upon commercial operations, project will receive:
  - ~$6.2 million Section 1603 cash grant (exact amount TBD)
  - ~$5.5 million Oregon Business Energy Tax Credit pass-through (amount TBD)
  - $10 million term loan from the Oregon Department of Energy (20 years, ~6.25%)
  - Accelerated depreciation benefits and net revenue from power sales
- Interest of preferred equity flips down to 90% upon return of principal, and then to 50% upon hitting IRR hurdle rate
- At the end of year 5, Oregon Trail Wind Farm has a 1-year option to buy out the remaining 50% equity interest

Observations and Lessons Learned (1)

1) **The Recovery Act has been critically important to most of these projects (note: none of these projects elected the PTC!)**
   - Section 1603 cash grant reduces the need for tax appetite and otherwise simplifies financing (SDWP, PáTu)
   - ITC/grant enable leasing and reduce performance risk (Ridgewind, Coastal)
   - No subsidized financing “haircut” for ITC/grant (PáTu)
2) **Don’t underestimate the need for seed capital**
   - *At least* several hundred thousand dollars for projects in this size range
3) **Piggybacking on nearby projects can help ease the burden**
   - SDWP and, to a lesser extent, PáTu
4) **Partnering with experienced professionals can create opportunities**
   - Fox Islands (EOS and Cianbro), Ridgewind (PRC and Miracol), SDWP (Basin and Val-Add Service Corp), PáTu (Vert Investment Group), Coastal (tax lawyers and accountants!!)

Observations and Lessons Learned (2)

5) **Consider the RUS as a lender – "not just for cooperatives anymore"**
   - RUS is coming up to speed on wind (Fox Islands was first wind loan) and is hoping to expand in this area
   - Currently available instrument is an "FFB Guaranteed Loan" – *the IRS does NOT consider loan guarantees to be subsidized financing*

6) **Don't overlook New Markets Tax Credits**
   - Though complex to structure, they provide big value

7) **Be prepared for a long haul**
   - 5-year development cycle not uncommon (PáTu, Ridgewind, Coastal)

8) **The transition to operational phase can bring new challenges**
   - PáTu dealing with BPA regs (scheduling, integration)
   - Fox Islands dealing with noise issues
   - Coastal having integration/voltage issues
   - Ridgewind will be implementing its *Minnesota Windshare* program

For More Information

Read the full 28-page report, freely downloadable from:
http://eetd.lbl.gov/EA/EMP/re-pubs.html

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