BIRCH TREE CAPITAL

Financing Municipal & Private Wind Projects:

What is Working Today

Land-based Wind Workshop, November 17, 2006

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Birch Tree Capital Background

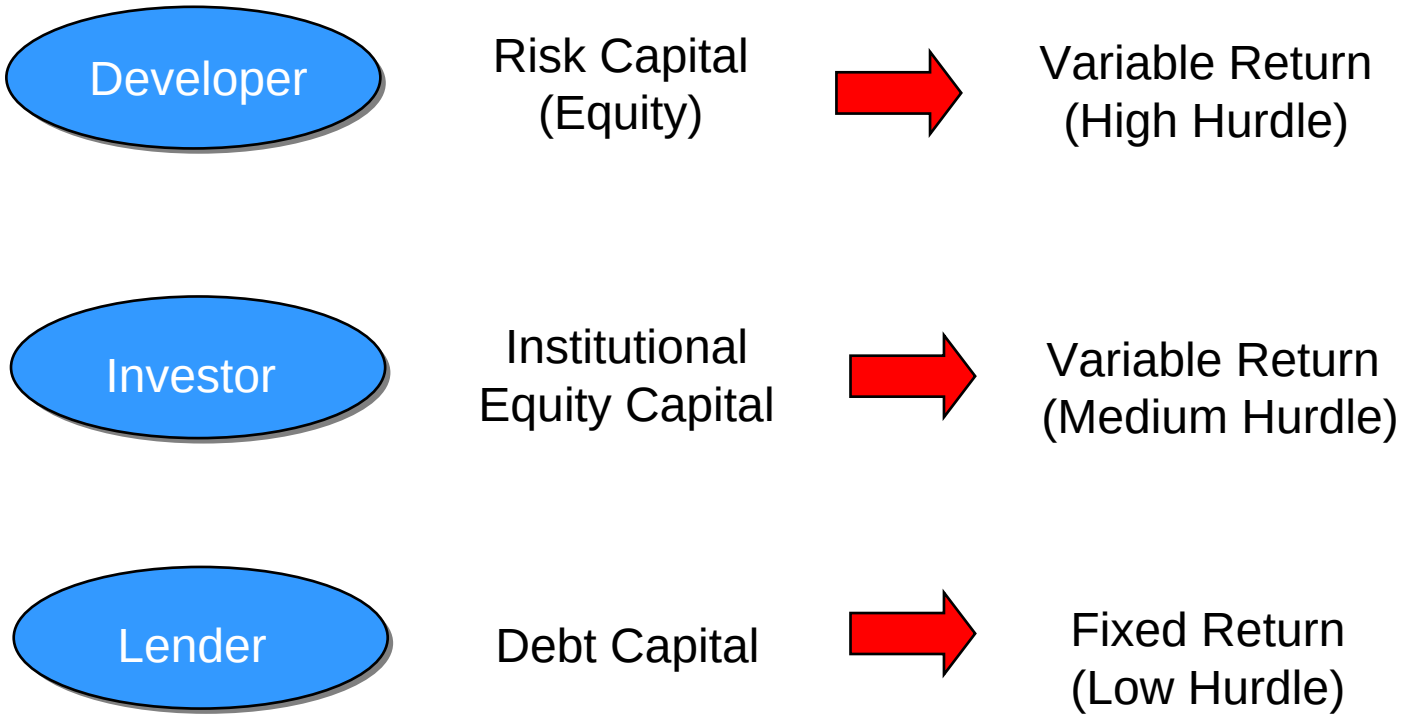
- Independent advisory firm providing financial consulting services in support of financing clean power generation projects:
  - Dual focus on community and utility-scale wind power projects.
  - Diverse client base including private developers, investors, and public entities.
  - Based in Boston area.

- Recent community wind-related assignments:
  - Co-authored September 2006 cooperative investigation study for the Cape Light Compact.
  - Assisted Town of Orleans in assessing financial impact of its proposed community wind project.
  - Prepared CREB applications for two Mass. towns and two public entities in Wash. in support of their proposed wind power projects.
  - Developed *pro forma* Excel-based financial model for the Mass. Technology Collaborative for the Community Wind Collaborative.

Role of Financing

- Financing as just a tool enabling the undertaking of a desired activity.
- Getting someone else to front (or share) the costs of a desired investment.
- Financing as an exercise in risk allocation – negotiating who will take the risks (and rewards) of a given investment's potential failure (and success).

Risk/Reward Scenarios:



A key question: Who will own the project?

- A developer doesn't have to own the project.
- Developer and investor interests are similar, but not identical.
- Slicing and dicing wind project ownership:
  - Allocating cash flow, tax benefits, control, residual value.
  - Varying allocations over time to match interests, goals.
- Investors vary in their return requirements and risk tolerance.
- Different project sizes interest different investors.
- Timing of the sale in the project development cycle.
- Meshing equity with debt priorities & needs.

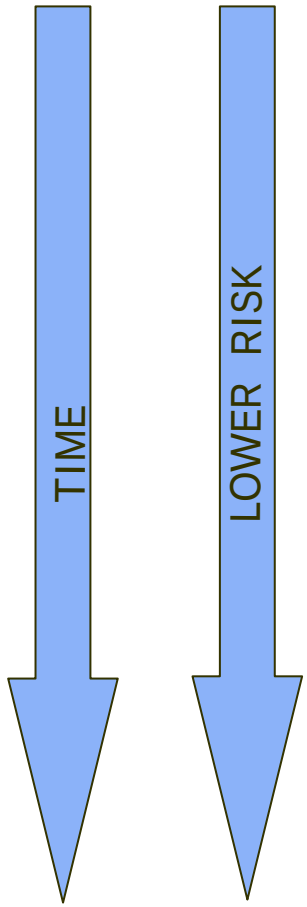
Why involve a third party investor?

Some possible reasons:

- Avoid risky cash investment during project development phase.
- Inability to make efficient use of Federal tax incentives.
- Lack of capital.
- Lack of capable/available personnel.
- Investor may have turbines and/or development expertise.
- Low risk tolerance for merchant power sales.
- Low interest in undertaking development tasks.
- Sponsor‘s principal interest is not project development, but rather to:
  - Respond to community demand for green power.
  - Mitigate price or availability risks of other fuel sources, e.g., natural gas
  - Enable local control over power supplies
  - Combat global warming.
  - Monetize underutilized assets, e.g., land, wind.

Types of financing vary as projects develop:

- Conceptual interest
- Site identified & secured
- Viable wind resource assessed
- Power & REC sale arrangements worked out
- Other agmts. signed
- Permits secured
- Start of construction
- Comm. operation date



- Development equity
- Strategic equity
- Construction debt
- Non-recourse debt & tax-oriented passive equity

Federal, state, local grants, conditional loans, & subsidized bonds

Private Equity Types:

- Venture or Development Equity:
  - Investing in the project developer and/or the project.
  - Early stage focus to ensure access to project oppportunities.
  - Focus on profits from selling a project to later stage investors.
  - Highly confident in ability to identify/develop profitable projects.
  - Highest risk, highest potential returns.
  - Examples: individual entrepreneurs, aggressive utility subsidiaries, development subsidiaries of wind industry companies.

- Strategic Equity:
  - Investing in the project developer and/or the project.
  - Primary focus on profits from project operations, but open to selling project.
  - Confident in ability to identify profitable projects early in development.
  - Adds value to project via development expertise and/or access to turbines.
  - Tax credit appetite affects ultimate hold/sell decision on operating project.
  - Examples: large foreign oil & gas and utility firms entering U.S. market, domestic utility development subsidiaries, aggressive institutional financial investors.

Private Equity Types (continued):

- Active Investment Equity:
  - Investing in the project.
  - Focus on profits and tax benefits from project operations.
  - Project purchased after debt closed, i.e., all contracts signed and all other financing is in place.
  - Examples: equity funds, cautious utility subsidiaries.

- Passive Equity:
  - Investing in the project.
  - Focus on profits and tax benefits from project operations.
  - Commitment prior to construction, but funding only after construction is complete and operations have commenced.
  - Focus on tax benefits and, secondarily, cash flow.
  - Limited role in project management – passive portfolio investment
  - Example: banks, life insurance companies, and other tax-oriented institutional investors

Private Developer/Investors:

Some developers & investors considering smaller wind projects:

- CH Energy Group
- Community Energy, Inc.
- CPV Wind Ventures, LLC
- G. MacNeilus, LLC (Minnesota focus to date)
- John Deere Credit
- Midwest Wind Energy Finance, LLC
- Minuteman Wind, LLC
- MMA Renewable Ventures
- New Energy Capital, LLC
- Palmer Capital Corporation
- Patriot Renewables, LLC/Jay Cashman, Inc.
- UPC Wind Partners

List is small, but expanding. Additional financing sources are crafting business models to enable entry into this market segment.

Utility-scale wind financing structures:

Differing developer needs & capabilities have fostered several structures:

1. *Corporate*: All-equity by single developer/investor, no flip (assumes developer/investor can use the Federal tax incentives).
2. *Strategic Investor Flip*: All-equity, with an investor contributing almost all of the funds, e.g., 99.9% (developer contributes the remainder), and receiving an equal percentage of the cash & tax benefits prior to a return-based flip in the allocations.
3. *Institutional Investor Flip*: All-equity, with an investor contributing most of the funds, e.g., 60% (developer contributes the remainder), and receiving all of the tax benefits and, after the developer has recouped its investment, also all of the cash benefits, until a return-based flip in the allocations.
4. *Cash Leveraged*: Structure #2, but with commercial debt, with the loan amount and amortization based on the level of cash flow from long-term power & REC sales.
5. *Cash & PTC Leveraged*: Structure #2, but with commercial debt, with the loan amount and amortization based on the level of cash flow plus a monetization of the Federal production tax credits (PTCs).
6. *Back Leveraged*: Structure #3, but with the developer using commercial debt to finance some of its own share of the initial capital.
7. *Pay-As-You-Go*: Structure #3, but with the investor contributing funds not at commercial operations date, but mostly as the PTCs are generated over time.

Community-scale wind financing structures:

Small size and tight budgets mandate “KISS” principle.

1. *Corporate*: All-equity by single developer/investor, no flip. Project sponsor sells project to private entity able to complete project development and to use the PTCs. Original project sponsor contracts to buy power from the project.
2. *Strategic Investor Flip*: All-equity, two equity investors. Community and small-scale wind developers elsewhere in the U.S. are using it to create a partnership with a private strategic developer/investor.
3. *Institutional Investor Flip*: Not used.
4. *Cash Leveraged*: Rarely used.
5. *Cash & PTC Leveraged*: Not used.
6. *Back Leveraged*: Not used.
7. *Pay-As-You-Go*: Not used.

Other financing options:

Public & quasi-public sources for grants, loans, subsidized bond support, pre-paid purchases, and other official assistance

Bond financing

Cooperative financing from CoBank, NRECA, NRUCFC

Sources of Public Debt & Grant Financing:

- US Department of Agriculture (USDA) Rural Utilities Service
- USDA Rural Development Electric Programs (Farm Bill Sec. 9006 financing)
- US Treasury Clean Renewable Energy Bond (CREBs) program
- MA & RI clean energy funds

Examples of Community Wind Financings:

Projects Owned by Public Entities

Method	Examples (support, name, type, size, sponsor, state)
Internal funds	• Hull Wind 2, wind, 1.8MW, Town of Hull, MA
Appropriations or grants from parent entities, e.g., state	• MA Maritime Academy, wind, .66MW, MA • Santa Rita jail and other Alameda County facilities, solar, 2.5MW, CA
Grants and other official and state clean energy fund support, including pre-payments for power, RECs, and/or green tags	• (Forgivable loans), Eurus Combine Hills I, wind, 41MW, Eurus Energy, OR • (Grants) Orleans wind project, wind, 3MW, Massachusetts Technology Collaborative, MA • (USDA Sec. 9006 grant), bio-digester, Cayuga County Public Power Agency, NY
Bond financing	• Ainsworth wind farm, wind, 60MW, Nebraska Public Power District/consortium of municipal utilities, NE • Nine Canyon Wind Project, wind, 63MW, Energy Northwest, WA • Community wind projects using clean renewable energy bonds (CREBs) (pending), 1-5 MW, multiple sponsors
Public/private partnerships	• Fairhaven wind project (proposed), wind, 1-3MW, Town of Fairhaven, MA

Examples of Community Wind Financings:

Projects Owned by Cooperatives, Community, or other Groups

Method	Examples (support, name, type, size, sponsors, state)
Equity by cooperative/community entity owners	• Minwind I/Minwind II, wind, 3.8MW, Minnesota • Portsmouth Abbey wind turbine, .66 MW, Portsmouth Abbey School, RI
Third party equity joining the original developer as a partner	• Trimont Area Wind Farm, LLC, wind, 100MW, Trimont farmers/PPM Energy, MN • Various wind projects, John Deere Credit (investor), MN, OH, MO
Grants and other official and state clean energy fund support, including pre-payments for power, RECs, and/or green tags	• (USDA grant), single wind turbine, 1.65MW, Nobles Cooperative Electric, MN • (upfront grants, green tag purchases), single wind turbine, 1.65MW, Illinois Rural Electric Cooperative, IL • (multiple USDA sec. 9006 grants), Community Wind North, wind, 30MW, MN
Debt financing	• (Rural Utilities Service low-interest loan), landfill gas to energy, 4.5MW, Washington Electric Cooperative, VT • (Rural Utilities Service low-interest loan), wind turbine, 1.65MW, Illinois Rural Electric Cooperative, IL • (Unidentified bank), Minwind I/Minwind II, wind turbines, 3.8MW, MN • Various wind projects, AgStar Financial Services (lender), MN

Final Thoughts:

- Renewable power and, in particular, community wind, enjoy broad and deepening popular and political support.
  - DOE's Renewable Energy office led by a wind power developer.
  - Financial incentives likely to grow at both Federal & state levels.
  - What can state government do?
- The "*It takes a Village*" concept applies also to developing a wind project. No single entity has the technical, organizational, personnel, financial, or spousal patience to complete a project without assistance. Partnerships are essential.
- There are multiple ways to finance a project.
- The USDA Sec. 9006 grant & loan program works. In last three years, 435 grants totaling $66.7 million and $10 million in guaranteed loans. The program will grow in coming years. Cape Cod qualifies.
- Keep it simple. Really.

Thank you.

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