

Evolving Times: Developing 2 NE Wind Projects

G O R D O N D E A N E , P R E S I D E N T
P A L M E R C A P I T A L C O R P O R A T I O N

Palmer Capital

History

- Developer and Investor in Energy for over 30 Years

Track Record

- \$2.2 Billion in Energy Project Financings

Technologies

- Landfill Gas, Synfuel, Biomass, PV Solar, Community Wind and will look at others

Portfolio Approach

- Smaller, Similar Projects

Offices

- Chicago, Cohasset, New York, Los Angeles, Seattle

National Footprint

- From Maine to Hawaii

Community Based Renewables

Concept

- Commercial-scale renewable projects that provide benefits to host community

Smaller Capacity

- 200 kW – 20 MW

Community Involvement

- Direct: Municipal Public Works and Utility Departments, Co-op, Local Businesses
- Lease of Public or Private Land
- Power Purchase Agreement (PPA) with Purchase Option – Sales to Municipality, Business, Utility

Community Benefits

- Income from Site Lease and Property Taxes/PILOT
- Energy Savings and/or Long-term Price Stability
- Environmental and Public Relations Benefits

Why Palmer (or any private developer)

- Experienced and Specialize in Field
- Not Risking Limited Public Capital
- Ability to Pursue Available Incentives to Improve Project's Economics

Project Development: A Snap Shot

The Good

- Progressive Local and State Policies
- Low Interest Rates
- Mature Technologies
- Evolving Financing Models

The Bad

- National Project Finance Banks: Bigger is Better
- Regional Banks: Lack of Energy Experience
- Tax Equity → YieldCos

The Ugly

- Inconsistent Local, State and Federal Policies
- Incentive Uncertainty

Financing: Evolution

Pre-Recession

- Multiple tax-equity partnerships
- Production based tax credits (PTC)
- Utilized partnership-flip model
- Emergence of tax credit safe-harbor

Recession

- Tax equity dried up
- 1603 Grant in lieu of PTC or ITC
- CREBs & QECS
- Palmer = TE for projects
- Commencement of Construction vs Placed in Service

Post-Recession

- Tax credits expired but possible extension with phase out for PTC?
- Start Construction safe-harbor relaxed
- Tax equity returning
- Emergence of YieldCos

Two Projects: Bird's Eye View

Item	Smaller	Larger
Turbine	2 x Sinovel 1.5 MW	5 x GE 2.85 MW
Landowner	Town of Fairhaven, MA	Private
Location	Waste Water Treatment Facility	Jericho Mountain, Berlin, NH
Project Cost	Almost \$9 million	Over \$30 million
Anticipated Output	7.2 MM kWh	31.8 MM kWh
"Local" Power Consumption	100%	70%
Power and RECs	100% of Power & RECs under long-term contracts	100% of Power & RECs under long-term contracts
Power Price Risk	Project shares a portion of NMC risk with Town	Potential negative pricing

Two Projects: The Nitty Gritty

Smaller

- Debt from one local bank
 - \$3.04 MM QECCBs
 - \$3.28 MM Term Loan
 - \$2.10 MM Bridge Loan
- Bridge Loan - paid off from 1603 Grant
- QECCB and Conventional Loan – Interest only for 1-Year then 15-year amortization schedule
- Equity – Balance of Costs

Larger

- Debt from two local banks
 - \$4.095 MM QECCB
 - \$13 MM Term Loan
 - \$13.8 MM Bridge Loan
- QECCB and Term Loan – Interest only for 18 months then 15-year amortization schedule
- \$1 MM NHPUC Grant
- Equity – Pays off Bridge Loan and Balance of Costs

Qualified Energy Conservation Bonds

American Recovery and Reinvestment Act of 2009

- Increased national bond cap by \$2.4 Billion to \$3.2 Billion
- Capital expenditures for renewables, efficiency, mass transit, demonstrations, green communities, education

Taxable Direct Subsidy Bonds

- Interest Rate Subsidy: 70% of Federal Tax Credit Bond Rate on Bond Sale Date
- QECB issuer pays taxable coupon and receives quarterly rebate in arrears from U.S. Treasury

Allocation

- Formula based on population of states with sub allocation to communities
- Up to 30% of allocation allowed for private activity projects
- MA – \$67.41 MM; NH – \$13.65 MM

Process

- Award Determined by Department of Energy Resources
- Issued and Administered by each state's respective bond finance agency
- Bond financing adds additional complexity and cost

NH PUC Grant

State Level Incentive

- Funded through Alternative Compliance Payments, RPS

Use of Proceeds

- Capital expenditures for renewables (REC generating projects)

Funding Level

- Available funds vary with ACP -- \$1-19 MM

Process

- Annual competitive solicitation

Taxes

- Taxable grant (seen as income to project)

Two Projects: Step by Step

Smaller

- 2004 – Town Passes Wind Bylaw
- 2006 – Public RFP
- Mid-2007 – Town Meeting Approval, Sign Lease–20 years with Two 5-Year Options
- 2007/08 – Design & Permitting; NIMBYs appear
- July 2008 – Green Communities Act
- December 2009 – NSTAR Net Metering Tariff is Finalized
- 2010 – Rewrite PPA Provisions to Be Compatible with Net Metering Rules; Pursue Interconnection Options
- 2011 – Financing and commence construction; lawsuit
- 2012 – Commence operations; more lawsuits
- 2013 – Election and noise curtailment plan
- 2014 – Won last lawsuit

Larger

- 2011 – Meet landowner, commence construction to preserve 1603 grant for 3 MW project
- 2012– Interconnection requirement requires a larger project to amortize costs; project size increases to 8.55 MW
- 2012-13 – Permitting larger project; local and NH Site Evaluation Committee
- Late 2013 – IMBY – adjacent landowner wants expanded project; commence construction on Phase 1
- 2014 – Permitting, design, construction, debt financing for 14.25 MW; all foundations installed prior to 1/1/2015
- 2015 – Complete construction & financing
- 4th Q 2015 – Commercial Operation

Two Projects: Lessons Learned

Smaller

- Projects benefit from forward thinking and supportive local leaders
- Majority of residents are supportive
 - Demonstrated via election and Friends of Fairhaven Wind
 - Similarly demonstrated in Scituate
- Home rule provides varying results
- Opposition can organize and does not care about real facts
- MA DEP noise policy is biased against wind energy and unpredictable
- Be prepared to spend money on lawyers
- Small project financing is difficult

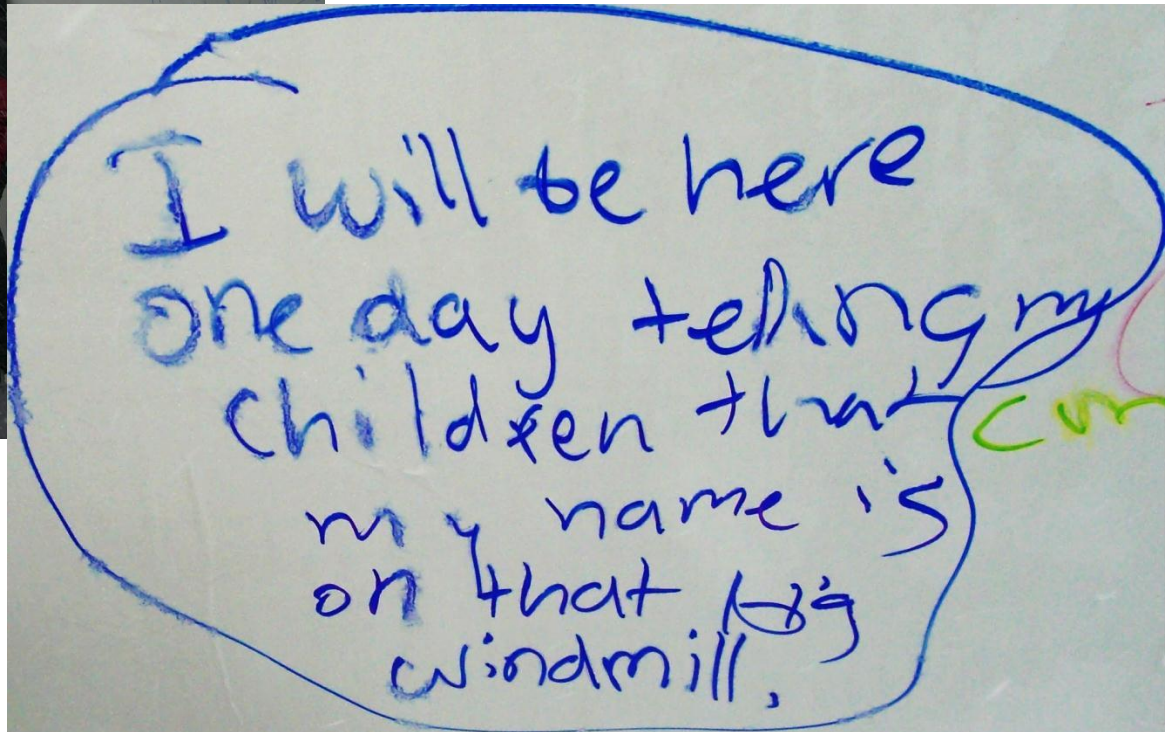
Larger

- Projects benefit from forward thinking and supportive local leaders
- Helps to be rural
- State level review provides a means of bringing expertise to the table
- Opposition less likely in areas already hosting power plants and other infrastructure
- Opposition needs ring leaders to stir the pot
- Neighbors can be (overly) friendly
- Even somewhat larger project financing is difficult
- YieldCo approach is dominant

Successful But Much Room for Improvement

- MA needs predictable noise policy that does not discriminate against wind energy
- MA, like NH, should provide more support to local boards for factual permitting review
- Net metering needs to be extended, at least for municipalities
- Need better recognition of all benefits from renewable energy vs. costs of fossil fuels
- Uncertainties at Federal, state and local levels make development risky given the timelines

But the Future Is Still Bright



Thank You

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QUESTIONS?