



10-Dec-2002



Princeton Municipal Light Dept. Wind Farm Project

- Environmental and community impact was our primary concern
- Since project meet our renewable energy strategy without additional cost, we did not sell project based on environmental benefits
- Environmental and community impact is minimized by small size of this project
- There are always tradeoffs, don't hide them
- PMLD will work with our neighbors, DEM & Audubon, to minimize environmental impact
- PMLD has taken stance that NIMBY is not acceptable, we are all responsible



Princeton Municipal Light Dept. Wind Farm Project

- On September 3, 2002, PMLD Board of Light Commissioners unanimously approved to go forward with Wind Project
- Units will be installed by Fall 2003
- PMLD will utilize private partnership to develop site
- Creates cost savings on an annual basis
- Project allows PMLD to generate energy cheaper than it can purchase through its current power contract
- Continues our commitment to renewable energy



Princeton Municipal Light Dept Wind Farm Project

- Considered both Bond and partnership
- PMLD ranked bond & partnership options by NPV and IRR
- Bond provides greatest value at the highest risk to PMLD and ratepayers
- Partnership provides similar but lower value without capital risk
- Our goal was to provide renewable energy at a cost comparable to what we would have paid in the market
- How it was financed is important but both financing options met our goals



Princeton Municipal Light Dept. Wind Farm Project

- Long term energy cost is \$.0537 kWh
- Contract price increases 2-3% annually
- Based on 8,000,000 kWh's purchased
- Cost is \$430,000
- Units generate energy at \$.0506 kWh
- Cost of wind energy is \$0
- Annual Cost is \$405,000
- \$24,800 Energy Savings
- \$21,600 in REPI credit
- \$35,000 in RPS value
- **\$81,400 annual savings**



Princeton Municipal Light Dept. Wind Farm Project

- The project will cost approximately \$3,750,000
- Bond would not effect the tax rate
- Does not effect electricity rates, since project has positive cost flow from year 1 through 20.
- Bond amount is excluded from Town debt
- Chapter 44, Sec. 8 MGL, Chapter 164A, sec. 15
- Requires 2/3 approval at town meeting
- Partnership is created through RFP process
- Partnership is legally more challenging but achievable



Princeton Municipal Light Dept. Wind Farm Project

- Decision is based on almost 3 years of study, customer research, and technical analysis.
- Winter 2000 customer survey results
 - 726 returned surveys out of 1,250, 58% response rate
 - 66% support continued investment in wind farm
 - 78% support larger more efficient units
 - 68% want PMLD to maintain environmentally sound power supply
- Various public meeting, informational hearing, and tours



Princeton Municipal Light Dept. Wind Farm Project

- PMLD proposes to install (2) 1,500kW Turbines at existing site
- Old units would be removed and sold. There is a market for small reliable units
- New Units would generate 40% of the town's energy
- Enough energy for approximately 800 homes.
- Wind resource was re-monitored since July 2000 to prove average wind speed of approximately 7 m/s at hub height.
- Proposed generators would sit on 230' monopole tower (current tower is 100'). Blades 118' long.



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