

Community-Scale Wind Case Study Discussion Points (9/10/07)

- (1) Community-scale
 - (a) Towers frequently shorter than 120 feet (no lights, less site, but less wind)
 - (b) Typically smaller concentration with 1-3 turbines being the norm
 - (c) Turbines are usually 50 kW to 500 kW
 - (d) Minimal to no transmission problems (direct local connection is the norm)
 - (e) Possibility of direct positive impacts on residents and the community
- (2) Wind data
 - (a) “Wind” is absolutely CRITICAL for site feasibility (not universal!)
 - (b) Traditional MET tower study is cost prohibitive (\$30,000+ for 1 year)
 - (c) Wind data gathering subsidy is expensive (Massachusetts example)
 - (d) Guerrilla data gathering methods may be possible (using existing towers)
 - (e) Mount View School is trying to scavenge data from several sources
- (3) Net metering and behind-the-meter sales
 - (a) Current 100 kW for net-metering is limiting for high demand user
 - (b) Small aggregator rule (Chapter 315) may be helpful for projects 500 kW and up because the value of the delivery component is shrinking
 - (c) Demand charges are a significant impediment to cost reduction
- (4) Lack of fixed energy price
 - (a) Long term contracts are unlikely due to small scale of deals
 - (b) Variable price (net-metering and small aggregator) is hard to finance
 - (c) Preliminary prior proposal to FAME
- (5) Grid system issues
 - (a) Full, formal, interconnection/stability studies are cost prohibitive
 - (b) Standardizing grid interconnection protocols for small systems helpful
- (6) Permitting concerns
 - (a) Mount View School has benefit of a minor amendment to a DEP permit
 - (b) Pre-development and permitting costs can overwhelm small projects
 - (c) Statewide community-scale wind ordinance would be helpful
 - (d) Standardized environmental impact criteria may be feasible
- (7) Private development model is rarely feasible under current regimes
 - (a) PTC-based tax credit equity finance is not feasible for small projects
 - (b) PUC rules requiring same-site location are a problem
 - (c) Where same site is feasible, the PUC *Boralex* decision could be a problem
 - (d) Allowing remote siting of generation from user could be huge stimulus
- (8) Turbine efficiencies/productivity
 - (a) Very few mid-range turbines (50 KW to 660 kW) are being manufactured
 - (b) These turbines require higher wind for turning on; have less-steep power curves which means fewer practical sites than larger turbines based on wind
 - (c) Very little R & D in small turbines (engineer shortage, limited market), but industry interest increasing (AWEA stimulus package in Congress)
 - (d) Servicing may be a concern until there is a concentration in Maine