

# Zoning for a Wind Energy Project in Massachusetts

Presentation to  
Montachusett Regional Planning Commission  
March 22, 2011  
Donald S. McCauley

# Your Presenter

- McCauley Lyman, LLC
  - Boutique Law Firm focused on renewable energy
- Minuteman Wind, LLC
  - Developing 12.5 MW wind project in Savoy, MA
- Planning Board Member
  - Wellesley MA



# Disclaimer and Warning

- Views expressed are those of the Presenter and not of any other person or company.
- After 8 years tilting at windmills, Presenter can become a bit testy.



# The Dream



## *Photo Simulation of Savoy Wind Power Project*

### **About the Project:**

Owner: Minuteman Wind, LLC  
Project Site: West Hill, Savoy, MA  
Turbines: Clipper Windpower Liberty, 2.5MW, five turbines  
Diameter: 96 m (315 ft)  
Hub height: 80 m (262 ft)  
Location: 42° 35.6' N 72° 58.3' W to 42° 36.1' N 72° 58.2' W

### **About the Photo:**

Viewpoint: Hawley Road  
Angle of view: 38 degrees  
Location: 42° 34.3' N 72° 59.6' W  
Distance to nearest turbine: 1.88 miles (9941 ft.)  
Apparent size and location of this turbine from this viewpoint is determined geometrically using EMD WindPro Software

## *Renewable Energy Research Laboratory*

Department of Mechanical & Industrial Engineering  
University of Massachusetts  
160 Governor's Drive  
Amherst, MA 01003-9265  
413-545-4359  
[www.ceere.org/rerl](http://www.ceere.org/rerl)  
[rerl@rerl.org](mailto:rerl@rerl.org)



# The Moral



# Philosophy

- Minuteman Wind is committed to bringing renewable energy to New England.
- Wind energy is currently the most economic renewable energy resource.
- Minuteman Wind recognizes that development of wind powered electric generation in New England is especially challenging. Land use in New England consists of intensively developed urban areas, extensive scenic areas which support a large recreation economy, and many environmentally sensitive conservation areas. Further, New England lacks large areas of agricultural land where wind energy has been most successfully developed to date in the United States.
- Minuteman Wind believes that onshore wind energy development in New England needs to focus on small projects which are consistent with existing development and landscape in New England.



# Project Summary

- 12.5 MW Project (five 2.5 MW turbines)
- Located on West Hill, Savoy, MA
- Privately owned forested land
- Limited environmental impacts
- Produce  $> 30,000$  MWh per year (about the consumption of a small college)
- Received principal permits
- Looking to sell power & RECs



# Development Timeline

- 2005
  - Site Lease
  - Feasibility Studies
  - Meet with Town Officials
- 2006
  - Environmental Investigation
  - Several Community Meetings



# Development Timeline

- 2007
  - Propose Wind Bylaw by calling Special Town Meeting
  - Many meetings with community and town officials
- 2008
  - STM adopts Wind Bylaw (joy!)
    - Key terms: Height, Setback, Surety, Consultants
  - Renew Site Lease
  - Start Permit Applications



# Development Timeline

- 2009
  - ZBA quits, permit process aborted
  - Town government almost dissolves
  - DPU: Go Back to town
  - Reinitiate permit application
  - More meetings
- 2010
  - Special Permit issued (more joy!)

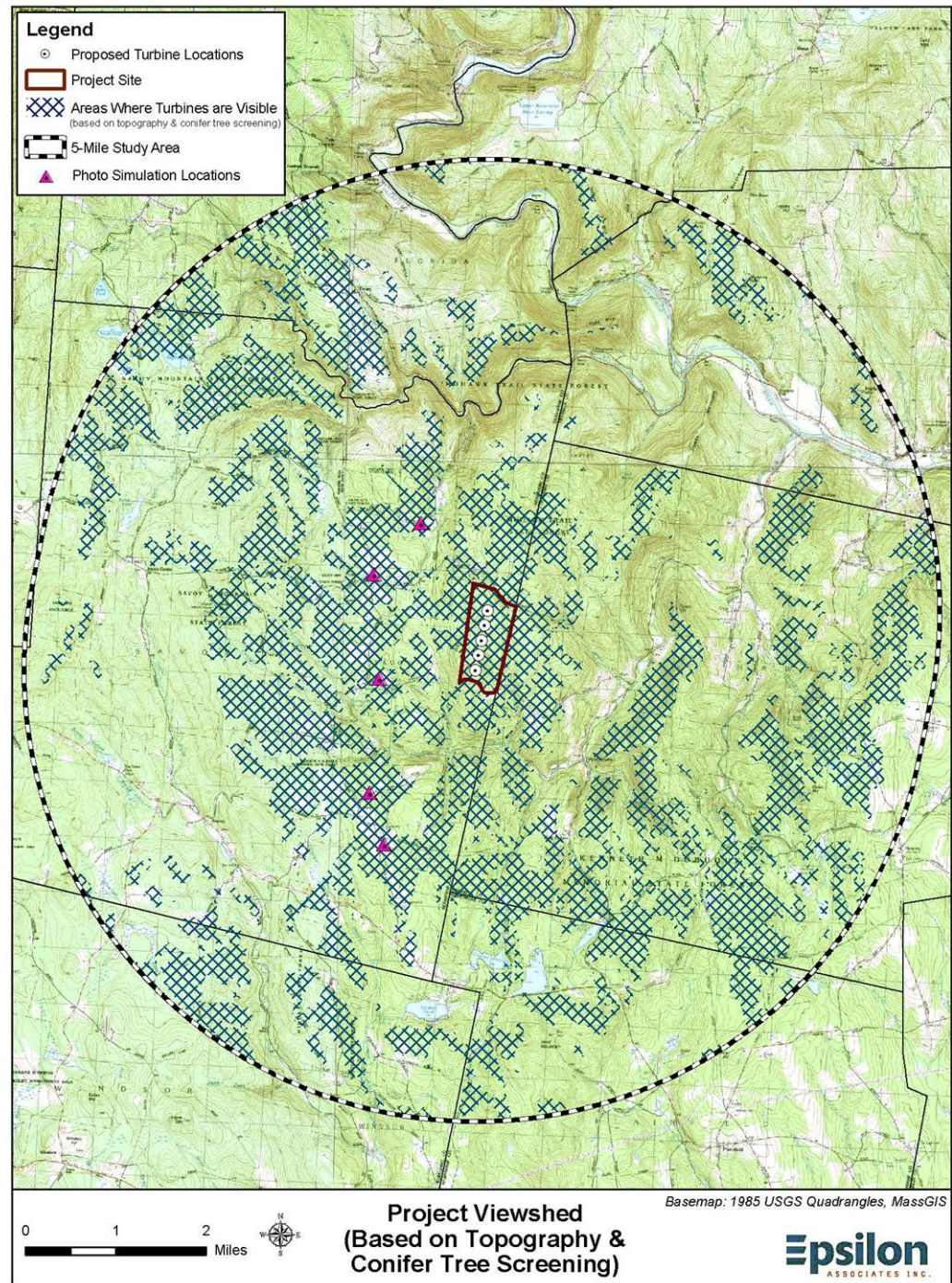


# Consideration of Impacts

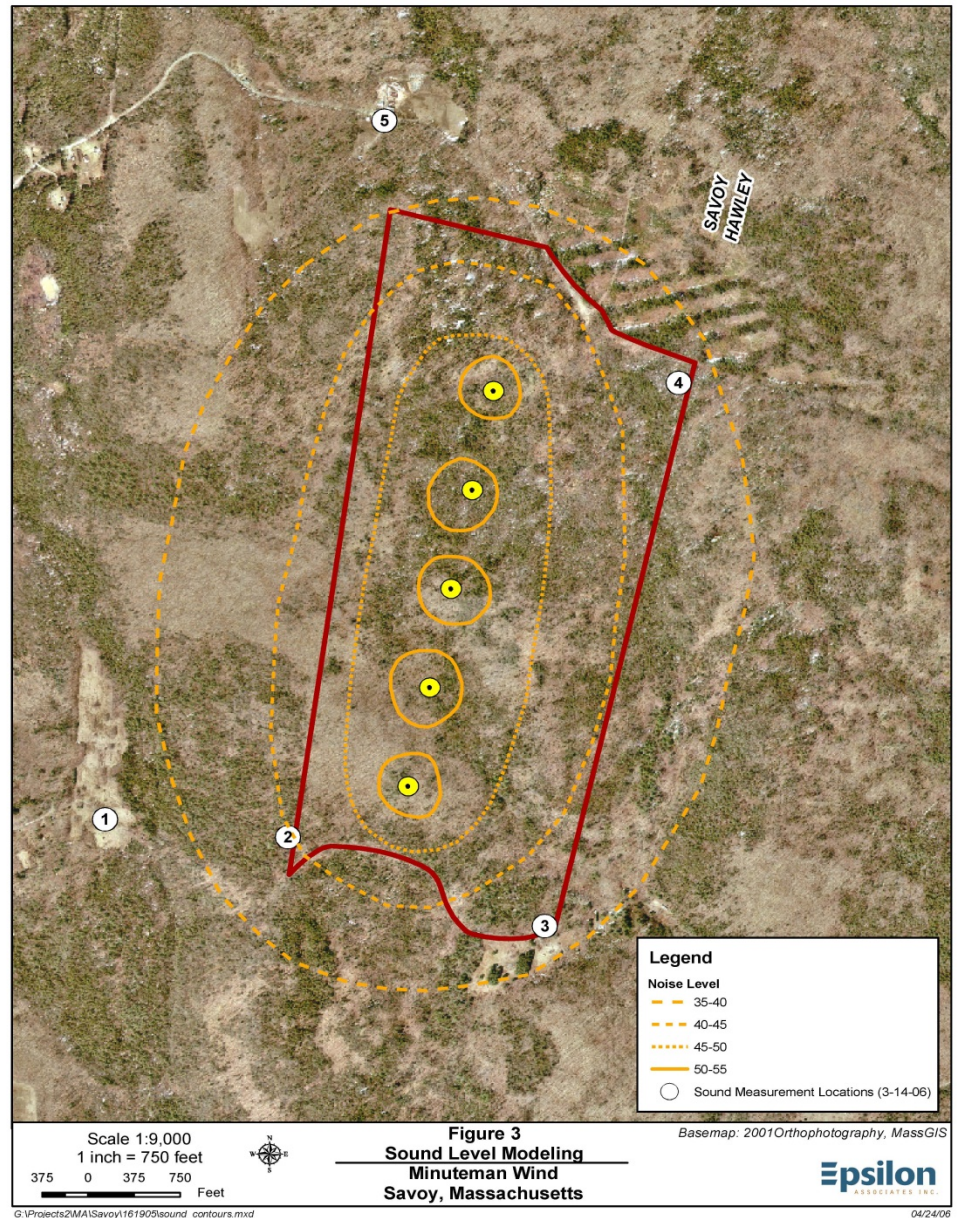
- Community Character
  - Visual Impact
  - Industrial facilities in agricultural/residential community
- Effect on Neighbors
  - Noise and Flicker
- Public Safety
  - Demands on Police and Fire Services
  - Traffic impacts
- Roads and Electric Distribution



# Visibility



# Noise Analysis



# Consideration of Benefits

- Environmental Benefit of Carbon-free electric generation
- Property Taxes
- Infrastructure Benefits
- Community Profile
  - “Our little town can show the way”



# Key Issue - Zoning

- Need for enabling amendment to existing bylaws
  - Create a special permit process
- Sources of enabling bylaws
  - > 30 different Mass Town bylaws
  - Regional planning agencies
- Town Planning Board considering a competing bylaw
- Key Step – Mass DOER and EOEA developed Model Bylaw



# Issues

- Process
  - Special Permit to be issued by ZBA
- Application
  - Plans to be submitted
  - Visualizations
  - Traffic Plan



# Issues

- Height
  - 425 foot limit
- Setback
  - 1x height from lot line
  - 2.5x height from residence
- Noise
  - Defer to DEP Regulations
    - no more than 10 dB(A) increase above ambient



# Issues

- Lighting
  - Allow FAA lighting
- Shadow Flicker
  - No significant impact
- Public Safety
  - Access
  - Training



# Issues

- Impact on Roads
  - Duty to Repair
- Decommissioning
  - Will have to establish financial surety
    - (probably letter of credit to be issued by project lender in connection with financing)



# Questions?

Don McCauley

10 Speen Street

Framingham, MA 01701

508-665-5801

[donmccauley@mccauleylyman.com](mailto:donmccauley@mccauleylyman.com)

