

Revisiting Small Wind Ordinances



Eric Steltzer
Energy Policy Analyst
eric.steltzer@nh.gov
Office: 603-271-2155

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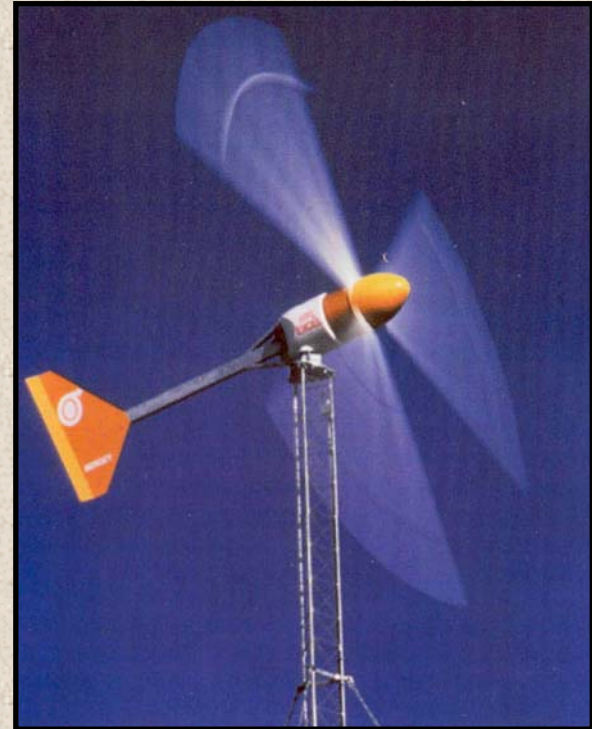
The Origins of HB310

1. Growing Demand to go 'GREEN'

- Bedford, Kensington, New Durham, Hampton, Newington, Kittery, ME
- Private property rights to use wind resource on property

2. Inadequate Public Review Process

- ZBA Variance Hearing
- Minimal inclusion of issues other than height



HB310 Overview

RSA 674:62-66

- **Municipal Regulations:** Cannot unreasonably limit, hinder small wind energy systems
 - Outright Prohibition
 - Restrict height via generic structure height
 - Setback requirements > 150% system height
 - Sound requirements < 55 decibels
 - Stricter electrical or structural requirements
- **Aviation:** Meet FAA requirements
- **Abandonment:** Establishes framework



RSA 672:1, III-a: Clarifies municipalities requirement to encourage renewable energy

RSA 672:1, III-d: Renewable energy added to definition of unreasonable interpretation of municipal regulations.

Review Procedure

- **Reviewed by Building Inspector**
 - Requires Building Permit
 - Permitted in all Zoning Districts
- **Application Requirements**
 - 150% system height setbacks
- **Abutter Notification**
 - Building Inspector required to notify abutters, including Governing Body
 - 30 day comment period
- **Regional Impact Assessment**
 - Determined by Building Inspector via RSA 36:55
 - RPC, Governing Body and Planning Board



Wind Turbines

Small Scale

- Rated Under 100 kilowatts (kW)
- Height: 40' – 150'
- Rotor Diameter: 4' – 46'
- Size of Units:
 - 1-10 kW (Residential)
 - 20 kW (Agricultural)
 - 50 kW (Municipal/Industrial)



Utility Scale

- Height: 100' – 250'
- Rotor Diameter: 70' – 350'
- Size of Units:
 - 660 kW (MMA- Bourne, MA)
 - 1.8 MW (Landfill site- Hull, MA)
 - 3.6 MW (Cape Wind, MA)

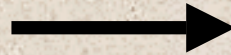


Regulatory Process

Turbine(s) Capacity

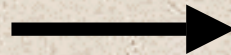
Organizational Oversight

100 kW or Less
Used Primarily for
Onsite Consumption



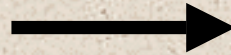
Local Jurisdiction:
Small Wind Energy System Ordinance

100 kW to 30 MW
Electricity Providers



Local Jurisdiction or Petition to State:
Normal Site Plan Review
(In most cases ZBA action)

30 MW or More
Electricity Providers



State Jurisdiction:
Site Evaluation Committee

**Approximately 20 towns have small wind energy
system ordinances adopted**

Discussion

SETBACKS

PURPOSE:

- Prevent systems from falling in abutting property
- Protect neighbors from perceived noises

LAW:

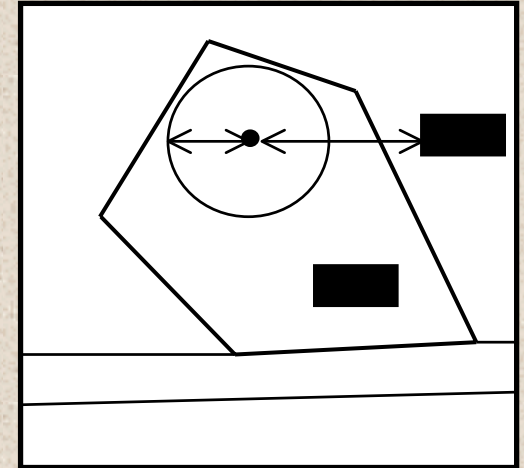
- No greater than 150% of system height
- No Ordinances, default is 150% of system height

ORDINANCE:

- 110% to property lines.
- 150% to occupied buildings on abutting property

CONCERNS:

- Too restrictive, can't site on smaller lots
- No precedent for these systems falling down



Discussion

HEIGHT RESTRICTIONS

PURPOSE:

- Minimize perceived concerns about visual disruption

LAW:

- None

ORDINANCE:

- 150 feet max. or 35 feet above treeline

CONCERNS:

- 35 feet above treeline too restrictive, Need access to wind
- No clear standard to measure treeline height



Discussion

TURBINE TYPES

PURPOSE:

- Ensure safety and quality of systems being installed

LAW:

- Must comply with NH State Building Code

ORDINANCE:

- Must comply with NH State Building Code
- Must be on the CA or NY list of approved small wind energy systems

CONCERNS:

- Building mounted systems are not addressed
- Vertical axis systems are not addressed



Discussion

TURBINE SIZE



PURPOSE:

- Compliment existing laws

LAW:

- Consistent with net metering regulations (100kw)
- Net metering laws will dictate system size (Credit not Payment)

ORDINANCE:

- Consistent with net metering regulations (100kw)

CONCERNS:

- 100kw turbines visually look different than a 10kw turbine
- Some municipalities are using 50-60kw maximums, inconsistency with state laws?
- Net Metering regulations may change in 2010

Discussion

SOUND LEVEL



PURPOSE:

- Protect Public from perceived noise disruption

LAW:

- No regulations if town does not adopt ordinance
- Ordinances can not be more stringent than 55 decibels

ORDINANCE:

- ≤ 55 dbA (decibels on A filter), except in severe storms or power outage

CONCERNS:

- Setback is not enough to protect from unwanted noise

Discussion

REVIEW PROCESS



PURPOSE:

- Expedite review process while ensuring impacts are minimized and mitigated

LAW:

- Review done by the Building Inspector

ORDINANCE:

- Review done by the Building Inspector

CONCERNS:

- Burdensome on the Building Inspector
- Building Inspector has never had to take public comment before
- Some towns are doing review through ZBA or Planning Board

Discussion

BONDING

PURPOSE:

- Protect public from the burden of removal

LAW:

- None

ORDINANCE:

- None
- Residential Bonds would be relatively low (\$500)
- A financial disincentive contrary to public policy supporting renewables

CONCERNS:

- The municipality is responsible for the cost of removal, if turbine is abandoned
- Commercial size systems (100kw) have higher cost of removal



Discussion

OTHER POINTS?

What are you hearing?



Summary

Should Anything be Changed?

- SETBACKS?
- TOWER HEIGHT?
- TURBINE TYPE?
- TURBINE SIZE?
- SOUND?
- REVIEW PROCESS?
- BONDING?

Questions??

