



THE NORTHWESTERN CONNECTICUT  
REGIONAL PLANNING COLLABORATIVE

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**Wind Energy Facility Regulation**  
**Standards and Guidelines Samples**

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Several Northwestern Connecticut Regional Planning Collaborative towns and other communities in Litchfield County have expressed interest in regulatory standards for the development and use of wind energy generating facilities. Collaborative staff prepared a Case Study on the regulations adopted by the Town of Goshen, available on the Collaborative's Website. The attached matrix of standards supplements that Case Study with additional information about the issues that Planning and Zoning Commissions face and various approaches taken by several Connecticut towns.

We reviewed the Goshen regulations and those of the towns of Salem, Ellington, and Stonington. Additionally, the Town of Kent is considering standards for wind energy devices, using standards patterned after the Goshen Regulations although with stricter limits on maximum generating capacity and town heights.

The key issues are outlined in the Wind Energy Regulations Case Study. Additional factors for commissions to consider include the regulatory approach taken for such uses and developments. Depending on the scale of a given project, wind energy facilities may be considered an accessory use (to residential, commercial, academic, or industrial uses) or a special permit use meeting site specific standards and the compatibility standards of special permit criteria. Currently, three general categories of wind energy generation facilities may be anticipated: small scale for onsite use with little or no resale of energy to the electric grid; utility scale for onsite use and sale of significant energy to the electric grid; and testing scale for research purposes or to determine wind potential.

In any event, specific size, setback, noise, and visual impact standards are necessary in addition to the standard site development environmental protections. The attached matrix outlines the standards applied by four Connecticut towns, all of which require a special permit for such use. A set of the complete regulations from those towns and additional resources may be accessed from the "Resources" page on the Collaborative's Website [www.nwctplanning.org](http://www.nwctplanning.org).

## Sample Site Development and Operating Standards for Wind Energy Generating Facilities

	Salem	Goshen	Stonington	Ellington
Types Permitted	Not specified	50% on site use	Primarily private use	Primarily private use
Capacity (kW)			60 kW	100 kW
Property size	40,000 sq.ft.		One tower per residential property; one per 5 acres non-residential properties	3 acres
Height	80' (tower)	200' Ground to blade tip	100'	65' – less than 5 acres (tower) 80' – 5 acres or more (tower)
Setbacks/Fall Zone	Tower height; incl. guy wires	1.5 time height from nearest habitable structure; 100' from any property line	Tower height; guy wires and accessories meet zoning setbacks	Tower height; incl. guy wires
Noise	45 dBA at property line	Comply with Torrington Health District standards	At property line: Residential – 55 dBA Business – 65 dBA Mfg – 75dBA All – 45 dBA 10PM – 6AM	60 dBA at nearest inhabited dwelling off-site
Visibility/Viewshed		Sight line reviews, balloon or crane demonstrations, photo simulations		Subjective – impairment of scenic vistas
Shadow Flicker		Minimize impact on neighbor uses		
Automatic braking	Yes – 40 mph wind			
Colors, aesthetics		Neutral, non-reflecting	Blend with natural and built environment	
Electronic interference	No interference			
Landscaping		Landscape plan		Buffer ground level equipment
Electric Utility approval/notice	Review and approval		Notice required	
Other tower uses	None allowed		None allowed	
Discontinuance	Removal after 12 months of non-use	Removal 150 days after discontinuance - bonded	Removal after 90 days of non-use	
Regulation	Special Exception – all districts	Special Permit – specified districts	Special Use Permit – specified districts	Special Permit – all districts

