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# **Working Paper on Developing Municipal Wind Energy Ordinances in New York State**

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## Questions Presented

What choices must a municipality make when drafting a wind energy ordinance? How have municipalities with codified wind energy ordinances dealt with those choices? How have these choices been dealt with in model municipal wind energy ordinances? What other approaches have been proposed?

## Short Answer

A jurisdiction that seeks to enact a municipal wind energy ordinance must make several choices. It first must delineate areas suitable for wind energy projects in its comprehensive plan. Then, the municipality must choose a legal mechanism to regulate wind energy projects within those areas. Lastly, the municipality must write specific regulations addressing details such as size, location, and noise.

## Discussion

In New York State, local governments hold the power to regulate wind energy projects.<sup>1</sup> Therefore, municipal zoning ordinances, to a great extent, determine the viability of wind energy projects in New York. A municipality should craft a comprehensive ordinance that clearly represents its carefully considered policy preference. The ordinance should allow wind energy projects where appropriate, yet mitigate constituents' myriad aesthetic, safety, and environmental concerns.<sup>2</sup> Poorly conceived law can engender protest or litigation.<sup>3</sup>

A number of ordinances enacted by New York municipalities incompletely address issues related to wind energy projects. Some such ordinances mandate review of the preliminary site plan for wind energy projects without detailing specific criteria for approval or denial.<sup>4</sup> Others generically state the intent to encourage wind energy projects without codifying explicit provisions to do so.<sup>5</sup> A handful of municipalities ban all wind energy projects.<sup>6</sup>

Many ordinances allow wind energy facilities to exceed standard height limits. For example, in the Town of Dover, wind energy projects may exceed height limits, provided that for every one foot that a structure exceeds the limit, the setback requirements are also increased by

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<sup>1</sup> Patricia E. Salkin, Am. Law Inst. – Am. Bar Ass'n, Renewable Energy and Land Use Regulation 11 (2009); N. Y. State Ass'n of Towns, 2009 Legislative Resolutions 4-5, *available at* <http://www.nytowns.org/core/contentmanager/uploads/2009%20Legislative%20Program.pdf>.

<sup>2</sup> See Edna Sussman, Reshaping Municipal and County Laws to Foster Green Building, Energy Efficiency, and Renewable Energy, 16 N.Y.U. Envtl. L.J. 1, 26-28 (2008).

<sup>3</sup> See generally Brian Dietz, Turbines vs. Tallgrass: Law, Policy, and a New Solution to Conflict Over Wind Farms in the Kansas Flint Hills, 54 U. Kan. L. Rev. 1131 (2006).

<sup>4</sup> See, e.g., City of Cohoes, N.Y., Code § 285-126(B)(18) (2009); Town of Webster, N.Y., Code § 95-16 – 22 (2009).

<sup>5</sup> See, e.g. Town of Hyde Park, N.Y., Code § 108-1.4(M) (2009).

<sup>6</sup> See, e.g. Village of Spencerport, N.Y., Code § 140-37.5(B) (2009).

one foot.<sup>7</sup> These regulations lack the detail necessary to properly encourage alternative energy while allaying public concern over wind energy projects.

At least thirty-five New York municipalities have ordinances that aim to comprehensively regulate wind energy projects. These ordinances often bear structural similarities to model wind energy ordinances produced by government entities. The model wind energy ordinance sponsored by the New York State Energy Research and Development Authority (NYSERDA), because it focuses on New York State law, is a valuable resource for New York municipalities.<sup>8</sup> Other model ordinances also provide useful perspectives.<sup>9</sup>

This memorandum catalogues the choices available to a New York municipality when writing a comprehensive wind energy ordinance. Some choices, such as the procedures of reviewing a proposed wind energy project, are largely legal. Other choices relate to non-legal issues, such as safety, aesthetics, and environmental concerns. Both varieties of choices raised by model and actual ordinances in New York will be outlined below.

### *Comprehensive Planning*

A municipality's comprehensive plan establishes broad objectives to guide its growth in the near and distant future, while zoning ordinances contain specific strategies to achieve those objectives. The comprehensive plan is critical in determining areas best suited for wind energy projects. Courts also look to comprehensive plans when judging the rationale and intent behind local zoning ordinances. Although not all municipalities have comprehensive plans, those that do must consider revising their comprehensive plan to facilitate effective development of wind energy projects. Choices made when revising the comprehensive plan involve an investigation of where wind energy projects would be best located, based on the following considerations:

- How should a municipality's comprehensive plan inventory areas of the natural landscape with high wind energy potential?
- To what extent should this wind inventory take into account other natural and cultural resources, existing and adjacent land uses, and other relevant factors?
- How large should plots of land planned for wind energy project sites be to obtain good wind exposure?

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<sup>7</sup> Town of Dover, N.Y., Code § 145-30(D)(2) (2009). *See also* City of Amsterdam, N.Y., Code § 250-15(A)(1) (2009).

<sup>8</sup> *See generally* N.Y. State Energy Research and Dev., Wind Energy Toolkit, <http://www.powernaturally.org/Programs/Wind/toolkit.asp>.

<sup>9</sup> *See* Chicago Env'tl. Law Clinic & Baker and McKenzie, Model Ordinance Regulating the Siting of Wind Energy Conversion Systems in Illinois (2003), Mass. Div. of Energy Res., Model Amendment to a Zoning Ordinance or By-law: Allowing Wind Facilities by Special Permit, <http://www.mass.gov/Eoeea/docs/doer/renewables/wind/model-wind-bylaw-0810.pdf> (2008).

- What land uses can coexist on the same land as wind energy projects? What uses are incompatible?
- What effect do wind energy projects have on zones upwind and how should these be planned for?
- What impact do wind projects have on recreational land use, scenic landscapes, and bird and bat populations?<sup>10</sup>

The decisions made by a municipality will be based on various factors, including local politics. A municipality's general policy choices regarding wind energy projects made through its comprehensive plan directly inform the process of developing wind energy zoning ordinances. This process begins by choosing the legal mechanism by which to enforce the broad goals in the comprehensive plan.

### *Implementing Policy into Law*

Once the comprehensive plan indicates areas suited for wind energy projects, the municipality must choose a regulatory mechanism to implement this policy. Each mechanism's standard for review roughly corresponds with the amenability of an area to wind energy projects – the less appropriate the area for wind energy, the stricter the review process. In this way, the choice of legal mechanism reflects the geography and political makeup of the municipality. To achieve this, most municipalities have used the following mechanisms alone or in conjunction with each other.

*Permitted use* classifies wind energy projects as permitted uses within particular zones. That is, developers are permitted to build wind energy projects in a certain zone conditioned on some lenient form of review by the municipality. This legal mechanism is suited for isolated areas where wind energy projects will have little negative impact on nearby properties. Municipalities could also classify some small-scale wind energy projects as permitted uses while regulating larger wind energy projects under a separate legal mechanism. Where permitted use is chosen by a New York municipality, it often applies only to small residential windmills.<sup>11</sup>

For zones where wind energy projects are appropriate but the municipality seeks to retain stricter review than under permitted use, *special use permits* are a suitable mechanism for regulation. In the special use permitting process, the municipal administrators review the proposed use's suitability for the area and allow local residents an opportunity to comment. Special use permitting is suited for large-scale wind energy projects because large projects are

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<sup>10</sup> See Katherine Daniels, N.Y. State Energy Research and Dev. Auth., Wind Energy Development and the Comprehensive Plan 3-6 (2005); Dwight H. Merriam, Regulating Backyard Wind Turbines, 10 Vt. J. Envtl. L. 291, 300-309 (2009).

<sup>11</sup> See, e.g., Village of Sylvan Beach, N.Y., Code § 136-28(A)(1)(k) (2009); Town of Ithaca, N.Y., Code § 270-219.4 (2009).

likely to impact the surrounding community. Many New York municipalities predicate construction of wind energy projects on the granting of a special use permit.<sup>12</sup>

*Site plan review*, often used in tandem with special use permitting, ensures that the wind energy project is appropriately designed and constructed. When, as is often the case, the law simultaneously requires site plan review and special use permits, a single reviewing body should manage both inquiries. Site plan review is also a good option for municipalities that do not use zoning to manage growth.<sup>13</sup>

Uses secondary to the property's principal use, such as a single wind turbine built to power a home or farm, are classified as *accessory uses*. An accessory use regulation could consist of adding small windmills under the definition of accessory use or rewriting a wind energy ordinance to specifically address wind energy projects as accessory uses.<sup>14</sup>

Where a particular use is not permitted in a zone, a municipality may allow the developer to request a *use variance*. A use variance is meant for special exceptions. It is often more difficult to acquire one than to acquire a special use permit. Because it imposes a stringent burden on the applicant, this legal mechanism is meant for use in zones where wind energy projects are generally incompatible.<sup>15</sup>

Municipalities may also choose to designate certain areas as wind energy *overlay zones*. Overlay zones highlight an area cutting across various zones suited for a particular use. A wind overlay zone identifies areas suited for wind energy projects without disrupting the underlying zoning structure. Wind energy projects in the wind overlay zone could enjoy reduced permitting requirements.<sup>16</sup>

Many New York municipalities have separate laws that regulate small wind projects.<sup>17</sup> While small wind projects elicit concerns common to all wind projects, small wind energy projects are generally more acceptable to neighbors than large projects. In this light, relief from the complexity and formality of the full approval process can encourage individuals to construct unobtrusive windmills on their property without disrupting the area's identity. With regulation appropriately scaled for small-scale projects, individuals have fewer needless hurdles in their path to building backyard wind developments. A notable model municipal small wind project ordinance has been drafted in a recent law review article.<sup>18</sup>

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<sup>12</sup> See, e.g., Town of Rotterdam, N.Y., Code § 269-5 (2009); Town of Geneseo, N.Y., Code § 103-4 (2009).

<sup>13</sup> See, e.g., Town of Caledonia, N.Y., Code § 127-2 (2009); Town of Concord, N.Y., Code § 150-144.2(B) (2009).

<sup>14</sup> See, e.g., Town of Orchard Park, N.Y., Code § 144-24(A)(5) (2009); Town of Brighton, N.Y., Code § 203-146(B)(4) (2009).

<sup>15</sup> See, e.g., Village of Sagaponack, N.Y., Code § 245-63 (2009).

<sup>16</sup> See, e.g. Town of Chautauqua, N.Y., Code § 143-53.1 (2009). Katherine Daniels, N.Y. State Energy Research and Dev. Auth., *The Role of Government Agencies in the Approval Process* 5-6 (2005) (summarizing various mechanisms in use). See also American Wind Energy Association, *Wind Energy Siting Handbook* 73 (2008); NWCC Siting Subcommittee, *Permitting of Wind Energy Facilities* 27 (2002) (examining these mechanisms from a developer's perspective).

<sup>17</sup> See Town of Concord, N.Y., Code §§ 150-144.1, 150-144.2 (2009).

<sup>18</sup> Merriam, *supra*.

### *Criteria for Substantive Review*

Once a municipality chooses a legal framework for regulating wind energy projects in zones set aside for that purpose in the comprehensive plan, they must consider the substance of the review process. The review criteria appropriate for large commercial wind energy projects may differ from those appropriate for a single small turbine. However, all permitting processes will likely consider most of the following issues. It is beyond the scope of this legal analysis to determine the best answer to the design-related issues listed below. Instead, these questions are posed for future determination.

#### **Safety Standards**

- What should the minimum distance between the ground and the rotor blade system be?
- What kind of fence should be placed around the facility to prevent individuals from climbing on it? How high above the ground should the tower climbing apparatus be?
- What safety precautions should be placed on doors to wind towers and electrical equipment?
- What signage should be placed on wind towers, electrical equipment, and facility entrances for the purposes of warning?
- What kind of air traffic warning lights should be equipped on the towers?
- What lighting should be used or prohibited at the facility?
- Should the wind turbines be required to use an automatic braking system?
- Should a developer of a wind energy project be required to hold insurance against injury and, if so, how much?
- What provisions should be mandated for decommissioning of the wind energy project?
- What precautions against ice being flung from the rotors of a wind energy project should be mandated?

#### **Siting and Installation**

- How should road access to the wind energy project site be managed?
- How should the transmission lines from the wind energy project be connected to local distribution lines?

- Where should the wiring between turbines and the on-site substation be located?
- How should construction be conducted differently on agricultural land?

### **Setbacks**

- What should the minimum setback distance between each wind turbine tower and all surrounding property lines, overhead utility or transmission lines, other wind turbine towers, electrical substations, meteorological towers, and public roads be?
- From the nearest residence, school, hospital, church or public library?
- From roads and side and rear lot lines?

### **Nuisance**

- How loud may wind turbines acceptably be and from where should the volume be measured?
- How should interference with electromagnetic communications, radio signals, and television signals be minimized or mitigated?

### **Environmental and Visual**

- How should advertising or identification of the manufacturer or operator of the facility be regulated on the wind turbine?
- What colors and surfaces should be used on the turbine to blend into the natural setting?
- How should landscaping be used to screen accessory structures from roads and adjacent residences?
- How should wind towers be set back from the tops of visually prominent ridgelines, recognized scenic vistas, or publicly accessible parkland?
- How should wind towers avoid creating an artificial habitat for various unwelcome organisms, particularly raptors?
- How far should wind energy projects be set back from other important areas such as bird habitats and wetlands?
- How should wind energy projects manage the visual impact of shadow flicker?

### **Pre-Application Conferences**

- To what extent should municipalities encourage pre-application conferences between wind energy project developers and municipal staff to discuss general



terms of the project? Should such a conference be codified? What types of topics should be discussed and what types of materials should the developers provide at this stage?<sup>19</sup>

### **Conclusion**

Although local political and geographic conditions that determine the suitability of wind energy projects for the area vary, the framework outlined above provides clear criteria that New York municipalities can consider to determine where wind energy projects should be allowed, where they should be barred, and where some level of discretion is necessary. The answers to the empirical, non-legal questions will assist in the formation of these guidelines.

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<sup>19</sup> Katherine Daniels, N.Y. State Energy Research and Dev. Auth., Wind Energy Model Ordinance Options 8-12 (2005) (outlining various concerns with wind energy projects).