

STATE ENVIRONMENTAL REGULATION

Expert Analysis

State Regulation Is Key Factor In Wind Farm Development

New York is a windy state, the 15th windiest in the nation, according to the New York State Department of Environmental Conservation (NYSDEC).¹ That means that wind power is an important and crucial tool in New York's efforts to achieve the governor's goal of 50 percent of the state's electricity needs coming from renewable energy by 2030.

There are about two dozen wind energy projects currently operating in the state,² making New York 13th in the country for installed wind generation capacity, according to the American Wind Energy Association (AWEA).³ In 2014, the state was ranked 11th in the country for installed wind generation capacity,⁴ which means that other states are adding wind power capacity at a faster rate than New York. Since 2009, the state has been a member of the "Gigawatt Club," given that wind power has the capacity to generate over 1,000 megawatts of power here. Indeed, the National Renewable Energy Laboratory (NREL) believes

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that New York's wind resource potentially could fill over half of the state's current electricity needs.⁵

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It is not surprising, therefore, that more wind projects are on the horizon for New York. Earlier this month, the Long Island Power Authority (LIPA) recommended to its board that it approve a 90-megawatt, 15-turbine offshore wind farm in U.S. waters east of Montauk, Long Island.⁶ LIPA's board was expected to approve this wind farm project at its July 20 meeting, but that was postponed at the request of the New York State Energy and Research Development Authority, pending the release of New York's offshore wind master plan and clean energy standard.

As this column explains, there are a number of regulatory approvals that need to be obtained to build a wind farm in New York or the surrounding waters.

Ocean Energy Management

A developer of a proposed offshore wind farm must obtain a lease from the federal government through the Bureau of Ocean Energy Management (BOEM). This lease is issued pursuant to subsection 8(p) of the Outer Continental Shelf Lands Act⁷ and the regulations promulgated pursuant to that statute. These include the offshore renewable energy and alternate use regulations at 30 CFR Part 585. The lessee has the exclusive right to seek approval from the BOEM of a site assessment plan and construction and operations plan for the wind farm project. The lessee under this program is not authorized to conduct activities on the Outer Continental Shelf relating to or associated with the exploration for, or development or production of, oil, gas, other seabed minerals, or other type of renewable energy resources unless specifically provided in the lease.

The lease with the BOEM includes an indemnity provision pursuant to which the lessee agrees to indemnify

the bureau for any claim resulting from the lessee's operations or activities, including claims for loss or damage to natural resources, the release of any petroleum or any hazardous materials, other environmental injury of any kind, damage to property, injury to persons, or costs or expenses incurred by the BOEM. Among other things, a lessee also must provide and maintain a surety bond or other form of financial assurance in an amount approved by the BOEM and may not assign or transfer the lease without the BOEM's approval.

NYSDEC Regulations

The regulatory scheme for on-shore wind farms in New York State does not involve the BOEM. Rather, the NYSDEC plays a principal regulatory role.

Large wind projects with a capacity to generate 25 megawatts or more undergo approval pursuant to the provisions of the Public Service Law Article 10 siting process. Article 10 contains a comprehensive review and approval process for these large facilities and addresses both state and local permitting requirements in this single process.

Wind projects with a capacity to generate less than 25 megawatts do not go through the Article 10 process. Rather, these facilities are subject to applicable state and local laws or regulations, including the State Environmental Quality Review Act (SEQRA). They also may require the following NYSDEC permits and approvals, depending on site-specific factors:

- Permits relating to the use and protection of waters, under Article 15 of the ECL and implementing regulations at 6 NYCRR Part 608;⁹
- Permits relating to endangered species under Article 11 of the ECL and implementing regulations at 6 NYCRR Part 182; and
- State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity.¹⁰

The Birds and the Bats

Opponents of wind farm projects cite to aesthetics, noise, traffic, and public safety as reasons for their opposition to these facilities. They also raise concerns about potential short-term and permanent environmental impacts on the soil at the turbine location, on access roads, staging areas, towers, and substations, as well as the potential adverse air quality impacts associated with the construction phase of the project. Impacts to biological resources, such as vegetation, fish, and wildlife, and threatened and endangered species are also common complaints.

One other objection that has had a good deal of traction, and publicity, is the concern about the potential harm to birds and bats from the wind turbines. Indeed, the NYSDEC admits that the nature and severity of both site-specific and cumulative impacts from commercial wind energy projects on birds and bats (and their habitats in New York State) form its "most pressing issue" related to wind energy development. It should come as no surprise, therefore, that the NYSDEC recently updated its "Guidelines for Conducting Bird and Bat Studies at Commercial Wind Energy Projects."¹¹

In the guidelines, the NYSDEC observes that although wind energy has "significant emissions benefits when compared to energy produced from fossil fuel," it must consider the potential negative environmental impacts of wind energy production when evaluating proposed projects. It then sets forth the NYSDEC's guidance for commercial wind energy developers on how to characterize bird and bat resources at on-shore wind energy sites, estimate and document impacts resulting from the construction and operation of wind energy projects, and reduce mortality levels through turbine siting and operational modifications.

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The NYSDEC also points out that its guidance provides a "general framework" for a developer to propose site-specific studies necessary to evaluate the potential or actual effects of a given wind energy project. The guidance also outlines consistent and predictable methodologies, based on the latest scientific knowledge, to assist a developer in the planning, development, and monitoring process.

The guidance provides two tracks for pre-construction and post-construction studies: "standard" and "expanded." According to the NYSDEC, "all" sites likely will warrant at least the standard studies. The guidelines also make it clear, however, that

where site-specific conditions or other information suggest the potential for “substantial adverse impacts” to birds or bats, or their habitats, expanded studies or additional “years of study” designed to further evaluate the specific concerns may be necessary.

As the guidance explains, prior to expending significant effort in planning a wind energy project, a developer should compile existing information on bird and bat resources at the site, and in the surrounding area, including available relevant information from other existing or proposed wind energy projects.

Then, the developer should identify landscape features and resources of potential concern. These include habitats of threatened or endangered bird or bat species and the proximity of the project to the Atlantic coastline, the shoreline of a Great Lake, Lake Champlain, Oneida Lake, the Finger Lakes, or the corridor of large rivers such as the Delaware, Hudson, St. Lawrence, or Niagara (with the search distance between the project and each of these water bodies specified in the guidelines).

The developer also should identify the presence of, or proximity to, areas that concentrate raptors, waterfowl, or other specifically identified species of concern for the site or a major bat hibernaculum (which is a place, often a cave or abandoned mine, where hundreds or thousands of bats hibernate over the winter). The presence of any specific habitat or landscape feature that may function to funnel or concentrate birds or bats during migration or for feeding, breeding, wintering, or roosting activities, such as a National Wildlife Refuge, a Wildlife Management Area, core forest blocks (contiguous areas 150 acres

or larger), high elevation mountain-tops, or prominent ridgelines also are included in the information needed to be identified.

If a project is proposed in or near one of these special features or resources, then an expanded pre-construction study could be required, which could last at least two years. In this situation, the NYSDEC may recommend “radar studies” (which include the use of remote sensing marine radar to determine the use of the project and surrounding area by nocturnally migrating birds and bats); raptor migration surveys, which require surveys of every favorable weather day during migration periods; waterfowl surveys; targeted breeding bird surveys for state or federally listed threatened or endangered species, species of concern, or species of greatest conservation need; and wintering bird surveys.

Additional bat surveys may be warranted if the proposed project site contains habitat known or likely to harbor Indiana bats or northern long-eared bats; is within 40 miles of an Indiana bat hibernaculum; is within five miles of a northern long-eared bat hibernaculum; is within a known summer range area; or if there is other information to suggest that Indiana bats or northern long-eared bats may be present.

It is important to keep in mind that bird and bat studies also are required even after the construction of a wind farm. The NYSDEC’s guidance makes clear that these studies are intended to evaluate “actual impacts to birds and bats” at the project site during turbine operation. According to the NYSDEC, post-construction ground searches for bird and bat carcasses should be conducted under turbines

at operating wind projects for an initial two-year period, at a minimum.

The guidance also indicates that the pre-construction breeding and migrating bird surveys should be repeated during the first and second years of mortality monitoring. Furthermore, additional years of study may be recommended for the third, fourth, or fifth year of project operation as determined through consultation with the NYSDEC.

Conclusion

Given the need for wind farms in New York to help achieve the governor’s 2030 renewable energy goal, it will be interesting to see how developers of wind farm projects use innovative ways to steer through the complex approval process.

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1. See NYSDEC, “Wind Power,” available at <http://www.dec.ny.gov/energy/40966.html>.

2. See NYSDEC, “Wind Energy Projects,” available at http://www.dec.ny.gov/docs/permits_ej_operations_pdf/windstatuscty.pdf.

3. Information on this trade organization can be found at <http://www.awea.org>.

4. See <http://www.dec.ny.gov/energy/40966.html>.

5. Information on the NREL can be found at <http://www.nrel.gov>.

6. One wind turbine can generate enough clean electricity for local use; several large turbines connected to an electric power grid are a wind farm.

7. 43 U.S.C. §§1331 et seq.

8. See NYSDEC, “Freshwater Wetlands Permits,” available at <http://www.dec.ny.gov/permits/6058.html>.

9. See NYSDEC, “Protection of Waters Program,” available at <http://www.dec.ny.gov/permits/6042.html>.

10. See NYSDEC, “Stormwater Permit for Construction Activity,” available at <http://www.dec.ny.gov/chemical/43133.html>.

11. See NYSDEC, “Guidelines for Conducting Bird and Bat Studies at Commercial Wind Energy Projects,” available at http://www.dec.ny.gov/docs/wildlife_pdf/winguide16.pdf.