ISSUE PAPER SERIES

The Next Generation of Wind Farms on Tug Hill

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NEW YORK STATE TUG HILL COMMISSION

DULLES STATE OFFICE BUILDING · 317 WASHINGTON STREET · WATERTOWN, NY 13601 · (315) 785-2380 · WWW.TUGHILL.ORG

The Tug Hill Commission Technical and Issue Paper Series are designed to help local officials and citizens in the Tug Hill region and other rural parts of New York State. The Technical Paper Series provides guidance on procedures based on questions frequently received by the Commission. The Issue Paper Series provides background on key issues facing the region without taking advocacy positions. Other papers in each series are available from the Tug Hill Commission. Please call us or visit our website for more information.

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Introduction

Ten years have passed since the Maple Ridge Wind Farm in Lewis County, the largest alternative energy project east of the Mississippi, began operating in 2006. With 195 wind towers and 321 MW generating capacity, Maple Ridge Wind Farm "supplies 2% of the renewably sourced electricity" in New York State.[1] When large wind farms were originally proposed for Tug Hill, the commission wrote *Harnessing the Wind on Tug Hill* in 2000, with a 2010 update (www.tughill.org/wp-content/uploads/2011/10/HarnessingTheWind2010.pdf)

Now, with several more large-scale wind projects proposed for the Tug Hill region, it is important for communities to understand the proposals and issues to consider. This new paper summarizes the current state of six wind farm proposals and discusses topics that municipalities may find important when considering wind farms in their communities.

Current Wind Farm Proposals on Tug Hill

Tug Hill's elevation, relatively low population density, geography and proximity to prevailing lake-effect winds make it an ideal location for the construction of electricity-generating wind facilities. It is particularly noteworthy to mention that Lewis County has the third smallest population of New York counties, yet it produces about 2% of the renewable electricity in the state due to the Maple Ridge Wind Farm. Another way to look at it is that the total annual energy produced by the Maple Ridge Wind Farm is approximately 2% of the residential usage in all of NYS.[2]

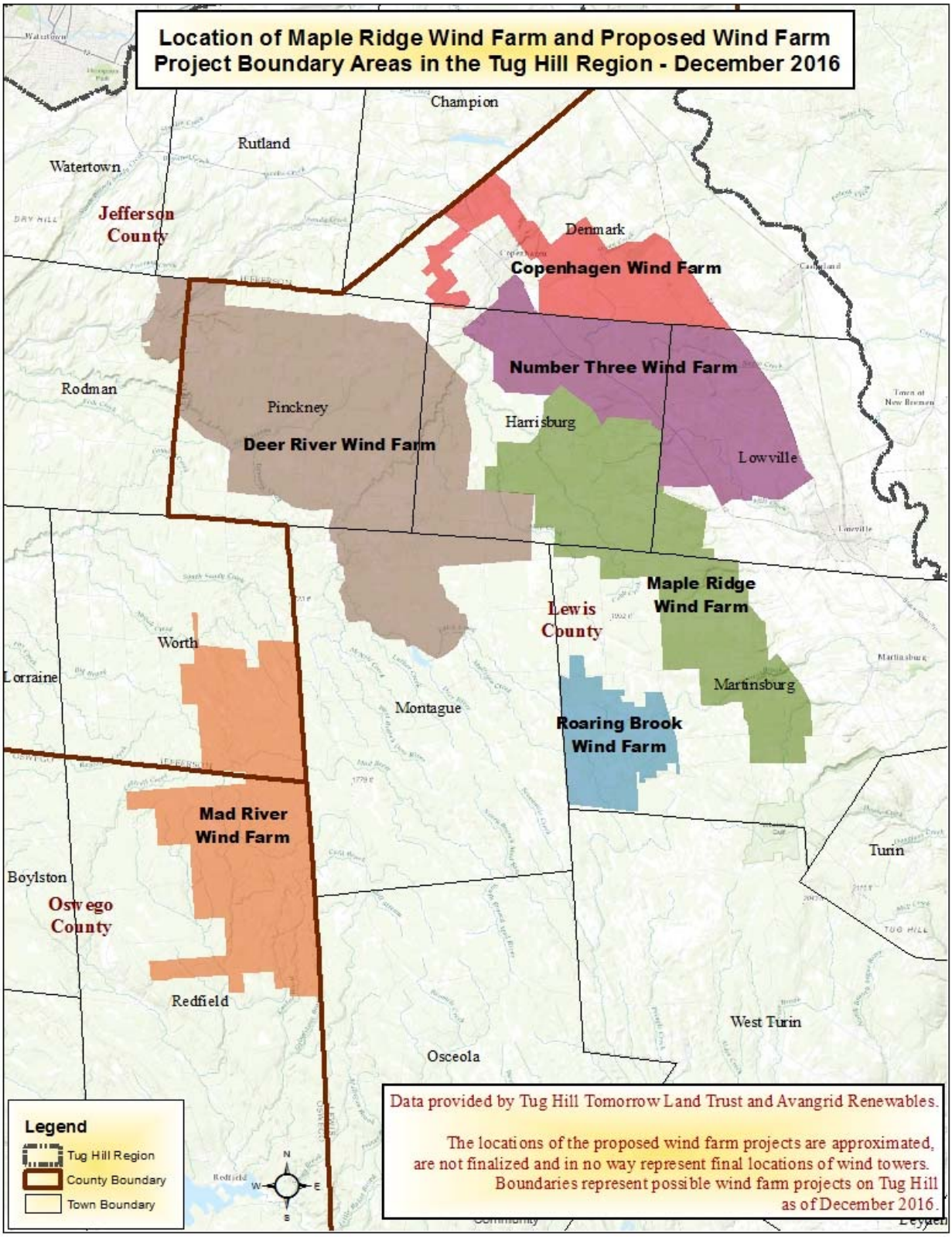
As of December 2016, the commission is aware of six proposed wind farms in the Tug Hill region; four in various stages of the permitting process and two in early stages of planning. The map on page 2 shows the existing Maple Ridge Wind Farm and the four wind farms that are already in the permitting process. The sixth wind farm is in its early stages of development and is not shown on the map.

Roaring Brook Wind Farm (Town of Martinsburg): According to the developer, Avangrid Renewables (Iberdrola Renewables), "the current project design calls for construction and operation of 39 wind turbines of 2MW each located on approximately 5,280 acres of private land."[3] In addition, the project will interconnect to National Grid's 115 kilovolt (kV) transmission line near Lee Road in the town of Martinsburg. The interconnection route will include about 5.5 miles of buried electrical line and three miles of overhead line. This project is under a local permitting process, as it began before the new NYS Article 10 review process was put in place by the Department of Public Service. (iberdrolarenewables.us/roaringbrook.html)

[1] http://www.buffalonews.com/opinion/viewpoints/time-to-get-serious-about-renewable-energy-maple-ridge-wind-farm-at-the-eastern-end-of-lake-ontario-can-serve-as-model-for-western-new-york-20150329

[2] William Moore, personal communication, September 13, 2016

[3] http://iberdrolarenewables.us/roaringbrook.html


Location of Maple Ridge Wind Farm and Proposed Wind Farm Project Boundary Areas in the Tug Hill Region - December 2016
Champion
Rutland
Watertown
Jefferson County
Denmark
Copenhagen Wind Farm
Number Three Wind Farm
Rodman
Pinckney
Deer River Wind Farm
Harrisburg
Lowville
Lewis County
Maple Ridge Wind Farm
Worth
Lorraine
Martinsburg
Montague
Roaring Brook Wind Farm
Mad River Wind Farm
Turin
Boylston
Oswego County
Redfield
West Turin
Osceola
Legend
Tug Hill Region
County Boundary
Town Boundary
N
W
E
S
Data provided by Tug Hill Tomorrow Land Trust and Avangrid Renewables.
The locations of the proposed wind farm projects are approximated, are not finalized and in no way represent final locations of wind towers. Boundaries represent possible wind farm projects on Tug Hill as of December 2016.

Copenhagen Wind Farm (Town of Denmark): According to developer EDF Energy, the proposed 79 MW (up to 47 turbines) wind energy project will be located in the Town of Denmark. In addition, a 115 kilovolt overhead power line would run about 9 miles through the towns of Champion, Rutland and Watertown and connect the wind farm to a National Grid substation near Burrville.[4] This project is under a local permitting process. (www.edf-re.com/en)

Deer River Wind Farm (Towns of Harrisburg, Montague and Pinckney): According to developer, Avangrid Renewables (Iberdrola Renewables), the project calls for up to 40 wind turbines and is in the very early stages of the NYS Article 10 Siting Process. Also, a transmission line may be built into the town of Rodman, as part of this project. (www.avangridrenewables.us/deerriver/index.html)

Number Three Wind Farm (Towns of Denmark, Harrisburg and Lowville): According to developer Invenergy, this project will include a combination of 35 - 50 wind turbines and up to 100 acres of solar panels with a capacity of up to 126 MW of power. This project is in the very early stages of the NYS Article 10 Siting Process. (www.Numberthreewind.com)

Mad River Wind Farm (Towns of Worth and Redfield): Developer Avangrid Renewables (Atlantic Wind) has recently filed a Public Involvement Program Plan with the Department of Public Service. The proposed project will be up to 350 MW in size. (http://www.avangridrenewables.us/madriver/)

Southern Jefferson County (Towns of Henderson, Hounsfield, Adams, Rodman, Ellisburg and Lorraine): Developer Hudson Energy Development held an informational meeting in March of 2016 with farmers in Southern Jefferson County. Specific information is not known at this time, but it was speculated at the meeting that the project could have a 400 MW faceplate capacity (according to a Watertown Daily Times Article, *Farmers at Adams meeting get details about proposed wind project*, published on March 24, 2016 by Perry White.) This project would not be able to move forward until a new transmission facility to connect the project to the utility grid is constructed.[5] (www.hudsonenergydev.com)

What are the potential economic impacts?

In many communities, wind farms are seen as a way to bring economic development to rural areas and sustain local farms and open space. Wind farms make lease payments to landowners with turbines on their property, as well as neighboring landowners, in some cases. Payments in lieu of taxes (PILOTs) are made to taxing jurisdictions. Many jobs are created during construction, and several permanent jobs are created as the wind project becomes operational.

Payments in Lieu of Taxes: NYS Real Property Tax Law Section 487 generally provides a 15-year exemption from real property taxation for the increase in value resulting from the

[4] Watertown Daily Times article by Steve Virkler, Published Thursday, July 9, 2015
[5] William Moore, personal communication, September 13, 2016

installation of a qualifying system, such as a wind or solar farm. If the taxing jurisdiction (county, town, village, school district) does not take any action to opt out of the exemption, the exemption remains in place. The law also provides for the taxing jurisdiction to enter into a PILOT agreement with the developer if the exemption is left in place.

A PILOT is meant to provide certainty to the project by setting up guaranteed payments over a period of time, often 15 years, thus providing for its longer term success by improving cash flow in the early years. Because of their high capital investment and longer financing time frame, PILOTs for wind projects tend to be based on a fee per megawatt of installed generating capacity and include an annual escalator. PILOT payment levels are negotiated by taking into consideration the uncertainty over how such facilities should be valued, the availability and reliability of the wind resource and what portions of the wind farm constitute real property, as distinguished from personal property. Ultimately, payment levels reflect an operating cost the project can tolerate and a revenue stream the taxing jurisdictions can accept, thus creating certainty for all involved.

The PILOT payments made by the Maple Ridge Wind Farm are very high because of a unique set of circumstances. PILOTs negotiated for the currently proposed projects will be significantly lower. At the time of its construction, the Maple Ridge Wind Farm was located in a NYS Empire Zone, which was a state funded tax incentive program (that currently no longer accepts new businesses). The Empire Zone designation results in NYS essentially paying the project's property taxes (which can be established at a level as high as the project's original construction cost and ignoring the application of depreciation) for a period of 15 years. That PILOT expires in 2021, before which it will need to be renegotiated between the owner and the involved taxing jurisdictions without the Empire Zone designation.

Employment: In addition, Maple Ridge employs about 35 local full time employees[6] and provides annual rental payments of over $1 million to the landowners involved with wind turbine leases.[7]

How are wind farms permitted?

Prior to 2011, the process for siting wind farms in New York was primarily handled at the local municipal level, including an environmental review through the State Environmental Quality Review Act (SEQRA) process. On August 4, 2011, Governor Cuomo signed into law Chapter 388 of the laws of 2011 that enacted Article 10 of the NYS Public Service Law. It "established a process for the siting of electric generating facilities and re-powering projects. As part of the process, a multi-agency siting board is charged with streamlining the permitting process for power plants of 25 MW or greater."[8] Article 10 is meant to provide a more uniform and efficient process for the siting of electric generating facilities such as wind farms in New York. In order to build a wind farm or other major electric generating facility, a developer must obtain a

[6] http://iberdrolarenewables.us/cs_mapleridge.html
[7] https://s3-us-west-2.amazonaws.com/iberdrola-pdfs/pdf/MapleRidgeFactSheet.pdf
[8] http://www3.dps.ny.gov/W/PSCWeb.nsf/All/1392EC6DD904BBC285257F4E005BE810?OpenDocument

Certificate of Environmental Compatibility and Public Need ("Certificate" or "Article 10 Certificate") from the siting board.

While Article 10 provides communities opportunities to participate throughout the siting process, it removes permitting authority over the siting of wind projects from local governments and exempts projects from the SEQRA process, and instead places responsibility for environmental review and permitting in the hands of the siting board. Local governments, however, still have representation on the siting board (two ad hoc members nominated by local municipalities) and are involved throughout the Article 10 process. In addition, Article 10 provides that locally adopted development standards must be adhered to by the siting board in their review and approval of projects, unless the standards are "unreasonably burdensome in view of the existing technology or the needs of or costs to ratepayers."

Siting Board: There are five permanent members of the siting board:

- Chair of the Department of Public Service who serves as chairperson of the siting board;
- Commissioner of the Department of Environmental Conservation;
- Commissioner of the Department of Health;
- Chair of the New York State Energy Research and Development Authority; and
- Commissioner of Economic Development.

There are also two ad hoc members of the siting board "appointed for the special purpose of providing a local voice in each proceeding conducted to consider specific individual applications for certificates. Each facility application will have its own associated ad hoc members."[9] Ad hoc members must be:

- 18 years old or older;
- citizen of the United States;
- residents of the State of New York; and
- residents of the municipality in which the facility is proposed to be located.

Within 15 days after a preliminary scoping statement (PSS) is filed under Article 10, each chief elected official from the affected communities (county, town, village) nominates four candidates and submits their candidates to the NYS Senate and Assembly. From there, one ad hoc member is appointed by the majority leader of the Senate and one is appointed by the speaker of the Assembly to serve on the siting board. Each local ad hoc member chosen for the siting board is also paid $200 each for each day they spend working on the project and are reimbursed for actual and necessary expenses incurred in their duties.

Intervenor Fund: The NYS Article 10 process requires wind developers to provide money in the amount of $350 per MW of generating capacity of the proposed facility, but not to exceed $200,000, to an intervenor fund managed by the state for the pre-application phase; and $1,000 per MW, but not to exceed $400,000, in the application phase. Out of those funds, 50% will be reserved for involved communities. These funds, which are awarded by the Department of

9 http://www3.dps.ny.gov/W/PSCWeb.nsf/ArticlesByTitle/bce89bd8c61d9d4b85257e200054a99a?OpenDocument&ExpandSection=7%2C10%2C11%2C17%2C16%2C15%2C13%2C12%2C9%2C8#_Section7

Public Service, can be used to help offset costs incurred by local parties (citizen groups) or municipalities for witnesses, consultants and administrative and legal fees during the scoping and application phases of the process. Funds cannot be used for judicial review or litigation. It is important that the community affected by a wind farm make use of the fund, especially in circumstances where communities require additional information about specific questions they have for their community.

The Department of Public Service has a good reference entitled "The Fund for Municipal and Local Parties: Guide to Intervenor Funding Pursuant to Article 10 of the Public Service Law" on their website at:
http://www3.dps.ny.gov/W/PSCWeb.nsf/96f0fec0b45a3c6485257688006a701a/6fd11ce8db088a2785257e200054a99b/$FILE/02420356.pdf/Guide%20to%20Intervenor%20Funding%202-14-13.pdf.

What is the Article 10 Process?

The Department of Public Service has significant amounts of materials describing the process on their website at:
http://www3.dps.ny.gov/W/PSCWeb.nsf/All/1392EC6DD904BBC285257F4E005BE810?OpenDocument.

A major goal of the Article 10 process is to allow all stakeholders the opportunity to come to the table so that local concerns, knowledge and expertise can be included as part of the siting process. At a training held in November of 2016, Paul Agresta, General Counsel for the Department of Public Service, gave an example of why it is imperative to bring all stakeholders together early on in the process. He talked about a real-life project that was ready for ground-breaking. At the last minute it was discovered that a transmission line route would have gone through the middle of a family burial plot. The project was subsequently halted and the transmission line rerouted, wasting significant amounts of time and money because the existence of the burial plot was not brought to light in the review process.

The Article 10 approval process is divided into two main stages: the pre-application stage, and the application and hearing stage. Please see Appendix A for a detailed timeline of this process.

Pre-Application Stage: A wind farm developer starts the Article 10 pre-application stage by filing a public Involvement program (PIP) plan outlining its plans for identifying and engaging stakeholders, gathering and distributing information, and complying with various requirements under the law. At least five months after the PIP is filed, the developer submits a preliminary scoping statement (PSS) outlining the scope and methodology of the scientific, technical, and local studies it will use to gather all of the information necessary for an Article 10 application. The PIP and the PSS, taken together, provide a roadmap of the developer's information-gathering and public engagement activities leading up to the filing of the application. Detailed project information may not be available in these pre-application documents, since their purpose is, in large part, to discuss how that information will be informed by required studies and developed based on stakeholder engagement and public input.

The PIP and PSS are made available online for the public to review. The developer may also make hard copies available either at their local office, a local library or municipal building. Stakeholders and members of the public have opportunities to comment on the project throughout the pre-application phase, by filing public comments on the siting board's website, attending local sessions, or engaging with the developer. Article 10 also provides an opportunity for stakeholder comment on the PSS, and the developer is required to respond to public comments on the PSS.

One of the easiest ways to stay on top of proposed projects is to register with the Department of Public Service's Document and Matter Management System by going to the website at http://www3.dps.ny.gov/W/PSCWeb.nsf/All/B785AE8643B0B8D9852576A9005E090D?OpenDocument to create an account and become an "interested person" or file for "party status" on particular cases. By subscribing to this service, you can receive email notifications about every meeting, filing and notice pertaining to the project. An interested person may wish to monitor the proceedings of a case without formally committing to becoming a "party" to the case. A party would commit to contribute to the case by providing comments and testimony to the case and/or participating in hearings and other formal events about the case.

Once the PSS is filed, it is important to review it and decide if the application will consider all the impacts of the wind farm on the community. The developer may meet with stakeholders to discuss the PSS. This is the time to make sure the application will provide answers to questions about impacts to the community. If after reviewing the PSS there are lingering questions, for example, about the ability of the local road and bridge infrastructure to handle construction traffic, the community should discuss stipulations with the applicant. Stipulations are signed agreements between the parties regarding how studies will be performed and what information will be submitted in the application.

In the example above, a stipulation might be that the applicant agrees to carry out an additional traffic study to determine the impact on the road infrastructure. Again, these stipulations can be requested but are voluntarily agreed upon by the applicant. Comments on the proposed stipulations can be provided.

Application Stage: Once the developer has completed its studies, gathered all of the required information, and performed an analysis of potential impacts of the project, the developer will file its formal Article 10 application (application). The application is the developer's formal submission requesting an Article 10 certificate from the siting board. The siting board conducts hearings and accepts evidence and testimony about the proposal. Once hearings are completed, and all parties have submitted the necessary information, the siting board makes a decision to grant or deny a certificate.

An Article 10 certificate generally contains a number of conditions which spell out what the developer is required to do when building and operating its facility. Certificate conditions typically include requirements for inspections and monitoring, mandated post-construction studies, and standards the project will need to meet.

Why are so many wind farms being proposed now?

A combination of advances in wind turbine technology, as well as institution of policies that encourage renewable energy, have led to the increased number of wind farms being proposed on Tug Hill and around the state.

Technology Improvements: There continues to be improvement in technology that make sites attractive for wind development which otherwise would not have been considered 10 or 20 years ago. Turbine components are more efficient and can generate enough power to make development economically feasible. In many cases, fewer, but taller towers and larger rotor blades can be installed to produce the same or more electricity as in the past. For example, the 195 Maple Ridge towers are 390 feet tall and are rated to produce 322 MW (1.65 MW/tower). The 40 wind towers proposed at the Copenhagen Wind Project would be 498 feet tall and rated to produce 80 MW (2 MW/Tower).

State Policies: Policies at the state level that encourage renewable energy development have also increased the attractiveness of wind power. On August 1, 2016, the state adopted the New York State Energy Plan. One target outlined in the plan states that by 2030, 50% of the electricity generated in the state must come from carbon-free renewables such as solar, wind, hydropower and biomass.[10] New York State promotes renewable energy development through programs that encourage renewable energy and provides assistance to businesses and individuals wishing to purchase renewable technologies. For more information about New York's Renewable Portfolio Standard, visit the NYS Energy Research and Development Authority's website at: http://www.nyserda.ny.gov/About/Renewable-Portfolio-Standard.

Federal Incentives: Currently, there are also federal incentives designed to promote the production of alternative energy. These are known as the Renewable Electricity Production Tax Credit (PTC) and Business Energy Investment Tax Credit (ITC). The PTC allows owners of qualified renewable energy facilities to receive tax credits for each kilowatt-hour (kWh) of electricity generated by the facility over a ten-year period. Qualified wind power projects are eligible to receive 2.3 cents per kWh for the production of electricity from commercial wind farms. The ITC is a corporate tax incentive that allows for owners of new wind energy systems of any size to receive tax credits worth 30% of the value of the facility.[11] The federal tax credits were recently extended through 2019, however, the programs will be scaled back incrementally over the next several years until 2019.[12]

[10] http://energyplan.ny.gov/Plans/2015.aspx
[11] http://www1.eere.energy.gov/wind/pdfs/57933_eere_wwpp_federal_incentives.pdf
[12] http://www.renewableenergyworld.com/articles/2015/12/making-sense-of-the-itc-extension-for-wind-solar-and-bioenergy-too.html

What are the potential impacts of wind farms?

As with every power generating facility, wind farms have impacts. Impacts on wetlands and streams, historic structures, views and wildlife habitat on potential wind farm sites are evaluated and minimized by careful siting of turbines. Article 10 requires a developer to investigate and analyze many of the same potential environmental impacts traditionally covered under a SEQRA review, such as impacts to wetlands, water and natural resources, wildlife and endangered species, property and people. These impacts are described in 41 exhibits (listed in Appendix B) that are required to be included in the Article 10 application. The application must also include a discussion of measures the developer took to avoid, minimize, or mitigate potential negative environmental impacts from the project, and why the project should be approved. Communities may be interested in studies and analysis on the following impact areas:

Aviation: Tall structures, like wind turbines, are known to cause issues with RADAR, including RADAR for weather forecasting and aviation. Under federal law, a wind farm developer must consult with the Federal Aviation Administration (FAA) and the Department of Defense, as well as nearby operators of airports and heliports, to determine the potential impacts of the project on aviation, radar and communications systems, and to ensure that the project does not pose a significant hazard to those resources. Northern Jefferson County is home to Ft. Drum, which conducts military flight training over portions of Tug Hill. A required part of any wind developer's proposal in the region will be consultations with, and assessment of potential impacts on, Ft. Drum and military operations there. While the impact of the Maple Ridge towers on military flights from Ft. Drum have been generally mitigated, the cumulative impacts of several more wind farms on aviation RADAR will need to be addressed. There is currently a Joint Land Use Study being conducted between Ft. Drum and its surrounding communities. It is hoped that the study will address encroachment issues between the communities and Ft. Drum, including the siting of energy projects that could further clutter aviation RADAR and pose a threat to flight safety. In addition, it's yet to be determined if better technology and newer RADAR systems could help mitigate the impacts of wind towers on aviation.

Habitat and Wildlife: The impacts of wind farms on wildlife, particularly birds and bats continue to be assessed at potential and operating wind farm projects throughout the country. The impacts of wind farms on particular species is more well-known than before and post-construction monitoring information furthers the understanding of potential impacts. Because of the information now available as well as the requirements of Article 10, wind farms being proposed currently will have much more stringent requirements when it comes to documenting habitat and wildlife before and after wind farm construction.

Three studies have been conducted and published about the impact of the Maple Ridge Wind Farm on birds and bats. These reports were prepared by Aaftab Jain, Paul Kerlinger, Richard Curry, Linda Slobodnik of Curry and Kerlinger, LLC, 174 Fayette Blvd., Syracuse, NY 13224. These reports are titled *Annual Report for the Maple Ridge Wind Power Project Post-construction Bird and Bat Fatality Study* and were conducted and published in 2006 (June 25, 2007), 2007 (May 2, 2008) and 2008 (May 14, 2009). These studies state, in general, that the Maple Ridge Wind Farm's impact on wildlife were comparable to other wind farms of similar

size in the northeast. There is much to be learned yet about the impacts of wind farms on wildlife, namely birds and bats.

Sound: Wind towers and large scale wind farms will produce sound, but it is very difficult to predict how "noisy" a wind farm might be due to a whole host of circumstances. Several factors, including how a person might perceive the noise, how far they are away from the noise, the time of day and other ambient sounds present, can affect how much noise might be perceived from a large wind farm. For more information, this report, by the New York State Energy Research and Development Authority titled *Wind Turbine-Related Noise and Community Response* (https://www.nyserda.ny.gov/-/media/Files/Publications/Research/Environmental/Wind-Turbine-Related-Noise.pdf) presents a summary on sound research, community response and the results of a study that gaged community reactions to a wind farm.

Recreation: Recreational activities can drive the local economies of Tug Hill communities. Any disruption to such things as snowmobile trails and hunting and fishing areas could have an impact on the local economy.

Ice Shed: The wind turbines at Maple Ridge automatically detect changes in weight on the blades, causing them to shut down, preventing any throwing of ice. There is also 24-hour monitoring of turbine data, allowing for manual shut down during icing conditions by operators, who are aware of which turbines are located near trails. However, safety reminders should be and are published in snowmobiling literature as a precaution.

What should communities keep in mind when approached by a wind farm developer?

Communities where wind farms are proposed have many things to consider. The town of Pinckney's attorney, James Burrows of Conboy, McKay, Bachman and Kendall, had a meeting with Pinckney town representatives on August 8, 2016 to discuss various considerations. The following take-away points were made during his presentation:

Infrastructure: If a wind farm is to be built in a community, wear and tear to the town's infrastructure needs to be considered, most importantly on the municipally owned roads. Agreements for road maintenance and repair should be worked out with the wind farm developer ahead of time so that any damage or wear will be fixed after the wind farm is built.

Decommissioning Plan: A decommissioning plan should also be negotiated with the wind farm developer ahead of time. Wind towers have a useful life expectancy, after which the wind tower will either become obsolete or too expensive to operate. The wind towers and infrastructure should then be removed at the expense of the developer. To ensure this happens, the town should consider requiring a bond to be posted up front by the developer, as a way of providing an "insurance policy" that the cost of removing the wind tower will be covered. An engineer should be consulted by the municipality (a possible use for intervenor funds) to develop accurate and adequate costs for removing the wind tower and a multiplier should be applied to ensure that the

bond will cover the cost out to a 20-50 year time frame. If the town will be taking down the wind towers, they need to consider prevailing wages in their cost estimates, which will increase the cost to take them down.

Lease Agreements: Landowners being approached with lease agreements from the wind developer should always consult an attorney before signing them. In particular, the landowner should pay attention to the fact that if the wind tower is abandoned on their property by the developer that the landowner would be responsible for the full taxes on the wind tower they host on their property.

Land Use Plans: The community should carefully consider the impacts of wind projects in its development plans, as some impacts may foreclose other development options in and around the project area. A wind tower may require a development setback or a radius around it to ensure its operation is compatible with other permitted land uses in the community.

Lease and Neighbor Payments: Wind farm developers may offer, in addition to lease payments to the landowners hosting a wind farm, a "neighbor payment" to those landowners close enough to the wind tower to be affected by visual impacts or aesthetics.

Property Values: It is difficult to determine if wind farms have an effect on property values. In some instances, for example near popular vacation destinations, there may be a negative impact on property values. In other more rural areas, property values may not be negatively affected. There are several studies in different geographical contexts that can be consulted for more information.

Additional Resources

An explanation of Article 10 can be found at www.occainfo.org/wp-content/uploads/2015/01/Article10DiscussionPaper.pdf. It provides important information about how home rule, zoning and comprehensive plans relate to this topic. If wind projects were started before 2011, prior permitting processes are required for siting of electrical generating facilities.

Article 10 and the Siting of Major electric Generating Facilities in New York State by Paul Agresta. http://www.tughill.org/wp-content/uploads/2016/11/Agresta-Article-10-with-Reprint-Permission.pdf.

The full text of the NYS Public Service Law, Article 10 can be found here: http://www3.dps.ny.gov/W/PSCWeb.nsf/W/PSCWeb.nsf/All/D12E078BF7A746FF85257A70004EF402?OpenDocument.

A thorough graphic and description, from the stakeholder perspective, of the Article 10 process can be found here: http://www.lighthousewind.com/article_10.

Appendix A: Article 10 Deadlines

Timeline, as presented by Paul Agresta, Department of Public Service, titled *Article 10 Handout for Local Officials*: http://www.tughill.org/wp-content/uploads/2016/11/Article-10-Handout-for-Local-Officials.pdf.

ARTICLE 10 Deadlines

	Milestone	Deadline
1	Initial Public Involvement Plan (PIP)	At least 150 days prior to submitting a Preliminary Scoping Statement
2	DPS Comments on PIP	Within 30 days of PIP
3	Final Public Involvement Plan (PIP)	Within 30 days of DPS Comments
4	Public notice and summary of the Preliminary Scoping Statement	Due three days prior to filing Preliminary Scoping Statement
5	Preliminary Scoping Statement (PSS)	At least 150 days after the initial PIP was filed; but at least 90 days prior to submitting an Application
6	**List of Ad Hoc Candidates to the President Pro Tem of the Senate and the Speaker of the Assembly**	**Within 15 days of PSS**
7	**Comments on PSS**	**Within 21 days of PSS**
8	Summary of Comments and Reply by Applicant	Within 21 days of Deadline for Comments on PSS
9	Notice of Availability of Pre-Application Intervenor Funds	ASAP after filing of PSS (generally 7-14 days)
10	**Requests for Pre-Application Intervenor Funds**	**Within 30 days of Notice of Availability of Pre-Application Intervenor Funds**
11	**Initial Pre-Application Meeting to consider funding requests**	**Within no less than 45 and no more than 60 days of the filing of the PSS**
12	Funding Awards	At or ASAP after Initial Pre-Application Meeting
13	Notice of Proposed Stipulation	No deadline
14	**Comments on Proposed Stipulation**	**To be determined by Examiners**
15		
16	Public notice and summary of the Application	Due three days prior to filing Application
17	Application	At least 90 days after the PSS was filed
18	**Notice of Intent to be a Party**	**Within 45 days after filing of the Application**
19	Notice of Availability of Application-Phase Intervenor Funds	ASAP after filing of Application (generally 7-14 days)
20	**Requests for Application-Phase Intervenor Funds**	**Within 30 days of Notice of Availability of Application-Phase Intervenor Funds**
21	Determination by Chairperson of the Siting Board as to whether the documents comply as an Application	Within 60 days of the filing of the Application documents
22	**Evidentiary Hearing Schedule**	**To be determined by Examiners**

Appendix B: Exhibits

Exhibits that are required to be included in the Article 10 application.

PART 1001 CONTENT OF AN APPLICATION
(Statutory Authority: Public Service Law §164(1))
Sec.
1001.1 General Requirements
1001.2 Exhibit 2: Overview and Public Involvement
1001.3 Exhibit 3: Location of Facilities
1001.4 Exhibit 4: Land Use
1001.5 Exhibit 5: Electric System Effects
1001.6 Exhibit 6: Wind Power Facilities
1001.7 Exhibit 7: Natural Gas Power Facilities
1001.8 Exhibit 8: Electric System Production Modeling
1001.9 Exhibit 9: Alternatives
1001.10 Exhibit 10: Consistency with Energy Planning Objectives
1001.11 Exhibit 11: Preliminary Design Drawings
1001.12 Exhibit 12: Construction
1001.13 Exhibit 13: Real Property
1001.14 Exhibit 14: Cost of Facilities
1001.15 Exhibit 15: Public Health and Safety
1001.16 Exhibit 16: Pollution Control Facilities
1001.17 Exhibit 17: Air Emissions
1001.18 Exhibit 18: Safety and Security
1001.19 Exhibit 19: Noise and Vibration
1001.20 Exhibit 20: Cultural Resources
1001.21 Exhibit 21: Geology, Seismology and Soils
1001.22 Exhibit 22: Terrestrial Ecology and Wetlands
1001.23 Exhibit 23: Water Resources and Aquatic Ecology
1001.24 Exhibit 24: Visual Impacts
1001.25 Exhibit 25: Effect on Transportation
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1001.27 Exhibit 27: Socioeconomic Effects
1001.28 Exhibit 28: Environmental Justice
1001.29 Exhibit 29: Site Restoration and Decommissioning
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1001.31 Exhibit 31: Local Laws and Ordinances
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