



# **EIGHT POINT WIND ENERGY CENTER**

**Case No. 16-F-0062**

**1001.9 Exhibit 9**

**Alternatives**

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Figure 9-1. Project Areas and Alternate Turbine Sites

## Exhibit 9: Alternatives

### 9(a) and 9(b) Reasonable and Available Alternative Location Sites

The Article 10 regulation, 16NYCRR 1001.9 provides in part that this Exhibit shall contain “an identification and description of reasonable and available alternative location sites for the proposed facility.” In determining the scope of alternatives to be considered, the emphasis is on what is reasonable and available, and considers the fact that a Private Facility Applicant is limited to sites that are owned by, or under option to, the private facility applicant (or its affiliates). A Private Facility Applicant is defined in 16NYCRR 1000.2(ae), for purposes of this Application, as an applicant that lacks the power of eminent domain. The Applicant does not have eminent domain authority and therefore is only required to describe reasonable and available sites that are owned by or under option to the Applicant. The Applicant does not own or have under option any other sites in New York that could be considered reasonable and available for a wind generating project. Therefore, this alternatives analysis is limited to property under the Applicant’s control (*i.e.*, wind option, wind lease or ownership). The Applicant has no control of any other site. The sites under the control of Applicant’s affiliates are not suitable for wind projects and instead are currently being developed for solar, storage and other types of projects.

The Applicant has designed this Project to best take advantage of the available wind resource and bulk power transmission system in Steuben County, New York, and sited the Project in towns that are supportive of wind projects. Steuben County currently has four operating wind facilities, all of which have been constructed in the last 15 years, as this area of the State has elevated plateaus with a suitable wind resource for commercial scale wind energy projects in addition to sufficient and reliable transmission grid capacity.

The Project is located as proposed in order to build a wind-powered electrical-generating facility that will provide a significant source of renewable energy to the New York power grid. The Project is located in a strong wind resource area which positions the Project to best assist New York State in addressing its Clean Energy Plan and helps the State meet its Clean Energy Standard objective that 50 percent of New York’s electricity come from renewable energy sources by 2030. In fact, in January 2017, Governor Cuomo announced that the Eight Point Project had been awarded a contract under NYSEDA’s Renewable Portfolio Standard Program Purchase of Renewable Energy Attributes. John Rhodes, President and CEO, of NYSEDA said, "Large-scale renewables are a critical component in achieving Governor Cuomo's nation-leading energy goals of 50 percent renewable power by 2030 and a 40 percent reduction in greenhouse gas emissions over the same time. These projects will provide renewables, aggressively reduce emissions and make energy more affordable for New Yorkers."

In large part, the 101.8 MW size of the Project was determined based on the transmission grid’s available capacity in the area. The Applicant’s studies determined that any project of larger size would require significant upgrades to the transmission grid which would take several years to construct and cost tens of millions of dollars. The Project, as currently proposed, is a 31 wind turbine facility and is planned to generate 101.8 MW. As such, the Project will have a total net annual generation of approximately 340,000 MWh, which will be delivered to NYSEG’s existing 115 kV Bennett Substation.

This represents enough electricity to meet the average annual consumption of approximately 47,000 households, based on the average annual electric consumption of 7.2 megawatt-hours (MWh) for New York State (USEIA, 2017).

The initial Project Area, as described in the PIP (March 2016), targeted approximately 99,000 acres across seven towns in the southwestern portion of Steuben County. The targeted area was in proximity to the Project's point of interconnection, the Bennett Substation, and had good wind resource. As a result of Eight Point Wind's public outreach efforts, discussions and input from several stakeholders (including primarily landowners and town officials), and further investigation and study of the region, the Project Area was eventually reduced to a size of approximately 45,500 acres across three Towns (Greenwood, West Union and Troupsburg) - as described in a letter to the NYSDPS on 07/08/16, and in the PSS (October 2016).

The Project Area was reduced further as a result of the Applicant's interactions with stakeholders, progress in developing the Project and securing leases with landowners, as well as a desire to minimize impacts and the support of the participating communities, as portrayed in a letter to the NYSDPS on 02/23/17. As shown in the letter, and as currently proposed, the Project Area has been reduced to approximately 15,295 acres and is entirely located in the Towns of Greenwood and West Union. See Figure 2-1 for a depiction of the Project Area.

The location selected for the Project Area is among the most suitable areas in New York for commercial scale wind energy production. In selecting a specific Project Area, several design factors greatly favor rural areas such as those in Steuben County for commercial wind development, particularly turbine spacing and setback requirements. Steuben County also has a history of supporting wind projects, has strong wind resource and there is sufficient capacity on the transmission grid in the county. The towns of Greenwood and West Union, in Steuben County, also have town wind laws that are fair and conducive for wind projects and were, therefore, relied upon to develop the Project within those towns.

Generally, almost 100 acres of uncongested land is required per wind turbine (based on the turbines proposed for this Project) to perform properly under New York state wind conditions. Although the actual footprint of the wind turbine, including the access road, is much smaller (about 2 acres), this amount of airspace is required to maximize the wind and turbine efficiency and minimize "waking" effects turbines have on one another when sited down wind. Waking occurs when one turbine blocks or interferes with the wind flow of another adjacent turbine. A densely sited array of wind turbines will result in reduced wind energy production and could impose unacceptable stresses on operating wind turbine components. Rural areas, such as Steuben County, with large properties and relatively few residences are favored by wind developers because of the large land requirements for wind projects.

Preliminary selection of wind turbine locations is driven by many essential operational factors, both technical and economical, many of which are unique to siting commercial-scale wind energy projects. Eight Point Wind selected the proposed Project Area because of the presence of good wind resource, available land from willing landowners, good transportation corridors and roads to access the wind turbine sites, sufficient available capacity on the local grid and sufficient space at the point of interconnection. Additional factors are reasonable local laws, compatible land use, topography,

cooperative landowners, and avoidance of areas considered of high local, state or federal significance, or environmental sensitivity.

The locations of all facilities located within the 15,295 acre Project Area take into account the environment, public health and safety concerns, town rules and regulations, other utilities in the area and a number of other variables. The effort to obtain wind farm lease agreements focuses on obtaining leases in areas that have high wind resource and low impacts on properties and the community. Once sites are voluntarily leased from willing landowners, consideration on each property is given to all variables when determining where to site facilities. Variables include, but are not limited to, current land use, setback requirements, proximity to homes, proximity to neighbors, environmental factors, wildlife in the area, slopes, geography, elevation, topography, impacts to farming or other uses, sound, shadow-flicker, and impacts to non-participating landowners. Project layouts were thoroughly evaluated by the Applicant and continue to be refined throughout the Article 10 process with input from Project stakeholders, and based upon the input from wind analytic, engineering and environmental experts and the results of key resource studies and environmental impact assessments.

### 9(c) Description and Evaluation of Reasonable Alternatives at the Primary Proposed Location

As mentioned above, the Applicant is limited to siting Project facility components on parcels of land for which it has permission from a landowner to use or that it owns. The Applicant is a Private Facility Applicant as defined in 16NYCRR 1000.2(ae), and does not have eminent domain authority. In addition, alternative generating technologies (such as solar, nuclear, hydro, biomass or fossil fuel) are not feasible for numerous reasons, including agreements with landowners that limit development to wind energy and the related facilities. Therefore, other electrical generating facilities are not reasonable, viable or available alternatives and do not require consideration in this Article 10 Application. This Exhibit provides background information on the selection of the proposed Project Area and wind energy technology to facilitate understanding of the selection criteria that the Applicant employed when siting and designing this Project.

Several factors drive the selection of wind turbines for a wind project, including market competition, tax incentives, availability of turbines, industry trends, experience, and wind resource suitability/characteristics. As discussed in Exhibits 3 and 6, there are two types of wind turbine generators proposed for the Project; both are manufactured by GE and both are a three-bladed, upwind turbine design. Nearly all modern commercial scale wind turbines are three-bladed designs with the rotor position maintained upwind (on the windy side of the tower) using electrical motors in their yaw mechanism (mechanism used to turn the wind turbine rotor against the wind). The vast majority of commercial scale turbines sold in world markets have this design, including all operational commercial-scale projects in New York and all wind turbines in NextEra's company-wide portfolio that includes over 9,300 turbines.

More specifically, the wind turbine generators proposed for the Project are as follows:

- GE 3.43 MW turbine with a 110-meter (361 feet) hub height and 137-meter (449 feet) rotor diameter, for a total height of approximately 179 meters (586 feet). 27 of these turbines will be

constructed as part of the Project, but 31 potential locations are included for analysis in this Application (as shown in Figure 3-1).

- GE 2.3 MW turbine with a 94-meter (308 feet) hub height and 116-meter (381 feet) rotor diameter, for a total height of approximately 152 meters (499 feet). Four of these turbines are proposed for the Project, as shown in Figure 3-1.

Please see Appendix 2-1 and Appendix 2-2 of this Application with manufacturer's brochure for more details of each wind turbine model described above.

Driving toward higher efficiency and productivity, the national and international trend in the industry is towards larger turbines, in the form of taller towers and longer rotor diameters. Higher hub heights generally allow turbines to access higher wind speeds that exist at higher elevations while longer rotor diameters capture more of the available wind energy. Wind power increases with the cube of the wind speed, thus, doubling the wind speed gives eight times the wind power. Obviously, the selection of a "windy" location is very important for a wind turbine in order to produce more electricity and improve project economics.

With each passing year fewer small commercial-scale wind turbine types are available in the United States market. However, if the Project were to try to use smaller turbines (lower hub height/smaller rotor diameter/smaller rated capacity) the number of turbines required to meet the Project's stated purpose, need and benefits would have to increase. As mentioned above, the Applicant is evaluating 35 turbine sites to ultimately construct 31 turbines. The current Project Area cannot accommodate a project of greater than the proposed 31 turbines, due to landowner participation, site constraints including turbine spacing requirements, wind optimization, required setbacks, and minimization of noise and shadow flicker impacts.

For example, if the Applicant chose to use only the GE 2.3 MW wind turbines, the Project would require 44 wind turbines to achieve a capacity close to 102 MW. While some regulatory setbacks are in proportion to the turbine size, others such as setbacks to homes are not. For this Project, a turbine is required to be at least 1,400 feet away from a residence. As such, a project of 44 turbines would require significantly more land to create a project of comparable size (102 MW). It should also be noted that while the collection substation and transmission line would stay the same size under this alternative scenario, more turbines would require more turbine access roads, more electric collection lines and more meteorological towers. It would also cost more to operate and maintain a 44 wind turbine project than it will to operate and maintain a 31 turbine project. Using these assumptions, it is estimated that the overall impacts to land, vegetation, wildlife habitat, streams, wetlands and soils would increase by 30% - 40% under this alternative, 44 wind turbine scenario. At one time we also considered using GE 1.715 MW turbines at this site which are roughly 435 feet maximum height. Using all 1.715 MW turbines would have required 59 total turbines to produce a comparable amount of energy, thus would have required significantly more land. More importantly however, GE's analysis determined that this machine was not suitable for the site based on the existing wind conditions.

Another alternative for discussion is the selection of an even larger wind turbine generator than those currently proposed, with longer turbine blades or taller towers or both. A higher generator capacity rating could make it possible to generate an equivalent amount of energy with a smaller number of total

towers, and thus a smaller overall footprint (fewer turbines, access roads, and electric collection lines). For example, a Vestas 4.2 MW machine with a 150 meter (492 feet) rotor diameter and 166 meter (545 feet) hub height could be selected (total height is 241 meters or 791 feet). It would require 24 turbines to generate about 101 MW. However, for a project located within the currently proposed Project Area, the Applicant does not consider a turbine larger than the proposed GE 3.43 MW model as viable. Based on haul route analysis, highway and road layouts and other delivery constraints in the area, the GE 3.43 MW wind turbine is the largest wind turbine that can be delivered to the site. The main delivery constraint is related to the length of the rotor blade which is a single structure roughly 225 feet in length. Roads around and leading to the Project Area are curved and have steep slopes in several areas and based on our analysis, the 225 foot structure is the maximum length any haul route can support. Another main variable in determining the right turbine for this Project was GE's wind turbine site suitability analysis. Based on wind conditions, including wind speed, sheer and turbulence, GE determined that the currently proposed wind turbines are the most suitable for the site and the site's wind conditions. Also note that NextEra currently primarily uses GE wind turbines, which improves our operations and maintenance performance and lowers their per-unit cost for turbines, resulting in lower overall costs for customers.

The Eight Point Wind Project has been in development for more than three years. During that time, the Applicant has analyzed hundreds of turbine locations, ultimately eliminating all locations except for the 35 locations currently under consideration. The process of determining turbine locations was based on several factors, including but not limited to, available land, feedback from landowners and towns, wind resource, environmental factors, construction limitations, FAA requirements, noise and shadow flicker analyses, and setback considerations. During the last two years of development, the Applicant has been leasing land from willing landowners, talking to stakeholders and conducting numerous studies; these inputs were carefully evaluated and resulted in the currently proposed 35 wind turbine locations. These locations have been analyzed and vetted and meet the substantive local law and regulation requirements and meet industry standards for wind energy projects.

As noted previously, the Project Area initially consisted of approximately 99,000 acres and hundreds of potential turbine locations as shown in Figure 9-1. The general area was selected because of the good wind resource and proximity to the point of interconnection (the Bennett Substation). Based on local outreach, input from potential stakeholders and due diligence in the area, the Applicant eliminated four towns, comprising a large portion of the northern and eastern portions of the proposed Project Area, from the proposed Project. More specifically, the Applicant found that other wind developers had already leased several properties in Canisteo, Hartsville, Jasper and parts of Troupsburg and that the Town of Hartsville has local laws that are not conducive for wind turbines. Based on these factors, the Project Area was reduced from about 99,000 acres to about 45,500 acres. Figure 9-1 displays the original project boundary and the revised project boundary as described in a letter to the NYSDPS on 07/08/16, and in the PSS (October 2016).

Once the wind Project was confined to the Towns of Greenwood, West Union and Troupsburg, work focused on signing wind lease agreements in those towns with landowners that wanted to participate in the Project and identifying any issues that might interfere with the Project. Additionally, since the point of interconnection was fixed at the Bennett Substation, the Applicant focused on finding a transmission line corridor to connect the Project to the POI. Over the course of nearly two years, the Applicant was

able to identify over 100 landowners that wanted to be part of the Project and were willing to sign long term leases. Over that same time period, environmental, cultural, engineering, regulatory, wind and other analyses were conducted in order to determine limiting factors and to determine the best locations for turbines, collection lines, access roads and the transmission line, based on the available land. After evaluation of these and other factors, the Project Area was again reduced, as portrayed in a letter to the NYSDPS on 02/23/17. As shown in the letter, and as currently proposed, the Project Area has been reduced to approximately 15,295 acres and is entirely located in the Towns of Greenwood and West Union.

Once the Project was narrowed down to the current Project Area, extensive and focused analyses and studies were conducted to determine the final locations of all wind Project components. There were numerous site visits to conduct wetland and cultural surveys and to conduct environmental studies. Numerous site visits were also required to identify and verify structures in the area, to consult with landowners and local officials and to evaluate engineering and design constraints. Extensive evaluation of setbacks as provided by local laws and industry standards was conducted. Setbacks from non-participating properties, residences, roads, structures, existing utilities, wetlands, proposed wind turbines and other factors severely limited the land actually available for Project components. Once all of these analyses were conducted, an extensive sound and shadow flicker analysis was conducted. Then, turbines were either eliminated, relocated or adjusted, in order to adhere to industry standard noise and shadow flicker standards. Based on all of these analyses, discussions and site visits, and considering only land which is available under lease or ownership, the Applicant has determined there are 35 viable wind turbine sites as shown in Figure 9-1.

The no build alternative assumes that the Project site would continue to exist as it is currently (primarily agricultural, forested, successional and rural residential land). This no build alternative would not affect on-site ambient noise conditions, construction traffic or public road conditions, wildlife or wildlife habitat, wetlands and streams, or television/communication systems, and would maintain community character, economic and energy-generating conditions as they currently exist.

Under this alternative, no wind turbines or infrastructure (e.g., roads, buried or above ground electrical interconnects, and substations) would be developed on the site. Consequently, none of the relatively minor environmental impacts associated with Project construction and operation would occur. On the other hand, no economic benefits would accrue to the area. These unrealized economic benefits would include income from construction jobs, lease payments to the landowners, and annual PILOT payments to the affected towns, school districts, and county. Under the no build alternative, multiplier effects from these economic benefits would also not be realized. Furthermore, the benefits of adding up to 101.8 MW of clean, renewable electric energy to the power grid would be lost, and reliance on fossil-fuel-fired generators, which contribute to emissions of sulfur dioxide (a precursor of acid rain), nitrogen oxide (a smog precursor), and carbon dioxide (a greenhouse gas) would continue unabated. Given the short-term nature of anticipated construction impacts and the generally minor long-term impacts of Project operation, as compared to the significant economic, policy and environmental benefits that the Project would generate, the no build alternative is not considered a preferred alternative.

## 9(d) Why the Project Location Best Promotes Public Health and Welfare

Land in Greenwood and West Union is primarily used for agriculture and hunting. While the Project Area is over fifteen thousand acres, the amount of land actually used for the turbines and access roads is small (less than 31 acres), thus the Project will have very little impact on existing land uses in the area. Construction impacts will be temporary, after which current recreational, cultural and other concurrent uses, such as farming and hunting, will go on as usual.

The Project location best promotes public health and welfare for a number of reasons, including a reduction in air pollution and an increase in local revenues that can be used to promote public welfare. As discussed previously, the Project is sited in an area with strong wind resource and willing participating landowners, while taking into account numerous setback, environmental and engineering considerations that ensure that the public and the Project will be safe. In addition, producing energy from a clean, renewable resource will offset emissions from burning fossil fuels that are harmful to public health and the environment. The Project will use no water and require no fossil fuel or fuel transport to operate, which also promotes public health compared to conventional energy generation.

Once operational the proposed Project will help satisfy regional energy needs using a clean, renewable source of fuel (wind), it will reduce the amount of electricity that New York State imports, and it will reduce the amount of energy produced using fossil fuels, which is good for human health and for minimizing environmental pollutants.

No significant impact on public health and safety were determined through this evaluation. Proposed setback distances from homes, structures, utilities and roads were deemed sufficient to provide protection from tower failure, blade throw, and ice throw events. The compliance goal of no more than a maximum 1-hr  $L_{eq}$  of 45 dBA at the exterior of non-participating residents was met for all receptors. The total number of hours of shadow flicker at non-participating residences was below the Applicant's maximum of 30 hours a year design goal using the worst case scenario assuming no shielding and/or coverage from vegetation.

Based on the weight of scientific evidence, the Eight Point Wind Energy Center is well suited to promote public health and safety. No short-term, long-term, or cumulative impacts are anticipated. This includes issues surrounding audible sound, low frequency noise, infrasound, shadow flicker, or any other quality of life issues.

No cumulative impacts are anticipated from the 16.5-mile overhead 115 kV transmission line and related facilities. In addition, any issues related to the transmission line will be considered by the NYPSC in the Article VII proceeding.

Currently, the Project is expected to provide Steuben County, Greenwood and West Union with approximately \$40 million over the 30-year expected life of the Project through Payment In Lieu of Tax (PILOT) payments and Host Community Agreement payments then property taxes. The contribution to local school districts will help schools weather tough times and create better facilities and opportunities for students. The contributions to the county and towns can be used to improve roads, infrastructure and emergency services in the area and other projects that further promote public welfare. Additionally,

the short term economic impact during construction is estimated to be substantial and permanent O&M jobs will provide a meaningful benefit for the towns.

In addition, lease payments to landowners are estimated to be more than \$25 million over the 30-year expected life of the Project. Wind project payments help stabilize revenues for local participating farmers (as crop and dairy prices often fluctuate from year to year) and revenues paid to landowners are typically reinvested in the community, helping to create jobs and improve the local economy. These local benefits combined with the contribution to clean air and positive impacts to the climate demonstrate why the Project's location promotes public health and welfare.

## 9(e) Why the Project Design, Technology, Scale, and Timing are Best Suited for Public Health and Welfare

The Project design, technology, scale and timing best promote public health and welfare for a number of reasons. The Applicant first analyzed the advantages of the development of the Project in relation to economic benefits, New York State renewable goals, environmental impacts, public health and welfare, and other related factors. The Applicant anticipates significant positive socioeconomic benefits to the local community throughout the development, construction, and operation of the Project. These benefits include but are not limited to an influx of employment opportunities, local revenue related to construction sourcing of materials and employment, payments to participating municipalities and stakeholders, and payments to school districts and Steuben County. The Project also contributes to New York State in addressing its Clean Energy Plan and helps the State meet its Clean Energy Standard objective that 50 percent of New York's electricity come from renewable energy sources by 2030. Using larger turbines reduces the overall impact to the existing area which in turn translates to limiting the extent of environmental impacts. Extensive and focused analyses and studies were conducted to determine the final locations of all wind Project components to ensure public health, welfare and safety.

Due to landowner constraints and setback requirements, the alternative of using a greater number of smaller nameplate capacity turbines is not feasible. Therefore an analysis of the advantages and disadvantages of this alternative has not been done. There are however advantages and disadvantages associated with the alternative of using taller, larger nameplate capacity turbines. Using larger nameplate capacity turbines results in fewer turbines in the Project that would translate to a reduction in affected land area and reduced environmental impacts. The disadvantages of this alternative include bigger setback and land constraint concerns, and sound and shadow flicker impacts. Nameplate capacity turbine technology greater than 3.43 MW is relatively new and the Applicant has not studied the reliability and efficiency of the technology. The Project Area is constrained from an available land perspective. Between non-participating landowners and setback constraints, larger turbines are not a feasible alternative for this Project.

Numerous studies and countless hours went into the design of the Project to maximize the effectiveness of the turbines as well as to ensure that they are located at sites that are safe and that pose no harmful health effects to landowners in the area. Sound and shadow analyses, wetland and water surveys, health and setback analyses and more all went into the siting and design of the Project to ensure that public health considerations were addressed and the Project will be built with a design and in a manner that will not impose any health burdens upon people in the area. Further, the Project design

encompasses industry best standards and will utilize the existing resources in the area to the maximum extent possible in order to produce clean energy efficiently and economically which will create jobs in the area and allow the Project to contribute economically to the community.

GE is the largest manufacturer of wind turbines in the United States of America, with over 40% of the total installed capacity. Nearly all of NextEra's new wind turbines purchased over the last eight years have been GE wind turbines based on the performance, reliability, economics, and effectiveness of GE turbines. NextEra's unforced outage rate is among the lowest in the industry and low outage rates mean more energy production and better economic performance. The GE turbines being proposed for this Project are among the newest in GE's fleet of available products and are best suited to maximize the wind resource at this Facility Site. The GE 3.43 MW turbine with 110 meter (361 feet) hub height and 137 meter (449 feet) rotor diameter was introduced into the U.S. this year and is GE's largest, currently available wind turbine. Based on analyses by GE and by NextEra's WindLogics team, it was determined that the GE 3.43 MW machine will be the most effective turbine for this site. That analysis takes into account all wind conditions and directions in the area at various different heights.

The scale of the Project is best suited to promote public health and welfare based on numerous variables including land, time and resources. Currently, the 31 turbine, 101.8 MW Project Area is 15,295 acres, spanning two towns. A larger project would require more land, requiring more landowners to participate and increasing the overall environmental impact and impacts to homes and homeowners in the area. On the other hand, a larger project would have a larger economic benefit, but it may not be feasible to build a larger project because of the upgrades that would be required to the transmission grid. Alternatively, a smaller scale project may have less of an overall impact on the area but it would have a smaller economic benefit. A smaller project may also not be economically viable since commercial-scale wind projects benefit from economies of scale and the cost of interconnection and other parts of the Project are fixed, regardless of size.

Finally, with regards to timing, as previously noted, the Project had been awarded a contract under NYSERDA's Renewable Portfolio Standard Program Purchase of Renewable Energy Attributes. Large-scale renewables are a critical component in achieving New York State's energy goals of 50 percent renewable power by 2030 and a 40 percent reduction in greenhouse gas emissions over the same time. This Project will produce clean energy, reduce overall emissions in the state and help New York achieve its goals on time. A delay in the timing will jeopardize the Project's NYSERDA contract and the State's ability to meet its goals.

## 9(f) Description and Evaluation of No Action Alternative

The "No Action Alternative" assumes that the Project Area would continue to exist as agricultural, forested, and rural residential land and that the Eight Point wind Project is not built. Under this scenario, nothing immediately changes versus current conditions and current uses (farming and hunting) in the area.

The No Action Alternative also means that the area receives next to no benefits from the Project. While several landowners have received signing bonuses and option payments for wind and transmission line leases, the vast majority of payments to landowners start after the Project receives approval to start

construction. The No Action Alternative also means that the County, the towns and the schools lose out on PILOT and Host Community payments estimated to be roughly \$40 million, which would have a significant positive impact on the community and the economy in the area. That money can be used locally to improve roads and other infrastructure, to improve emergency and other necessary community services and potentially to help reduce local taxes. The Project is also slated to create over 200 temporary development and construction jobs and six permanent O&M jobs, which will also have a positive impact on the economy in the area and help to reduce the 6.8% unemployment rate in the County.

The No Action Alternative also would not promote New York State's energy policy directives, would not contribute to the State Energy Plan and would not help to meet the 50% renewable energy generation by 2030 objective. In order to meet the State's goals and objectives, more renewable energy projects need to be built and Eight Point is one of the most viable large scale clean energy projects in New York.

The impacts of the Project, such as visual, construction-related congestion and sound, are recognized but outweighed by the positive economic and environmental impacts. The significant financial contributions to the County, the towns, and the landowners, and the 101.8 MW of clean energy that will help New York reach its 50% clean energy goal and the benefits that will accrue from obtaining that goal make the No Action Alternative unattractive and it should not be considered.

### 9(g) Identification and Description of Alternative Energy Supplies

The Applicant is focused on developing a wind generated energy facility in New York State and has been awarded a contract for this wind energy project under NYSERDA's Renewable Portfolio Standard Program Purchase of Renewable Energy Attributes. Additionally, the contracts with landowners for this Project are exclusively for a wind energy project. Alternative energy supplies are not a viable alternative, therefore, energy supply sources other than wind energy will not be considered in this Application. Demand-reducing and transmission-related projects are also not viable alternatives, thus were also not considered.

### 9(h) Transmission and Demand-Reducing Alternatives

No other supply source, demand reducing or transmission project were considered viable at the proposed site, considering the Applicant's objectives and capabilities, and therefore, they are not considered in this Application.

### 9(i) Why the Project is Best Suited to Promote Public Health and Welfare

As mentioned previously, various siting constraints dictate the size and layout of a wind power project. The proposed Project has been designed with consideration given to the important balance between the increased need for clean electrical energy generation and the protection of public health and welfare. The placement of Project components has been researched, reviewed and scrutinized over and over again in the development and engineering process to avoid and minimize negative impacts and to incorporate extensive siting considerations including (but not limited to) landowner requests, setback

requirements, sound and shadow, wind resource, constructability, and avoidance (or minimization) of impacts to wetlands, streams and agricultural land.

As previously discussed in this Exhibit, the Project location, design, technology, scale and timing all take into consideration and promote public health and welfare. The Applicant has done its best to balance the goals of the State and the Project with the goals of the community and the local landowners. Careful consideration was given to all impacts including, but not limited to, environmental, aesthetic, agricultural and sound, and time and attention was dedicated to working with stakeholders to minimize negative impacts and maximize positive benefits, ultimately to arrive at a Project that is best suited for this area, for this community and for the State of New York.

## References

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