



# **EXCELSIOR ENERGY CENTER**

**Case No. 19-F-0299**

**1001.9 Exhibit 9**

**Alternatives**

## Contents

Exhibit 9: Alternatives .....	1
9(a) Applicable, Reasonable, and Available Alternative Location Sites .....	1
9(b) Description and Evaluation of Comparative Advantages and Disadvantages of Proposed and Alternative Locations .....	3
9(c) Description and Evaluation of Reasonable Alternatives at the Primary Proposed Location.....	3
(1) General Arrangement and Design .....	4
(2) Technology .....	11
(3) Scale or Magnitude .....	12
(4) Alternative Turbine Layouts .....	12
9(d) Why the Project Location Best Promotes Public Health and Welfare .....	13
9(e) Why the Project Design, Technology, Scale, and Timing are Best Suited for Public Health and Welfare .....	14
9(f) Description and Evaluation of No Action Alternative .....	15
9(g) Identification and Description of Alternative Energy Supplies .....	16
9(h) Transmission and Demand-Reducing Alternatives .....	16
9(i) Why the Project is Best Suited to Promote Public Health and Welfare.....	17
9(j) Impacts to Vegetation .....	17

## Figures

Figure 9-1 Project Setbacks and Design Constraints

Figure 9-2 Alternate Panel Location

## Appendix

Appendix 9-1 Alternative Site Plan with Community Solar

## **Exhibit 9: Alternatives**

This Exhibit will track the requirements of Stipulation 9, dated July 6, 2020, and therefore, the requirements of 16 New York Codes, Rules and Regulations (NYCRR) § 1001.9.

As documented in this Exhibit, Excelsior Energy Center, LLC (Applicant) has put forth significant time and effort to analyze numerous factors in order to develop an Excelsior Energy Center (Excelsior Energy Center or Project) layout that takes into account stakeholder's concerns while achieving the Project's objectives and avoiding or minimizing impacts to the maximum extent practicable. The Project will provide significant setbacks from residences (minimum 300 feet), will avoid impacts to state-regulated resources, and will also facilitate participating landowner requests that allow continued agricultural production within the overall Project Area. These and other factors addressed below led to the Proposed Layout that will result in the development of a large-scale solar energy center that assists the State of New York in further achieving its renewable energy goals.

### **9(a) Applicable, Reasonable, and Available Alternative Location Sites**

The Article 10 regulations require 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 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 also defined in 16 NYCRR §1000.2(ae), 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.

This alternatives analysis is limited to property under the Applicant's control (i.e., solar option, solar lease, or ownership). The Applicant is a wholly-owned, indirect subsidiary of NextEra Energy Resources, LLC, which does have affiliates with other sites under control. However, the sites under the control of the Applicant's affiliates are already being considered for placement of other solar generating facilities or other types of projects; therefore, the Applicant does not have control of other sites that are available or may reasonably be considered for this Project. The sites under the control of Applicant's affiliates that are not being considered for solar development are not suitable for solar projects and instead are currently being developed for other types of projects. Furthermore, the Project at this site was selected by the New York State Energy Research and

Development Authority (NYSERDA) to enter into agreement to sell renewable energy credits as a result of its 2018 solicitation of large/commercial scale, renewable energy projects, as part of the New York Public Service Commission's (NYPSC's) and NYSERDA's efforts to achieve the goals in the 2015 New York State Energy Plan (SEP), amended in 2020, and the NYPSC's adopted Clean Energy Standard. Since then, the Climate Leadership and Community Protection Act (CL&CPA) has been enacted, setting more exacting and aggressive renewable goals, to which this Project will timely contribute. See Exhibit 10 for a more detailed discussion of the State's clean energy laws and programs.

Preliminary selection of solar energy locations, including the location of the proposed Project, is driven by many essential operational factors, both technical and economical. Excelsior Energy Center selected the Project Area based on the following primary factors:

- Availability of the solar resource – The Project Area was identified as having a strong solar resource.
- Available land from willing landowners – Excelsior Energy Center has partnered with multiple willing landowners to develop the Project Area and has sufficient acreage of suitable land for development of a 280-megawatt (MW) Project with a 20 MW/4-hour duration energy storage system.
- Relative ease of accessing the Project Area – The Project is easily accessible off State Routes 262 and 237 and multiple existing local roadways. Additionally, the Applicant has worked with participating landowners to identify access routes, such as Caswell and Cockerham Roads, which allow access to multiple parcels at one time. The parcels that make up the Project Area are in relative proximity to one another, allowing for sharing of access roads, limiting the need for off-site features, and consolidating Project impacts to a more defined area.
- Relative ease of connecting to the existing electric transmission grid – The Project will connect to the existing New York Power Authority (NYPA) 345 kilovolt (kV) Line #DH2 via the proposed Point of Interconnection (POI) switchyard and two approximately 160-foot kV interconnection lines which will be easily accessible off Batavia-Byron Road. In addition, the collector substation and POI switchyard are immediately adjacent to one another, reducing the amount of transmission required for interconnection.

- Sufficient available capacity on the grid – A System Reliability Impact Study (SRIS; see Appendix 5-1) indicated that the existing NYPA 345-kV Line #DH2 has the required available capacity to support the Project.

The general arrangement and layout of the Project within the Project Area was refined based on input from stakeholders and based upon the results of key resource studies and environmental impact assessments. Additional siting considerations include general arrangement and design, other solar and energy storage technology, scale and magnitude of the Project, and the No Build Alternative. These additional factors are described further below in 9(c).

#### **9(b) Description and Evaluation of Comparative Advantages and Disadvantages of Proposed and Alternative Locations**

The Applicant does not own or have under option any other sites in New York that could be considered reasonable and available for this Project. Therefore, this Section is not applicable.

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

Based on results of the SRIS (see Appendix 5-1), the anticipated transmission system capacity available in the area near participating landowners, and the NYSERDA solicitation, the Project has been designed for a nameplate capacity of 280 MW with a 20 MW/4-hour duration energy storage system. Therefore, the objective of the Proposed Layout is to construct a solar energy generating facility and energy storage system that can produce up to 280 MW of renewable energy and provide a 20 MW/4-hour duration energy storage system at the Project Area.

The Applicant used the siting parameters described in Section 9(a) and determined that the proposed Project Area is the most viable. The initial Project Area, as described in the April 2019 Public Involvement Program (PIP) Plan, included 3,418 acres in the Town of Byron, which was based on preliminary estimates of where Project Components could be located due to known constraints. The targeted area was in proximity to the Project's proposed point of interconnection (the NYPA 345 kV Line #DH2 transmission line). The Applicant continued outreach efforts and ultimately expanded the Project Area to 3,443 acres within the Town of Byron (the current Project Area). The addition of approximately 25 acres to the Project Area allowed for greater flexibility for placement of collection lines. During refinement, the Applicant continued public outreach and

discussions with landowners and Town officials, as well as promoted open communication through public open house style meetings and through community initiated meetings to discuss the Project.

There are multiple factors that make the Proposed Layout superior to the alternate layouts discussed. As described below, it allows for further agricultural use; provides greater setbacks from adjacent landowners located at the intersection of Batavia-Byron Road and Cockram Road; preserves and creates recreation and game trails; avoids potentially archaeologically sensitive areas; minimizes impact on habitat, protected species, and wetland and forested areas to the maximum extent practicable; places inverters and energy storage systems away from property lines; provides greater screening from public viewpoints especially on Batavia Byron Road and Cockram Road; and uses technology that minimizes impact to soils. The following subsections describe and evaluate multiple factors considered in the design of the Project at the Project Area.

### ***(1) General Arrangement and Design***

Preliminary selection of panel locations was driven by many essential operational factors, both technical and economical, and which are unique to siting commercial-scale solar energy projects. The arrangement of Project Components within the 3,443-acre Project Area considered existing environmental constraints, public health and safety concerns, and engineering constraints in the area, such as slopes, geography, elevation, topography, as well as a number of other variables as described within the supporting exhibits of this Application. Importantly, community feedback was a strong consideration.

Consequently, the selected arrangement of the Project was designed to minimize the potential for impacts to those noted resources to the maximum extent practicable, while reducing the need for extensive grading, land clearing, and site fragmentation within the Project Area. Aside from the factors described above and in Section 9(a), the general arrangement and design of the Project emphasized placement of Project Components on parcels with proximity to one another. This reduces the need for offsite collection lines and reduces the amount of access roads required, as a single access road may be used to access multiple parcels. This decreases the amount of security risk (e.g., fewer gate entrances) and interference with existing land uses (including agricultural operations) and ecological cover types on nearby or proximate parcels. Considerations were also made to enable the continued agricultural use of areas where Project Components would not be placed. As part of the evaluation of alternative arrangement and design, the Applicant evaluated the feasibility of siting Project Components on each of the

parcels for which landowner agreements are in place. Once the environmental and health constraints described above were taken into account, the resulting parcels were evaluated for development of the final layout. The current Project layout (the Proposed Layout) is represented on the mapping and figures included within the Application.

This Exhibit evaluates the current Project design, as shown in the Preliminary Design Drawings (Appendix 11-1) and evaluated throughout this Application as the “Proposed Layout” comprising of a sun-tracking panel racking (tracker) system. However, fixed panels may also be used in place of a tracker system within the same Project fence line.

Excelsior Energy Center selected the Project Facility area within the Project Area based on the following primary factors and constraints, which are also shown on Figure 9-1:

- Consideration of safety, visual, and environmental impacts of alternative arrangements/designs that may affect state-regulated resources: The Proposed Layout as shown in Appendix 11-1 has been sited to avoid impacts to state-regulated resources, therefore an evaluation of alternatives to mitigate or minimize impacts is not necessary. By the Applicant choosing to not site Project Components within state-regulated resources, the land area available for the Proposed Layout was further reduced within the overall Project Area.
- Setback distance from residential structures: The Project design (see Appendix 11-1) uses a 300 foot setback from residential structures. An increase in the setback from 300 feet, while maintaining all other design constraints and assumptions, would result in a loss to the Project’s capacity. The Project, through its power purchase agreement, is required to produce a certain amount of energy, and a reduction in production would cause the Project’s future production to be below the required production target. Through the engineering process, the Project has been optimized to produce the most energy on the least land, using available equipment. Maintaining the production capacity while increasing the setback from 300 feet and keeping all design parameters the same would require additional land in the Project vicinity to be used to account for the capacity loss. Utilizing additional land would have increased the overall Project footprint leading to additional environmental impacts. Another alternative would be to redesign the Project to restore full MW capacity to the Project on existing land, by decreasing the row space between solar modules, thus making them closer together. Because of the way this

system is designed to operate, module rows track the sun turn from east to west throughout the day and can cast shadows on nearby rows during morning and evening hours if rows of modules are sited too close together. These shaded modules would no longer function at full capacity. When module rows are pushed closer together, this self-shading increases, and the productive generating hours of the day are reduced accordingly. Over the course of the year this results in significant energy production loss, putting the Project's annual production below the required production target. Pushing the module rows closer together makes construction more difficult for the major equipment used to drive foundation piles into the ground, which require a certain clearance between rows of piles to maneuver. These tight module rows present safety hazards for personnel on-site, who must maneuver between rows while carrying materials and equipment, including the modules themselves, which are over 6.5 feet long. The Project's contracting partners have advised that they cannot build a project where the ratio of open space to module area is less than 50%, due to these concerns. In order to design this alternative, a ratio of 52% is required. Additionally, the State's stormwater SPDES General Permit has required row spacing between modules in order to allow for the infiltration of stormwater runoff. This requirement was also taken into account when designing the Project.

- Consideration of alternative Project parcel sites, designs, or arrangements that would avoid or minimize impacts to wildlife and wildlife habitat, including but not limited to habitat fragmentation, disturbance and loss, and the displacement of wildlife from preferred habitat: The Project Area consists primarily of agricultural land, grass/pasture/hay, and isolated forest patches. Additionally, several forested and emergent wetland complexes exist within the Project Area. The Proposed Layout as shown in Appendix 11-1 minimizes the amount of tree removal required to the maximum extent practicable. Forest patches within the Project Area have been historically fragmented to promote expansion of agricultural production and proposed tree clearing has been minimized to primarily affect hedgerows and forest edge habitat with less than one acre net loss proposed to interior forest, defined as forest areas occurring at least 300 feet from the forest edge. Of the entire 3,443-acre Project Area, only approximately 47.3 acres of potential wildlife habitat will be permanently lost due to the placement of Project components, out of a total of approximately 1,560 acres of potential wildlife habitat that has been avoided. All of the potential wildlife habitat permanently lost



resides in active agricultural areas which already provide limited perpetual wildlife habitat due to the regular disturbances and anthropogenic pressures of active farming practices (Section 22(f)(4)). The surrounding region provides ample habitat for larger wildlife displaced by the Project. Smaller wildlife (e.g., squirrels or voles) will be able to move into and out of the Project Facility.

- Avoidance of a parcel near the Town of Byron center: The Applicant worked with its participating landowners to exclude a parcel near the Town of Byron. This preserves approximately 109 acres of land within the Project Area for agricultural use. This also maintains the closest Project parcel to the center of the Town of Byron as an agricultural use and also provides additional land/distance between the Town center and the Project Facility.
- Exclusion of wooded areas and tree stand/hunting area: Based on local stakeholder input, the Applicant reviewed the landcover types within the Project Area and identified several areas of forested and/or wetland habitat areas that provided potential wildlife habitat. These areas were excluded from development to the maximum extent practicable while still allowing for the Project requirements to be met. There were approximately 36 acres of potential habitat within the Project Area that have been avoided with the proposed Project Layout. These areas are shown on Figure 9-1.
- Integration of a game/wildlife trail: Also based on input provided by local stakeholders, the Applicant developed a game/wildlife trail through the Project Area to connect areas of forested and preferred wildlife habitat, as well as to allow for a potential migration corridor for larger wildlife to pass through the Project facility. Comments were received from Town residents regarding impacts to wildlife movement and migration at community meetings held at the Byron Hotel and this change was made to address this public comment.
- Integration of a fence design to allow for small wildlife movement through Project Facility: The Applicant has integrated a fence design for this Project that includes a six inch gap to allow for movement of small wildlife (e.g., squirrels, voles, mice, and skunks) to move into and out of the Project Facility freely. Comments were received from Town residents regarding impacts to wildlife movement and migration at community meetings

held at the Byron Hotel and this change was made to address this public comment, as well as to minimize the environmental impacts of the Project. A typical fence detail showing this gap is provided in Appendix 11-1.

- Preserved and realigned the snowmobile trail: The Applicant recognizes the recreational importance of the snowmobile trail that passes through the Town of Byron, including through the Project Area. The layout of the Project Facility has been designed to preserve a snowmobile trail through the Town of Byron and maintains the existing route to the maximum extent practicable, while realigning some portions of the route to allow both the snowmobile trail and the Project to coexist.
- Avoided development of property, and integrated additional screening, near the manufactured home community on Swamp Road, Byron Cemetery, Mill Pond, and Trestle Park: The Applicant identified the manufactured home community on Swamp Road as an area of relatively dense residential development located in close proximity to participating parcels. The Applicant also identified potential visual receptors that may be popular to Town Residents, Byron Cemetery], Mill Pond, and Trestle Park. To minimize the visual impacts to residents, The Applicant excluded the portion of the property nearest to the homes, Cemetery, Mill Pond, and Trestle Park from development, as well as integrated additional screening to minimize visual impacts to these receptors. The visual screening added to this area is shown on the landscaping plans (Appendix 11-2).
- Excluded land on specific properties and integrated setbacks to allow for continued agricultural use: The Applicant worked with its participating landowners to identify specific properties that should be preserved to allow for continued agricultural use and development. This allows the landowner to continue existing agricultural operations, including growth of crops and to support continued manure spreading. The land outside the Project Facility fence remains available to landowners for agricultural use and development. The use of setbacks has preserved approximately 830 acres within the Project Area for agricultural use. Exclusion areas negotiated with landowners have excluded and additional approximately 180 acres for agricultural or other landowner uses.

- Pheasant habitat exclusion: The Applicant worked with one of its participating landowners to exclude a habitat preserve area from consideration for the Project Area. This area has been protected and enhanced by the landowner to serve as habitat for pheasants.
- Arrangements that would avoid or minimize impacts to waterbodies, wetlands, and streams: Through careful siting of Project components, impacts to waterbodies, wetlands, and streams have been avoided or minimized to the maximum extent practicable. There are no temporary or permanent wetland impacts proposed within the Project Area. These wetlands are described further in Exhibit 22 and Appendix 22-6 (Wetland and Stream Delineation Report). As can be seen on the Preliminary Design Drawings in Appendix 11-1, there are several wetland complexes that were avoided in the design of the Project. This avoidance has been achieved both by siting Project components beyond these wetlands and NYSDEC-mapped adjacent areas and also by proposing Horizontal Direction Drilling (HDD) to prevent disturbance that would have otherwise been unavoidable with surface activities. The Applicant worked to minimize impacts to waterbodies and there are no stream crossings proposed by this Project.

All practicable measures will be taken by the Applicant to avoid, minimize, and mitigate any impacts to surface waters through the measures adopted in the Project's Stormwater Pollution Prevention Plan (SWPPP) and Spill Prevention and Containment (SPC) Plan.

- Arrangement of inverters and energy storage components away from property lines and residences: The Proposed Layout sites inverters and energy storage components away from Project Area boundaries and residences. The inverters and energy storage components have been co-located to minimize impacts associated with these Facility components. Inverters and energy storage components for the Project will be centrally located within the arrays and away from Project boundaries. Energy storage systems have been sited away from residences. Design refinements to focus on the placement of energy storage facilities have resulted in no energy storage facility within 580 feet of a home. Access roads to the inverters and energy storage components have been sited within both layouts to maximize accessibility by providing access to multiple array, inverter, and energy storage locations where practicable.

- Alternative designs for accommodating existing or planned alternative agricultural production projects: The Proposed Layout enables continued agricultural use around the perimeter of Project fencing on parcels within the Project Area where no Project Components are placed. Of the approximately 3,273 acres of agricultural land within the current Project Area, the Proposed Layout would occupy approximately 1,558 acres of agricultural land within the fenceline. Therefore, approximately 1,714 acres of the agricultural land within the Project Area would remain available for continued agricultural use. Therefore, the Applicant identified the Proposed Layout as a viable option for compatible, continued agricultural use.

In addition to the siting factors described above and shown on Figure 9-1, three alternative layout components for the Project have been considered. These are identified below.

- Alternative integrating a community solar program: The Applicant has identified the option to integrate a community solar program into the Project. This program would be free to join and would allow Town of Byron residents and businesses that choose to participate to receive solar bill credits that will help reduce their electricity utility bill. Subscribers can subscribe to a portion of the Project for up to 25 years at no cost to the subscriber. Based on their historical usage, subscribers will receive an allocation of the Project's solar energy production. Once the Project is operating, every unit of energy (kWh) generated creates a credit value. The credit value varies month to month depending on the Project's generation and conditions in the New York electricity market. The Project's energy output is allocated to community members based on each subscriber's energy use and 10% of the credit value<sup>1</sup> associated with the allocated energy will appear on the subscriber's electricity bill. Eligibility is defined under National Grid's electric tariff<sup>2</sup>.

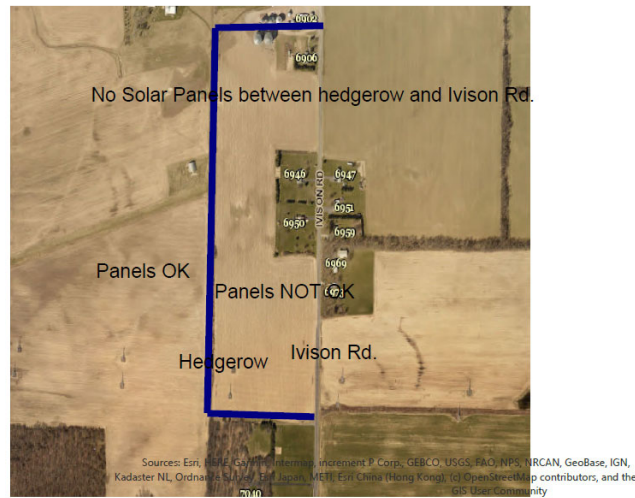
The implementation of this community solar program would require integrating some additional low profile electrical equipment to separate a 5 MW community solar facility from the rest of the Project to develop the discrete community solar program. An alternate layout integrating the community solar facility is provided as Appendix 9-1.

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<sup>1</sup> Per 'Order Regarding Consolidated Billing for CDG' (Case 19-M-0463) issued on Dec 12, 2019 by the Public Service Commission of the State of New York. The order was planned to be implemented starting Jan 1, 2021, however, there are some delays due to COVID-19. Until then, utilities will be crediting subscriber's electric bill with 100% of the credit value, and NEER DG will invoice the subscriber for 90% of the credit value.

<sup>2</sup> P.S.C. No. 220 Electricity, Leaf 220.

- Additional setbacks and/or screening along Ivison Road: Town of Byron comments on the visual stakeholder letter and landowner comments were received proposing alternatives along Ivison Road including additional setbacks and/or landscaping from the residences located along Ivison Road. The graphic below was provided by the Town of Byron in its July 16, 2020 comment letter.



To address landowner and Town comments, an alternative layout using additional setbacks was considered. This alternative is shown on Figure 9-2. To meet the power generation requirements of the Project, the use of additional setbacks along Ivison Road required the addition of panels at another location along Byron-Elba Road and Byron Road. Panels would be placed on an approximately 30-acre area. The placement of additional panels in this area would reduce the distance between properties along Byron-Elba Road from approximately 1,685-1,750 feet to approximately 305-450 feet for the three closest residences (Figure 9-2).

## ***(2) Technology***

Solar panel technology is rapidly evolving, and the market conditions at the time procurement decisions need to be made are unknown at this time, thus the Applicant is considering both a fixed and a tracker solar racking technology. The Proposed Layout (Appendix 11-1) depicts a tracker design, which represents a more conservative estimate of impact given that tracker systems generally require more land grading (to accommodate rotational movements) and also set higher off the ground (13-foot maximum height at full-tilt as opposed to 8-foot maximum height for fixed). A final racking technology decision will be made and detailed in the Compliance Filing. The tracker or fixed racking systems to be used would be similar to the

Gamechange Genius Tracker or Maxspan™ Pile Driven System, specification sheets of which have been included in Appendix 2-1. Regardless of the type of array racking system ultimately selected for the Project, the Applicant intends to utilize a solar module similar to the Jinko Solar Eagle 72HM G2 380-400 Watt Mono Perc Diamond Cell. A specification sheet for this module has been included in Appendix 2-1. Only selected elements of the Project would change based upon the array racking system types used, but all changes would be within the component fence line and to the same land uses shown in the Proposed Layout. The location of interior access roads and inverters, depending upon the final locations, could differ from that shown in the Proposed Layout (Exhibit 11-1). Land coverage ratios will also be adjusted but they are not expected to be substantial or significant as land uses are not expected to change in these locations between Application filing and finalization of the Compliance Filings. Thus choosing either racking technology would not cause any significant adverse environmental impacts.

Accordingly, the drawings, plan and maps provided in Exhibit 11 depict a layout with only tracker array systems.

### ***(3) Scale or Magnitude***

The scale and magnitude of the Project is limited to the development of a 280-MW solar project with 20MW/4-hr energy storage. This capacity was studied and approved by the NYISO for interconnection into the bulk transmission system. Generally, approximately 5-10 acres of land are required to generate 1 MW of energy under New York State solar conditions. As described in Section 9(a), in response to input received during public outreach, the Project Area was expanded following submittal of the PIP Plan to add an additional parcel for placement of collection lines and support properly siting Project components; however, the generating capacity of the Project (and subsequent acreage required for development) was not changed.

### ***(4) Alternative Turbine Layouts***

Alternative turbine layouts are not applicable as the Project does not involve wind power facilities.

### ***(5) Timing of the proposed in-service date for the Project in relation to other applicable planned additions, withdrawals, or other capacity, transmission or demand reduction changes to the local electric system.***

The Project's proposed in-service date between the fourth quarter of 2022 and the fourth quarter of 2023. This date is required through the Applicant's Renewable Energy Certificates (REC)

contract with NYSERDA. As documented in the SRIS provided in Exhibit 5, the New York Independent System Operator (NYISO) has determined that the Project will have no significant impacts on the reliability of New York's transmission system. Upon completion, the Project will immediately provide benefits to New York State by providing clean, renewable electric generation, thus advancing the State's renewable energy goals.

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

As discussed further in Exhibit 15 (Public Health and Safety), the Project will not result in adverse impacts on public health and welfare. The Project Area and proposed locations for Project components best promotes public health and welfare for multiple reasons, including a reduction in air pollution (further described in Exhibits 8 [Production Modeling] and 17 [Air Emissions]). Once operational, the proposed Project will help achieve state energy goals using a clean, renewable source of fuel (solar). Additionally, the Project will diversify New York's energy supply while reducing the amount of electricity that New York produces through fossil fuel generation. 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. These factors support human health and are good for the climate in light of the current dangers posed by climate change.

In addition, as described in this Exhibit, impacts to recreational uses have been avoided or minimized to the maximum extent practicable. This includes relocation of segments of a snowmobile trail to allow for continued operation of the trail through the Town of Byron and the Project Area.

To ensure that the Project at the proposed location minimizes effects on public health and welfare to the maximum extent practicable, the Applicant has evaluated and applied setbacks which minimize any potential effects. These measures will ensure that there is limited risk to the public health and safety, while also serving to minimize annoyance of local residents due to sounds or visual factors. Glare to airports, roadways, and residences has been avoided or minimized to the maximum extent practicable, as discussed in Exhibits 15 and 24. The solar arrays are also proposed on leased private property. Therefore, public access to the Project is limited.

The Project will also result in an increase in local revenues that can be used to promote public welfare. The contribution to local school districts, through payments in lieu of taxes (PILOT), will create better facilities and opportunities for students where needed. The contributions to the county and town can be used to improve roads, infrastructure, and emergency services in the

area. Additionally, there will be positive short-term economic impacts during construction from jobs and spending and then during operation, from permanent jobs, including Project employees, outside mowing, and snow removal services over 30 years, that will be created and that will provide a local positive economic benefit.

Solar project payments to landowners through leases will help stabilize revenues for local participating farmers (as crop and dairy prices often fluctuate from year to year and are particularly volatile in the current economic condition) and payments paid to landowners are typically reinvested in the community, helping to create jobs and improve the local economy. The Proposed Layout and alternate layouts discussed in Section 3(c) both assume that the Project would remain a 280-MW Project. If the Project size was reduced, energy production would decrease, which would not provide the emission reductions that a 280-MW project would allow.

Finally, the Town and Applicant are considering a range of additional initiatives to be introduced through a potential Host Community Agreement proposed that would provide funding for programs that are tailored to the needs of the community. Potential initiatives include further property tax relief, fire training, funding for local institutions (fire department, museum, and cemetery maintenance), water service completion for town, establishment of a town improvement fund, expanded youth programs, splash pad for town park, community-wide solar/energy benefit program, funds for a town grant writes, linear park pavement, an electronic public information board, and funding for a farmland protection plan.

#### **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. Numerous studies and countless hours went into the design of the Project to maximize the effectiveness of the panel arrays and energy storage systems as well as to ensure that they are located in areas within the Project Area that are safe and that pose no harmful health effects to landowners in the area. 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 so that the Project will be built with a design and in a manner that will not impose health burdens upon people in the area. Further, the Project design encompasses industry best standards and will use the existing resources in the area to the maximum extent practicable in order to produce clean energy efficiently while also creating jobs in the area allowing the Project to contribute economically to the community.



Currently, the 280-MW Project with 20 MW/4-hour energy storage is limited to installation of panels and energy storage components within the 1,629-acre fenced area of the 3,443-acre Project Area. A larger project would require the development of more land increasing the overall environmental impact. 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 may be required to the transmission grid. Alternatively, a smaller scale project would not satisfy the agreement executed with NYSERDA for the sale of RECs. The size of the Project, therefore, was selected in order to maximize the technical viability of solar technology, the land parcels to which the Applicant was able to obtain the necessary development rights, the generation of RECs for NYSERDA pursuant to the executed agreement, and overall economic viability of the Project so that it can deliver the above local benefits with greater certainty.

Finally, with regards to timing, as previously noted, the Project has been awarded a contract under NYSERDA's Renewable Portfolio Standard Program Purchase of Renewable Energy Attributes for approximately 280 MWs of capacity. Large-scale renewables are a critical component in achieving New York State's energy goals of 70 percent renewable power by 2030, a 40-percent reduction in greenhouse gas emissions from the electric generation sector by 2040 and zero emissions from electric generation by 2040. This Project will produce clean energy, reduce overall emissions in the State and help New York achieve its goals. A delay in the timing will jeopardize the Project's NYSERDA contract and impede, rather than facilitate, 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, with some forested and rural residential land uses and that the Project is not built. Under this scenario, nothing immediately changes versus current conditions and current uses (primarily agricultural) in the area.

The No Action Alternative means that the local communities receive no benefits from the hosting of a large/commercial scale solar project. The No Action Alternative also means that the county, town, and local schools would not receive PILOT payments which could have a tremendously positive impact on the community and local economy while diversifying their revenue streams. PILOT revenue can be used locally to improve roads and other infrastructure, to improve emergency and other necessary community services, and to potentially reduce local taxes. The Project is also expected to create approximately 200-250 local jobs in construction trades and

two to three permanent operation and maintenance jobs, which will also have a positive impact on the local economy. If the Project is not built, the regional economy would not benefit from having construction workers frequenting local restaurants and hotels, or shopping in Genesee County stores. Furthermore, a No Action Alternative would not deliver the Host Community benefits to the local economy, assuming that the Applicant can reach an agreement with the appropriate stakeholders.

The No Action Alternative also would not promote New York State's energy policy directives as contained in the recently enacted CL&CPA, would not contribute to the SEP's goals, and would not help to meet the NYPSC's adopted Clean Energy Standard. In order to meet the State's goals and objectives, more renewable energy projects must be built, and with the NYSEDA contract the Excelsior Energy Center is a viable, large-scale clean energy project that can be licensed successfully in New York State and should be included in the State's future energy mix and deliver RECs to NYSEDA.

The minimal impacts of the Project, as described within this Application, are recognized but are significantly outweighed by the Project's positive economic, health, and environmental advantages. The No Action Alternative, therefore, is a materially inferior option.

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

As previously stated, the Applicant has been awarded a contract for this Project under NYSEDA's Renewable Portfolio Standard Program Purchase of Renewable Energy Attributes. This award is specifically for the development of a solar energy facility in New York State, and not another alternative energy supply. In support of NYSEDA's award for this solar Project, contracts with landowners for this Project are exclusively for a solar energy project. Therefore, alternative energy supplies are not a reasonable nor viable alternative, and energy supply sources other than solar energy are not considered in this Application.

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

Due to the private nature of the Project, and the objectives and capabilities of the Applicant, (i.e., solar powered electric generation and energy storage), transmission and demand-reducing alternatives are not evaluated in this Application.

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

Various siting constraints dictate the size and layout of a solar energy 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 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, solar 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 each 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 impacts potentially affecting environmental, aesthetic, and agricultural resources, 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.

### **9(j) Impacts to Vegetation**

The Project Area consists primarily of agricultural land, and therefore, impacts to vegetative communities would be similar whether the Proposed Layout or other alternative arrangements were considered. Solar panels have been proposed in areas already disturbed by agriculture to the maximum extent practicable. The ability of the Project Area to reduce soil erosion will be bolstered in areas where grass cover will more broadly cover the surface (e.g., in place of row crops with exposed soil). Additionally, linear Project components, such as access roads and collector lines, have been co-located to avoid and minimize impacts to plant communities. As discussed in Section 9(c)(1)(i), the layout and design of the Project allows continued agricultural use up to the perimeter fencing of the Project and is at the discretion of the landowner. At the end of the useful life of the Project, the Decommissioning and Restoration Plan, presented in Exhibit 29, will allow the Project Area to be restored to substantially their pre-construction conditions.

In order to further minimize impacts to vegetative communities, the siting of Project components focused on avoiding unnecessary impacts to grasslands, interior forests, wetlands, shrublands,

and young successional forests. As a result, impacts to these landscape features (and vegetation communities) will be marginal (Exhibit 22, Section 22(b)).