

# TRELINA SOLAR ENERGY CENTER

Case No. 19-F-0366

1001.9 Exhibit 9

**Alternatives** 

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Appendix 9-1. Preliminary Project Layout with Fixed Panels Only

### **Exhibit 9: Alternatives**

This Exhibit will track the requirements of proposed Stipulation 9, dated June 19, 2020, and therefore, the requirements of 16 New York Codes, Rules and Regulations (NYCRR) § 1001.9.

As documented in this Exhibit, Trelina Solar Energy Center, LLC (Applicant) has put forth significant time and effort to analyze numerous factors in order to develop a Trelina Solar Energy Center (Trelina Solar Energy Center or Project) layout that takes into account stakeholder's concerns while achieving the Project's objectives and minimizing impacts to the maximum extent practicable. The Project will comply with the Town's local setback requirements, including substantial setbacks of 300 feet from non-participating residences and 200 feet from roads, will avoid impacts to state-regulated resources, and will also facilitate participating landowner requests that allow continued agricultural production within the 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 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). As previously noted, the Applicant is a wholly-owned, indirect subsidiary of NextEra, 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. Furthermore, the Project, proposed 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. Trelina Solar 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 Trelina Solar Energy Center has partnered with multiple willing landowners to develop the Project Area and has sufficient acreage of suitable land for development of a 79.5 to 80-megawatt (MW) Project.
- Relative ease of accessing the Project Area The Project is easily accessible from Packwood Road, Severn Road, and Pre-Emption Street. Additionally, the Applicant has worked with participating landowners to identify access points along these routes to 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 State Electric and Gas (NYSEG) Border City to Station 122 115-kilovolt (kV) transmission line via the proposed Point of Interconnection (POI) switchyard and an approximately 120-foot 115-kV interconnection line which will be easily accessible off Pre-Emption Street. 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;
Appendix 5-1) indicates that the existing NYSEG Border City to Station 122 115-kV transmission line has the available capacity required to support the Project.

The general arrangement and layout of the Project components 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, alternative solar technologies, scale and magnitude of the Project, and the No Build Alternative. These additional factors are described further 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

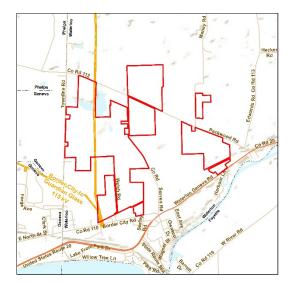
Based on results of the SRIS (Appendix 5-1), the anticipated transmission system capacity available in the area near participating landowners, and the NYSERDA solicitation, the Project has been designed for a nameplate capacity of 79.5 to 80 MW. Therefore, the objective of the proposed layout is to construct a solar energy generating facility that can produce up 79.5 to 80 MW of renewable energy 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 July 2019 Public Involvement Program (PIP) Plan, included approximately 917 acres in the Town of Waterloo. This 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 POI (the NYSEG Border City Station to 122 transmission line). 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 was able to incorporate additional parcels within the Project Area. This allowed for more consolidated and contiguous parcel arrangement and resulted in a final Project Area of 1,067 acres.

The following subsections describe the multitude of factors considered in the siting and design of the Project at the Project Area.

#### (1) General Arrangement and Design

Preliminary selection of panel locations was driven by essential operational factors, both technical and economic, which are unique to siting commercial-scale solar energy projects. The arrangement of Project components within the 1,067-acre Project Area considered existing environmental constraints, public health and safety concerns, engineering constraints in the area (e.g., slopes, geography), and expressed landowner preferences, as well as a number of other variables as described within the supporting exhibits of this Application. Additionally, community feedback was strongly considered in site design development.



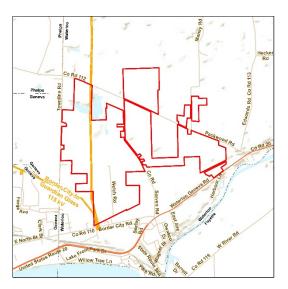


Figure 9-1: Initial Project Area (Left) as depicted in the July 2019 PIP versus Final Project Area (Right) being presented in this Application Filing.

The selected arrangement of the Project was designed to minimize the potential for impacts to those noted factors 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 contiguous 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 also decreases the amount of security risk (e.g., fewer gate entrances) and interference with existing land uses (e.g., agricultural operations) and impacts to ecological cover types on nearby or proximate parcels. Considerations were also made to enable the continued agricultural use of areas, outside

the Project fence line, where Project components would not be placed, particularly to accommodate the expressed preferences of participating landowners to reserve certain land areas. 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 were 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.

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. Appendix 9-1 presents an Alternate Layout depicting a fixed-tilt panel racking (fixed) system. Alternative layouts within the Project Area were also considered but are not proposed as described herein. Consideration of layouts/design options that would enable continued agricultural use: The Applicant has worked closely with participating landowners during the development of the Proposed Layout to allow continued agricultural use, as requested by participating landowners, to the maximum extent practicable. Several landowners with ongoing agricultural production designated "exclusion zones" within leased parcels where they desired to maintain the land in active agriculture. The Applicant was able to accommodate those requests and avoid siting Project Components within "exclusion zones".

The Applicant has also considered ways to avoid interference with agricultural use during Project siting beyond the expressed preferences of participating landowners. One such example was the decision to route visual mitigation along a longer (and therefore more costly) route to avoid unnecessary obstruction to an otherwise open agricultural field. Figure 9-2 shows a quarter-mile of landscape plantings following the northern perimeter of a proposed panel array (white box). Initial designs had proposed a much shorter (500-foot) and thus less costly route for these plantings which would have run parallel to Serven Road (black-dashed line). This route would have been effective with respect to visual mitigation and also less costly, as fewer plantings would have been necessary; however, it would have precluded continued agricultural use in a large portion of the open field north of the array. Thus, the Applicant opted to for the longer, more costly option so as to avoid unnecessary encumbrance to farming.

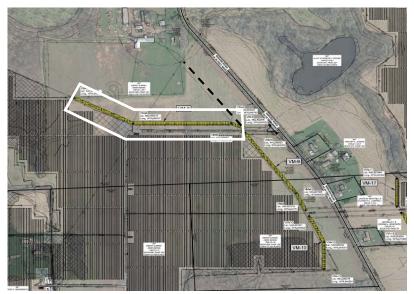


Figure 9-2. Example of design considerations to minimize disruption to continued agriculture within the Project Area.

Existing structures on parcels in the interior of the Project Area along Welch Road have been purchased by the Applicant. The purchase and demolition of these structures will allow for development to focus on interior parcels as opposed to spreading out across perimeter parcels, thereby reducing visibility of Project components from adjacent receptors.

- i. 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.
- ii. 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. Consultation with state agencies regarding the presence and extent of occupied habitat for state-listed wildlife

indicated that state-threatened bald eagle (*Haliaeetus leucocephalus*) is actively nesting within the Project Area. Construction related impacts to this species will be avoided. The Applicant will adhere to the minimum distance recommendation provided in consultation with the New York State Department of Environmental Conservation (NYSDEC). Specifically, construction activities will not occur within 660 feet of the known active nest located within the Project Area so as to avoid incidental take or undue disturbance to the nesting eagles.

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 1,067-acre Project Area, only approximately 9.07 acres of wildlife habitat will be permanently lost due to the placement of Project components. All of the 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)).

iii. 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 minimized to the extent practicable. There are only 2.17 acres of temporary impacts and 0.07 acre of permanent wetland impacts (of the 272.24 acres of wetlands delineated) proposed within the Project Area, much of this affecting small depressional wetlands located amongst active agricultural fields that are continuously disturbed by agricultural practices and that the applicant believes are not regulated under federal or state law. These wetlands are described further in Exhibit 22 and Appendix 22-5 (Wetland and Stream Delineation Report). As can be seen on the Preliminary Design Drawings in Appendix 11-1, there are several large wetland complexes, some presently mapped/jurisdictional by the NYSDEC, 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.

- iv. Arrangement of inverters away from property lines: Both the Proposed Layout and the Alternative Layout site inverters away from Project Area boundaries. Inverters for the Project will be centrally located within the arrays and away from Project boundaries. Access roads to the inverters have been sited within both layouts to maximize accessibility by providing access to multiple array and inverter locations where practicable. Where this was not practicable due to parcel size, sound mitigation can be achieved either through selection of a quieter inverter, installation of sound barriers, or enclosures around the identified inverters
- v. Consideration of alternative perimeter fencing designs that would minimize contrasts with adjacent land uses and visual character: Fencing is proposed as close as feasible to the solar arrays, while still allowing access for maintenance and emergency services. Barbed wire is not proposed on the array's perimeter fencing and will only be used at the Project POI Facilities that are located within the interior of the Project Area. Alternative perimeter fencing designs were considered; however, the fencing for both the Proposed and Alternate Layouts was selected due to substantive local zoning requirements and safety considerations. Fencing will be located around Project components and has been evaluated as part of the visual assessment in Exhibit 24. Additionally, landscaping efforts to minimize visibility of Project components from public vantage points and adjacent residential uses is included on the Landscaping Plan in Appendix 11-2.

Several landowners within the Project Area expressed concerns over placement of Project components near existing homes. Siting has been designed to avoid placement of components adjacent to homes and structures on parcels of landowners

expressing concerns. Additionally, in accordance with the Town's substantive zoning requirements, all arrays will be setback 300 feet from non-participating residences and 200 feet from roadways, thereby providing significant setbacks from these landowner's residences.

vi. Alternative designs for accommodating existing or planned alternative agricultural production projects: Active agriculture exists on 675 of 1,067 acres in the Project Area. Approximately 37.5 acres of existing agriculture within the buildable area located along Packwood Road and 9 acres at the intersection of Packwood and Serven Roads are not proposed for placement of permanent Project components (Preliminary Design Drawings, Appendix 11-1). These areas have been removed from consideration at the request of landowners to allow for continued agricultural production. Hedgerows are proposed to follow security fences rather than roadways, specifically along Serven Road, to promote continued agricultural use of areas with no panel arrays as shown in the Proposed Layout (Appendix 11-1).

#### (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 Appendices 2-2 and 2-3. 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. Appendix 9-1 presents an Alternate Layout depicting a fixed system for comparison.

#### (3) Scale or Magnitude

The scale and magnitude of the Project is limited to the development of a 79.5 to 80-MW solar project. 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 better consolidate the amount of contiguous area available on which to properly site Project components; however, the generating capacity of the Project (and subsequent acreage required for development) was not changed and the acquired additional property was located within the Project Area.

#### (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 is no later than December 2022. 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.

There are multiple factors that make the Proposed Layout superior to the alternate layouts discussed. As described in Section 3(c), it allows for less encumbrance to agricultural use; provides for a more compact and contiguous parcel arrangement supporting Project components; provides greater setbacks from adjacent landowners located on Packwood Road and Serven Road; minimizes impact on habitat, protected species, and wetland and forested areas to the maximum extent practicable; and maintains inverters away from property lines.

### 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 Exhibit 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.

The Applicant has evaluated and after balancing siting constraints and available land, was able to apply the local setbacks which the municipality has approved for its residents. 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 and thus impacts to recreational uses are nil.

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 79-.5 to 80-MW Project. If the Project size was reduced, energy production would decrease, which would not provide the emission reductions that an 80-MW project would allow.

# 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 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 79.5 to 80-MW Project is limited to installation of panels within the 418-acre fenced area of the 1,067-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 80 MW 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 140 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 Seneca and Ontario County stores. Furthermore, a No Action Alternative would not deliver the Host Community and Education and Workforce Development 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 NYSERDA contract the Trelina Solar 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 NYSERDA.

There are limited recreation opportunities for the public at the Project Area; therefore, the impact to recreational uses is minimal to non-existent and limited only to those allowed by the private landowners. The No Action Alternative would therefore not significantly improve recreational opportunities at the Project Area.

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 NYSERDA'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 NYSERDA'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), 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, statelisted species (bald eagle), and agricultural land.

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)).