



# **WATKINS GLEN SOLAR ENERGY CENTER**

**Case No. 17-F-0595**

**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 .....	2
9(c) Description and Evaluation of Reasonable Alternatives at the Primary Proposed Location.....	3
9(d) Why the Project Location Best Promotes Public Health and Welfare .....	9
9(e) Why the Project Design, Technology, Scale, and Timing are Best Suited for Public Health and Welfare .....	10
9(f) Description and Evaluation of No Action Alternative.....	11
9(g) Identification and Description of Alternative Energy Supplies.....	12
9(h) Transmission and Demand-Reducing Alternatives.....	12
9(i) Why the Project is Best Suited to Promote Public Health and Welfare .....	12
9(j) Impacts to Vegetation .....	13

## Figures

Figure 9-1. Project Design Constraints

## **Exhibit 9: Alternatives**

This Exhibit will track the requirements of Stipulation 9, dated February 21, 2020, and therefore, the requirements of 16 New York Codes, Rules and Regulations (NYCRR) § 1001.9.

### **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, an emphasis was placed on what is reasonable, and 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) was considered. 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. 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) 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. Refer to 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. Watkins Glen 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 Landowner – Watkins Glen Solar Energy Center has partnered with a willing landowner to develop the Project Area and has sufficient acreage of suitable land for development of a 50 MW Project.
- Relative Ease of Accessing the Project Area – The Project is easily accessible off County Route 16 and multiple existing local roadways. These local roadways 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) Bath-Montour Falls transmission line via the proposed Point of Interconnection (POI) switchyard and an approximately 350-foot 115 kV interconnection line which will be easily accessible off Kuhl-Winner Way. 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 NYSEG Bath-Montour Falls transmission line 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 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**

As described in Section 9(a) above, 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 the participating landowner's properties, and the NYSERDA solicitation, the Project has been designed for a nameplate capacity of 50 MW. Therefore, the objective of the Proposed Layout is to construct a solar energy generating facility that can produce up to 50 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 Applicant targeted the current Project Area as presented in the November 2017 Revised Public Involvement Program (PIP) Plan 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 NYSEG Bath-Montour Falls transmission line). Although the parcels encompassing the Project Area were included in the preliminary evaluations, only approximately 300 acres were deemed likely necessary for placement of Project Components within the Project Area.

In order to further evaluate and ensure that the Project Area contained sufficient acreage, considering both environmental and engineering constraints, to properly site Project Components, the Applicant conducted the studies contained within this Article 10 Application. It was determined that, based on these analyses, the necessary acreage required to site Project Components (301.48 acres in total) was achievable in the selected Project Area. Although it was not necessary to increase the size of the Project Area throughout early development of the Project, the Applicant continued public outreach and discussions with the landowner and Town officials, as well as through Open Houses, to receive feedback related to Project siting.

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 771-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, including landowner feedback.

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 also decreases the amount of security risk (e.g., fewer gate entrances) and interference with existing land uses and ecological cover types on nearby or proximate parcels. Once the constraints described above were taken into account, the resulting portions of the Project Area 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.

Additionally, the Project supports the environmental initiatives of Watkins Glen International raceway. A portion of land within the Project Area is used in support of events hosted by the Watkins Glen International raceway, the sole landowner of all parcels included in the Project Area. As a result of the proposed Project, The Watkins Glen International raceway will become home to the largest solar energy center sited on a US racetrack. This will further Watkins Glen International racetrack's initiatives to become more environmentally-friendly (Watkins Glen International, 2019).

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. Additional information on proposed technology is discussed below in Section 9(c)(2). Solar panel technology is rapidly evolving, and the market conditions at the time that 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 the Applicant feels 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). Final details and specifications of the selected Project technology will be provided as part of Compliance Filings for the Project.

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.

Watkins Glen Solar Energy Center selected the Proposed Layout based on the following primary factors and constraints, which are also shown on Figure 9-1:

Consideration of arrangements/design options that would enable some continued agricultural use of the Project Area: Due to the nature of land cover at the Project Area, and due to the landowner's request of avoiding Watkins Glen International raceway overflow parking, impacts to agricultural land are unavoidable. While 90.3% of land within the Project Area is classified as Farmland of Statewide Importance by New York State Department of Agriculture and Markets (NYSDAM), only approximately 47 percent of the Project Area is classified as actively farmed (see Exhibit 22, Table 22-1). Additionally, constraints present at the Project Area greatly reduce the amount of feasible alternative layouts for the Project. Constraints include the ability to meet the necessary setbacks within the Project Area boundary, necessary avoidance and minimization of impacts to wetlands and waterbodies, and, as stated previously, the landowner's operational needs for overflow parking on the eastern side of the Project Area along both sides of Kuhl-Winner Way. The only viable layout option which would reduce the impact to agricultural land within the Project Area would be to site Project Components on the forested parcel located south of the Project POI. This option would require approximately 83 acres of tree clearing, resulting in an increase in ecological impacts to the area.

Lastly, active agriculture at the Project Area is minimal compared to the total available agricultural land in both the Town of Dix and Schuyler County. The total disturbance of land classified as Prime Farmland within the Project Area (9.71 acres), due to Project construction and operation, accounts for only 0.23 percent of all Prime Farmland within the Town of Dix, and 0.03 percent of all Prime Farmland within Schuyler County. Additionally, the fenced-in area of the Project will only occupy 2.83 percent of all lands designated as mapped Agricultural Districts within the Town of

Dix and 0.36 percent of all lands designated as mapped Agricultural Districts within Schuyler County. As such, the overall impacts to farmland within the Project Area are minimal compared to available agricultural land within the Town and County and the benefits of the Project outweigh those minimal impacts. See Exhibit 4 for a detailed discussion of agricultural impacts.

- i. 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 and forested land. Other documented habitats within the Project include lesser amounts of disturbed/developed land, successional shrubland, and successional old field, which are limited in quality at the Project Area. 67 percent of wildlife habitat permanently lost due to the Proposed Layout exists in active agricultural areas which already provide limited perpetual wildlife habitat due to the regular disturbances and anthropogenic pressures of active farming practices. No significant ecological communities, threatened, endangered, or candidate wildlife species, or rare plant species were identified at the Project Area.

The Proposed Layout as shown in Appendix 11-1 minimizes the amount of tree removal required to the maximum extent practicable. Project Components have been intentionally sited within active agricultural fields and forested areas have been avoided to the extent practicable. Although the existing parcels have endured forest fragmentation from agricultural operations, the minimization of tree clearing will further reduce the amount of potential habitat fragmentation in the Project Area as a result of the Project. Exhibit 22 contains additional information regarding habitat types and proposed impacts as part of the Project. As described in Exhibit 22, 4.38 of the 6.61 acres (66.2%) of identified wildlife habitat permanently lost due to the Proposed Layout are located in active agricultural areas. These areas already provide limited wildlife habitat due to the regular disturbances and anthropogenic pressures of active farming practices (see Exhibit 22, Section 22(f)(4)).

- ii. 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 maximum extent practicable. The



Project Area is particularly suited to solar development because of the very limited presence of wetlands and waterbodies. A total of 20.7 acres of wetlands were delineated within the Project Area and the Proposed Layout will result in approximately 2 acres of temporary wetland impacts. No permanent wetland impacts are proposed within the Project Area. Additionally, because there are no NYSDEC mapped wetlands or their 100-foot adjacent areas present within the Project Area, no impacts to NYSDEC mapped wetlands will occur (see Exhibit 22, Section 22(m)). Exhibit 22 and Appendix 22-5 (Wetland and Stream Delineation Report) contain additional information about wetlands and streams onsite. As can be seen on the Preliminary Design Drawings in Appendix 11-1, there are several smaller areas within the Proposed Layout, and one large area in the northeastern section of the eastern parcel, where wetlands were specifically avoided in the design of the Project. More areas of contiguous panels could have been employed if these wetland areas were impacted; however, the Applicant worked diligently to avoid these areas to the maximum extent practicable.

As described further in Exhibit 23, there will be a total of one stream crossing required as part of the Project. This stream crossing will not include any impacts to NYSDEC-protected waterbodies. Similar to wetlands, the Applicant worked to minimize impacts to waterbodies to the maximum extent practicable. 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, Containment, and Control (SPC) Plan.

- iii. Arrangement of inverters away from property lines: The Proposed Layout site inverters away from Project Area boundaries. As 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 the layout to maximize the ability to use one access road to access many array and inverter locations where practicable. Where this was not practicable due to parcel size, sound mitigation is planned to eliminate potential noise impacts to nearby sensitive receptors.

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. Alternative perimeter fencing designs were considered; however, the fencing for the Proposed Layout was selected due to substantive local 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, including fencing, from public vantage points and adjacent residential uses is included on the Landscaping Plan in Appendix 11-1.

## **(2) Technology**

The Project proposes to install monocrystalline solar tracking array racking systems. The tracking array racking systems to be utilized would be similar to the Gamechange Solar Genius Tracker™ System, specification sheets of which have been included in Appendix 2-2. The Applicant intends to utilize a solar module similar to the Jinko Solar Eagle 72HM G2 380-400 Watt Mono Perc Half Cell. A specification sheet for this module has been included in Appendix 2-2. Due to rapidly changing solar panel technology, and unknown market conditions at the time procurement decisions need to be made, final selection of the racking system and solar panel specification will be detailed in the Compliance Filing. Regardless of exact specifications for the technology to be used in the Project, both a fixed or tracker layout will keep Project Components within the currently proposed fence line and maintain 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 Exhibit 11 plans. Land coverage ratios will also be adjusted but they are not expected to be substantial or significant. Thus choosing either racking technology would not cause any significant adverse environmental impacts.

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

The scale and magnitude of the Project is limited to the development of a 50 MW solar project. That capacity is stated in the NYSERDA Renewable Energy Credits (REC) contract. In addition, that 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 one MW of energy under New York State solar conditions.

**(4) As the Project does not involve wind power facilities, alternative turbine layouts are not applicable to the Project.**

**(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 REC contract with NYSEERDA. As documented in the SRIS provided in Exhibit 5, the New York Independent System Operator (NYISO) has determined that the Project will have no adverse 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 Exhibit 17). Once operational, the proposed Project will help achieve state energy needs 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. These factors support human health and are good for the climate in light of the current dangers posed by climate change.

The Project will not use water and requires no fossil fuel or fuel transport to operate, which also promotes public health compared to conventional energy generation. In addition, as described in Exhibit 4, impacts to recreational uses have been avoided to the maximum extent practicable.

Glare to airports, roadways, and residences has been avoided as discussed in Exhibits 15 and 24. No glare impacts to airports will occur as there are none located within the Study Area or identified as stakeholders in the Project.

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 public health and safety, while also serving to minimize annoyance of local residents due to sound or

visual factors. 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 the local school district (Watkins Glen Central School District), 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. During operation, permanent jobs, including employment of Project staff, as well as outside mowing and snow removal services over 30 years, will provide a local positive economic benefit. There is one single landowner for all Project Area parcels, and portions of these parcels are rented out to farmers for crop production.

The Proposed Layout discussed above in Section 3(c) assumes that the Project would remain a 50 MW Project. If the Project size was reduced, energy production would decrease, which would not provide the emission reductions that a 50 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 at locations 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, and 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 utilize the existing resources in the area to the maximum extent practicable in order to produce clean energy efficiently which will create jobs in the area and allow the Project to contribute economically to the community.

Currently, the 50 MW Project is limited to installation of panels within the 352-acre fenced area of the approximately 771-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 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 50 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 2050. 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 and forested land 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 community receives no benefits from the hosting of a large/commercial scale solar project. The No Action Alternative means that the county, town, and local school district 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 up to 147 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.

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 State Energy Plan'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 need to be built, and with the

NYSERDA contract the Watkins Glen 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 and limited to those allowed by the private landowners. The No Action Alternative therefore would not significantly improve recreational opportunities at the Project Area.

The minimal impacts of the Project, as described within the 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 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 will not be 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**

As mentioned previously, 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 other ecological factors.

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 including, but not limited to, environmental, aesthetic, and agricultural, 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. As discussed in Exhibit 22, the Project Area consists significantly of agricultural and vacant land. The ability of the Project Area to reduce soil erosion will be increased 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. Solar panels have been proposed in areas already disturbed by agriculture to the maximum extent practicable. The Decommissioning and Restoration Plan, required by Exhibit 29 and included herein as Appendix 29-1, will help restore disturbed areas 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.

## References

Watkins Glen International (2019). Watkins Glen International and NextEra Energy Resources Announce Largest Solar Project at a US Racetrack. Accessed September 18, 2020. Available at: <https://www.theglen.com/Articles/2019/02/0215Solar.aspx>.