

# **ConnectGen Montgomery County LLC**

Mill Point Solar I Project Matter No. 23-00034

§ 900-2.15 Exhibit 14

Wetlands

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#### **Glossary Terms**

- Applicant:ConnectGen Montgomery County LLC (ConnectGen), a direct<br/>subsidiary of ConnectGen LLC, is the entity seeking a siting permit for<br/>the Facility from the Office of Renewable Energy Siting (ORES) under<br/>Section 94-c of the New York State (NYS) Executive Law.
- Facility: The proposed components to be constructed for the generation, collection and distribution of energy for the Project will include: photovoltaic (PV) solar modules and their rack/support systems; direct current (DC) and communications cables connecting the panels to inverters; the inverters, with their support platforms, control electronics, and step-up transformers; buried alternate current (AC) medium voltage collector circuits; fencing and gates around each array of modules; access roads; temporary laydown/construction support areas; a medium voltage-to-transmission voltage substation with associated equipment and fenced areas; a new 3-breaker ring bus point of interconnection switchyard (POI switchyard); two adjacent approximately 305 foot-long 345 kV transmission line segments to interconnect the new POI switchyard to the existing National Grid Marcy - New Scotland 345-kilovolt transmission line; and an operations and maintenance (O&M) building with parking/storage areas as well as any other improvements subject to ORES jurisdiction.
- Facility Site:The tax parcels proposed to host the Facility, which collectively totals<br/>2,665.59 acres.

Point of<br/>Interconnection<br/>(POI) or POI<br/>Switchyard:A new 3-breaker ring bus point of interconnection switchyard will be<br/>constructed adjacent to the existing National Grid Marcy – New<br/>Scotland 345-kilovolt transmission line; the substation will tie into the<br/>new POI switchyard via an overhead span and deliver power produced<br/>from the Facility onto the electric grid through two overhead spans<br/>tapping the National Grid-owned Marcy – New Scotland 345-kV<br/>transmission line. The POI switchyard is located off Ingersoll Road in<br/>the northeastern portion of the Facility Site.

- Limits of Disturbance (LOD): The proposed limits of clearing and disturbance for construction of all Facility components and ancillary features are mapped as the LOD. The LOD encompasses the outer bounds of where construction may occur for the Facility, including all areas of clearing, grading, and temporary or permanent ground disturbance. This boundary includes the footprint of all major Facility components, defined work corridors, security fencing, and proposed planting modules, and incorporates areas utilized by construction vehicles and/or personnel to construct the Facility.
- Project or Mill PointCollectively refers to permitting, construction, and operation of theSolar IFacility, as well as proposed environmental protection measures and<br/>other efforts proposed by the Applicant.
- Study Area: In accordance with the Section 94-c Regulations, the Study Area for the Facility includes a radius of five miles around the Facility Site boundary, unless otherwise noted for a specific resource study or Exhibit. The 5-mile Study Area encompasses 96,784.84 acres, inclusive of the 2,665.59-acre Facility Site.

# Acronym List

AA AC BMP DC E&SC EPA ERM GPS HDD JD KV LOD NWI NWP NYS NYCRR NYSDEC O&M ORES PEM PFO POI PSS PUB PV SPDES SWPPP USACE USFWS	State-regulated Adjacent Area Alternating current Best management practice Direct current Erosion and sedimentation control United States Environmental Protection Agency Environmental Resource Mapper Global positioning system Horizontal directional drilling Jurisdictional Determination Kilovolt Limits of Disturbance National Wetlands Inventory Nationwide Permit New York State New York State Department of Environmental Conservation Operations and Maintenance Office of Renewable Energy Siting Palustrine Emergent Palustrine Forested Point of Interconnection Palustrine Scrub-Shrub Palustrine Unconsolidated Bottom Photovoltaic State Pollution Discharge Elimination System Stormwater Pollution Prevention Plan United States Army Corps of Engineers United States Fish & Wildlife Service
WSA	Wetland Survey Area

# EXHIBIT 14 WETLANDS

#### 14(a) Map Depicting Wetland Boundaries

On behalf of the Applicant, TRC conducted field surveys within the Wetland Survey Area (WSA) to identify all wetlands and streams within parcels that are to be disturbed by Facility construction. The WSA includes the portions of all participating parcels that were physically surveyed during onsite delineations where Facility components are to be situated for the Mill Point Solar I Project and the 100-foot surrounding area. Field surveys were conducted prior to the definition of the final Facility Site for Mill Point Solar I, therefore the WSA encompassed additional lands outside of the final Facility Site. In areas where the 100-foot surrounding area extends onto parcels where land access was not obtained, wetland boundaries were approximated based on in-field observations from accessible parcels, aerial imagery, and online mapping applications such as the U.S. Fish & Wildlife Service (USFWS) National Wetlands Inventory (NWI) mapper and the New York State Department of Environmental Conservation (NYSDEC) Environmental Resource Mapper (ERM). Field surveys were conducted in October and November 2020, May, June, and November 2021, and April and August 2022. Surveys were performed in accordance with the United States Army Corps of Engineers (USACE) 1987 Wetland Delineation Manual (Environmental Laboratory 1987) and the 2012 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0) (USACE 2012), the New York State Freshwater Wetlands Delineation Manual (Browne et al. 1995), and with coordination from the Office of Renewable Energy Siting (ORES). For areas within 100 feet of the limits of disturbance (LOD) that are on non-participating land, publicly available resources were used to identify potential wetlands and waterbodies within these areas. Section 14(d) below details more information about the offsite wetland analysis. The findings from the onsite wetland and stream delineation for the WSA are presented in detail within the Wetland and Stream Delineation Report included as Appendix 14-1. TRC conducted a site visit with ORES on November 10, 2022, and ORES issued a wetland, waterbody, and surface waters jurisdictional determinations (JD) on January 10, 2023, included as Appendix 14-2, which includes specific determinations for State-regulated features located within the WSA. Tables 14-1 and 14-2 below summarize proposed impacts to Stateregulated wetlands and State-regulated Adjacent Areas (AAs) associated with these features. The Applicant is currently consulting with the USACE to determine federal jurisdiction of delineated wetlands.

Field ID	Wetland	State Wetland Class	Project	94-c	State	Impacts <sup>3</sup>		Mitigation		Page Number	
Field ID	Class <sup>1</sup>		Impact	Feature/Activity	Mitigation Requirements <sup>2</sup>	Square feet	Acres	Square feet	Acres	from Civil Drawing	
W-KCF-13 (NYSDEC	PEM	II	Grading	Other activities integral to the project involving grading	A(M3); 1:1	1,089.0000	0.0250	1,089.0000	0.0250	MPS-C-102-20	
ID: TH-17)	-H-17)		Access Road	Access Road	A(M2); 2:1	662.1120	0.0152	1,324.2240	0.0304	MPS-C-102-20	
W-NSD-01 (NYSDEC ID: TH-17)	PEM/ PSS	II	Selective Clearing	Selective Clearing	A	25,587.1440	0.5875	-	-	MPS-C-101-17	
Total	Total 27,338.2560 0.6276 2,413.2240 0.0554 -								-		
<sup>2</sup> Mitigation Rea Allowed, mitiga required.	<sup>1</sup> PEM: Palustrine Emergent Marsh; PSS: Palustrine Scrub-Shrub; PFO: Palustrine Forested; PUB: Palustrine Unconsolidated Bottom <sup>2</sup> Mitigation Requirements: A(M2): Allowed, mitigation required (2:1 mitigation ratio by area of impact - creation, restoration, and enhancement); A(M3): Allowed, mitigation required (1:1 mitigation ratio by area of impact – creation, restoration, and enhancement); A: Allowed; no mitigation or enhancement required. <sup>3</sup> This table only shows State jurisdictional wetlands being impacted.										

#### Table 14-1. Impacts to State Jurisdictional Wetlands

	Wetland	State	Project	94-c	State	Impacts <sup>3</sup>		Mitigation		Page Number						
Field ID	Class <sup>1</sup>	Wetland Class	Component/ Impact	Feature/Activity	Mitigation Requirements⁴	Square feet	Acres	Square feet	Acres	from Civil Drawing						
			Collection Trench	Power interconnections (including clearing for interconnections)	A(E)*; 1:1	1,010.592	0.0232	579.348 (f)	0.0133 (f)	MPS-C- 102-20						
		PEM II	Access Road	Access Road	A(E)*; 1:1	7,496.676	0.1721	4,251.456 (h)	0.0976 (h)	MPS-C- 102-20						
W-KCF-13	PEM		Grading	Other activities integral to the project involving grading	A	5,257.692	0.1207	-	-	MPS-C- 102-20						
(NYSDEC ID: TH-17)										Fence Line	Security Fence	A	265.716	0.0061	-	-
									Landscaping	N/A	A	3,397.68	0.0780	-	-	MPS-L- 101-21
							HDD Bore Pits	Other activities and structures integral to the project involving placement of fill	A(E)*; 1:1	0.1740	<0.0000		<0.0000 (g)	MPS-E- 401-09		
W-KCF-15 (NYSDEC ID: TH-17)	PEM	II	Landscaping	N/A	A	1,598.652	0.0367	-	-	MPS-L- 101-20						

 Table 14-2. Impacts to State Jurisdictional 100-Foot Adjacent Areas

	Wetland	State	Project	94-c Feature/Activity	State	Impacts <sup>3</sup>		Mitigation		Page Number
Field ID	Class <sup>1</sup>	Wetland Class	Component/ Impact		Mitigation Requirements⁴	Square feet	Acres	Square feet	Acres	from Civil Drawing
			Transmission Line Pole	Other activities and structures integral to the project involving placement of fill	A(E)*; 1:1	439.956	0.0101	439.956 (a)	0.0101 (a)	MPS-T- 101-02
			Access Road	Access Road	A(E)*; 1:1	13,355.496	0.3066	8,459.352 (b)	0.1942 (b)	MPS-C- 102-17
		PEM/PSS II	Clearing	Clearing of Forest	A(E)*; 1:1	20,773.764	0.4769	17,916.228 (c)	0.4113 (c)	MPS-C- 101-17
W-NSD-01	PFM/PSS		Clearing and Grubbing	Clearing of Forest	A(E)*; 1:1	5,588.748	0.1283	3,484.800 (d)	0.0800 (d)	MPS-C- 101-17
(NYSDEC ID: TH-17)			Fence Line	Security Fence	А	26.136	0.0006	-	-	MPS-C- 102-17
			Grading	Other activities integral to the project involving grading	А	6,969.600	0.1599	-	-	MPS-C- 102-17
			POI Switchyard	Power interconnections (including clearing for interconnections)	A(E)*; 1:1	331.056	0.0076	- (e)	- (e)	MPS-C- 102-17
	PEM/PUB	/PUB N/A	Clearing and Grubbing	Clearing of Forest	А	13.068	0.0003	-	-	MPS-C- 101-30
W-NSD-20 (Unmapped >12.4			Grading	Other activities integral to the project involving grading	А	17.424	0.0004	-	-	MPS-C- 102-30
Acres)			Landscaping	N/A	A	2,635.38	0.0605	-	-	MPS-L- 101MPS- L-101-30

	Wetland	State	Project	94-c	State	Impacts <sup>3</sup>		Mitiga	tion	Page Number
Field ID	eld ID Class <sup>1</sup> Wetland Component/ Feature/Activity Requirements <sup>4</sup>	Square feet	Acres	Square feet	Acres	from Civil Drawing				
Totals <sup>2</sup>						69,177.810	1.5880	35,131.314	0.8065	
<sup>2</sup> Individual Imp <sup>3</sup> This table on <sup>4</sup> Mitigation req changes); A: A (a) There are ( b) There are ( b) There are ( c) There ( c) The	bact Acres m ly shows Statu uirement: A( illowed; no m 0.0101 acres uires mitigatio 0.3066 acres 5-foot buffer a 0.4769 acres act is within f 0.1283 acres this impact is 0.0076 acres efore do not .0232 acres of hin the 75-fo ess than 0.00 tion per the n 0.1721 acres	ay not add t te jurisdictic E): Allowed itigation or of impact to of buffer an 000 acres of atio.	to the total impa onal wetlands be onal wetlands be enhancements on the 100-foot bu atio. The 100-foot bu on the 100-foot bu buffer and requi to the 100-foot bu 75-foot buffer ar on the 100-foot bu gation. the 100-foot bu gation. the 100-foot bu gation.	Iffer from clearing (no res mitigation per the Iffer from clearing an Ind requires mitigation Iffer from construction ffer from collection line ation per the ratio. 00-foot buffer from H	ounding. r adjacent areas. quired (e.g., plantin ements or mitigation of a transmission p ads in W-NSD-01; 0 o stump removal) in a ratio. In grubbing (stump in per the ratio. In of the POI switch ne trench in W-KCF 1DD in W-KCF-13 a	ng of adjace on required pole in W-N 0.1942 acres n W-NSD-0 removal) in nyard. All of F-13; 0.0133 all of which	nt area, with 75 f SD-01; a s or 8,45 1; 0.411 i W-NSE these in 3 acres o is also w	mitigating h foot or more all of which i 59.352 squar 3 acres or 1 0-01; 0.0800 npacts fall or or 579.348 s vithin the 75-	ydrologic setback s within f re feet of 7,916.22 acres or utside the quare fe	the 75-foot this impac 8 square 3,484.800 e 75-foot et of this fer and

#### 14(b) Wetland Delineation Survey Reports

The results of the wetland and waterbody delineations are documented within Appendix 14-1, the Wetland and Stream Delineation Report. The Applicant submitted the Wetland and Stream Delineation Report to ORES on February 15, 2023; however, the appended Wetland and Stream Delineation Report has been updated due to the amended 2023 definition of "waters of the United States" following the Supreme Court decision in Sackett v. the U.S. Environmental Protection Agency (EPA).

Surveyed wetland resources were assigned covertype(s) based on the Cowardin classification system (Federal Geographic Data Committee 2013). In the instance that a delineated wetland or stream contained multiple covertypes due to size and/or complexity of community types, covertypes were assigned based on field observed breaks between vegetation communities. Wetland boundaries were marked in-field using sequentially numbered pink flagging. Boundary flag locations were recorded using a global positioning system (GPS) unit with reported sub-meter accuracy. Data sample points were recorded for each covertype within a delineated feature using the USACE Northcentral and Northeast Region Wetland Determination forms. This method was utilized to establish a more complete depiction of wetlands associated with the Facility Site. Streams were marked in-field using blue survey flagging along the bank edges for streams that were six feet wide or more. For streams less than six feet wide, a centerline was marked. Flag locations were recorded using a GPS unit with reported sub-meter accuracy and a stream determination data form was recorded for each feature. Delineated streams are further detailed in Exhibit 13 of this Application.

As detailed in the Wetland and Stream Delineation Report, during field surveys TRC delineated 172 wetlands within the WSA, totaling 358.60 acres (8.22 percent) in coverage of the WSA (Figure 14-1). Of these 172 wetlands, 111 occur within the Mill Point Solar I Facility Site, totaling 111.14 acres (4.17 percent) in coverage of the Facility Site. Based on the JD provided by ORES, nine wetlands (W-EHM-6, W-NSD-84, W-EHM-1, W-NSD-01, W-KCF-15, W-NSD-53, W-NSD-82, W-KCF-13, and W-NSD-20) in the WSA are State jurisdictional (215.64 acres in total, 21.02 acres of which are located in the Facility Site). Wetlands were recorded based on their covertype(s), which are categorized as palustrine emergent (PEM), palustrine scrub-shrub (PSS), palustrine forested (PFO), and palustrine unconsolidated bottom (PUB). Wetlands can contain one or multiple combinations of these overtypes. The Wetland and Stream Delineation Report is summarized below and can be found as Appendix 14-1.

A total of 123 emergent (PEM) wetlands (207.31 acres) were identified within the WSA, 79 (61.35 acres) of which occur within the Mill Point Solar I Facility Site. PEM wetlands are dominated by an herbaceous layer of typically hydrophytic (water-tolerant) plant species. PEM wetlands usually contain deep, nutrient-rich soils that remain saturated or inundated throughout the year.

A total of 31 palustrine scrub-shrub (PSS) wetlands (34.76 acres) were identified within the WSA, 19 (15.42 acres) of which occur within the Mill Point Solar I Facility Site. PSS wetlands are dominated by woody shrub vegetation that stands less than 20 feet tall. Species within the PSS wetland covertype could include a mix of true shrubs, young trees and shrubs, or trees that are small or stunted due to environmental stressors.

A total of 36 palustrine forested (PFO) wetlands (93.84 acres) were identified within the WSA, 19 (18.38 acres) of which occur within the Mill Point Solar I Facility Site. PFO wetlands are dominated by typically hydrophytic tree species 20 feet tall or taller. The understory in PFO wetlands is often dominated with an assortment of shrub and herbaceous species. Understory vegetation presence can vary between wetlands, as large trees may inhibit growth of vegetation in the understory.

A total of 26 palustrine unconsolidated bottom (PUB) wetlands (22.68 acres) were identified within the WSA, 19 (15.98 acres) of which occur within the Mill Point Solar I Facility Site. PUB wetlands are characterized by surface water and have less than 30 percent vegetative cover and at least 25 percent cover of particles less than stones. As these are bodies of standing water, evidence of wetland hydrology was decisively present with standing water.

# 14(c) Qualitative and Descriptive Wetland Function Assessment

The USACE developed a supplement to the *Highway Methodology Workbook* entitled *Functions and Values: A Descriptive Approach* (USACE Supplement) (USACE 1999) to collect and describe the functions and values assessment of wetlands in a measurable and unbiased perspective. Previous efforts to interpret wetland functions and values were legally difficult to document and defend, resulting in the creation of the USACE Supplement. The Applicant elects to use elements of the Highway Methodology and processes outlined in the USACE Supplement to conduct a qualitative assessment of the physical characteristics of the wetlands and identify the functions and values they exhibit.

Wetland functions and values are the favorable services that a wetland provides to its surrounding environment and towards the benefit of human society (USACE 1999). The functions and values of a wetland operate as a result of biological, physical, and chemical characteristics, and are the basis for numerous complex relationships maintained between the wetland, the watershed, and the local ecological and human environments. Assessing the specific functions and values of a wetland is needed to determine the overall impacts an alteration may have on a wetland. These assessments aid in establishing any mitigation type and amount that may be required after impacts to a wetland occur. More recently, the assessment of the functions and values for wetlands have been used to ensure that wetlands with specific and higher functions or values receive proper vindication. A wetland functions and values assessment was performed for the WSA and a comprehensive description of the functions and values of all wetlands delineated follows.

#### Wetland Functions

Wetland functions are the ecosystem properties that result from the biologic, chemical, hydrologic, and physical processes that take place within a wetland which aid in promoting a homeostatic natural environment in the absence of human interference. The eight wetland functions indicated in the USACE Supplement include:

- Groundwater Recharge/Discharge This function defines the potential for a wetland to act as a source of groundwater recharge and/or discharge. Recharge describes the potential for the wetland to contribute water to an underlying aquifer. Discharge relates to the potential for the wetland to act as a source of groundwater transfer to the surface (i.e., springs and hillside seeps).
- Flood-flow Alteration This function applies to the effectiveness of the wetland in reducing flood damage by containing an enhanced ability to store floodwaters for an extended period following heavy precipitation events.
- 3. Fish and Shellfish Habitat This function defines a wetland's ability to contain or influence suitable habitats for fish and shellfish species.
- 4. Sediment/toxicant/pathogen Retention This function describes the ability of a wetland to hinder the degradation of water qualities downstream. It relates to the effectiveness of the wetland as a trap for sediments, toxicants, or pathogens based on its geomorphic position, connectivity, soil thickness, and other physical characteristics.

- Nutrient Removal/Retention/Transformation This function relates to the wetlands containing the ability to prevent excess nutrients entering aquifers or surface waters such as ponds, lakes, streams, rivers, or estuaries.
- Production Export This function relates to a wetland's ability to produce food or usable products for organisms, including humans, within the trophic levels associated with the watershed.
- 7. Sediment/Shoreline Stabilization This function defines a wetland's ability to effectively stabilize streambanks and shorelines against future erosion events.
- 8. Wildlife Habitat This function considers the effectiveness of the wetland to provide habitat for various types and populations of animals typically associated with wetlands and the wetland edge. Resident and migrating species were considered along with the potential for any state or federally listed species occurring within the target wetland.

Wetlands within the WSA displayed multiple functions based on their specific characteristics observed during onsite delineations. The primary functions of wetlands surveyed in the WSA include:

- Flood-flow Alteration
- Sediment/toxicant/pathogen Retention
- Sediment/Shoreline Stabilization

#### Wetland Values

Wetland values are the perceived societal benefits stemming from the ecosystem functions and/or other characteristics of a wetland. The value of a wetland function, or a combination of functions, is based on the interpretative judgement of the significance attributed to the wetlands through various functions it provides. Five values are defined by the USACE Supplement and include:

 Recreation – This value indicates whether the wetland is effective in providing or assisting in the establishment of recreational opportunities such as boating, fishing, hunting, and other leisurely pursuits. Recreation in this capacity includes both consumptive and nonconsumptive activities. Consumptive activities consume or diminish the plants, animals, or other resources that are naturally located in the wetland, whereas non-consumptive activities do not.

- 2. Education/Scientific This value considers the effectiveness of the wetland as a site for public education or as a location for scientific research.
- 3. Uniqueness/Heritage This value applies to wetlands that contain a singular or rare quality. Special qualities may include such things as the wetland's history and the presence of archaeological sites, historical events which may have taken place at the wetland, or unique plants, animals, or geologic features located within, or supported by, the wetland feature.
- 4. Visual Quality/Aesthetics This value relates to the visual and aesthetic qualities of the wetland.
- Threatened or Endangered Species Habitat This value related to the effectiveness of the wetland or associated waterbodies to specifically support threatened or endangered species.

Wetland values within the WSA provide limited societal benefits due to the wetlands occurring on private property and being largely inaccessible to the public. The primary values displayed by wetlands within the Wetland Survey Area include:

- Recreation
- Visual Quality/Aesthetics

For more detail on the functions and values assessment, please see the Wetland Functions and Values Assessment in Appendix 14-3.

### 14(d) Offsite Wetlands Hydrological and Ecological Influence Analysis

As noted previously, wetland and stream delineations were conducted for 4,360 acres, which is inclusive of the 2,665.59-acre Facility Site. For areas outside the Facility Site where access was not authorized, wetlands were approximated within at least 100 feet of the LOD using aerial imagery, review of wetland mapping databases maintained by the NWI and the NYSDEC, reference to onsite observations, and an analysis of publicly available topographic contour mapping. The approximation of wetlands within at least 100 feet of the LOD was used to determine hydrological connections to offsite wetlands, including possible offsite State jurisdictional wetlands protected by the NYSDEC that are located outside the Facility Site.

Wetlands that extend beyond the Facility Site typically have similar functions and values to those wetlands identified during onsite field delineations within the WSA. These wetlands are not expected to be ecologically different than those within the WSA, and likely contain similar vegetative communities as are detailed in the Wetland and Stream delineation report (Appendix 14-1). Wetlands delineated within the Facility Site may also have hydrologic connections to wetlands offsite through streams and ditches. Three of the wetlands identified within the WSA, W-KCF-13, W-KCF-15, and W-NSD-1 relate to mapped NYSDEC freshwater wetland TH-17. Another wetland, W-NSD-20, was deemed jurisdictional as part of an unmapped offsite wetland greater than 12.4 acres in area, as detailed in the jurisdictional determination issued by ORES on January 10, 2022 (Appendix 14-2). Section 14(e) below discusses proposed impacts to State jurisdictional wetlands that will occur from Facility construction and operation.

# 14(e) Avoidance of Impacts on NYS Wetlands and Adjacent Areas

Wetlands within the Facility Site are widespread and occur in a broad range of types including large wetland complexes, swales, forested and shrubby wetlands, ditches, depressions, and ponds. While the Applicant made several changes to the Facility design throughout the development process to avoid and minimize impacts to State-regulated wetlands and State-regulated AAs, due to the wide-ranging extent of wetlands within the Facility Site and other constraints such as topography, sensitive resource areas, and land access, complete avoidance of wetland resources was not feasible. Additional avoidance of wetlands within the Facility Site would result in the disturbance of forested land by requiring extensive tree clearing and grading (see Exhibit 11 for a discussion of the extent of the proposed tree clearing at the Facility Site). Another alternative would be to reduce the array coverage which would reduce the Facility's proposed generating capacity.

Various environmental and engineering factors were considered during the design and siting of Facility components. The Facility design avoids and minimizes impacts to natural and cultural resources in addition to human environments and sensitive receptors through specific and careful Facility component placement in consideration of required setback and environmental parameters to the maximum extent practicable. The resulting Facility design employs the use of underground electric collection lines, however, an approximately 1,300-foot overhead generation tie line will connect the substation to the Point of Interconnection (POI) switchyard and two adjacent overhead transmission lines, approximately 305 feet in length, will connect the POI switchyard to the existing National Grid 345 kilovolt (kV) Marcy-New Scotland transmission line. Underground

collection lines will be installed via trenching except for select locations where trenchless horizontal directional drilling (HDD) will be utilized to avoid impacts to wetlands and other resources. Impacts to State jurisdictional wetlands onsite are limited and further discussed below in Section 14(f) (1-5).

The Applicant designed the Facility to avoid impacts to State wetlands and AAs to the maximum extent practicable. As discussed in Section 14(a) and outlined in Tables 14-1 and 14-2 above, 0.6276 acres of impacts to State jurisdictional wetlands are proposed at wetlands W-KCF-13 and W-NSD-01, and 1.588 acres of impacts to State jurisdictional wetland AAs are proposed at W-KCF-13, W-NSD-01, W-NSD-20, and W-KCF-15. In total, Facility construction will result in 2.2156 acres of impacts to State jurisdictional wetlands and AAs.

#### W-KCF-13

#### Wetland Impacts

As shown in Tables 14-1 and 14-2, 0.4403 acres of total impact are proposed in W-KCF-13 and the State-regulated AA. Impacts to the wetland feature itself are due to the access road and grading for the access road and total 0.0402 acres of impact (see Figure 14-2).

This wetland feature is long and linear and traverses the Facility Site through open fields. In order for the Applicant to build on the eastern portion of Parcel ID 67.-1-13.2, an access road must cross W-KCF-13 due to a 'landowner-imposed development' area restriction on the western portion of parcel 67.-1-13.2 and the Applicant only having access to one adjacent parcel (Parcel ID 68.-1-34) (see Figure 14-2). The Applicant designed the access road and grading to be as minimal as possible for safe access to the panels, crossing perpendicularly at a narrow portion of the wetland in efforts to minimize impacts. In addition, the Applicant co-located the collection line with the access road at this location and proposes HDD in lieu of trenching to minimize impacts to the wetland feature.

### Adjacent Area Impacts

In efforts to co-locate Facility components throughout the Facility Site which reduce and minimize impacts, the AA of W-KCF-13 is proposed to be impacted by grading and an access road as previous discussed, as well as associated components (HDD bore pits, collection trenching, landscaping, and fence line) to service the solar array proposed on Parcel ID 67.-1-13.2. A sliver of the proposed landscaping employed to screen the solar array encroaches into the AA due to limited availability of space between the solar panels and fence line. In total, 0.4001 acres of

impact are anticipated within the AA for W-KCF-13. The landscaping is located outside of the 75foot buffer but still within the 100-foot AA (see Figure 14-2). Although the proposed HDD will avoid impacts to the wetland feature, temporary impacts will occur within the AA from the HDD bore pits that are required for installation.

## W-NSD-01

# Wetland Impacts

As shown in Tables 14-1 and 14-2, 1.6775 acres of total impact are proposed in W-NSD-01 and the State-regulated AA from selective clearing, grading, a transmission pole and construction of the access road for the transmission generation tie line. Impacts to the wetland itself are due to selective clearing totaling 0.5875 acres of impact (all of which is selective clearing) (see Figure 14-3).

This wetland feature is located in between the proposed substation and the POI switchyard where an overhead generation tie line connects the two components. Tree clearing is required along the line corridor to ensure the safe installation and operation of the line. In efforts to minimize impacts to W-NSD-01, the Applicant proposes to only clear trees within the line corridor for safe installation and passing of the generation tie line; grubbing is not proposed. In addition, as shown on Figure 14-3, the wetland feature and AA are a mixture of PSS and PEM wetlands where minimal trees exists. The Applicant will only clear trees that interfere with the installation of the generation tie line and will preserve all others that pose no conflict. This selective tree clearing is intended to minimize impacts to the wetland and the AA.

# Adjacent Area Impacts

The impacts proposed within the AA of W-NSD-01 are necessary to construct the POI switchyard and generation tie line and ensure access to components within the Facility. A total 1.0900 acres of impact are anticipated within the AA for W-NSD-01. As previously discussed, a generation tie line is required to connect the substation and the POI switchyard and in order to safely span the generation tie line, the installation of utility poles are required. Due to the span length of the proposed overhead generation tie line (approximately 1,300 feet), intermittent poles are required due to the sag in the wire. Alternate designs were considered, but the two-pole design was determined to have the least amount of impacts while maintaining a safe line installation and operation. The design was able to keep the transmission poles out of the wetland feature itself, but unable to fully avoid the AA of W-NSD-01. Two-pole structures are proposed, aiding in the minimization of impacts to the AA to the maximum extent possible. The clearing and grading associated with the proposed access road supports the safe and reliable access to the utility pole that is required for the generation tie line, the substation, and other Facility components in the area. To minimize impacts to the AA, the Applicant will only clear trees and not remove stumps alongside the access road within the AA. Alternative routes for the proposed access road were constrained by adjacent streams and other proposed Facility components (see Figure 14-3).

### W-NSD-20

#### Wetland Impacts

As shown in Tables 14-1 and 14-2, 0.0612 acres of total impact are proposed in W-NSD-20 and the State-regulated AAs. However, no wetland impacts are proposed at the W-NSD-20 feature itself (see Figure 14-5).

#### Adjacent Area Impacts

A total 0.0612 acres of impact are anticipated within the AA for W-NSD-20, see Figure 14-5. These impacts are associated with grading impacts on parcel ID 68.-4-2 and from landscaping around the fence line on parcel ID 68.-4-2 (see Figure 14-5). All impacts are outside of the 75-foot buffer but within the 100-foot AA. Grading is required for the panel area construction and fence installation. The landscaping impact is required because the fence line cannot move closer to the panels at this location to fully avoid impacts to the AA.

#### W-KCF-15

### Wetland Impacts

As shown in Tables 14-1 and 14-2, 0.0367 acres of total impact are proposed in W-KCF-15 and the State-regulated AAs. However, no wetland impacts are proposed at the W-KCF-15 feature itself (see Figure 14-4).

### Adjacent Area Impacts

A total of 0.0367 acres of impact are anticipated within the AA for W-KCF-15, see Figure 14-4. These impacts are associated with proposed landscaping. A sliver of the proposed landscaping employed to screen the solar array encroaches into the AA due to limited availability of space between the solar panels and fence line. The landscaping is located outside of the 75-foot buffer but still within the 100-foot AA.

#### 14(f) Minimization of Impacts on NYS Wetlands and Adjacent Areas

As discussed above, impacts to State jurisdictional wetlands and their AAs have been avoided in several locations throughout the Facility Site through the Applicant's efforts to locate Facility components outside of State jurisdictional wetlands and their AAs. However, a subset of Facility components (access roads, POI switchyard, collection, fence, landscaping, HDD bore pits, and transmission poles) and construction activities (clearing, grubbing, and grading) will result in unavoidable impacts to State-regulated wetlands and AA. The Applicant will implement a variety of specific measures to minimize the proposed wetland impacts as discussed below.

### (1) Limitations for Avoidance

The Applicant sited Facility components to avoid impacts to State and federally regulated wetlands. Where avoidance was not feasible, the Applicant sited Facility components to minimize impacts to the maximum extent practicable. Complete avoidance of federal and State-regulated wetlands and their AA was not achievable due to topographical constraints, land access, design requirements, and the presence of other sensitive resources that were considered for avoidance. Additionally, the constraints of the 2022 Solar Energy Facilities Law of the Town of Glen (referred to herein as the 'Glen Solar Law') (Appendix 24-3; Town of Glen 2022) also limit where the Facility can be developed, requiring the Applicant to avoid other non-wetland features (forested areas, active agricultural lands within a New York State Certified Agricultural District, slopes greater than 15 percent, and lot setbacks). Any additional wetland avoidance beyond the design layout proposed currently in this Application would result in substantial additional tree clearing and grading (see Exhibit 11 for a discussion of the extent of tree clearing at the Facility Site) or would restrict the ability of the Facility to meet the stated generation capacity goals.

The Applicant has avoided impacts to the majority of State-regulated wetlands. Of the 21.02 of State-regulated wetlands that are located within the Facility Site, the Applicant's current facility design anticipates an impact of 0.6276 acres (0.5875 acres which is considered selective tree clearing) of State-regulated wetlands with an additional impact of 1.5880 acres in the AAs. Of the nine State jurisdictional wetlands onsite, the Applicant determined that two features were unavoidable (W-KCF-13 and W-NSD-01). Wetland ID W-KCF-13 will have permanent impacts to both the wetland feature and its 100-foot AA. The source of the permanent impacts to W-KFC-13 is an access road (inclusive of grading) that will perpendicularly cross the wetland feature. The Applicant was unable to consider alternative

siting of this access road to avoid this wetland feature because crossing of W-KFC-13 is the only option to access panel array J located on parcel ID 67.-1-13.2 (Exhibit 5, Appendix 5-1, Sheet MPS-E-401-09). The array panels on this parcel were land locked by a landownerimposed development restriction area and the presence of W-KFC-13. To minimize impacts to W-KFC-13, the Applicant sited the access road in a narrow portion of the wetland. Further details on minimization efforts are discussed in Section 14(e) above and Section 14(f)(2)below. Wetland ID W-NSD-01 will not have permanent impacts to the wetland feature itself, but it will have permanent impacts to the 100-foot AA. The source of permanent impacts to the AA of W-NSD-01 is an access road and a transmission pole. The Applicant purposely sited these features outside of the wetland to avoid direct permanent impacts to W-NSD-01 The Applicant considered alternative spanning options, such as using additional poles, but found that due to the spanning requirements of the overhead line, the two-pole design was the least impactful to the regulated features within the line corridor. In addition, the substation location and dimensions were designed to decrease impacts to other wetland features located on the parcel. Selective clearing (no grubbing) of trees will occur within W-NSD-01 to allow for the generation tie line to span from the proposed substation to the proposed POI switchyard. The Applicant propose selective clearing for the minimal number of trees located within the PEM/PSS wetland versus clearing of forest (clearing or clearing and grubbing) to avoid permanent impacts to the W-NSD-01 feature.

The Applicant will use HDD for collection lines to avoid impacts to these State jurisdictional wetland features (W-KCF-13 and W-NSD-01) as part of construction. The HDD method is a trenchless technique that allows cable installation through a direct bore path underground. This method avoids ground disturbance that results from traditional trench digging methods, thereby avoiding direct collection line impacts to State jurisdictional wetlands W-KCF-13 and W-NSD-01. To further avoid impacting State jurisdictional wetlands, temporary construction matting may be utilized at wetlands during construction to avoid impacts.

A total of 0.6276 acres of State jurisdictional wetlands and 1.5880 acres of State-regulated AAs associated with wetlands are expected to be permanently impacted by Facility components. The proposed design will result in minor temporary and permanent impacts to State-regulated wetlands and their regulated AA. Figure 14-1 illustrates the onsite delineated wetlands within the Facility Site and Figures 14-2 through 14-5 illustrate the proposed impacts to State-regulated wetlands and their regulated and their regulated AA from Facility

components. Furthermore, Tables 14-1 and 14-2 above quantify the anticipated impacts to State-regulated wetlands and regulated AAs, respectively.

#### (2) Minimization Measures

A number of iterative changes were made to the Facility layout throughout the design process to further avoid and minimize impacts to State-regulated wetlands and their regulated AAs. Please see Exhibit 2, Section 2(a) for a description of the iterative steps of the Facility layout design and the impacts avoided or minimized by changes in design and loss of solar capacity. Extensive reviews of the Facility design and subsequent modifications were completed with specific priority given to the avoidance of wetland impacts. However, complete avoidance of State jurisdictional wetlands was not feasible due to the extent of federal and state wetlands located throughout the Facility Site as well as the shape of the features. The Applicant has minimized jurisdictional wetland impacts by using narrow crossing locations and existing crossings wherever possible to access Facility components. All alternatives regarding Facility design were examined and the current design incorporates these alternatives. Jurisdictional wetland impacts have been minimized through careful design and study of the WSA.

- Access road and collection line crossings have been collocated to the extent feasible to reduce impacts;
- Vegetation clearing and grading was minimized where wetlands occur within the Facility Site; and
- Only selective clearing of trees and shrubs will occur within State-regulated wetlands where necessary, see Exhibit 11.

The Applicant will implement best management practices (BMPs) during construction to minimize impacts to wetlands from erosion, sedimentation, and pollution. These BMPs are outlined and discussed in detail in the Stormwater Pollution Prevention Plan (SWPPP; Exhibit 13, Appendix 13-3). Specific impact avoidance and minimization measures include:

 No Equipment Access Areas: To prohibit access by motorized equipment, streams and wetlands will be designated as "No Equipment Access" areas except when crossed by permitted access roads or through use of temporary construction matting.

- Restricted Activities Area: A buffer zone of 100 feet, referred to as "Restricted Activities Area," will be established where Project construction will traverse State-regulated wetlands and other bodies of water. Restrictions will include:
  - No deposition of slash within or adjacent to a waterbody; no accumulation of construction debris within the area.
  - Herbicide restrictions within 100 feet of a waterbody (or as required per manufacturer's instructions).
  - No equipment washing or refueling within the area, with the exception of dewatering pumps, which may be refueled in place.
  - No storage of any petroleum or chemical material.
  - No parking or staging of mobile equipment or Project components.
- Sediment and Siltation Control: A soil erosion and sedimentation control (E&SC) plan will be developed and implemented as part of the State Pollution Discharge Elimination System (SPDES) General Permit for the Facility. Temporary E&SC practices may include silt fences, hay bales, and other options presented in the SWPPP in Appendix 13-3 and the Design Drawings in Appendix 5-1. Exposed soil will be seeded and/or mulched to assure that erosion and siltation is kept to a minimum along wetland boundaries. These features will be inspected on a regular basis to assure that they function properly throughout the period of construction and until completion of all construction restoration work.

# (3) Wetland Function Considerations in Design and Siting

As described above, illustrated on Figure 14-1, and qualified in Tables 14-1 and 14-2, the Facility design will have minimal impacts on State jurisdictional wetlands and their regulated AAs. The proposed State jurisdictional wetland impacts are limited to NYSDEC Class II and Unmapped (greater than 12.4 acres) wetlands as result from Facility construction activities as listed in Tables 14-1 and 14-2.

As discussed in the Wetlands Functions and Values Report (Appendix 14-3), the functions associated with the State jurisdictional wetlands that the Facility will impact include groundwater recharge/discharge, flood flow alteration, sediment, toxicant retention, nutrient removal/retention/transformation, production export, sediment/shoreline stabilization, and

wildlife habitat. Considering that the proposed impacts to State jurisdictional wetlands are inclusive of linear Facility components, such as access roads and collection lines, or a single location for a transmission line utility pole, the impacts to wetland functions are anticipated to be limited to the footprint of the Facility component, and not throughout the entirety of the associated wetland. The installation of BMPs identified above in the SWPPP (Exhibit 13, Appendix 13-3), will serve the functions of the wetland during construction of the Facility (i.e., sediment and toxicant retention, nutrient removal/retention/transformation, production export, and sediment/shoreline stabilization). Furthermore, the proposed impact to wetland W-KFC-13 is located within an agricultural field, which typically have lower functions due to the site being previously disturbed from agricultural activities.

### (4) Wetland Function in Adjacent Areas

Adjacent areas provide a valuable protection buffer for wetlands and often share the functions and values of the wetlands they surround. The Facility layout and careful siting of Project components will improve the functions and values of the AAs onsite, especially for the AAs that are currently in disturbed agricultural lands and experience reoccurring disturbances due agricultural activities (i.e., grazing, tilling). The Facility will result in no net loss of functions and values because impacted AAs will be planted with a native seed mix, which will stabilize the ground, minimize erosion, increase biodiversity, and restore the land post-construction.

# (5) Local Law Wetland Requirement

According to Section 5(2)(b)(iii) of the Glen Solar Law, the setbacks for jurisdictional wetlands, ponds, and streams are 100 feet except where streams or wetlands may need to be crossed by access roads or underground or above ground utilities (Town of Glen 2022). Fencing, access roads, stormwater measures, electrical wiring and conduit (both above and below ground), and landscaping may occur within the setback. The Facility has been designed to avoid and minimize impacts to State-regulated wetlands and their 100-foot AAs and federally regulated wetlands to the maximum extent practicable. However, there are certain areas where Facility components were sited within the 100-foot setback of jurisdictional wetlands and therefore the Applicant is requesting a waiver from ORES for this provision. See Table 14-3 below for an analysis on the wetland setbacks within the Facility. For the Applicant's justification for requesting this local law waiver, see Exhibit 24, Appendix 24-5.

Wetland ID	Jurisdiction	Facility Component	Facility Component Setback from Wetland (feet)	Waiver Request Needed?
W-CIW-2	USACE	Array Panels	777	No
W-CIW-4	USACE	Array Panels	1,142	No
W-CIW-5	USACE	Array Panels	545	No
W-CIW-6	USACE	Array Panels	203	No
W-JMP-1	USACE	Array Panels	494	No
W-JMP-2	USACE	Array Panels	124	No
W-JMP-3	USACE	Array Panels	134	No
W-JMP-5	USACE	Array Panels	503	No
W-JMP-11	USACE	Array Panels	53	Yes
W-JMP-21	USACE	Array Panels	279	No
W-JMP-23	USACE	Array Panels	126	No
W-JMP-24	USACE	Array Panels	209	No
W-JMP-25	USACE	Array Panels	222	No
W-JMP-26	USACE	Array Panels	486	No
W-JMP-29	USACE	Array Panels	57	Yes
W-JMP-30	USACE	Array Panels	51	Yes
W-JMP-31	USACE	Array Panels	51	Yes
W-JMP-34	USACE	Array Panels	182	No
W-JMP-35	USACE	Array Panels	348	No
W-JMP-36	USACE	Array Panels	176	No
W-JMP-37	USACE	Array Panels	203	No
W-JMP-38	USACE	Array Panels	753	No
W-JMP-39	USACE	Array Panels	1,154	No
W-JMP-44	USACE	Array Panels	1,384	No
W-JMP-45	USACE	Array Panels	51	Yes
W-KCF-5	USACE	Array Panels	594	No
W-KCF-6	USACE	Array Panels	112	No
W-KCF-9	USACE	Array Panels	54	Yes
W-KCF-10	USACE	Array Panels	287	No
W-KCF-11	USACE	Array Panels	1,048	No
W-KCF-13	USACE/NYSDEC	Array Panels	126	No
W-KCF-14	USACE	Array Panels	52	Yes

 Table 14-3. Facility Components and Wetland Setbacks

Wetland ID	Jurisdiction	Facility Component	Facility Component Setback from Wetland (feet)	Waiver Request Needed?
W-KCF-15	USACE/NYSDEC	Array Panels	126	No
W-KCF-16	USACE	Array Panels	1,368	No
W-MLM-7	USACE	Array Panels	681	No
W-MLM-8	USACE	Array Panels	176	No
W-NSD-01	USACE/NYSDEC	POI Switchyard	83	Yes
W-NSD-2	USACE	POI Switchyard	554	No
W-NSD-4	USACE	Substation	75	Yes
W-NSD-20	USACE/NYSDEC	Array Panels	121	No
W-NSD-22	USACE	Array Panels	402	No
W-NSD-23	USACE	Array Panels	53	Yes
W-NSD-28	USACE	Array Panels	54	Yes
W-NSD-30	USACE	Array Panels	65	Yes
W-NSD-32	USACE	Array Panels	98	Yes
W-NSD-33	USACE	Array Panels	92	Yes
W-NSD-35	USACE	Array Panels	52	Yes
W-NSD-38	USACE	Array Panels	249	No
W-NSD-54	USACE	Array Panels	59	Yes
W-NSD-55	USACE	Array Panels	128	No
W-NSD-56	USACE	Array Panels	94	Yes
W-NSD-60	USACE	Array Panels	2,090	No
W-NSD-63	USACE	Array Panels	896	No
W-NSD-64	USACE	Array Panels	378	No
W-NSD-69	USACE	Array Panels	50	Yes
W-NSD-72	USACE	Array Panels	493	No
W-NSD-75	USACE	Array Panels	1,923	No
W-NSD-77	USACE	Array Panels	1,419	No
W-NSD-81	USACE	Array Panels	185	No
W-NSD-82	USACE/NYSDEC	POI Switchyard	488	No

Construction of the Facility is anticipated to result in a cumulative total of 0.7797 acres of impact to federally regulated wetlands (0.6276 acres of which are considered State-regulated wetlands). It is anticipated that these impacts will be permitted under the USACE Nationwide Permit (NWP) program through the Joint Permit Application Process. Any required mitigation measures will be commensurate with Facility construction.

## 14(g) Wetland Restoration and Mitigation Plan

As described in Section 14(e) and 14(f) above, the development of the Facility will result in a total of 0.6276 acres of impacts to State jurisdictional wetlands and 1.588 acres to State jurisdictional regulated AAs. In accordance with 19 New York Codes, Rules and Regulations (NYCRR) Section 900-2.15(g), a total of 0.8619 acres of compensatory mitigation will be required to offset impacts to State jurisdictional wetlands and AAs. Tables 14-1 and 14-2 above detail the proposed construction activities that will require compensatory mitigation. Temporarily disturbed areas (areas only disturbed for construction) within the Facility Site will be restored to pre-construction conditions following the completion of all construction activities. The Applicant prepared a draft Wetland Restoration and Mitigation Plan (Appendix 14-4) herein which outlines the Applicant's proposed compensatory mitigation plan, including proposed mitigation activities, potential mitigation locations, mitigation site value and selection, and mitigation site protection and long-term management.

Impacts to State jurisdictional wetland resources will require mitigation in accordance with impactspecific requirements identified in Tables 14-1 and 14-2 above. The draft Wetland Restoration and Mitigation Plan details the proposed onsite, permittee-responsible compensatory mitigation program the Applicant intends to follow to mitigate impacts to regulated wetland features. The mitigation plan outlines the 94-c mitigation requirements and provides a review of Facility parcels that may be suitable as mitigation sites. Suitable mitigation sites will be contiguous with an existing State-regulated wetland (TH-17) and possess the necessary characteristics to allow for the successful establishment of the required wetland area.

A Final Wetland Restoration and Mitigation Plan will be developed that details specific mitigation measures and commitments the Applicant intends to implement to compensate for impacts to State-regulated wetlands and AAs. The selected mitigation sites will also be identified in the final mitigation plan and will contain a description of mitigation sites that includes information onsite topography, vegetation, soil profiles, and NYSDEC-regulated wetlands onsite or within proximity to the site. Details on the proposed mitigation will be included that describes the area of wetland

enhancement, restoration, or creation. Preliminary site plan(s) will be created to show the existing and proposed contours and appropriate seed plantings. A mitigation monitoring program will be developed along with the mitigation plan to ensure the success of the mitigation site and take any corrective actions if required. The Final Wetland Restoration and Mitigation Plan will be submitted as part of the pre-construction compliance filing in accordance with Section 900-10.2(f)(2) of the 94-c regulations.

#### 14(h) References

- Browne, S., Crocoll, S., Goetke, D., Heaslip, N., Kerpez, T., Kogut, K., Sanford, S., and D. Spasa. 1995. New York State Freshwater Wetlands Delineation Manual. New York State Department of Environmental Conservation (NYSDEC), Division of Fish and Wildlife, Bureau of Habitat, Albany, NY.
- Environmental Laboratory. 1987. Corps of Engineers Wetland Delineation Manual. Technical Report Y-87-1. U.S. Army Corps of Engineers (USACE): Waterways Experiment Station; Vicksburg, MS.
- Federal Geographic Data Committee. 2013. Classification of wetlands and deepwater habitats of the United States. FGDC-STD-004-2013. Second Edition. Wetlands Subcommittee, Federal Geographic Data Committee and U.S. Fish and Wildlife Service, Washington, DC.
- Town of Glen. 2022. Solar Energy Facilities Law of the Town of Glen. Available at: https://www.co.montgomery.ny.us/web/municipal/glen/documents/FinalAdoptedSolarLa w-5\_2022.pdf.
- United States Army Corps of Engineers (USACE). 1999. The Highway Methodology Workbook Supplement. Wetland Functions and Values A Descriptive Approach.
- USACE. 2012. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0). U.S. Army Engineer Research and Development Center, Vicksburg, MS, 162 pp.