

Article 10 Preliminary Scoping Statement

Horseshoe Solar

Livingston and Monroe Counties, New York

Case 18-F-0633

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Abbreviations

AC	Alternating Current
APE	Area of Potential Effect
COD	Commercial operation date
DC	Direct Current
DOH	Department of Health
DPS	Department of Public Service
ECS	Electrical collection system.
FERC	Federal Energy Regulatory Commission
GIS	Geographic Information Systems
HDD	Horizontal Directional Drilling
HSS	Horseshoe Solar
MW	Megawatt
MWh	Megawatt hour
NAAQS	National Ambient Air Quality Standards
NCF	Net Capacity Factor
NERC	North American Reliability Corporation
NLCD	National Land Cover Dataset
NNIS	Non-Native Invasive Species
NRCS	Natural Resources Conservation Service
NWI	National Wetland Inventory
NYCRR	New York Codes, Rules, and Regulations
NYISO	New York Independent System Operator
NYNHP	New York Natural Heritage Program
NYPA	New York Power Authority
NYSDAM	New York State Department of Agriculture and Markets
NYSDEC	New York Department of Environmental Conservation
O&M	Operation and maintenance
OPRHP	Office of Parks, Recreation, and Historic Preservation
PIP	Public Involvement Plan
PILOT	Payment in Lieu of Taxes
POI	Point of Interconnection
PSC	New York State Public Service Commission
PSL	Public Service Law
PV	Photovoltaic

PSS	Preliminary Scoping Statement
QA/QC	Quality Assurance/Quality Control
SEP	New York State Energy Plan
SGCN	Species of Greatest Conservation Need
SHPO	State Historic Preservation Office
SRIS	System Reliability Impact Study
SSC	Species of Special Concern
SWPPP	Stormwater Pollution Prevention Plan
T&E	Threatened and Endangered
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VIA	Visual Impact Assessment

Glossary of Key Terms

Article VII	The portion of the NYS Public Service Law that governs the siting of Major Utility Transmission Facilities. Applicable to transmission lines that are >10 miles or have a voltage of 115 kV or more.
Article 10	The portion of the NYS Public Service Law that governs the Siting of Major Electric Generating Facilities. Applicable to all electricity generation facilities over 25 MW.
Application, or Article 10 Application	The completed application of 40 exhibits assessing the potential impacts of the proposed generating facility.
Collection Substation	The electrical facility in which all electrical collection lines feed and voltage is stepped up to transmission level for delivery to the electric transmission grid.
Electrical Collection System	The system of underground electrical lines that collect electricity from the solar panels and deliver it to the Collection Substation.
Facility	Describes the physical components associated with the solar installation, including solar panels, racking, inverters, electrical collection lines, access roads, collection substation, Operations and

	Maintenance (O&M) building, construction laydown yard, POI, and interconnection lines.
Facility Site	The tax parcels, or portions of parcels, on which the Facility components will be located (see Figure 2).
POI Switchyard	The electrical switchyard at which HSS will interconnect; either the existing 115kV Golah substation or a new switchyard adjacent to the Golah-Mumford kV line.
Solar Grazing	The practice of using livestock grazing to manage vegetation on lands hosting solar energy projects.
Study Area	Refers to the Facility Site plus the 2-mile buffer area around the Facility Site (see Figure 4) within which most potential impacts will be assessed. In a few resource-specific instances, a different size of study area is proposed as specified in the relevant sections of the PSS.

I. Introduction

Horseshoe Solar Energy LLC (HSS) plans to submit an Application to construct a major electric generating facility under Article 10 of New York’s Public Service Law (PSL). Pursuant to the rules of the New York State Board on Electric Generation Siting and the Environment (Siting Board), applicants proposing to submit an application to construct a major electric generating facility under Article 10 must file a Public Scoping Statement (PSS) with the Department of Public Service (DPS) for review at least 90 days prior to filing an application. This document is the PSS for the Horseshoe Solar Energy Center (the Facility), a solar energy facility described in Section III.

As required by 16 NYCRR § 1000.5, Section IV of this PSS describes the content of HSS’s planned Article 10 application (the Application). The PSS follows the outline of 16 NYCRR § 1001, “Contents of an Application.” For every required exhibit to the application, the PSS describes how the Application will meet the requirements of 16 NYCRR § 1001.

II. Applicant

HSS is a Delaware limited liability company formed for developing, owning, and operating a solar powered wholesale generating facility in Livingston and Monroe Counties, New York. Horseshoe Solar Energy LLC is an affiliate of Invenergy Renewables LLC, (Invenergy), a power producer developing and operating utility-scale renewable energy projects including in the New York State energy market. In New York, Invenergy-owned energy projects operate under the supervision and regulatory authority of the New York State Public Service Commission (PSC) and the Federal Energy Regulatory Commission (FERC). Invenergy and HSS management offices are in Chicago, Illinois.

Invenergy has developed over 93 wind farms and 26 solar projects in the United States, Canada, and Europe including the following facilities in New York:

High Sheldon Wind Farm, 75 turbines in the Town of Sheldon, Wyoming County, NY
Orangeville Wind Farm, 58 turbines in the Town of Orangeville, Wyoming County, NY
Marsh Hill Wind Farm, 10 turbines in the Town of Jasper, Steuben County, NY
Shoreham Solar Commons, 24.9 MW in the Town of Brookhaven, Suffolk County, NY

Invenergy provides wholesale electricity to the public using clean, renewable sources such as wind and solar. This furthers the federal government’s policy as articulated in 42 U.S.C. 9201 to “hasten the widespread utilization of [wind energy] systems,” as well as the State of New York’s renewable energy policy, which requires 50% of the State’s energy to come from renewable sources such as solar by the year 2030.

HSS intends to construct, own, operate, and maintain all components of the Facility, with the exception of the POI switchyard. This interconnection facility will be constructed by HSS, then transferred to the interconnecting transmission utility, who will then own, operate, and maintain the switchyard.

III. Facility Description

Facility Location

Figure 1 shows the regional location of the Facility Site. The Facility Site includes all tax parcels¹ that HSS is currently evaluating for locating Facility components. As shown in Figure 2, the Facility Site includes area in the towns of Caledonia, Livingston County and Rush, Monroe County. The Facility Site is comprised of approximately 3,800 acres.

Facility Configuration and Layout

The Facility will have a maximum generating capability of 180 megawatts (MW) alternating current (AC), which is the size of HSS's interconnection service request pending with the NYISO. HSS plans to install approximately 600,000 solar panels mounted on tracking racks installed on land leased from owners of private property.

Facility components will include panel racks, solar panels, access roads, electrical collection system (ECS) including cables connecting the panels to direct current (DC) to AC inverters and a Collection Substation, an operation and maintenance (O&M) building (if constructed), and electric interconnection facilities. During construction, the project will require one or more laydown yards.

Two points of interconnection (POI) are under consideration. The primary POI is at National Grid's 115 kV Golah substation and would consist of a new breaker position constructed at the substation. The alternative POI is along National Grid's Golah-Mumford 115 kV line approximately two miles west of the Golah substation and would involve a new 115-kV POI switchyard be built adjacent to the line. HSS will select the POI based on forthcoming results of interconnection studies. In the event that the alternative POI is selected, the Facility Site will be adjusted accordingly to include the required interconnection facilities. The Collection Substation may be located adjacent to the solar panel area or may be located adjacent to the point of interconnection, and the location will be determined following selection of the POI. Because the interconnection line will operate at a voltage of 115 kV and will be less than ten miles long, no Facility infrastructure will require licensing pursuant to Public Service Law Article VII.

Figure 3 is a map showing preliminary buildable areas for solar panels. The Application will present an updated version of this map based on further site investigation and engineering review as well as preliminary site plans of the Facility.

IV. Environmental Setting

Topography

The Facility Area is primarily located in the northern part of Livingston County with a small portion in the southern part of Monroe County. This area of New York is part of the Southern Ontario Plain sub-region of the Erie-Ontario Lowlands and is largely composed of fields and flatlands². The Southern Ontario Plain

¹ In some cases, the Facility Site includes only the portions of certain tax parcels that the landowners may be willing to commit to solar development.

² Genesee/Finger Lakes Regional Planning Council. *Livingston County Multi-Jurisdictional All-Hazard Mitigation Plan*. December 2007.

is characterized by rolling agricultural landscapes 600-1000 feet in elevation³, and is comprised of glacial features such as poorly-drained depressions, morainic hills, drumlins, eskers, and outwash plains⁴.

Geology

According to the United States Geological Survey (USGS), the carbonate sedimentary rock underlying the eastern area of the Facility Site is primarily composed of Akron Dolostone (included in Bertie Group) of the Upper Silurian period, and Onondaga and Bois Blanc Limestone of the Middle Devonian period in the southwest area of the Facility Site⁵. The Bertie formation runs along the Monroe County Line to the town of Caledonia, and consists of thin beds of gray argillaceous limestone, while the Onondaga limestone is composed of “blue-gray calcium carbonate with seams of chert”⁶.

Soils

Agriculture has historically played an important economic role in Livingston County, hosting a wide variety of crops as well as grazing and dairy farming⁷. There are thirty-five distinctly different soil types and conditions across the county, a product of both local and foreign materials from glaciation activity⁸. The county’s prime agricultural land is concentrated in the northern half and in the Canaseraga and Keshequa Creek valleys, with some “moderately fertile soil.... scattered throughout the area south and southeast of Conesus Lake⁹.” The County produces wheat, potatoes, beets, dry beans, and animal feed; beef cattle and horses are also kept in Ossian and Avon, respectively¹⁰.

Similarly, agriculture in Monroe County has historically been a major part of the economy¹¹. A variety of crops are grown in the County, but row crops such as corn and soybeans are what is primarily grown. Other agricultural lands are used for hay and pasturelands, and for livestock and dairying¹². There are 14

³ Carr, M.; Crabb, G.; Wood, P.; and Tiffany, H. 1910 Soil Survey of Livingston County New York, by the U.S. Department of Agriculture with assistance from the New York State College of Agriculture. Washington D.C.

⁴ Ecology and Environment Inc. Site Characterization Study Report Horseshoe Solar Farm, Livingston and Monroe Counties, New York. October 2018.

⁵ Mineral Resources Online Spatial Data: Geologic maps. USGS: <https://mrdata.usgs.gov/geology/state/map-us.html>. Map.

⁶ Pearson, C.S.; Johnsgard, G.; Secor, W.; Kerr, H.A.; Westgate, P.J.; Kirby, R.H.; Goodman, R.B.; Cline, M.G.; and Simmons, C.S. 1941 Soil Survey of Livingston County, New York, U.S. Department of Agriculture, in cooperation with Cornell University Agricultural Experiment Station and Soil Conservation Service.

⁷ Carr, M.; Crabb, G.; Wood, P.; and Tiffany, H. 1910 Soil Survey of Livingston County New York, by the U.S. Department of Agriculture with assistance from the New York State College of Agriculture. Washington D.C.

⁸ Ibid.

⁹ *Livingston County Multi-Jurisdictional All-Hazard Mitigation Plan*. December 2007, 22.

¹⁰ Ibid.

¹¹ Monroe County Agricultural and Farmland Protection Board, Monroe County Department of Planning, Cornell Cooperative Extension. 1999. *Monroe County Agricultural and Farmland Protection Plan*. Accessed at: <https://www2.monroecounty.gov/files/planning/farm-FarmlandProtectionPlan99.pdf>.

¹² USDA National Agricultural Statistics Service. *Census of Agriculture County Profile: Monroe County, New York*. 2012. Accessed At: https://www.nass.usda.gov/Publications/AgCensus/2012/Online_Resources/County_Profiles/New_York/cp36055.pdf

different soil associations in Monroe County, many of which contain soil types classified as prime farmland¹³.

Drainage

The Facility Site lies entirely within the Lower Genesee Subbasin of the Genesee River watershed. The Genesee River forms the boundary between Livingston and Monroe Counties, and it has a low gradient (~1.5 feet per mile) as it meanders across the valley¹⁴. In this area, the Genesee River includes a series of meanders, with ox-bow bends and loops, which have cut deep channels at ordinary stages of flow¹⁵.

Forest Zone and Vegetation

The Facility Site is located in the U.S. Environmental Protection Agency's (EPA) Mixed Wood Plains and Eastern Temperate Forest ecoregions (level I and II), the Eastern Great Lakes and Hudson Lowlands (Level III) and the Ontario Lowlands Ecoregion in New York (Level IV).¹⁶ Coniferous and deciduous forests containing oaks, white pines, eastern hemlock, maples, American beech, and birch are characteristic of the region¹⁷. The lands comprising the Facility Site consist primarily of agricultural fields (row crops, pasturelands) and some wooded areas.

V. Potentially Significant Adverse Impacts of the Facility

The Application will discuss all potential impacts required by the Article 10 regulations. This section identifies potential impacts that may be caused by Facility construction or operation, and measures HSS may propose to avoid, minimize, and mitigate these impacts.

Noise

Operating solar panels do not emit any noise. Other solar infrastructure such as inverters and transformers emit some low-level localized noise. Solar inverters only generate noise when solar farms are generating (daytime), and tend to be located amongst the solar panels, away from the Facility Site boundary. Transformers will be co-located with the switchyard, which will be sited with consideration of any potential noise receptors in the vicinity of the Facility. Exhibit 19 of the Article 10 Application will report results of computer modelling for predicted Facility sound levels and compare them to design goals set to minimize impacts on noise receptors and to meet applicable standards of such organizations as the World Health Organization.

Visual Impacts

The Facility's solar panels will be relatively low to the ground and may be visible to surrounding parcels depending on topography, elevation, and screening from existing vegetation and buildings. Exhibit 24 of

¹³ Heffner, Robert L., Goodman, S.D., Higgins, B.A., and Yoakum, T.D. 1973. *Soil Survey of Monroe County New York*. USDA Soil Conservation Service, Cornell University Experiment Station. Accessed At: https://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/new_york/monroeNY1973/monroeNY1973.pdf.

¹⁴ Carr, M.; Crabb, G.; Wood, P.; and Tiffany, H. 1910 Soil Survey of Livingston County New York, by the U.S. Department of Agriculture with assistance from the New York State College of Agriculture. Washington D.C.

¹⁵ Crabb, G. Carr, M., Gilbert, B., and Boutoucos, G.; 1910 Soil Survey of Monroe County New York, by the U.S. Department of Agriculture with assistance from the New York State College of Agriculture. Washington D.C.

¹⁶ Ecology and Environment Inc. Site Characterization Study Report Horseshoe Solar Farm, Livingston and Monroe Counties, New York. October 2018.

¹⁷ Ibid.

the Application will analyze visual impacts and report results in a Visual Impact Analysis (VIA) report. HSS will minimize visual impacts where possible by planting vegetative screening, minimizing signage, identifying and considering visually-sensitive resources, and minimizing lighting to include only what is needed for safety and necessary functions.

Habitat Impacts

HSS will minimize the potential impact on habitat by avoiding forest clearing to the maximum extent practicable and siting the Facility in agricultural and previously disturbed areas. Construction of the Facility may still include some tree clearing and will require removal of vegetation. Best management practices will be employed to minimize impacts and the spread of invasive species. Exhibit 22 of the Application will present results of habitat surveys of the Facility Site. Exhibit 22 will analyze expected impacts from the Facility; proposed avoidance, minimization, and mitigation measures will depend on results of these studies.

Streams and Wetlands Impacts

Construction of the Facility will require crossing of streams or wetlands with electrical collection system cables and/or access roads. HSS will design the Facility to minimize the number of such crossings and the area of resulting impacts to the greatest extent practicable. Exhibits 22 and 23 of HSS's application will include a comprehensive survey of wetlands and streams and the expected limits of disturbance associated with impacted wetland features. The Application will include tables of temporary and permanent stream and wetland impacts HSS anticipates as a result of Facility construction. Exhibits 22 and 23 will describe HSS's design process used to avoid and minimize wetland and stream impacts. These exhibits will also list construction practices that HSS will employ to minimize those impacts that are not avoided.

Agricultural Impacts

Construction and operation of the Facility will impact some agricultural lands on which Facility components will be located. HSS will use best construction practices to minimize any construction impacts to the greatest extent practicable. The Application will identify Agricultural Districts in the Study Area (see Figure 4), assess potential impacts, and detail mitigation and avoidance measures.

In order to mitigate potential agricultural impacts, HSS has enlisted Agrivoltaic Solutions LLC (AVS) of Ithaca, NY to develop an Agricultural Integration Plan to maintain agricultural productivity at the Facility Site. A draft of the plan is included in this PSS filing. As described in detail in the plan, AVS will identify and work with local farmers to explore a commercial sheep business that can be located at the Facility Site, both performing vegetation maintenance and supporting a standalone agricultural enterprise. This practice is known as solar grazing, and it is a symbiotic model that will ensure the preservation of the land's agricultural integrity and will allow it to continue to function as part of the regional farm economy. Other non-sheep enterprises that are complementary to solar, such as honeybees and hay crops, will also be explored with farmers if they are interested, although the primary focus will be on solar grazing.

VI. Information Needed for the Application

HSS is planning the following field studies that will inform analyses in the Application:

- Wetland and stream delineations;

- Bird studies, including winter raptor surveys;
- Site characterization reviews to verify vegetation and habitat;
- Ambient noise surveys;
- Archeological surveys;
- Historical resource surveys;
- Preliminary geotechnical surveys;
- Visual resource surveys and photographs for visual simulations;

In addition to the above field studies, HSS is also planning an electric production modelling study of New York’s wholesale electric market to evaluate impacts of the Facility on the state’s wholesale electric market and statewide air emissions from the electric industry.

VII. Material Issues Raised to Date

Various concerns have been raised by local stakeholders through public engagement activities and town board meetings. Local farmers and planning authorities have expressed concern regarding agricultural impacts due to Facility construction, and the Town of Caledonia has expressed concern about visual impacts, specifically from West River Road.

The Towns and residents are interested in knowing the amount of money towns will receive for hosting solar infrastructure.

VIII. Other State and Federal Permits Required

The following tables list New York State permits applicable in the absence of PSL Article 10 and federal authorizations HSS will potentially require.

State Authorizations

State Agency	Requirement
NYSDEC	Water Quality Certificate (WQC), Section 401 of the Clean Water Act
NYSDEC	Permit for Protection of Waters; ECL Article 15, 6 NYCRR Part 608
NYSDEC	Permit for Freshwater Wetlands; ECL Article 24, 6 NYCRR Part 663
NYSDEC	SPDES General Permit for Construction Activity
NYS DOT	Highway Work Permit

Federal Authorizations

Agency	Requirement
Fish & Wildlife Service	Endangered and Protected Species Consultations
United States Army Corps of Engineers	Section 404 Wetlands Permit, Section 10 of the Rivers and Harbors Act Permit, or the corresponding Nationwide Permits.

Federal Energy Regulatory Commission	Federal Power Act – Authority to Sell Electricity at Wholesale
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IX. Applicable State Laws and Regulation

- 1) Water Resources Law (ECL Article 15) and protection of waters and water quality requirements of 6 NYCRR §§ 608.7(b); 608.8; 608.9 and 621.4(e).
- 2) State Historic Preservation Act § 14.09. The Applicant has initiated (and will continue) consultation with the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP) to ensure compliance with §14.09 of the New York State Historic Preservation Act.
- 3) Freshwater Wetlands Act (ECL Article 24) and standards for issuance of permits (6 NYCRR § 663.5).
- 4) State Pollutant Discharge Elimination System General Permit for Construction Activity (6 NYCRR § 750-1.21[b][2]), including approval of a Storm Water Pollution Prevention Plan.
- 5) Public Service Law Section 68 – Cert. of Public Convenience and Necessity. The Project will be “electric plant” and HSS an “electric corporation” under the PSL and will require a CPCN to engage in sales of energy at wholesale.
- 6) Miscellaneous laws and regulations governing worker safety, compensation and the like, compliance with which will be the responsibility of HSS’s contractors.

Based on Invenergy’s prior experience and on HSS’s preliminary consultations with the relevant agencies, HSS will be able to comply with these State laws and regulations.

X. Local Laws

As shown in Figure 2, the Facility Site lies within the Towns of Caledonia and Rush. As of the issuance of the PSS, only Caledonia has enacted a solar energy law, although Rush is currently in the drafting process. Because Rush is in the process of considering adoption of a Solar Law, it is impractical to speculate about which, if any, of the provisions of its general code may apply if not supplanted by the Solar Law it may adopt. The Code has provisions with both procedural and substantive requirements governing enforcement of the Uniform Building and Fire Prevention Code; Flood Damage Prevention; excavations; fences; solid waste; vehicle and traffic; parking; and signs. The substantive requirements of any of these may apply depending on the Solar Law that is adopted. Although solar farms are not currently a permitted use, under the draft Solar Law now on the Rush ecode website, Solar Energy Systems will be a permitted use in all zoning districts with some flood zones excepted, subject to a town-wide acreage limit. HSS has initiated consultations with town officials concerning the Planning Board’s authority to grant variances or waivers.

Chapter 106 of the Code of the Town of Caledonia, entitled Solar Energy, is a comprehensive permitting law that authorizes Solar Farms in all zoning districts subject to approval of the Planning Board. The law provides both procedural and substantive requirements through decommissioning. Table X-1 summarizes

the key substantive provisions of the Caledonia solar law. Other Chapters of the Caledonia Code may also apply to the Project. HSS is currently reviewing those and will confer with the town attorney to determine their applicability.

Based on the preliminary layout, HSS expects the Facility will comply with the Caledonia solar law, with the potential exception of maximum panel height. HSS will consult with the Town of Caledonia and their attorneys to examine possible provisions for securing waivers or variances from the height limit before filing the Application. If required, the Application will specify any local requirements for which HSS will seek Siting Board override in the detail required by 16 NYCRR 1001.31.

As discussed in PSS Section XV, Exhibit 31 to the Application will provide a comprehensive review of how the Project, as proposed in the Application, complies with all substantive town laws.

Table X-1. Caledonia Solar Energy Law

Setback to property line of adjacent non-residential parcels	50 ft
Setback to property line of adjacent residential parcels	200 ft
Maximum Panel Height	12 ft
Fencing Height Requirement for all Mechanical Equipment	10 ft
Permitted Panel to Parcel Area Ratio	<80%
Visual screening of solar system and associated components	Yes – vegetated perimeter buffer
Electric Lines	Underground to the extent feasible
Minimum parcel size for projects exceeding 26 kW	10 acres

XI. Alternative Locations

There are two significant constraints that render the consideration of “reasonable and available alternate locations” impractical for developers of utility scale solar projects. First, as expressly acknowledged in Section 1001.9(a), a private Facility applicant need only examine locations under its control. The Applicant is a private company without eminent domain authority to procure alternative sites. Second, and more importantly, the development of a utility scale solar Facility requires the acquisition of sufficient control of a large amount of real property in an area that is receptive to hosting solar panels and associated infrastructure.

Development starts with identifying potential points of interconnection and electrical infrastructure that could host generation from a large-scale solar farm. Then developers look for an area with contiguous, even, and relatively undeveloped land, and assess the community’s general receptivity and landowners’ willingness to negotiate options on the needed real estate. As a result, any alternatives considered must be limited to lands under option or lease by a developer. It is impractical for HSS to “freeze” development on several land parcels on such a large scale to present an alternative site. This is a very intensive process, the aim of which is to secure sufficient options to design a project of the size needed to make the project economical and financeable. There is no room in this process to acquire real estate control for alternative locations. Therefore, in developing a utility scale solar farm to the stage where sufficient information for initiating the permitting process has been collected, it is simply not practical to present alternatives for consideration. As a consequence, there are no “reasonable and available location sites for the proposed facility”. In contrast, fossil-fuel projects that are subject to Article 10 requirements can be located on relatively small sites, with the siting constraints limited primarily to access to high pressure gas pipelines and high voltage electric lines. In such cases, even private applicants have some flexibility to present alternate locations.

To be clear, HSS’s affiliate, Invenergy Solar Development LLC, is developing other solar locations, but only to build projects at those locations in addition to this Project, not as alternatives to the HSS Facility.

XII. Economic Benefits

The Facility will generate significant employment and regional spending during construction, and once operational it will provide annual and dependable revenue to local governments and landowners.

HSS is proposing to build the Facility with financial assistance from the Livingston and Monroe County Industrial Development Agencies (the IDAs). Under this structure, it would enter into a payment-in-lieu-of-taxes (PILOT) agreement with the IDAs and make annual PILOT payments that would be distributed to the towns, school districts, and county where Facility components were installed. The table below summarizes HSS’s preliminary estimates of the Facility’s economic benefits

Local Economic Benefits from Facility Operation

Description	Annual Estimate	20 Year Total
PILOT Payments	\$540,000	\$12,490,000
Fire District Taxes	\$90,000	\$2,080,000
Landowner Lease Payments	\$1,000,000	\$23,120,000
O&M (Payroll and Local Spending)	\$300,000	\$6,940,000
Total	\$1,930,000	\$44,630,000

Note: Assumes PILOT Rate of \$3,000/MW/year and fire department rate of \$500/MW/year, and 1.5% annual escalation for all line items.

XIII. Environmental Benefits

The Facility would be a new source of emission-free energy generation for New York State. HSS expects it would operate at an annual net capacity factor (NCF) of 23.4%. This means the Facility, if built at the maximum expected generating capacity of 180 MW, would generate approximately 369,000 MWh of energy per year. This will be enough electricity to meet the average annual consumption of 33,000 or 50,000 households, based on average annual household electric consumption of 10.8 MWh for the U.S. and 7.2 MWh for New York State, respectively.¹⁸

Exhibit 8 of HSS’s application will present results of dispatch modelling of New York’s electric system with and without the Facility, including estimates of how much air emissions would be reduced if the Facility were built.

XIV. Environmental Justice

The New York State Department of Environmental Conservation (NYSDEC) provides geospatial data of Potential Environmental Justice Areas it identifies as census block groups from the 2000 census (not 2010 Census data) with populations that meet one or more of the following thresholds:

- 51.1% or more of the population in an urban area reported themselves to be members of minority groups; or
- 33.8% or more of the population in a rural area reported themselves to be members of minority groups; or
- 23.59% or more of the population in an urban or rural area had household incomes below the federal poverty level.

There are no Potential Environmental Justice Areas within the Facility Site. The following is within 2 miles of the Facility Site:

- Census Block Group ID 360510302013 is located approximately 1.2 miles south of the Facility Site in Livingston County between Avon and Geneseo. The area is rural in nature, and the 2000 census statistics show that 7.57% are minorities and 48.97% are below the federal poverty level.

¹⁸ U.S. Energy Information Administration (EIA), 2014.

As no Facility components are anticipated within the PEJA, and construction and operation impacts will be localized to the Facility Site, no impacts are anticipated.

EPA has an Environmental Justice mapping tool as well, <https://ejscreen.epa.gov/mapper/>. This tool indicates that for all EJ Index criteria, from particulate matter to wastewater discharges, the 10-mile radius around the Facility Study ranks 40% percentile or lower in both state and national thresholds, placing the area low on the EPA index of EJ criteria.