ConnectGen Chautauqua County LLC

South Ripley Solar Project

Matter No. 21-00750

900-2.19 Exhibit 18

Supplement 2

Socioeconomic Effects

REDACTED

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EXHIBIT 18 SOCIOECONOMIC EFFECTS

On behalf of ConnectGen Chautauqua County, LLC (the Applicant), Environmental Design & Research, Landscape Architecture, Engineering & Environmental services D.P.C (EDR) conducted a socioeconomic analysis that quantifies the potential socioeconomic effects of the Facility based on current socioeconomic conditions of the area. The Facility is located within the Town of Ripley, Chautauqua County, New York. Population, educational attainment, and economic conditions within the host communities is summarized in Table 18-1.

The proposed Facility is anticipated to have local, countywide, and statewide economic benefits. Utility-scale solar energy development can support a wide range of socioeconomic benefits to the local, countywide, and statewide economies, including job creation, purchases of local materials and services, and direct revenue to local municipalities in the form of Payment in Lieu of Taxes (PILOTs) agreements and Host Community Agreements (HCAs). Additionally, income generated from direct employment during the construction and operation phases of the Facility is used to purchase community goods and services, further expanding the local economy. This analysis includes an initial focus on the socioeconomic profile of the proposed host communities followed by the methodology and estimate of socioeconomic effects, including direct employment estimates as well as estimates of the incremental costs and benefits to the host communities resulting from the construction and operation of the Facility.

Host Community Socioeconomic Profile

Table 18-1. Demographic Information

	Town of Ripley	Chautauqua County	New York State
Population			
2019 American Community Survey (ACS) 5-Year population estimate	2,353	128,498	19,572,319
% Annual change (2000-2019)	-0.6%	-0.4%	+0.2%
% of population ages 15-64	67.2%	63.7%	66.6%
Educational attainment			
% High school graduate or higher	87.0%	88.8%	86.5%
% Bachelor's degree or higher	15.8%	22.2%	35.5%
Economic Conditions			
Median housing value	$86,400	$88,000	$313,700
Median household income	$46,375	$46,820	$68,484
Individuals below poverty level	12.6%	18.2%	14.1%
Labor Force Characteristics			
Unemployment rate	5.2%	6.1%	5.5%
Labor force participation	1,155	59,600	10,069,219

Source: 2015-2019 American Community Survey 5-Year Estimates, Decennial census, Tables S0101, P001, S1501, DP04, S1701, S2503, and DP03.

Chautauqua County is in the Western region of New York. The Town of Ripley is a rural community located in the northwestern portion of Chautauqua County with approximately 1.8% of the total County population. Major socioeconomic trends of the Town of Ripley and Chautauqua County include:

- Both have experienced slight declines in population over the past 20 years
- Both demonstrate lower rates of attainment of bachelor degrees as compared to New York State Average
- Both have significantly lower median housing values as compared to New York State Average
- Both have significantly lower median household incomes as compared to New York State Average
- The Town of Ripley has a lower unemployment rate than both Chautauqua County and New York State
- The Town of Ripley has lower rates of individuals below the poverty line than both Chautauqua County and New York State

While similar to New York State in its primary employment sectors, Chautauqua County is characterized by a robust manufacturing sector. In decreasing order, the top five employment sectors in New York State are 1) Health Care and Social Assistance, 2) Educational Services, 3) Retail Trade, 4) Accommodation and Food Services, and 5) Professional, Scientific, and Technical Services (US Census Quarterly Workforce Indicators, 2020). This compares with the five dominant employment sectors in Chautauqua County, which are 1) Manufacturing, 2) Health Care and Social Assistance 3) Educational Services, 4) Retail Trade and 5) Accommodation and Food Services (US Census Quarterly Workforce Indicators, 2020). Although not captured by total employment numbers, agriculture is an important employment sector in Chautauqua County in relation to land use. Chautauqua County has 223,634 acres of farmland, 33.0% of the County's total land area (USDA NASS, 2017a). There are approximately 1,228 farm operations in Chautauqua County which employ 2,156 producers countywide[1] (USDA NASS, 2017b).

By 2028, the overall employment rate in the Western New York region is projected to grow 7% from 2018 levels, slightly lower than the 10% overall growth rate projected for New York State as a whole during the same 10-year time period. The five fastest growing sectors forecasted based on 2018 figures for Western New York are diverse and include Personal Care and Service Occupations, Healthcare Practitioners and Technical Occupations, Community and Social Service Occupations, Computer and Mathematical Occupations, and Education, Training and Library Occupations (NYSDOL, 2018).

Understanding the fiscal health of communities in which a project will be located is essential to assessing the potential economic impacts or benefits of that project. The general fiscal profile for any municipality includes its revenues,

[1] The 2017 Census of Agriculture term "producer" describes those involved in making decisions for the farm.

expenditures, and long-term debt obligations. Most municipal revenue is collected through real property taxes, sales taxes, and state aid. Municipalities (towns, villages, and counties) and school districts, as independent taxing jurisdictions, are responsible for providing specific services and facilities to those who live and work within their boundaries and for levying the taxes needed to pay for those services/facilities. The taxing jurisdictions hosting the Facility are Chautauqua County, the Town of Ripley, the Ripley Central School District, the Sherman Central School District, and the Ripley Fire Protection District.

Annual municipal expenditures are recovered in large part through each municipality's tax levy, which is borne by taxable properties. Real property taxes are determined by each property's assessed value, multiplied by the tax rate established by each taxing jurisdiction. Table 18-2 summarizes the most recent data available for municipal and county property tax levies and rates in the County and Town.

Table 18-2. Municipal Tax Levy and Tax Rate[2]

	Levy year 2019 (roll year 2018)			Levy year 2020 (roll year 2019)		
	Municipal Tax Levy	Tax Rate per $1000 Full Value[3]	Eq. Rate	Municipal Tax Levy	Tax Rate per $1000 Full Value	Eq. Rate
Chautauqua County	$61,912,260	8.39	81.50	$64,208,202	8.42	81.24
Town of Ripley	$931,929	8.36	100.00	$944,889	8.47	100.00

Source: New York State Office of Real Property Tax Services, 2020

Another significant source of revenue for the County and Town is local sales tax revenue. The current sales tax rate for Chautauqua County is 8% (4% local tax plus 4% state tax) (New York State Department of Taxation and Finance, 2020). In 2019, the total sales tax revenue for the County was $71,662,650 (New York State Comptroller, 2019).

An overview of the balance of a municipality's revenues, expenditures and indebtedness reveals its general fiscal health. As illustrated in Table 18-3, from 2018 to 2019, the revenues in Chautauqua County and the Town of Ripley increased while total indebtedness also increased. Chautauqua County decreased expenditures over the same period while the Town of Ripley increased expenditures (see Table 18-3).

[2] Municipal tax levy reflects the amount of revenue required by the municipality through the property tax base and is equal to total municipal spending minus aid and other revenues. Tax base is equal to the sum of taxable parcel values. Municipal tax rate is determined by dividing the levy by the tax base, such that each taxable parcel produces that amount of property tax per $1,000 assessed value. For a $100,000 property in the Town of Ripley, property tax liability = (5.15 / 1000) * 100,000, or $515. An equalization rate is the state's measurement of a municipality's level of assessment (LOA). An equalization rate of 100 means that the municipality is assessing property at 100 percent of market value. An equalization rate lower than 100 means that the municipality's total market value is greater than its assessed value. The NYS Office of the State Comptroller(OSC) calculates a full value(FV) municipal tax rate by dividing the total municipal levy (general town and highway levy, plus fire protection and other dependent special district levies, less sales tax credits) by the total full taxable value (for municipal purposes) per $1000 full valuation.

Table 18-3. Municipal Budgets

	2018	2019
	Chautauqua County	
Total Revenues & other sources	$291,770,553	$316,728,035
Total Expenditures & other uses	$306,149,647	$305,374,027
Total Indebtedness	$64,736,404	$71,582,823
	Town of Ripley	
Total Revenues & other sources	$2,005,176	$2,474,193
Total Expenditures & other uses	$2,245,996	$3,011,709
Total Indebtedness	$983,000	$3,255,000

Source: New York State Comptroller, 2020, (x= no data available), Tables FX51, H51, FX910, and FX48.

School districts in New York are subject to a budgeting process separate from municipalities. The Facility is located within two school districts: Ripley Central School District and Sherman Central School District. The budgets for all school districts are shown in Table 18-4. From 2018 to 2019, the Ripley Central School District increased revenues and decreased expenditures, while the Sherman Central School District decreased revenues and increased expenditures. Both the Ripley and Sherman School Districts debt decreased (New York State Comptroller, 2020).

Table 18-4. School District Budget

	2018	2019
	Ripley Central School District	
Total Revenues & other sources	$9,495,863	$11,576,277
Total Expenditures & other uses	$9,284,356	$9,200,163
Total Indebtedness	$5,850,172	$5,315,00
	Sherman Central School District	
Total Revenues & other sources	$13,897,799	$11,579,694
Total Expenditures & other uses	$10,786,150	$11,568,863
Total Indebtedness	$6,358,635	$5,801,848

Source: New York State Comptroller, 2021, Tables W411 and AM411.

Fire districts are an additional taxing jurisdiction to school districts and municipalities. The Facility is located within one fire district, the Ripley Fire District. Annual property tax revenues to the Ripley Fire District totaled $250,250 in both 2018 and 2019 (New York State Comptroller, 2021). Anticipate contributions from the South Ripley Solar Project to the Ripley Fire District are discussed in Section (g).

In the face of budget shortfalls and a statewide property tax cap, taxing jurisdictions can maximize other, less traditional forms of revenue to guarantee economic stability in the coming decades. As discussed in greater detail below, solar projects provide direct benefits to local taxing jurisdictions through Payments in Lieu of Taxes (PILOTs) and Host Community Agreements (HCAs). In addition, solar projects such as the proposed Facility generally have other local,

regional, and statewide economic benefits. Solar power development can expand the local, regional, and statewide economies through both direct and indirect means.

(a) Construction Workforce

The socioeconomic effects of the Facility were evaluated, in part, using the Job and Economic Development Impact (JEDI) photovoltaics model (Release Number: PV12.23.16). The JEDI model was created by the National Renewable Energy Laboratory (NREL)—a government-owned, contractor-operated laboratory funded by the U.S. Department of Energy—to assess the economic impacts of proposed solar energy generating facilities during both the construction and operation phases (USDOE NREL, 2021). This model allows users to estimate jobs, earnings, and economic output by using facility-specific data provided by the Applicant and geographically defined multipliers. These multipliers are produced by IMPLAN Group, LLC using a software/database system called IMPLAN (IMpact analysis for PLANning), a widely used and widely accepted general input-output modeling software and data system that tracks each unique industry group in every level of the regional data (IMPLAN Group, 2020). This analysis utilized the 2019 IMPLAN multiplier data, as that was the most recent data readily available at the time of the initial analysis (February 2021). More specifically, the JEDI model was utilized in estimating the number of direct construction and operation and maintenance (O&M) jobs as well as the direct project expenditures generated as a result of the construction and operation of the Facility.

This analysis concentrates on the socioeconomic impacts from onsite labor and other project expenditures that the proposed Facility may have on the statewide economy, countywide economy, and within the host communities. Onsite labor impacts are the direct impacts experienced by the companies/individuals residing in New York State engaged in the onsite construction and operation of the Facility. These values represent expenditure of dollars on labor (wages, salaries, and associated expenses) of onsite construction personnel, as well as O&M personnel. Furthermore, onsite labor impacts can be measured in terms of jobs (as expressed through the increase in employment demand), and the amount of money earned through those jobs (measured by the wages and salary compensation paid to employees). For the purposes of this analysis, the term "jobs" refer to the total number of year-long full-time equivalent (FTE) positions created by the Facility, assuming a 40-hour work week for 52 weeks of the year. Persons employed for less than full time or less than a full year are included in this total, each representing a fraction of an FTE position (e.g., a half-time, year-round position is 0.5 FTE).

Calculating the number of jobs and earnings estimated to be generated by a proposed facility using the JEDI model is a two-step process. The first step requires facility-specific data inputs (e.g., year of construction, size of facility, PV module material, and location). These facility-specific data are used to provide a baseline set of assumptions to produce

a conservative estimate of the total positive jobs and economic impacts likely to be produced by the Facility. For purposes of the JEDI model, the Applicant has assumed the following inputs:

- Location: Chautauqua County, New York
- Year of Construction: 2022[4]
- System Application: Utility
- Solar Cell/Module Material: Crystalline Silicon
- System Tracking: Fixed Mount
- Total Project Size (DC Nameplate Capacity): 345,000 kWdc (270 MWac)
- Base Installed System Cost ($/kWdc): **BEGIN CONFIDENTIAL INFORMATION <[redacted]> END CONFIDENTIAL INFORMATION**
- Annual Direct Operations and Maintenance Cost ($/kWdc): **BEGIN CONFIDENTIAL INFORMATION <[redacted]> END CONFIDENTIAL INFORMATION**
- Money Value (Dollar Year): 2020

Using the facility-specific data provided, as well as the IMPLAN multipliers and statewide/municipal population census data, the JEDI model creates a list of default values, which include facility cost values, default financial parameter values, default tax values, default lease payment values, and default local share of spending values. These default values are derived from research on utility-scale solar facilities by NREL and stem from various sources, including interviews and surveys of leading project owners, developers, engineering and design firms, and construction firms active in the solar energy sector.

The second step of the JEDI model methodology requires the review and, if warranted, the customization of default facility cost values and financial parameter values to reflect the most accurate estimates. The Applicant reviewed the default facility cost values, statewide shares, countywide shares, and host community shares (subtotaled by categories in the JEDI model) to determine whether they were on par with the real costs as experienced by the Applicant's team of development and financial experts. The Applicant's team then made specific adjustments to improve accuracy (see Table 18-5).

[4] For the purposes of the JEDI analysis, which assumes one year for construction, the start year of construction (2022) was used. Actual construction is anticipated to occur over a 16-month period during 2022 and 2023; therefore, construction-related benefits are anticipated to occur over these two years.

Table 18-5. Adjustments Made to JEDI Model Cost Inputs

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Project Expenditure Categories	JEDI Default Value	Adjusted Value	Change
Construction Materials & Equipment Costs	< [redacted] >	< [redacted] >	Increase
Construction Labor Total Costs	< [redacted] >	< [redacted] >	Increase
Construction - Other Costs	< [redacted] >	< [redacted] >	Decrease
Construction Materials and Equipment Sales Tax	< [redacted] >	< [redacted] >	No Change
Operating/Maintenance Labor Costs	< [redacted] >	< [redacted] >	Decrease
Operating/Maintenance Materials and Services	< [redacted] >	< [redacted] >	Increase
Operating/Maintenance Materials/Equip. Sales Tax	< [redacted] >	< [redacted] >	No Change
Local Property Tax Payments	< [redacted] >	< [redacted] >	Increase
Payroll Parameters Construction Worker Hourly Wage	< [redacted] >	< [redacted] >	Increase
Payroll Parameters O&M Technician Hourly Wage	< [redacted] >	< [redacted] >	Increase
Payroll Parameters Construction Worker Employer Overhead	< [redacted] >	< [redacted] >	No Change
Payroll Parameters O&M Technician Employer Overhead	< [redacted] >	< [redacted] >	No Change

Source: Jobs and Economic Development Impact Model (USDOE NREL, 2016); Costs verified by the Applicant in June 2021.

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Based upon JEDI model computations, it is anticipated that construction of the proposed Facility will generate employment of an estimated 253 FTE on-site Project Development and Onsite Labor positions for New York State residents, approximately 208 of which will be for Construction and Installation labor (laborers and electricians/technicians) and approximately 45 of which will be Construction-Related Services (equipment operators, construction managers, and foremen). At the County level, the Facility is estimated to generate employment of at least an estimated 144 FTE on-site Project Development and Onsite Labor positions for Chautauqua County residents, approximately 118 of which will be for Construction and Installation labor and 24.6 of which will be Construction-Related Services.

The estimated average construction workforce is presented by discipline for each quarter during construction in Tables 18-6 and 18-7 below. Both tables also provide a summary of full-time equivalent (FTE) employment. As seen in Tables 18-6 and 18-7, the Applicant estimates quarterly peaks of 328 FTE statewide construction jobs and at least 187 FTE countywide construction jobs during the fifth quarter of the 16-month construction period. These estimates were developed by the Applicant based on past experience with similar projects and consultations with contractors but are subject to change based on site specific conditions, workforce availability, and construction contractor estimates. Workers directly employed on-site during construction include laborers, electricians/technicians, equipment operators, construction managers, and foremen. These estimates do not include workers directly employed elsewhere in New York State that would provide development or construction-related technical services such as engineering design and permitting.

Table 18-6. Estimated Quarterly Statewide Labor Averages

Labor Discipline	Quarter of Construction						Full-Time Equivalent Employment (FTE)[1,2]
	1	2	3	4	5	6	
Laborers	30	30	60	150	150	80	125
Electricians/Technicians	0	0	20	120	148	45	83
Equipment Operators	15	15	15	15	15	15	22
Construction Managers	5	5	5	5	5	5	8
Foremen	10	10	10	10	10	10	15
Total	**60**	**60**	**110**	**300**	**328**	**155**	**253**

Source: Jobs and Economic Development Impact Model (USDOE NREL, 2016), Quarterly Averages generated by the Applicant in April 2022.
[1] One FTE job equates to one full-time job for 1 year or 2,080-hour units of labor, with part-time or temporary jobs constituting a fraction of a job. Numbers are rounded to the nearest FTE.
[2] Full-time equivalent employment values are calculated for the full 6-quarter construction schedule (average of six quarters multiplied by 1.5).

Table 18-7. Estimated Quarterly Countywide Labor Averages

Labor Discipline	Quarter of Construction						Full-Time Equivalent Employment (FTE)[1,2]
	1	2	3	4	5	6	
Laborers	17	17	34	86	86	46	71
Electricians/Technicians	0	0	11	68	84	26	47
Equipment Operators	9	9	9	9	9	9	13
Construction Managers	3	3	3	3	3	3	4
Foremen	6	6	6	6	6	6	9
Total	**34**	**34**	**63**	**171**	**187**	**88**	**144**

Source: Jobs and Economic Development Impact Model (USDOE NREL, 2016), Quarterly Averages generated by the Applicant in April 2022.
[1] One FTE job equates to one full-time job for 1 year or 2,080-hour units of labor, with part-time or temporary jobs constituting a fraction of a job. Numbers are rounded to the nearest FTE.
[2] Full-time equivalent employment values are calculated for the full 6-quarter construction schedule (average of six quarters multiplied by 1.5).

(b) Construction Payroll

The JEDI model estimates a total of $36.1 million for annual earnings of the 253 onsite construction jobs for New York State residents, $18.9 million of which is the estimated annual earnings of the 144 on-site construction jobs for Chautauqua County residents. Estimated earnings represent total wages and salary compensation paid to New York State employees (i.e., wages plus **BEGIN CONFIDENTIAL INFORMATION** <[redacted]> **END CONFIDENTIAL INFORMATION** average annual overhead costs including social security insurance [SSI], Medicare, workers' compensation, and disability). Project Development and Onsite Labor earnings are realized by New York State

residents and Chautauqua County residents who are engaged in the construction of the Facility, including the Construction/Installation, Office Services, and Architectural and Engineering Services trades. These estimates of the annual construction earnings by trade are listed in Table 18-8 and 18-9.

Table 18-8. Annual Earnings by Trade Statewide During Construction Period (in $ Millions)

Trade	Project Development and Onsite Labor Earnings
Construction/Installations	$31.5
Office Services	$3.6
Architectural and Engineering Services	$1.0
Total	**$36.1**

Source: Jobs and Economic Development Impact Model (USDOE NREL, 2016)
Note: Earnings are independently rounded, and therefore may not add up directly to the integers shown in this table.

Table 18-9. Annual Earnings by Trade Countywide During Construction Period (in $ Millions)

Trade	Project Development and Onsite Labor Earnings
Construction/Installations	$18.0
Office Services	$0.9
Architectural and Engineering Services	$0.0
Total	**$18.9**

Source: Jobs and Economic Development Impact Model (USDOE NREL, 2016)
Note: Earnings are independently rounded, and therefore may not add up directly to the integers shown in this table.

Local, regional, and statewide employment during the construction phase will primarily benefit those in the construction trades, including equipment operators, truck drivers, laborers, and electricians. Facility construction will also require workers with specialized skills, such as specialized excavators and high voltage electrical workers. It is anticipated that many of the highly specialized workers will come from outside the immediate area (i.e., Chautauqua County) and will remain only for the duration of construction.

Estimated non-payroll project expenditures to be made within New York State, Chautauqua County, and the Town of Ripley (host municipality) during the construction period are listed in Table 18-10.

Table 18-10. Estimate of Annual Direct Non-Payroll Expenditures during Construction

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Construction Cost Item	Project Expenditures	State Share	Statewide Expenditures	County Share	Countywide Expenditures	Town Share	Town Expenditures
Materials & Equipment Costs							
Mounting (rails, clamps, fittings, etc.)	< >	< >	< >	< >	< >	< >	< >
Modules	< >	< >	< >	< >	< >	< >	< >
Electrical (wire, connectors, breakers, etc.)	< >	< >	< >	< >	< >	< >	< >
Inverter	< >	< >	< >	< >	< >	< >	< >
Other Costs							
Permitting	< >	< >	< >	< >	< >	< >	< >
Other Costs	< >	< >	< >	< >	< >	< >	< >
Business Overhead	< >	< >	< >	< >	< >	< >	< >
Sales Tax (Material and Equipment Purchases)	< >	< >	< >	< >	< >	< >	< >

Source: Jobs and Economic Development Impact Model (USDOE NREL, 2016); Expenditures verified by the Applicant in June 2021.

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(c) Workforce, Payroll, and Expenditures During Facility Operation

The operation of the proposed Facility is estimated to generate 4 full-time jobs for New York State residents with combined estimated annual earnings of approximately $500,000. Chautauqua County residents are anticipated to hold all of these onsite operational jobs unless no qualified technicians are available. These 4 positions have been verified as reasonable by the Applicant based on job numbers at other facilities in New York and are anticipated to be comprised of operations and maintenance technicians. According to the Applicant's construction management team, wages for the operational staff members will average approximately **BEGIN CONFIDENTIAL INFORMATION <** **>** **END CONFIDENTIAL INFORMATION**. The projected wage rate is consistent with statewide median wages for renewable energy service technicians (U.S. Department of Labor Bureau of Labor Statistics, 2019).

Estimated annual non-payroll expenditures to be made within New York State, Chautauqua County, and the Town of Ripley (host municipality) during the operation of the Facility are listed in Table 18-11. This includes materials and services purchased for the operations and maintenance of the Facility, sales tax, and payments to tax jurisdictions, i.e., PILOT agreement payments (see Section (g) below).

Table 18-11. Estimate of Annual Direct Non-Payroll Expenditures during Operation and Maintenance

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Operation & Maintenance Expenditure Categories	Project Expenditures	State Share	Statewide Expenditures	County Share	Countywide Expenditures	Town Share	Town Expenditures
Materials & Equipment	< [redacted] >	< [redacted] >	< [redacted] >	< [redacted] >	< [redacted] >	< [redacted] >	< [redacted] >
Services	< [redacted] >	< [redacted] >	< [redacted] >	< [redacted] >	< [redacted] >	< [redacted] >	< [redacted] >
Sales Tax (Materials & Equipment Purchases)	< [redacted] >	< [redacted] >	< [redacted] >	< [redacted] >	< [redacted] >	< [redacted] >	< [redacted] >
Local Property Tax[5]	< [redacted] >	< [redacted] >	< [redacted] >	< [redacted] >	< [redacted] >	< [redacted] >	< [redacted] >

Source: Jobs and Economic Development Impact Model (USDOE NREL, 2016); Expenditures verified by the Applicant in June 2021.

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Additionally, payments to local landowners within the Town of Ripley will be made in association with lease, easement, and purchase agreements executed to host Facility components, and good neighbor agreements (GNAs) executed with certain adjacent properties. Lease and easement payments will offer direct benefits during construction and installation totaling an estimated **BEGIN CONFIDENTIAL INFORMATION** < [redacted] > **END CONFIDENTIAL INFORMATION** to participating landowners. During the Facility's operating life, lease and easement payments will offer direct benefits totaling an estimated **BEGIN CONFIDENTIAL INFORMATION** < [redacted] > **END CONFIDENTIAL INFORMATION** to participating landowners over the lifespan of the Facility. GNA payments will offer direct benefits during operation totaling an estimated **BEGIN CONFIDENTIAL INFORMATION** < [redacted] > **END CONFIDENTIAL INFORMATION** to adjacent landowners over the lifespan of the Facility. This income would be in addition to any income generated from the current use of the land that continues during project operation (e.g., agricultural production). The Applicant also expects to spend approximately **BEGIN CONFIDENTIAL INFORMATION** < [redacted] > **END CONFIDENTIAL INFORMATION** on land purchases. These estimates suggest that the construction and operation of the South Ripley Solar Project will have a significant positive impact throughout the host municipality.

(d) Incremental School District Operating and Infrastructure Costs

The Facility is located in the Sherman Central School District and the Ripley Central School District and is not expected to result in any additional operating or infrastructure costs to either school district. Although it is possible that some of the long-term Facility operation employees may have school-aged children, increases in school district services and expenditures would likely be recovered through those employees' property tax payments and the respective district's state aid. Moreover, as discussed in Section (g), the affected school districts will benefit from PILOT agreements.

[5] This amount reflects the HCA and PILOT agreement which is split amongst the local taxing jurisdictions (i.e., Chautauqua County, Town of Ripley, Sherman Central School District, and Ripley Central School District) (see Section (g) below).

PILOT payments will more than offset any possible increase in expenses incurred by the districts because of Facility employee children entering the school districts. Prior to this analysis, the Applicant consulted directly with both the Sherman Central School District and the Ripley Central School District. The Applicant has also conducted numerous public outreach activities to inform the public and local officials about the Facility. For more details on outreach activities, please see Exhibit 2.

(e) Incremental Municipal, Public Authority, or Utility Operating and Infrastructure Costs

The Facility is not expected to result in any additional operating or infrastructure costs to the local municipalities, authorities, or utilities. The Facility will place limited (if any) demand on municipal services; however, this demand will be recovered through fees and payments. For example, if long-term Facility operation employees live in the Town of Ripley their required services will be paid for through property taxes and utility fees. The Facility Site will not require municipal water, sewer, or solid waste disposal services.

Incremental costs associated with the Section 94-c permitting process may be incurred by the Town of Ripley. However, the Applicant has already provided $94,500 in Intervenor Funding through the Article 10 Public Scoping Statement submission. These funds have been utilized by the Town of Ripley and the Ripley Volunteer Fire Department for hiring legal, environmental, and technical experts to review project documents and hold consultation meetings. Additionally, the Applicant has discussed with the Town of Ripley and public stakeholders the availability of additional intervenor funding at the time of the Section 94-c Application submittal to cover costs associated with the Project's permitting review.

As part of Exhibit 6, the Applicant has developed and committed to implement a Site Security Plan and a Safety Response Plan. These plans address the site security features to be implemented at the Facility, and measures for responding to various emergencies, including those that could potentially involve police and other emergency response personnel. These measures, taken together, will limit the need for the Facility to utilize municipal police, fire, and emergency response services. Additionally, as discussed in section (g), the Facility is expected to contribute significant annual revenue to the local Ripley Fire Protection District which will be available to cover any costs associated with municipal emergency response.

Although transportation of major Facility components during construction will impact certain roadways, the Applicant will work with the Town and County to address/mitigate these impacts through Road Use Agreements (RUAs), which would require the Applicant to restore roadways impacted by the transportation of Facility components during construction and operation of the Facility. By virtue of these agreements, the Town in which the Facility is located will not incur any additional highway maintenance costs related to the Facility other than normal wear and tear associated

with the use of vehicles required to transport workers and equipment to and from the Facility Site for operation and maintenance purposes.

Prior to this analysis, the Applicant consulted with the affected municipalities, public authorities, and utilities. The Applicant has also conducted numerous public outreach activities to inform the public and local officials about the Facility. For more details on outreach activities, please see Exhibit 2.

(f) Jurisdictions that Will Collect Taxes or Benefits

The Facility is anticipated to result in economic benefits for the following taxing jurisdictions through the negotiation of a PILOT agreement, a HCA, and direct property tax payments:

- Town of Ripley (PILOT and HCA)
- Chautauqua County (PILOT)
- Sherman Central School District (PILOT)
- Ripley Central School District (PILOT)
- Ripley Fire Protection District (Direct Property Tax Payments)

(g) Incremental Amount of Annual Taxes or Payments

The Applicant has initiated negotiation of a PILOT agreement with the Chautauqua County Industrial Development Agency (CCIDA) on behalf of the local taxing jurisdictions in exchange for a real property tax exemption. Additionally, the Applicant has negotiated an HCA with the Town of Ripley to provide direct annual payments in addition to the share of the PILOT agreement that the Town would have otherwise received. The estimated annual PILOT and HCA payments to each taxing jurisdiction are identified in Table 18-13 for the next 30 years. Although the terms of the PILOT agreement have not been finalized, the estimated annual payment rate of the PILOT and HCA will total %5,200 per MW[6]. The estimated annual PILOT and HCA amount would total approximately $1,400,000 per year, compounding 2% annually. Therefore, the PILOT and HCA payments would accumulate a total of approximately $60,000,000 over 30 years. An additional Industrial Development Agency (IDA) PILOT fee will be paid to the CCIDA over the first eight years of project operation, totaling approximately **BEGIN CONFIDENTIAL INFORMATION** <[redacted]> **END CONFIDENTIAL INFORMATION**. The Applicant also estimates that over the lifespan of the Facility roughly **BEGIN CONFIDENTIAL INFORMATION** <[redacted]> **END CONFIDENTIAL INFORMATION** (in 2020 dollars) will be paid to the Ripley Fire Protection District to cover the Special Fire District Tax.

Table 18-12 summarizes the estimated PILOT and HCA payments projected to be made to each taxing jurisdiction, based on the Applicant's internal estimates. Payment amounts shown are based on the Facility's projected capacity of

[6] The $5,200/MW total value includes $2,750/MW for the PILOT, $1,750/MW for the HCA, and $700/MW included in the HCA to cover the Special Fire District Tax. The Special Fire District Tax will be taxed per New York State property tax regulations and will be credited from the HCA.

270 MWac. Payment amounts would increase or decrease in direct proportion to changes in the Project's final installed capacity.

Table 18-12. Estimated Annual and Total PILOT and HCA Amounts

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Taxing Jurisdictions Receiving Payments	Payment per MW ($/MW)	Annual Payment Estimate for Year 1	30-Year Total Estimate
Chautauqua County	< >	< >	< >
Town of Ripley	< >	< >	< >
Sherman Central School District	< >	< >	< >
Ripley Central School District	< >	< >	< >
Facility Total	< >	< >	< >

Note1: All values in this table are independently rounded, and therefore may not directly add up to the totals shown. All calculations utilized unrounded values. Source: Internal estimates, February 2021.
Note 2: Town of Ripley payment includes $700/MW per year that Ripley Fire Department Special District Tax is credited against.

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(h) Comparison of Incremental Costs and Incremental Benefits

As discussed above, the Facility is not expected to result in any incremental costs to local tax jurisdictions but will instead result in significant benefits through implementation of PILOT and HCA agreements.

(i) Equipment or Training Deficiencies in Local Emergency Response Capacity

A description of all contingency plans to be implemented in a response to the occurrence of a safety or security emergency is provided in Exhibit 6. Copies of the Site Security Plan (Appendix 6-A) and Safety Response Plan (Appendix 6-B) have been developed in coordination with and provided to local emergency responders who will carry out contingency plans in the event of an emergency. The local emergency responders are not expected to need specialized equipment to respond to a fire, hazardous substance, or medical emergency beyond the typical first aid, medical emergency and fire vehicles, and equipment that would be at a local fire department. Exhibit 6, along with the Safety Response Plan, provides specific details on all onsite equipment and systems the Applicant will provide to prevent or handle fire emergencies and hazardous substance incidents, as well as the training plan and training drills that the Applicant will conduct with local emergency responders to ensure that all potential responders have the appropriate knowledge to respond to an event at the Facility. Local emergency responders are not expected to provide any emergency services beyond those ordinarily provided, however, the Applicant has made several commitments to ensure local emergency responders are thoroughly familiarized with the general operation of the Facility (e.g., ingress and egress) and potential hazards (e.g., battery and energy storage system fires), including solar and battery energy storage system facility-specific trainings for local emergency responders and the provision of onsite water for emergency use (see the Safety Response Plan Appendix 6-B). Therefore, no equipment or training deficiencies are anticipated or have been identified through consultations with local emergency responders, outside of the commitments

already made by the Applicant in the SRP. Local Emergency Services (i.e., the Ripley Volunteer Fire Department and Chautauqua County Office of Emergency Services) were provided with a copy of the Safety Response Plan in June of 2021 for review and comment and the Applicant received feedback during an in-person consultation on June 18, 2021. The Safety Response Plan was updated to incorporate the feedback received from the Ripley Volunteer Fire Department and Chautauqua County Office of Emergency Services. Based on the foregoing, plans in response to an emergency incident can be fulfilled by existing local emergency response.

(j) Consistency with State Smart Growth Public Infrastructure Criteria

The New York State Smart Growth Public Infrastructure Policy Act (the Smart Growth Act) is designed to maximize the social, economic, and environmental benefits from public infrastructure development by minimizing the costs and impacts associated with unnecessary sprawl development. State infrastructure agencies, such as the NYSDOT, shall not approve, undertake, or finance a public infrastructure project, unless, to the extent practicable, the project is consistent with the smart growth criteria set forth in ECL § 6-0107. Public infrastructure projects must undergo a consistency evaluation and attestation using the eleven Smart Growth criteria specified in the Smart Growth Act.

Although the Applicant is a privately funded energy developer and the Facility will not result in the construction or operation of public infrastructure and will not result in unnecessary sprawl development, approvals from the NYSDOT may be required due to facility components traveling on and crossing state highways. Therefore, this section provides a detailed statement regarding the Facility's consistency with Smart Growth criteria. As discussed below, the Facility is consistent with six of the eleven criteria, while the remaining five criteria do not apply to the Facility.

Criterion 1: *To advance projects for the use, maintenance, or improvement of existing infrastructure.*

The purpose of the Facility is to create an economically viable solar-powered electrical-generating facility that will provide a source of renewable energy to the New York State electric grid, and in doing so, improve the State's existing energy infrastructure. The Facility components include rows of PV arrays in discrete sub-arrays, associated access roads, interconnection routes, battery storage, buried and overhead electrical collection lines, collection substation, a POI Switchyard, an O&M building, and laydown areas. While these Facility components are not public infrastructure and are generally not expected to result in the operation of public infrastructure, the Facility will contribute up to 270 MW of renewable energy and 20 MW battery storage to the New York State electric grid. The Facility will safely generate enough clean, renewable electricity to power approximately 67,000 New York households.[7] The Facility will use portions of existing State highway infrastructure to transport

[7] EIA estimate New York energy usage https://www.eia.gov/electricity/sales_revenue_price/pdf/table5_a.pdf.

equipment. However, none of these activities are anticipated to have any long-term impact on existing infrastructure.

The South Ripley Solar Project is consistent with this smart growth criterion, when its contribution to and utilization of both the New York State power grid and transportation routes identified above are considered. The necessary changes to the public infrastructure (contribution of renewable energy to power grid, utilization of existing transportation routes and construction of access road intersections to existing roads) are also consistent with the criterion.

Criterion 2: *To advance projects located in municipal centers.*

"Municipal centers" are defined in the Smart Growth Act as “areas of concentrated and mixed land uses that serve as centers for various activities, including, but not limited to, central business districts, main streets, downtown areas, brownfield opportunity areas, downtown areas of local waterfront revitalization program areas, transit-oriented development, environmental justice areas, and hardship areas,” as well as “areas adjacent to municipal centers, which have clearly defined borders, are designated for concentrated development in the future in a municipal or regional comprehensive plan, and exhibit strong land use, transportation, infrastructure and economic connections to a municipal center; and areas designated in a municipal or comprehensive plan, and appropriately zoned in a municipal zoning ordinance, as a future municipal center.”

Utility-scale solar energy projects, such as the Facility, require extensive land; moreover, the requirement for setbacks from residences and other structures restricts utility-scale solar energy projects to areas with lower population density. The Facility Site is located in a rural area and is approximately 3 miles northwest from the Village of Sherman, the closest municipal center. Therefore, compliance with this criterion is infeasible.

Criterion 3: *To advance projects in developed areas or areas designated for concentrated infill development in a municipally approved comprehensive land use plan, local waterfront revitalization plan and/or brownfield opportunity area plan.*

See discussion of Criterion 2 above. Utility-scale solar energy projects such as the South Ripley Solar Facility cannot be located within areas designated for concentrated infill development nor are they well-suited to developed waterfront areas and/or brownfield opportunity areas. The Facility Site does not include any of these areas, therefore, compliance with this criterion is infeasible.

Criterion 4: *To protect, preserve and enhance the state's resources, including agricultural land, forests, surface and groundwater, air quality, recreation and open space, scenic areas, and significant historic and archaeological resources.*

The Facility will generate up to 270 MW of clean, renewable energy without emitting any conventional air pollutants or greenhouse gases (GHGs) or consuming cooling water or generating wastewater while in operation. In general, the Facility Site includes lands suitable for the construction of a solar facility and does not include unique environmental resources, Critical Environmental Areas, or unusual land uses relative to other locations in the surrounding region. As described throughout this Section 94-c Application, the layout of the Facility was designed through an iterative process where the technical and economic requirements of the Facility were weighed against impacts to land use (see Exhibit 3 and 15), aesthetics (see Exhibit 8), cultural resources (see Exhibit 9), environmental/ecological resources (such as forests, wetlands, and sensitive wildlife habitat) (see Exhibit 11 and 14), surface and groundwater (see Exhibit 13), and public safety (see Exhibit 6). Within the constraints of the permitting process and the inherent constraints on the Site, the proposed Facility layout avoids or minimizes environmental impacts to the greatest extent practicable while allowing the Applicant to construct a 270 MW solar facility in furtherance of the State's renewable energy goals. This Application summarizes and includes analyses of the potential environmental impacts and benefits of the Facility, including analyses specifically associated with agricultural land, agricultural viability, forests, surface and groundwater, air quality, recreation and open space, scenic areas, and significant historic and archaeological resources. In addition, a Visual Impact Assessment (VIA; see also Exhibit 8) has been prepared which assesses potential visual impacts within a 2-mile radius of the Facility Site. Based on these analyses, the Applicant believes that the Facility has avoided and minimized impacts to these resources to the maximum extent practicable (based on the layout as currently proposed), and that any remaining impacts are outweighed by the benefit provided by the Facility's generation of up to 270 MW of clean, renewable energy. Additionally, the Facility will ensure that property within the Facility Site is protected from other development that might permanently change land use, and upon decommissioning the Facility Site will be restored to its current state to the maximum extent possible. Therefore, the Facility is consistent with this criterion.

Criterion 5: *To foster mixed land uses and compact development; downtown revitalization; brownfield redevelopment; the enhancement of beauty in public spaces; the diversity and affordability of housing in proximity to places of employment, recreation, and commercial development; and the integration of all income and age groups.*

See response to Criterion 2 above. The Facility is located in a rural area, well removed from any areas that would potentially experience compact development, downtown revitalization, or significant quantities of housing, etc. (e.g., villages and cities). Therefore, this criterion is not applicable.

Criterion 6: *To provide mobility through transportation choices including improved public transportation and reduced automobile dependency.*

The Facility does not directly or indirectly affect public transportation options. Therefore, this criterion is not applicable.

Criterion 7: *To coordinate between state and local government and inter-municipal and regional planning.*

The Applicant has conducted extensive public outreach to local government and planning agencies throughout the development and review of the Facility. This has included the public outreach conducted in accordance with the requirements of the Article 10 process (through the filing of a Public Involvement Plan and a Public Scoping Statement submittal and question and answer period), followed by the requirements of the 94-c process. The Applicant has also reached out individually to each of the local governments that will be directly affected by the Facility. Moreover, the 94-c process specifically requires outreach and coordination between the Applicant and State agencies with a role in reviewing the Application for the proposed Facility. To the extent applicable, these outreach efforts and municipal/agency consultations satisfy the criterion related to coordination between State and local governments. Please see Exhibit 2 for more detail regarding coordination between the Applicant, state and local government, and municipal and regional planning. These outreach efforts are consistent with Criterion 7.

Criterion 8: *To participate in community-based planning and collaboration.*

As described in response to Criterion 7 above and in Exhibit 2, The Applicant team has conducted and will continue to conduct extensive public outreach to community-based organizations throughout the development and review of the Facility. These outreach efforts satisfy the criterion related to participation in community-based planning and collaboration.

Criterion 9: *To ensure predictability in building and land use codes.*

The Applicant has no role in or authority over the development or enforcement of building or land use codes in Chautauqua County and the Town of Ripley. Therefore, this criterion does not apply to this Facility.

Criterion 10: *To promote sustainability by strengthening existing and creating new communities which reduce greenhouse gas emissions and do not compromise the needs of future generations by among other means, encouraging broad-based public involvement in developing and implementing a community plan and ensuring the governance structure is adequate to sustain its implementation.*

The Facility is consistent with State policies designed to encourage initiatives that reduce greenhouse gas emissions and contribute to the transition of New York's energy markets by encouraging renewable alternatives. The Facility promotes the reduction of greenhouse gas emissions by increasing New York State's efforts to expand the usage of renewable energy sources. The Applicant has conducted extensive public outreach to local government and planning agencies throughout the development and review of the Facility. These outreach efforts encourage broad-based public involvement and support governance structures to sustain its implementation. The Facility, therefore, supports this smart growth criterion to promote sustainability. Exhibit 17 provides a more detailed discussion of the Facility's consistency with energy planning objectives.

Criterion 11: *To mitigate future physical climate risk due to sea level rise, and/or storm surges, and/or flooding, based on available data predicting the likelihood of future extreme weather events, including hazard risk analysis data if applicable.*

The Facility is consistent with New York State's efforts to expand reliance on renewable energy sources and reduce greenhouse gas emissions. In doing so, this Facility contributes to efforts to mitigate overall future risks of climate change, such as sea level rise, storm surges, and/or flooding. Furthermore, according to the New York State Department of State (NYSDOS) Geographic Information Gateway, the Facility is not located in mapped hazard risk areas related to physical climate risks, including risks associated with the Lake Ontario, Hudson River, and Atlantic Ocean (NYSDOS 2021). Therefore, the Project is expected to have a positive impact on the mitigation of future physical climate risk, thereby supporting Smart Growth Criterion 11.

Smart Growth Attestation

The Smart Growth Act requires that the chief executive officer of a state infrastructure agency (or his or her designee) attest in writing that the project under review, to the extent practicable, meets the relevant smart growth criteria in ECL § 6-0107(2). As previously noted, the Facility will not result in the construction or operation of public infrastructure as that term is used in the Smart Growth Act. As a result, the requirement to obtain an attestation from the chief executive officer of a state infrastructure agency does not apply to the Facility.

(k) Host Community Benefits

The socioeconomic analysis presented in this Exhibit demonstrates that the construction and operation of the South Ripley Solar Project will have a positive impact within the host communities. The Facility will provide direct financial benefits to host communities, significantly increasing local revenues without requiring new public infrastructure. Direct payments will occur within the host communities in the form of land leases, easements, GNAs, as well as purchases of local goods and the provision of employment and spending of wages within the County. For additional details on

estimated countywide employment and non-payroll expenditures, see Sections (a), (b), and (c). The following is a list of direct payments anticipated to be spent within the local communities (for additional details see Section (g)):

- Lease and easement payments offer direct benefits during construction and installation totaling an estimated **BEGIN CONFIDENTIAL INFORMATION** <[redacted]> **END CONFIDENTIAL INFORMATION** to participating landowners. Over the lifespan of the Facility, lease and easement payments offer direct benefits totaling an estimated **BEGIN CONFIDENTIAL INFORMATION** <[redacted]> **END CONFIDENTIAL INFORMATION** to participating landowners.
- GNA payments offer direct benefits during operation totaling an estimated **BEGIN CONFIDENTIAL INFORMATION** <[redacted]> **END CONFIDENTIAL INFORMATION** to adjacent landowners over the lifespan of the Facility.
- Land purchases will offer a onetime direct benefit totaling an estimated **BEGIN CONFIDENTIAL INFORMATION** <[redacted]> **END CONFIDENTIAL INFORMATION** to participating landowners.
- The Town of Ripley, Sherman Central School District, Ripley Central School District, and Chautauqua County are expected to benefit from the PILOT agreement and an HCA Agreement. The estimated total of these agreements, over the expected 30-year term, is **BEGIN CONFIDENTIAL INFORMATION** <[redacted]> **END CONFIDENTIAL INFORMATION** (in 2020 dollars).
- Fire district taxes offer direct benefits totaling an estimated **BEGIN CONFIDENTIAL INFORMATION** <[redacted]> **END CONFIDENTIAL INFORMATION** (in 2020 dollars) to the Ripley Fire Protection District.
- During construction and installation, a total of **BEGIN CONFIDENTIAL INFORMATION** <[redacted]> **END CONFIDENTIAL INFORMATION** of project expenditures is estimated to be spent within Chautauqua County for local goods and services. During project operation, a total of **BEGIN CONFIDENTIAL INFORMATION** <[redacted]> **END CONFIDENTIAL INFORMATION** of project expenditures is estimated to be spent within Chautauqua County annually for local goods and services.
- During construction and installation, a total of **BEGIN CONFIDENTIAL INFORMATION** <[redacted]> **END CONFIDENTIAL INFORMATION** of project expenditures is estimated to be spent locally within the Town of Ripley for local goods and services. During project operation, a total of **BEGIN CONFIDENTIAL INFORMATION** <[redacted]> **END CONFIDENTIAL INFORMATION** of project expenditures is estimated to be spent locally within the Town of Ripley annually for local goods and services.

REFERENCES

IMPLAN Group. 2020. Understanding Multipliers. Available at https://implanhelp.zendesk.com/hc/en-us/articles/115009505707-Understanding-Multipliers (Accessed January 2021).

New York State Comptroller. Financial Data for Local Governments. 2021. Available at: http://wwe1.osc.state.ny.us/localgov/findata/financial-data-for-local-governments.cfm (Accessed July 2021).

New York State Department of Labor [NYSDOL]. 2018. Regional Long-Term Occupational Employment Projections: Southern Tier. Available at: https://www.labor.ny.gov/stats/lsproj.shtm (Accessed July 2021).

New York State Department of Taxation and Finance. 2020. New York State Sales and Use Tax Rates by Jurisdiction. Available at: https://www.tax.ny.gov/bus/st/rates.htm (Accessed February 2021).

New York State Department of State. 2021. New York State Geographic Information Gateway. Available at: http://opdgig.dos.ny.gov/#/map (Accessed July 2021).

New York State Office of Real Property Tax Services (NYSORPTS). Municipal Profiles for 2020 (web database portal). Available at: http://orpts.tax.ny.gov/MuniPro/ (Accessed February 2021).

U.S. Census Bureau. 2019. 2015-2019 American Community Survey 5-Year Estimates, Decennial census. Available at https://data.census.gov/cedsci/ (Accessed February 2021).

U.S. Census Bureau. 2021. Quarterly Workforce Indicator (QWI) Explorer. Available at: https://qwiexplorer.ces.census.gov/static/explore.html#x=0&g=0 (Accessed February 2021).

U.S. Department of Agriculture (USDA) National Agricultural Statistics Service (NASS). 2017a. Census of Agriculture: New York State County-Level Data. Available at: https://quickstats.nass.usda.gov/ (Accessed February 2021).

U.S. Department of Agriculture (USDA) National Agricultural Statistics Service (NASS). 2017b. Farm Producers. Available at: https://www.nass.usda.gov/Publications/Highlights/2019/2017Census_Farm_Producers.pdf (Accessed February 2021).

U.S. Department of Energy (USDOE) National Renewable Energy Laboratory (NREL). 2021. About JEDI. Available at https://www.nrel.gov/analysis/jedi/about.html (Accessed January 2021).

U.S. Department of Energy (USDOE) National Renewable Energy Laboratory (NREL). 2016. Jobs and Economic Development Impact (JEDI) Photovoltaics model release PV12.23.16.

U.S. Department of Labor (USDOL) Bureau of Labor Statistics. 2019. May 2019 State Occupational Employment and Wage Estimates New York. Available at https://www.bls.gov/oes/current/oes_ny.htm#47-0000 (Accessed February 2021).