Baron Winds Project

Case No. 15-F-0122

1001.27 Exhibit 27

Socioeconomic Effects

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EXHIBIT 27 SOCIOECONOMIC EFFECTS

The Baron Winds Facility is located in rural Steuben County in the Southern Tier of New York, along the border of Pennsylvania. The Towns of Cohocton, Dansville, Fremont, and Wayland will host the Facility and are referred to as the "Study Area." Demographic characteristics and trends within the Study Area are summarized as follows:

Table 27-1. Population

	2010 Population	Change 2000-2010	2000 Population	Change 1990-2000	1990 Population	Change 1980-1990	1980 Population
New York State	19,378,102	2.1%	18,976,821	5.5%	17,990,778	2.5%	17,558,165
Steuben County	98,990	0.3%	98,726	-0.5%	99,217	0.1%	99,088
Town of Cohocton	2,561	-2.5%	2,626	4.2%	2 520	2.2%	2,466
Town of Dansville	1,842	-6.8%	1,977	9.2%	1 811	24.5%	1,455
Town of Fremont	1,008	4.6%	964	5.7%	912	5.4%	865
Town of Wayland	4,102	-4.9%	4,314	0.1%	4 311	11.1%	3,881

Source: U.S. Census Bureau, 2010, 2000, 1990 and 1980 Decennial Census

Table 27-2. Age Groups

	<15 Years	% of Total Pop.	15-44 Years	% of Total Pop.	45-64 Years	% of Total Pop.	65+ Years	% of Total Pop.
New York State	3,501,825	17.8%	8,085,675	41.1%	5,272,411	26.8%	2,813,264	14.3%
Steuben County	18,154	18.4%	34,631	35.1%	28,909	29.3%	16,970	17.2%
Town of Cohocton	524	20.5%	845	33.1%	764	29.9%	416	16.3%
Town of Dansville	273	16.1%	514	30.3%	661	39.0%	244	14.4%
Town of Fremont	143	14.9%	371	38.8%	259	27.1%	185	19.3%
Town of Wayland	669	16.5%	1,297	32.0%	1,459	36.0%	628	15.5%

Source: U.S. Census Bureau, American Community Survey 2011-2015 5-Year Estimates

While New York State showed a notable increase in population from 1980 to 2010 (10.37%), Steuben County's population was stable during the same period (-0.1%). At the local level, each town within the Study Area experienced population increases between 1980 and 2010, most notably the Town of Dansville (26.6%) and the Town of Fremont (16.5%). While the statewide population is expected to remain relatively stable over the next 30 years, the population of Steuben County is expected to decrease gradually (Cornell University, 2011).

With respect to educational attainment, an increase in the number of residents who receive a higher education reflects a better-educated workforce in each community, which is attractive to current and future employers. Wind farm projects such as the Facility create jobs that require various levels of education from advanced degrees, to long-term on-the-

job training and trade certifications (Bezdek, 2007). Thus, communities with an educated labor force are better suited to fill the employment positions created by a wind farm project. Available evidence indicates that the level of education attained by residents of Steuben County and the towns in the Study Area, particularly in terms of high school degree attainment, has improved in recent years as illustrated in Table 27-3.

Table 27-3. Educational Attainment

	% High School Degree or Higher	2000-2015 Change	% Bachelor's Degree or Higher	2000-2010 Change
New York State	85.6%	6.5%	34.2%	6.8%
Steuben County	89.3%	6.5%	21.3%	3.4%
Town of Cohocton	85.3%	5.5%	10.7%	-0.5%
Town of Dansville	89.6%	6.1%	16.5%	7.4%
Town of Fremont	94.4%	9.1%	16.5%	5.6%
Town of Wayland	87.0%	4.4%	10.7%	0.9%

Source: U.S. Census Bureau, 2000 Decennial Census and American Community Survey 2011-2015 5-Year Estimates

A detailed socioeconomic profile of New York State and the Study Area can be found in Part I of the Socioeconomic Report included with the Application as Appendix QQQ.

The proposed Baron Wind Facility is anticipated to have local and statewide economic benefits. Wind power development, like other commercial development projects, can expand the local, regional, and statewide economies through both direct and indirect means. Income generated from direct employment during the construction and operation phases of the wind farm is used to purchase local goods and services, creating a ripple effect throughout the State. The job and economic impacts of the Facility were assessed using the Job and Economic Development Impact (JEDI) wind model. The model allows users to estimate the jobs and economic development impacts from wind power generation projects for both the construction and operation phases of a proposed project (USDOE NREL, 2017). These economic development impacts, categorized by the levels of impact and indicators described below, include onsite jobs and earnings, economic output from these onsite earnings, local revenue/supply chain jobs and earnings, economic output from these local revenue/supply chain earnings, induced jobs and earnings, and economic output from these induced jobs and earnings. The JEDI model was created by the National Renewable Energy Laboratory (NREL), a national laboratory of the United States Department of Energy. It calculates the aforementioned indicators for each level of impact using project-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 PLANing), a widely-used and widely-accepted general input-output modeling software and data system that tracks every unique industry group in every level of the regional data (IMPLAN Group, 2015).

This report analyzes three levels of impact that the proposed Facility may have on the economy:

On-site labor impacts: These 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) by Facility onsite construction personnel as well as operation and maintenance (O&M) personnel. On-site labor impacts do not reflect material expenditures. Most other input-output models consider this level as "direct impacts," referring to changes in jobs, economic activity and earnings associated with the immediate impacts created by the investment, which would include the equipment installed onsite, the concrete used onsite, etc. However, the immediate economic impacts of the physical items used onsite, normally included in direct impacts, typically occur at some geographic distance from the project itself. Because of JEDI's focus on the local impacts of a Facility, only the labor associated with the on-site location of the Facility (Construction, Construction-Related Services and Onsite Labor during Operational Years) is counted at this level.

Local revenue and supply chain impacts: These impacts measure the estimated increase in demand for goods and services in industry sectors that supply or otherwise support the companies engaged in construction and operation (also known as "backward-linked" industries). These measures account for the demand for goods and services such as turbine components, project analysis, legal services, financing, insurance, etc. Most other input-output models consider this level as "indirect impacts", referring to economic impacts associated with linked sectors in the economy that are upstream of the direct impacts, such as suppliers of hardware used to make the equipment installed onsite or the concrete used onsite. However, because of JEDI's focus on the local impacts of the Facility, labor for components of this Facility (e.g., turbine manufacturers) occurring at off-site locations is also counted in this level as a local revenue and supply chain impact.

Induced impacts: Induced impacts measure the estimated effect of increased household income resulting from the project. Induced impacts reflect the reinvestment of earned wages, as measured throughout the first two levels of economic impact. This reinvestment can occur anywhere throughout the local, regional, or state economy on household goods, entertainment, food, clothing, transportation, etc.

Each of these three levels of impact can be measured in terms of three indicators: jobs (as expressed through the increase in employment demand), the amount of money earned through those jobs, and the overall economic output associated with each level of economic impact. These indicators are described in further detail:

Jobs: Jobs refer to the increase in employment demand because of facility development. These positions are measured across each level of impact, so that they capture the estimated number of jobs on site, in supporting industries, and the businesses that benefit from household spending. For the purposes of this analysis, this term refers to the total number of year-long full-time equivalent (FTE) positions created by the Facility. Persons employed for less than full time or less than a full year are included in this total, each representing a fraction of a FTE position (e.g., a half-time, year-round position is 0.5 FTE).

Earnings: This measures the wages and salary compensation paid to the employees described above.

Output: Output refers to the value of industry production in the state economy, across all appropriate sectors, associated with each level of impact. For the manufacturing sector, output is calculated by total sales plus or minus changes in inventory. For the retail sector, output is equal to gross profit margin. For the service sector, it is equal to sales volume. For example, output would include the profits incurred by those businesses that sell electrical transmission line, concrete, or motor vehicle fuel to the Applicant.

Calculating the number of jobs and economic output from a proposed facility is a two-step process. The first step requires facility-specific data inputs (such as year of construction, size of facility, turbine size and location). Using this facility-specific data, the JEDI model then creates a list of default values, which include project 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 10 years of research by NREL, and stem from various sources, including interviews and surveys from leading project owners, developers, engineering and design firms, and construction firms active in the wind energy sector. The second step of the JEDI model methodology requires the review, and if warranted, the customization of default project cost values and financial parameter values to more reasonable estimates. The applicant reviews the default project cost values subtotaled by each of the following categories in the JEDI model: Equipment during Construction, Balance of Plant Construction, Labor during Operation & Maintenance (O&M), Materials and Services during Operation & Maintenance, Financial Parameters, Tax Parameters, Land Lease Parameters and Payroll Parameters, and determines whether they are appropriate for the project under review. In this case, the Applicant reviewed the default values for the various categories in the JEDI model to determine whether they were on par with the real costs as experienced by the Applicant. As a result of that review, adjustments were made to specific default values, including replacing the local tax default value ($0) with the estimated annual total value of payment in lieu of taxes (PILOT) and Host Community Agreement (HCA) payments ($2,340,000), adjusting the annual lease default value of $900,600 to the total value of all land payments ($[redacted]), and decreasing the annual labor cost default value for onsite O&M workers from $1,150,753 to a more reasonable value of $989,648. The remaining actual cost values were unknown at the time of analysis (October 2017); therefore, the remaining JEDI default values were reviewed and determined to be reasonable estimates based on the Applicant's previous experience in wind energy development.

The economic impact analysis using the JEDI model was performed for the Facility assuming it goes into operation in 2020 with a rated capacity of 300 megawatt (MW) with 76 turbines sized at 3.95 MW. The analysis presented here used the most currently available (2016) multiplier data specific to New York to estimate potential impacts on a statewide basis. The results of this analysis, estimated for both the construction and operation phases of the proposed Facility, are illustrated in Table 27-4 and summarized in the narrative that follows.

Table 27-4. Summary Results of Jobs and Economic Impact Analysis[1]

	Jobs	Earnings (Millions)	Output (Millions)
Construction			
Project Development and Onsite Labor Total	148	$10.8	$12.4
Construction & Interconnection Labor	130	$9.6	-
Construction-Related Services	17	$1.2	-
Turbine & Supply Chain Impacts	542	$38.7	$110.5
Induced Impacts	208	$15.6	$38.9
Total Impacts	898	$65.1	$161.9
Annual Operation			
Onsite Labor Impacts	12	$0.9	$0.9
Local Revenue and Supply Chain Impacts	17	$1.6	$6.6
Induced Impacts	14	$1.1	$2.7
Total Impacts	43	$3.6	$10.2

Source: Jobs and Economic Development Impact Model (USDOE NREL, 2017)

[1] Impact totals and subtotals are independently rounded, and therefore may not add up directly to the integers shown in this table. For example, the JEDI model for this Facility estimated that during the Construction Period, 130.3 Construction & Interconnection Labor FTE jobs and 17.3 Construction-Related Services FTE jobs (equal to 137.6 FTE jobs, which is the rounded figure as shown) will be produced. Because the model estimates whole full-time positions only, these appear in the summary table as 148 positions.

A summary of the proposed impacts and benefits is presented below in sections (a) through (l). A detailed analysis of the proposed socioeconomic effects of the proposed Facility can be found in Part II of the Socioeconomic Report included with the Application as Appendix QQQ. In addition, the Applicant has supplied supporting documentation used in creating its job impact estimates.

(a) Construction Workforce

Based upon JEDI model computations, it is anticipated that construction of the proposed Facility will generate employment of an estimated 148 FTE onsite construction and construction-related positions for New York State residents, 130 of which will be for Construction and Interconnection labor, and 17 of which will be Construction-Related Services (engineers and other professional services). The estimated 148 FTE jobs have been further evaluated by the

Applicant's construction management team to provide the following estimated distribution of average work force, by discipline, for each quarter during the construction year 2020. The results are summarized in the Table 27-5.

Table 27-5. Quarterly Labor Averages During Construction Period (FTE Jobs)

Annual Quarter	Construction Labor Quarterly Average FTE Jobs	Construction-Related Services (Engineers and Other Professional Services) Quarterly Average FTE Jobs
Q1 (Jan-Mar)	12	3
Q2 (Apr-Jun)	102	13
Q3 (Jul-Sep)	128	16
Q4 (Oct-Dec)	61	10

Source: Jobs and Economic Development Impact Model (USDOE NREL, 2017), Evaluation by Applicant's Construction Management Team

(b) Construction Earnings

The JEDI model resulted in a total output of $10.8 million for annual construction earnings of the 148 onsite Construction and Construction-Related Services jobs. These estimates of the annual earnings by trade are listed in Table 27-6. Estimated earnings represent total wages and salary compensation paid to employees (i.e., wages plus 37.6% average annual overhead costs including SSI, Medicare, workers' compensation, and disability). Project Development and Onsite Labor earnings are realized by New York State residents who are engaged in the construction of the Facility, including the Construction, Engineering and Professional Services trades. Turbine and Supply Chain earnings are estimated for New York State residents based on the increased demand for goods and services in industry sectors that supply or otherwise support the companies engaged in construction and operation (known as "backward-linked industries"). Induced earnings reflect the estimated increase in household spending by onsite employees due to an increase in their earnings, which is subsequently used to purchase local goods and services, creating a ripple effect throughout the State.

Table 27-6. Annual Earnings by Trade During Construction Period (in $ Millions)

Trade	Project Development and Onsite Labor Earnings	Turbine & Supply Chain Earnings	Induced Earnings
Agriculture	$0.0	$0.0	$0.0
Mining	$0.0	$0.0	$0.0
Construction	$9.6	$28.6	$8.8
Manufacturing	$0.0	$2.8	$0.8
Fabricated Metals	$0.0	$0.0	$0.0
Machinery	$0.0	$0.0	$0.0
Electrical Equipment	$0.0	$0.0	$0.0

Trade	Project Development and Onsite Labor Earnings	Turbine & Supply Chain Earnings	Induced Earnings
Transport., Communication & Utilities	$0.0	$0.0	$0.0
Wholesale Trade	$0.0	$0.0	$0.0
Retail Trade	$0.0	$2.8	$0.8
Finance, Insurance, and Real Estate	$0.0	$0.0	$0.0
Misc. Services	$0.0	$3.4	$0.9
Engineering & Professional Services.	$1.2	$0.4	$0.4
Government	$0.0	$0.7	$3.9
Total	$10.8	$38.7	$15.6

Source: Jobs and Economic Development Impact Model (USDOE NREL, 2017)

(c) Secondary Employment and Economic Activity Generated by Facility Construction

The JEDI model resulted in an estimated secondary employment output of 542 jobs in New York State in turbine and supply chain impacts ($38.7 million in earnings) during the construction period and 208 jobs statewide from induced impacts ($15.6 million in earnings) during the construction period. Based on the results of the model, these secondary jobs will result in $149.4 million annually in economic output. Secondary employment and economic activity estimates were calculated using the JEDI model with project-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 PLANing), a widely-used and widely-accepted general input-output modeling software and data system that tracks every unique industry group in every level of the regional data (IMPLAN Group, 2015).

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

Based on JEDI model computations and the Applicant's experience in the industry, the operation and maintenance of the proposed Facility is estimated to generate 12 full-time onsite jobs statewide with combined estimated annual earnings of approximately $900,000. These 12 positions have been verified as reasonable by the Applicant based on actual job numbers at other facilities in New York, and are anticipated to be comprised of technicians, project management and administrative personnel. Projected wage rates are anticipated to be consistent with statewide averages, which are estimated to range from approximately $17 per hour for administrative personnel to approximately $27 per hour for technical personnel to approximately $43 per hour for facility management. Table 27-7 provides an overview of annual wages of each full-time job position. These 12 full-time statewide jobs generated by the wind energy facility comprise the Facility's onsite long-term employment impact.

Table 27-7. Hourly and Annual Wages of Onsite Labor during Operational Years[1]

Positions	Number of Positions	Hourly Wage per Job	Annual Wages per Job[2]
Technicians	9	$29.25	$60,846
Administrative/Secretarial	1	$18.72	$38,941
Site Management	1	$46.80	$97,353

Source: Jobs and Economic Development Impact Model (USDOE NREL, 2017)

[1] Consistent with the discussion of Table 27-4, the impact subtotals in Table 27-7 are independently rounded, and therefore may not add up directly to the totals shown. The JEDI model for this Facility estimates 9.3, 1.4, and 1.0 FTE jobs during the operational phase of the Facility (equal to 11.7 positions, which is the rounded figure as shown). Because the model estimates whole full-time positions only, the total appears in the summary table as 12 positions.

[2] Hourly and annual wages of onsite labor during operational years do not include total employer costs (employee wages plus 37.6% average annual overhead costs including SSI, Medicare, workers' compensation, and disability). Total employer costs are represented in the total of annual earnings of onsite labor during operational years (see Table 27-4).

In terms of expenditures, this Facility will cost an estimated total of $87,116,622 annually for operational and maintenance costs, including labor, materials, services, sales tax, debt and equity payments, PILOTs, HCA payments, and land payments (land easements, land leases and Good Neighbor Agreement payments). Of this total, an estimated $5.7 million dollars will be spent statewide annually. Table 27-8 highlights the sources of these expenditures.

Table 27-8. Total Annual Operational Expenses

	Statewide	Out-of--State	Total Annual Operating and Maintenance Expenses
Labor, Materials, and Services Costs with Sales Tax	$2,145,114	$5,071,777	$7,216,890
Other Annual Costs	$3,604,376	$76,295,356	
Debt and Equity Payments	$0	$76,295,356	
PILOT and HCAs	$2,340,000	$0	
Land Payments	$[redacted]	$0	$[redacted]
Total Spending	$[redacted]	$81,367,132	$[redacted]

Source: Jobs and Economic Development Impact Model (USDOE NREL, 2017)

(e) Secondary Employment and Economic Activity Generated by Facility Operation

The estimated number of secondary employment and economic activity associated with the Facility operation, as estimated by the JEDI model, is 31 jobs statewide with earnings of approximately $2.7 million annually, and an economic output of $9.3 million annually statewide. These jobs are created from Local Revenue and Supply Chain Impacts and Induced Impacts.

(f) Incremental School District Operating and Infrastructure Costs

The Facility is not expected to result in any additional operating or infrastructure costs to the local school districts. The Facility will place limited (if any) demand on school district services. Although some of the wind farm employees may have school-aged children causing a marginal increase in school district services and expenditures, such expenditures can be recovered through those employees' property tax payments and the respective district's state aid. Moreover, as discussed in Section (i) below, the affected school districts will receive a considerable share of the PILOT that will more than offset any possible increase in expenses incurred by the districts as a result of Facility employee children entering the districts.

(g) 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 local municipalities, authorities, or utilities.

- Wind turbines do not require municipal water, sewer or solid waste disposal services.
- The Applicant has committed to developing and implementing its own site security measures and emergency action plan, limiting the need for the Facility to utilize municipal police services.
- The procedures for responding to fires at the turbine and substation locations do not contemplate use of municipal fire services.
- Special equipment required to respond to medical emergencies involving the turbines will be supplied by the Applicant.
- Any impacts to local roads will be addressed/mitigated by the Applicant under the Road Use Agreements to be executed with the Towns of Cohocton, Dansville, Fremont and Wayland either as separate agreement or as part of the HCA.

During construction of the Facility, local emergency medical response services may be called upon to respond to medical emergencies common to construction projects generally. However, the Facility will place virtually no demand on municipal services during operation for the reasons outlined above. Moreover, any expenditures associated with this demand will be recovered through fees and payments to the towns. If employees live in the municipalities, their required services will be paid for through property taxes and utility fees. In addition, as discussed below, the Applicant has committed to making PILOTs and additional payments under HCAs that will greatly exceed any expenditures by the towns associated with the Facility. See Section 3.3 of the Socioeconomic Report (Appendix QQQ) for details.

(h) Jurisdictions that Will Collect Taxes or Benefits

The Facility is located in the following jurisdictions that levy real property taxes, benefit assessments or user fees on the Facility Site and that will receive PILOT payments:

- Steuben County
- Town of Cohocton
- Town of Dansville
- Town of Fremont
- Town of Wayland
- Arkport Central School District
- Avoca Central School District
- Wayland-Cohocton Central School District
- Hornell City School District

All four towns within the Study Area (Cohocton, Dansville, Fremont and Wayland) will also enter into Host Community Agreements with the Applicant.

(i) Incremental Amount of Annual Taxes or Payments

In exchange for a partial real property tax exemption, the Applicant expects to execute a PILOT Agreement, which will require annual PILOT payments to each taxing jurisdiction listed in Section (h) above for the next 20 years. Although the terms of the PILOT Agreement have not been finalized, similar to other wind projects in New York State, the Applicant plans to enter into a PILOT with an estimated total annual payment rate of $5,300 per megawatt installed during the term of the PILOT. Over the expected 20-year term of the PILOT, the estimated annual PILOT amount would total $1,590,000 per year, accumulating up to $31.8 million (in 2017 dollars) over 20 years. The total amount will be distributed across nine taxing jurisdictions. The Applicant also plans to enter into HCAs with each town for a maximum payment rate of $2,500/MW per year. This is estimated to total $750,000 per year, to be distributed across all four amounting to $22.5 million (in 2017 dollars) over 30 years.

Although the terms of the PILOTs have not been finalized, similar to other wind projects in New York State, the Applicant plans to distribute PILOTs to each taxing jurisdiction within the Study Area. The Applicant estimates the value of PILOT payments to each jurisdiction by considering the nameplate capacity of turbines located within each jurisdiction and the proportional tax obligations for each type of taxing jurisdiction (e.g., school district) relative to other types of taxing jurisdictions (e.g., county and town). Types of taxing jurisdictions include towns, school districts and counties. Towns receiving PILOTs will include the Towns of Cohocton, Dansville, Fremont, and Wayland. Schools districts receiving PILOTs will include Arkport, Avoca, and Wayland-Cohocton Central School Districts and Hornell City School District. Steuben County also will receive PILOTs.

Table 27-9 summarizes the estimated PILOT payments projected to be made to each taxing jurisdiction within the Study Area. The estimated annual PILOTs for each taxing jurisdiction are determined by multiplying the proportional share of school/town/county property taxes by the prevailing PILOT rate ($5,300/MW), then multiplying this product by the total nameplate capacity within each jurisdiction. The proportional share of local tax rates is presented for each jurisdiction type (i.e., county, town or school district) within the Study Area. Town property taxes constitute 21% of each property's total tax obligation. County taxes constitute 24%, and school taxes claim the remaining 55%. Table 27-9 also reflects the varied turbine distributions across towns and school districts by the number of turbines located within each taxing jurisdiction and their estimated nameplate capacity. Among the towns, the most turbines (38 out of 76 turbines) are in the Town of Fremont. Among the school districts, the most turbines (44 out of 76 turbines) are in the Wayland-Cohocton Central School District.

Table 27-9 Estimated Annual and Total PILOT Payments[1]

Types of Taxing Jurisdiction[2]	Proportional Tax Rate[3]	Taxing Jurisdictions Receiving PILOTs	Estimated PILOT rate ($/MW)	Number of Turbines within Jurisdiction	Estimated Annual Nameplate Capacity (MW) within Jurisdiction[4]	Annual PILOT Estimate	20-Year PILOT Estimate
Town	21%	Town of Fremont	$1,122	38	150	$168,238	$3,364,767
		Town of Cohocton	$1,122	25	99	$110,683	$2,213,662
		Town of Wayland	$1,122	10	39	$44,273	$885,465
		Town of Dansville	$1,122	3	12	$13,282	$265,639
Total for All Towns				*76*	*300*	*$336,477*	*$6,729,534*
School District	55%	Wayland-Cohocton Central School District	$2,903	44	174	$504,216	$10,084,311
		Arkport Central School District	$2,903	19	75	$217,729	$4,354,589
		Hornell City School District	$2,903	7	28	$80,216	$1,604,322
		Avoca Central School District	$2,903	6	24	$68,757	$1,375,133
Total for All School Districts				*76*	*300*	*$870,918*	*$17,418,356*
County	24%	Steuben County	$1,275	76	300	$382,606	$7,652,111
Facility Total	100%	--	$5,300	76	300	$1,590,000	$31,800,000

[1] All values in this table, apart from number of turbines within jurisdictions, are independently rounded, and therefore may not directly add up to the totals shown. All calculations utilized unrounded values.
[2] All 76 turbines are located within each type of overlapping tax jurisdictions (county, town, and school district). All 76 turbines are distributed across towns and across school districts within the Study Area. All turbines are located within Steuben County.
[3] Proportional tax rates represent the proportion of 2016 tax obligations (NYSORPTS, 2016) to each type of taxing jurisdiction (e.g., school district) relative to other types of taxing jurisdictions (e.g., county and town) within the Study Area. This approach is utilized to provide a reasonable estimate at this time only. Final PILOT rates for all jurisdictions have yet to be determined.
[4] Annual nameplate capacity within jurisdictions is calculated by multiplying the number of turbines located within each jurisdiction by the turbine nameplate capacity (3.95 MW/turbine).

As reflected in Table 27-9, over the span of the 20-year PILOT Agreement, an estimated total of $31.8 million (in 2017 dollars) will be paid to the local taxing jurisdictions. The structure of this agreement will be guaranteed for the 20-year period of the PILOT agreement, providing a continuous revenue stream to each affected jurisdiction. Upon expiration of the PILOT Agreement, tax payments will be dependent upon the depreciated value of the Facility's generating assets and the appraised value of the Facility at that time.

Although the terms of the HCAs have not been finalized, similar to other wind projects in New York State, the Applicant plans to enter into a HCA with an annual host community fee ("Host fee") to each town within the Study Area. Host fee

rates will be estimated for each town within the Study Area based on the amount of $2,500 per MW of nameplate rated capacity for each turbine installed by the Applicant in the town as part of this project. At this rate, the annual HCA payments across all towns would total $750,000 per year, accumulating up to $22.5 million (in 2017 dollars) over 30 years.[1] These payments will be guaranteed for the 30-year period of the HCA agreement, providing a continuous revenue stream to each affected town.

Table 27-10. Estimated Annual and Total HCA Payments[2]

Study Area Taxing Jurisdictions Entering HCAs	Estimated Host Fee	Number of Turbines	Estimated Annual Nameplate Capacity (MW) within Jurisdiction[3]	Estimated Minimum Annual HCA Amount ($2500/MW)	Estimated Minimum 30-Year HCA Amount
Town of Cohocton	$2,500/MW	25	99	$246,711	$7,401,316
Town of Dansville	$2,500/MW	3	12	$29,605	$888,158
Town of Fremont	$2,500/MW	38	150	$375,000	$11,250,000
Town of Wayland	$2,500/MW	10	39	$98,684	$2,960,526
Total (All Towns)	$2,500/MW	76	300	$750,000	$22,500,000

(j) Comparison of Incremental Costs and Incremental Benefits

As indicated above, the Facility is not expected to result in any additional costs to local tax jurisdictions, but will result in significant benefit through implementation of a PILOT Agreement and payments under the HCAs.

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

Exhibit 18 of this Application (along with a Preliminary Health and Safety Plan and Emergency Action Plan appended to the Application as Appendix V and W, respectively) provide specific detail on emergency equipment that the Applicant will maintain for the Facility. Local emergency responders are not expected to have equipment in order to respond to a fire, hazardous substance, or medical emergency beyond the first aid, medical emergency and fire vehicles and equipment typical of a local fire and emergency department. For example, fire and emergency responders are not expected to have the necessary equipment to bring injured personnel down from the tower to ground level. Instead, that equipment will be supplied by the Applicant or others under an arrangement with the Applicant. The

[1] This analysis is based on the 300-MW Facility nameplate capacity for 76 turbines sized at an approximate nameplate capacity 3.95 MW each.

[2] All values in this table, apart from number of turbines within jurisdictions, are independently rounded, and therefore may not directly add up to the totals shown. All calculations utilized unrounded values.

[3] Annual nameplate capacity within jurisdictions is calculated by multiplying the number of turbines located within each jurisdiction by the turbine nameplate capacity (3.95 MW/turbine).

Applicant has had initial conversations with all local fire departments regarding equipment necessary to respond to a potential fire, hazardous substance, or medical emergency at the Facility. The Applicant will continue consultation with local fire departments and first responders in order to ensure that all specialized equipment required to respond turbine and substation-related emergencies will be available for fire and medical emergencies.

(l) Consistency with State Smart Growth Public Infrastructure Criteria

The New York State Smart Growth Public Infrastructure Policy Act (hereinafter "Smart Growth Act") is meant to maximize the social, economic, and environmental benefits from public infrastructure development by minimizing the impacts associated with unnecessary sprawl. Under the Smart Growth Act, State infrastructure agencies, such as the New York State Department of Transportation (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 New York Environmental Conservation Law (ECL) §6-0107.

Although the Facility will not result in the construction or operation of public infrastructure and will not result in unnecessary sprawl, approvals from the NYSDOT may be required to allow Facility components to cross state highways (e.g., State Route 21). Therefore, this section provides a detailed statement regarding the Facility's consistency with the smart growth criteria in ECL §6-0107(2). As discussed below, the Facility is consistent with five applicable criteria while the remaining five criteria do not apply to the Facility.

1) 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 wind-powered electrical-generating facility that will provide a source of renewable energy to the New York State grid, and in doing so, improve the State's existing energy infrastructure. The Facility components include 76 wind turbines and their associated access roads, collection lines, permanent meteorological towers, operations and maintenance building, laydown area, collection substation and point of interconnect (POI) substation. 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 300 MW of renewable energy to the New York State grid. As reported by the Preliminary Scoping Statement (August 2016), total net generation delivered to the existing NYSEG's Hillside-Meyer 230 kV transmission line is expected to generate enough electricity to meet the average annual consumption of thousands of households in New York State.

Additionally, the Facility will use portions of existing State highway infrastructure through equipment transportation. However, none of these activities are anticipated to have any long-term impact on existing infrastructure.

After careful consideration of its contribution to and utilization of both the New York State power grid and transportation routes identified above, it has been determined the Baron Wind Facility is consistent with this smart growth criterion. Consequently, 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.

2) 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.”

Large-scale wind energy projects, such as the Facility, require extensive land; moreover, the requirement for setbacks from residences and other structures restricts large-scale wind energy projects to comparatively isolated rural areas. Therefore, this criterion does not apply to the Facility.

3) 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. Large-scale wind energy projects such as the Baron Wind 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. Therefore, this criterion does not apply to the Facility.

4) 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 300 MW of much-needed clean energy while largely preserving the agricultural and forested land that comprises the Facility Site. The Facility's Article 10 Application provides a detailed analysis of the potential environmental impacts and benefits, including analyses specifically associated with agricultural land, 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) has been prepared which assessed potential visual impacts within a 10-mile radius of the Facility Site. As documented in the VIA and the Project's Cultural Resources Work Plan (EDR, 2017), the Applicant will continue to work with the local stakeholders to identity potential opportunities for mitigation. For instance, the Applicant may fund one more visual/cultural mitigation projects previously identified by State and local agencies. 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 300 MW of clean, renewable energy. Therefore, the Facility is consistent with this criterion.

5) 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 must necessarily be 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.

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

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

7) 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 and the Public Involvement Program (PIP) plan prepared specifically for the Facility, which includes frequent stakeholder consultation and other forms of engagement, public education, public meetings, ample notification periods, and public comment periods at key milestones. The Applicant also has reached out individually to each of the local governments that will be directly affected by the Facility. Moreover, the Article 10 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.

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

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. This has included the public outreach conducted in accordance with the requirements of the PIP. See response to Criterion 7 for additional detail. These outreach efforts satisfy the criterion related to participation in community-based planning and collaboration.

9) 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 the Towns of Cohocton, Dansville, Fremont, and Wayland. Therefore, this criterion does not apply to this Facility.

10) 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. Electricity generated from zero-emission wind energy can displace the electricity generated from conventional power plants, thereby reducing emissions of conventional air pollutants, such as carbon dioxide (which is linked

to global climate change). Thus, the Facility promotes the reduction of greenhouse gas emissions through the use of renewable energy. The Facility, therefore, supports this 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.

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