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# Eight Point Wind, LLC Steuben County Windfarm Cost Benefit Analysis

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**Prepared for:**

Steuben County Industrial Development Agency

**Prepared by:**

Kent Gardner, Ph.D.

Project Director



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1 South Washington Street, Suite 400, Rochester, New York 14614  
(585) 325-6360 • [info@cgr.org](mailto:info@cgr.org)

[www.cgr.org](http://www.cgr.org)

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## Project Summary

The reduction of greenhouse gas (GHG) emissions has emerged as the most complex and consequential environmental challenge we've yet confronted. New York State's leadership aims to make the state part of the solution. The state's recently-passed Climate Leadership and Community Protection Act (CLCPA) made the state's energy plan much more aggressive than the 2015 plan that preceded it, increasing the 2030 renewable share to 70%, the 2050 GHG reduction to 85% and setting a 100% "carbon free" generation goal for 2040.

All forms of renewable energy must be tapped to make these ambitious goals achievable. Incentives like the state's Renewable Energy Credits (RECs) subsidize renewable generation, closing the gap between fossil fuels (particularly natural gas) and still-more-expensive renewables like wind and solar.

## Wind Generation

Wind generation will make a substantial contribution to achieving the state's goals. Projects proposed in Steuben County reflect the favorable conditions for wind power in the Southern Tier. Baron Wind, approved by the New York State Board on Electric Generation Siting and the Environment on May 6, 2020 (and reaffirmed in September), plans the development of turbines producing 242 MW of energy. Canisteo Wind's proposal to build 290.7 MW of wind generation was approved on March 6, 2020.

### Eight Point Wind

Eight Point Wind, LLC, a wholly-owned subsidiary of NextEra Energy Resources, LLC, proposes the construction and operation of wind generation and transmission in the Steuben County towns of Greenwood, West Union, Hartsville and Hornellsville. The developer seeks approval for the construction of 25 wind turbines with a potential generating capacity of 110.12 MW. The cost of construction is estimated to be \$188.6 million. A 16.5 mile transmission line, costing an additional \$45.75 million, would also be part of the project.

**Table 1: Project Profile**

	Turbines	MW each	Ttl MW	Construction cost (apportioned)
Canisteo Greenwood CSD: Town of Greenwood	10	5	50	\$85,624,773
Canisteo Greenwood CSD: Town of West Union	5	5	25	\$42,812,386
Whitesville CSD: Town of West Union	10	5 & 2.52	35.12	\$60,142,841
<b>TOTAL</b>			110.12	\$188,580,000

## Economic Impact of Renewable Energy

. Renewable projects historically are not large job creators., Baron and Canisteo estimate permanent employment of 18 jobs between them. Less than half the size of either project, Eight Point Wind expects ongoing employment of 4 ½ positions.

CGR estimates that spillover employment at the three projects will be between one-half and three-quarters the direct employment, thus a total employment impact across all three of 23 direct and 12 to 18 spillover jobs.

The construction period for all three projects will spur considerable short-term local employment, although estimating the total is challenging.

- The most sophisticated technology will be built remotely. There are relatively few manufacturers of state-of-the-art wind turbines in the world, although NYS companies are significant contributors to component manufacturing.
- Some portion of the labor required on site will be transient. Many workers will spend weeks or months at the job site but neither being nor becoming permanent residents. That does not preclude these workers from spending a substantial share of their earnings locally on food, lodging, entertainment and other consumer products and services.
- The fact that three large projects may be under construction at the same time may provide an opportunity. Local businesses might be established expressly to serve the needs of the firms and their workers.

Finally, we want to emphasize that every community and every project is unique, particularly projects at this scale. Our estimates of employment impact are subject to decisions that have yet to be made and conditions that have yet to emerge.

In particular, the economic acceleration that appears to be emerging from the release of COVID-19 restrictions is triggering cost increases across the board. Commodity prices, labor costs and supply-chain blockages may change the material and labor-sourcing for these projects in many ways. Some of these changes will increase the local economic impact of construction phase and some will reduce it.

## Economic Impact of Construction

Eight Point Wind commits to a “minimum spend” in New York State (\$28.8 million), an estimate CGR employs for its employment and payroll range. Given the total cost of the project is \$188 million, we chose to base our estimates on twice the developer minimum, \$57.6m.

IMPLAN multipliers for the sector “Construction of new power and communication structures” suggest an employment impact of over 500 (335 direct and 187 spillover) with labor income totaling an estimated \$26 million direct and \$14 million spillover.

This implies a fiscal impact of over \$2 million, \$1.2 million in NYS income tax and \$0.85m in NYS and local sales tax.

**Table 2: Construction Phase**

	Jobs	Labor Income (\$m)	Income Tax (\$m NYS)	Sales Tax (\$m state & local)
<b>Direct</b>	335	\$25.72	\$0.77	\$0.56
<b>Spillover</b>	187	\$13.65	\$0.41	\$0.29
<b>TOTAL</b>	522	\$39.36	\$1.18	\$0.85

# Ongoing Economic Impact

## Payroll & Employment

The applicant indicates ongoing employment of 4.25 full time equivalents. Professional staff salaries are estimated at \$93,798, although what share of the 4.25 FTE will be professional positions is unstated. IMPLAN multipliers for Steuben County indicate that each job in the sector "Maintenance and repair construction of nonresidential structures" spurs the creation of an additional 0.5 positions earning 57% of the direct salary. Accordingly, total ongoing employment is estimated to be 6.4 positions earning about \$625,000 annually.

**Table 3: Operating Phase**

	Jobs	Labor Income (\$m)	Income Tax (\$m NYS)	Sales Tax (\$m state & local)
Direct	4.3	\$0.40	\$0.12	\$0.09
Spillover	2.1	\$0.23	\$0.07	\$0.05
<b>TOTAL</b>	<b>6.4</b>	<b>\$0.63</b>	<b>\$0.19</b>	<b>\$0.14</b>

## Payments made in lieu of property tax revenue

In addition to adding jobs and payroll, industrial expansion confers benefit on a community through taxing the physical assets of the venture. It is common, however, to negotiate a reduction in the amount owed, particularly for projects where the capital expenditure is quite large.

Eight Point Wind has asserted that the financial viability of the project depends on a reduction in the property tax and the Steuben County IDA has negotiated a payment schedule. In the first year the developer will pay the municipalities just under a million dollars in a "payment-in-lieu-of-tax" or PILOT agreements for both the turbines and the distribution line. It rises to \$1.8 million by year 20, a total of just over \$25 million.

As the Steuben County IDA has negotiated a fixed amount—with a 2% inflation figure—there is no risk to the revenue from a subsequent challenge to the assessed value. Other IDAs choose to negotiate a reduction in the share of the tax owed instead of fixed amount. These PILOT agreements are vulnerable to a challenge to the assessed value in future years. We note, however, that our estimate of the tax revenue foregone due to the PILOT agreement does not presume that the assessed value remains fixed over time.

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Another unresolved question in conducting cost benefit analysis of major renewable projects is the assessed value of the completed projects. As with the Baron and Canisteo projects, for the sake of this analysis we accept the argument that assessed value is equal to the cost of improvements and building construction, assumed here to be 23% of the cost of the turbine development. This is an unresolved matter of law that is not properly debated here. CGR has sought the guidance of NYS's Office of Real Property Services but have yet to receive a response.

The estimated assessed value of the turbine installations is assumed to be \$43.4 million for the purposes of this analysis.

## **PILOT Payments & Sales Tax Abatement**

Assessed value would normally increase over time, although the uncertainty over the appropriate procedure for assigning assessed values makes the likely path of assessed value over the life of the project uncertain, thus the value of the abatement also uncertain. All summary data reported here assumes that the benefit of the abatement remains constant over the 20 years.

The total reduction in developer tax burden for the turbines is estimated at \$2.1 million annually, offset by host community agreement and lease payments of \$0.8 million. See Table 4 below for the breakdown by taxing jurisdiction.

Similarly, the tax liability for the transmission is set through a PILOT agreement. The reduction in tax burden for the distribution is estimated at just over \$400,000. See Table 5.

The developer has also sought a sales tax abatement in the amount of \$9.0 million.

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## Host Community Agreements & Owner Revenue

Eight Point Wind has entered into host community agreements (HCAs) with the affected municipalities in the amount of \$3,000 per MW. The payments would increase at a rate of 3% per year and total \$330,360 in the first year, rising to \$579,288 by year twenty. Payments would total \$8.9 million over the life of the agreement.

As is standard practice with wind energy projects, Eight Point Wind intends to lease sites from individual property owners.

The developer reports that the lease payments are based on the rated generating capacity of the turbines and are set at \$4,000 per MW, with a 2% annual escalator. The total for the first year is \$440,480, rising to \$641,696 by year 20, a nominal total of \$10.7 million.

Both payments would boost the country's total personal income, either directly in the case of the lease payments or indirectly through a reduced property tax burden for the host communities. y. Were all of the income spent locally, we would expect to see an increase in employment of roughly a dozen positions earning about \$400,000 annually.

The combined impact of the turbine PILOT agreement, the host community agreements and the lease payments made to property owners is summarized in Table 4 below.

Table 5 summarizes the single year impact of the PILOT payment on the transmission line.



**Table 4: Turbine Property Tax & Agreements (\$m)**

	Property Tax: No abatement or HCA	Developer payments	Developer reduction under agreements
County	\$0.63	\$0.12	\$(0.51)
Greenwood	\$0.17	\$0.08	\$(0.09)
West Union	\$0.38	\$0.07	\$(0.31)
CGCSD	\$0.78	\$0.20	\$(0.58)
WCSD	\$0.68	\$0.12	\$(0.56)
Host Community Agreements	\$-	\$0.33	\$0.33
Owner Lease Payments	\$-	\$0.44	\$0.44
Annual Total	\$2.64	\$1.35	\$(1.28)

**Table 5: Transmission PILOT Payments (\$m)**

Transmission	Property Tax: No abatement	Payment-in-lieu-of-tax agreement	Developer tax reduction under PILOT
County	\$0.161	\$0.076	\$(0.085)
Greenwood	\$0.096	\$0.050	\$(0.047)
Hartsville	\$0.062	\$0.031	\$(0.031)
Hornellsville	\$0.020	\$0.009	\$(0.011)
CGCSD	\$0.448	\$0.211	\$(0.237)
Total (year one)	\$0.787	\$0.377	\$(0.410)

As noted above, the uncertainty surrounding future price inflation recommends evaluating benefits and costs on a nominal dollar basis. The benefits (PILOT payments, host community agreements and lease payments) have a built-in inflator. The long-term cost is properly measured as the flow of property tax payments received in the absence of a PILOT agreement. As the methodology for assigning an assessed value is uncertain, it would be inappropriate to assume that this stays constant over time.

Table 6 summarizes the benefits and costs over a 20 year period and shows a net benefit of \$40 million, a benefit-cost ratio of 1.8.

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**Table 6: Benefit Cost Summary**


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	20 year total (\$m)
<b>Benefits</b>	
<i>To Private Individuals</i>	
Temporary Payroll	\$39.36
Ongoing Payroll	\$12.50
Land Lease Payments	\$8.81
<i>To the Public</i>	
PILOT payments	\$19.20
Host Community Agreements	\$6.61
Sales Tax Revenue (1/2 NYS, 1/2 local)	\$1.70
Income Tax Revenue (NYS)	\$2.15
<b>TOTAL BENEFIT</b>	<b>\$90.33</b>
<b>Costs</b>	
Sales tax abatement	\$(9.00)
Property tax abatement	\$(41.12)
<b>TOTAL COST</b>	<b>\$(50.11)</b>
<b>NET BENEFIT</b>	<b>\$40.21</b>
Benefit-Cost Ratio	1.80