## **BARON WINDS LLC**

**Compiled Testimony** 

Public Hearing held by:
Steuben County Industrial Development Agency
on
June 19, 2019
Fremont Town Hall
8217 Cream Hill Road
Arkport, New York 14807

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III. Written Comments

**SCIDA should not provide Financial Assistance nor a PILOT to Baron Winds** for the following reasons:

- 1. Steuben County and the involved municipalities have all opted out of RPL 487 for Renewable Energy; yet the Article 10 Exhibits state you were in final negotiations with Baron Winds in 2017 for 487 PILOTS of \$5300 per MW.
- 2. Steuben County and SCIDA are not parties to the Article 10 process therefore both did not provide any issues or address any socioeconomic impact in our area that required a "hard-look." There is no SEQR. If Steuben requires a SEQR, than I would like to participate in that process.
- 3. Previous Wind Projects receiving PILOTS and financial assistance have not met the long term employment and/or salaries. The cost to benefit ratio is poor.
- 4. The SCIDA FA Hearing was scheduled quickly *before* Baron Winds CECPN with Findings and CPCN. SCIDA does not have the full analysis to determine FA.
- 5. Steuben and SCIDA did **not** participate in the Article 10 hard look at tourism, crops, agricultural segmentation, local energy, local sustainability and compliance with current policy, Jedi Modeling, Environmental Justice, water, aquifer and groundwater concerns, dust and contamination, road concerns; no issues were raised by SCIDA.
- 6. The SCIDA Financial Form for PILOT is missing or pending elements; it is not complete.
  - a. The Real Estate Holding Company is blank-neither yes or no.
  - b. Under E Exemption -

The other windfarm projects float as if not attached to leaseholder's property. It appears that the Agricultural land is not developed. In the project description it is defined as a COMMERCIAL SCALE wind ENERGY project.

Solar Projects lands are reclassified.

This footprint should be reflected as commercial energy just as solar.

c. Under E 4 Tax Exempt Financing- Where is the SAFE HARBOR, PTC's and NYSERDA Tier 1 filed?

### d. Under F & G- Business Organization-

The request for FA was signed by Innogy really Innogy Renewables US, LLC with a Delaware Corp License of 6/2016. The 100% ownership is IRUS Wind Development with a Delaware Corp License of 10/2017. Neither have filed with the NYDOS. BUT Baron Winds has a Delaware License and is listed on the NYDOS since 6/2012.

To avoid difficulties with ownership and bankruptcy, who is really asking for Financial Assistance?

Why I raise this- With the upstream reorganization, E. On and RWE are still in the process of dividing Innogy and do not have EU approval <a href="https://www.reuters.com/article/us-innogy-m-a-e-on-eu-idUSKCN1QO1RY">https://www.reuters.com/article/us-innogy-m-a-e-on-eu-idUSKCN1QO1RY</a>

Additionally the CPCN for the Baron Project has not been approved. So again is this application premature?

What are the protections since the company repeatedly states that if one change is made, the project is not viable.

To add even more confusion, in three wind journals, Nordex and Innogy separately and together tout a partnership. How does this impact financial assistance. (Attachment B)

All of these can be found under Article 10 Baron Winds as well as Cassadaga Wind's CPCN(Attachment C).

An analysis of the reorganization, partnership and fragile viability should be thoroughly examined by an independent expert before FA acceptance.

### e. Part H. Estimated Sales outside of NYS=0

Under the NYS Energy Plan, REC's can be sold independently outside of NY. FW has sold REC's to multiple states. How is SCIDA handling the impact of these sales?

What is the claw back for supplying misinformation or not correcting/updating information?

### Why is it important to Steuben?

While we are hosting the dirty land intensive footprint of wind and solar, the good qualities are not offered to us; neither at the County level as REC's nor the municipal level by incorporating them into a CCA(under CEF/CES).

Along with this are the cost of the transmission upgrades. They should really be paid for by the companies or areas requiring said "REC" redemption; not those that host them.

With the new untested Climate Leadership, the requirements can be very costly to municipalities.

### f. Description Insert A -

# <u>Project Size in MW and Number of Turbines does NOT match the</u> <u>Application under Article 10.</u>

#### **Results in Abandonment**

The answer should be yes. Renewable will be reducing/negatively impacting the existing energy generating plants in NYS.

**Definition of Real Property** changes with the form filed. Under Article 10, all participants and GOOD Neighbors lands are included in the footprint with loss of public health and safety. Does your PILOT include Good Neighbors?

**Presence of Contaminants-**I don't believe this was addressed in Article 10. Did the applicant fulfill due diligence? Please provide proof?

What about airborne dust contaminants during construction? Was any slag used from fracking on roads?

### g. Project TYPE- only other-Renewable is checked.

The project is defined as **LARGE SCALE COMMERCIAL WIND ENERGY** therefore COMMERCIAL should be checked and Energy added to Renewable.

It is not agriculture.

- **h. Under New Building** Where is the 4000 to 6000 square foot O & M? Is it excluded from the FA? Hearsay from residents gives the impression of two differing locations.
- Under Funding- Where is mention of Safe Harbor, PTC's, NYSERDA Tier 1, etc
- **j. Is the Project Necessary for Employment?** If only examining the local area, one FTE is not worth the cost. There are concerns by the DPS as to employment numbers and use of the JEDI MODEL in the Article 10 Process. (Attachment D)

# k. Section I: Have Site Plans been submitted to the appropriate planning dept?

As of April, new easements, good neighbor agreements and leases were still being processed in Bath so it's a very good question?! On the list

provided, I do not see the O & M. Under Article 10 all leases should have been processed BEFORE the APPLICATION Process begins.

Additionally the list of participating properties are drastically different that the Original Application. (attachment E)

# 7. As to amount of PILOT Financial Assistance of \$5300 plus 2% increase annually.

This is extremely low.

- a. In 2006, under Mr. Sherron, it was \$5300.
- b. In 2008 it was re-evaluated and accepted as \$5300 even though it was significantly lower than surrounding counties.
- c. Ten years later, in 2016 the PILOT was re-evaluated again for \$5300; yet our actual taxes are going up 2% a year every year.
- d. In 2016/2017 NYSERDA funded a study under Solar. It looked at Winds PILOT's and found an average \$8000 to \$9000 per MW; not \$5300 per MW. The municipal Host Agreements cannot be added in to justify the difference; nor negotiated that way.
- e. Baron Winds won't be built until at the earliest 2021; most likely 2022. The PILOT payments don't start until 2022.

If SCIDA is increasing other projects at 2% of \$5300(2017) each year than the amount of PILOT in 2022 per MW should be \$5852 such that SCIDA is treating each project equitably......as per the policy.

#### 8. RECOMMISSIONING-

PILOTS, unless fulfilled for their duration, should not be redone upon Recommissioning. If they are, there should be a financial consequence for incorrectly portraying the project's longevity. It should be included in all FA's.

9. My focus has always been for promoting Health and Safety.

Currently, the leases and good neighbor agreements take that away. I do not support SCIDA taking over leases that do not protect public health and safety. It is an illegal TAKINGS. I have asked for a clarification from the Siting Board. If it is considered COMMERCIAL than OSHA setbacks should be followed.

Our local municipalities do NOT receive training on wind projects from the NYDOS therefore without independent properly certified engineering reviews, our wind laws are questionable. They do NOT meet the current standards of the DPS, DEC nor DOH.

The Siting Board can then modify and take the local law parameters <u>over</u> the expert testimony of the NYS Agencies; watering down our protection under Article 10.

Steuben Planning does not have the qualifications either. At the very least, Steuben should only accept projects that follow the guidance of the State Agencies.

Additionally, Steuben Planning should acquire the correct expert engineering review annually, to save each municipality the expense and provide correct expert guidance.

10. Finally, protect the people of Steuben County from the negative impacts imposed upon UPSTATE NY by the New legislation on Climate Leadership. With details left to be developed, there is a carbon tariff coming.

https://www.empirecenter.org/publications/albany-unleashes-a-greenmonster/ http://www.ippny.org/page/media--publications-2/news/ippny-response-to-climate-leadership-and-community-protection-act-703.html

Again, the Financial Assistance of SCIDA should not be afforded to Baron Winds.

Respectfully submitted,

**Alice Sokolow** 

Prattsburgh, NY

https://news.innogy.com/strategic-partnership-between-innogy-and-nordex/
Essen,
22
January
2019
Strategic partnership between innogy and Nordex

"Safe Harbor" agreement on six wind turbines in the United States signed at the end of 2018

Two innogy development projects in New York (366 MW) mainly with Nordex turbines planned

Success in Polish onshore auction in November 2018 with 33 MW "Zukowice" project

In October 2018 innogy and the Nordex Group agreed on a strategic partnership with a view to facilitating future growth with onshore wind projects in a highly competitive environment in an optimal manner. This partnership is already paying off for both companies: for instance, at the end of 2018 innogy SE and the Nordex Group signed a contract in the USA for the supply of six N131/3900 turbines on the basis of a so-called "Safe Harbor" agreement. The term "Safe Harbor" describes the possibility on the North American market of securing Production Tax Credits on current terms and conditions – in this case from 2018 – by buying a part of the total components required at an early stage. In addition to this, innogy is planning, subject to its investment decision, to realise its US onshore development projects in the state of New York, Cassadaga (126 MW) and Baron Winds (240 MW), using mainly Nordex turbines. Furthermore, the two companies enjoyed a joint success in the first onshore auction in Poland with the Zukowice project (33 MW). innogy will shortly making its investment decision on this.

Within the framework of the strategic partnership, between 2019 and 2022 innogy plans to optimise its project pipeline in Europe and the USA together with the Nordex Group and, following its investment decision, to buy its wind turbine generators exclusively from Nordex. The two companies are planning to work on projects with a total capacity of 1.7 gigawatts.

"

Thanks to the strategic partnership with Nordex we have been able to optimise our procurement strategy for onshore wind turbines. For example, in Europe and especially in the USA, we have secured prices for wind turbines and service for the coming years so that we remain competitive and ideally positioned for future auctions. The Nordex Group was successful in a tender due to making the best commercial bid and because of the promised transparency with regard to project optimisation.

Hans Bünting, Chief Operating Officer Renewables of innogy SE

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José Luis Blanco, CEO Nordex Group: "This partnership marks an important milestone. This new type of all-round collaboration covers the entire value chain for all onshore projects. Our joint aim here is to reduce the cost of energy over the entire life cycle of the turbines with a view to promoting the further development of wind energy."

Dear Honorable Secretary Burgess,

We oppose the granting of the CPCN for Cassadaga Wind LLC and request an Evidentiary hearing. We believe the financial ability and resources of Cassadaga Wind to build, operate and safely maintain this project requires much greater scrutiny.

While granting the Order on January 17, 2018, John Rhodes, chairman of the Siting Board stated,... "State policy calls for energy projects designed to succeed for the benefit of all New Yorkers, but also critically projects that protect and accommodate the concerns of local communities and of the New Yorkers who live in them."

We agree-all NYS residents, including those slated for wind projects need protection and our concerns taken seriously.

Administrative Law Judge Lecakes summarized the CPCN issue as follows at the procedural hearing: "It isn't a question of whether or not Cassadaga Wind will be able to afford the endeavor, but whether or not Cassadaga Wind will be able to operate and maintain the structures during their lifespan. The twist on the finances aren't just about whether you can put the windmills up, but whether you can put the windmills up and continue to maintain them and make sure they operate safely." His statement highlights an area of great concern.

The following statement is from Mr. Muscato spoken at the Cassadaga Wind procedural hearing. "I'm not certain if it is within the Commissions's purview, whether it's a multi-billion dollar company or something less to decide whether or not that company can make the required investment into maintenance of a facility, but the point here I don't believe that that's in the Commission's purview to make those judgements, but instead look at the record, yes this is an organization that has financial backing." Mr. Muscato added-"That's the commitment that will be extended throughout the project. So one-it's not only financially viable but two-the contract structure is that there is a real feasibility in continuing the operation of the project."

What record?? Where are the financial documents?? Cassadaga Wind states the cost of constructing the facility will be financed through a balance sheet, a construction loan, or other financial mechanisms.. It appears they really have no idea how this project will ultimately be financed. Again what record? There is none to be found.

It is clearly under the purview of the PSC according to PSL section 68 to determine the financial feasibility of this project especially since it was **not** within the purview or vetted under the Article 10 proceeding.

We are rightly concerned with such a major, and unprecedented transition and assets swap between Innogy's parent company- the financially troubled German energy giant RWE and EON, the fact that the Innogy deal won't be finalized until the end of 2019 and that Innogy is to be dissolved within 2 years. What if Cassadaga Wind can't find another buyer?

Even if Cassadaga Wind[C.W.] qualifies for the greatly diminished PTC's, they expire after 10 years. Mr. Muscato states the income source to maintain the project is from the sale of electricity/off-take agreement and sale of RECs. With our relatively low winds/low production and future loss of PTCs, the income from this project will likely be inadequate to safely operate and maintain this project, never mind make the 20 year payments for HOST, PILOT and lease agreements.

Mr. Muscato claims our concerns about the risky restructuring and turmoil, involving the economic stability of Innogy and parent RWE are purely speculative. We would counter that his claim that Innogy and C.W. are financially able to build, operate and maintain the project, are just as speculative. The burden of proof must rest on Cassadaga Wind to prove the financial feasibility of this project. That has not been done. That is unacceptable.

As the first approved Article 10 wind project, it is precedent setting and will be a model for others to follow. It deserves the utmost due diligence, not just assurances and verbal guarantees from Mr. Muscato and Cassadaga Wind.

Thank you for your time and consideration in this important matter.

Sincerely,
Joni Riggle
Concerned Citizens



# memorandum

To: Seth Wilmore, Everpower EDR Project No: 13039

From: Jane Rice

Date: December 12, 2017

**Reference:** Supporting Documentation for Exhibit 27 of the Baron Winds' Application

#### Comments:

Attached is supporting documentation referenced on page 5 of Exhibit 27 of the Baron Winds' Article 10 Application. This documentation will be included as an addendum to the Socioeconomic Report (Appendix QQQ) and will be referenced in the Article 10 Application proceeding as Appendix QQQ-1.

As the JEDI model states on Page 4 of 34 of the supplemental documentation, certain default project cost values were customized by the Applicant, and all others were reviewed and accepted as rational project cost values by the Applicant. All customized project cost values are referenced on Page 26 of the Appendix QQQ Socioeconomic Report and on Page 4 of Exhibit 27.

Copies To: File, Young & Sommer

#### JEDI - WIND

### Jobs and Economic Development Impact (JEDI) Model

Release Number: W12.23.16

The Jobs and Economic Development Impact (JEDI) Model was developed in 2002 to demonstrate the economic benefits associated with developing land-based wind power plants in the United States. The primary goal in developing the initial state level model was to provide a tool for wind developers, renewable energy advocates, government officials, decision makers and other potential users, to easily identify the local economic impacts associated with constructing and operating wind power plants. The second goal was to facilitate broad access and usage of the model by making it adaptable to a web based application that can be put on a web site.

Consistent with these goals, a strong emphasis was placed on designing the model in a user-friendly format that could be easily modified - reflecting different levels of project specific information and user skill. This insures the greatest flexibility for inexperienced spreadsheet users, those unfamiliar with economic impact analysis, and more experienced and knowledgeable users who have a need for this specific type of analysis.

Persons wishing more information on how and/or where the model is being used or the role of the National Renewable Energy Laboratory in analyzing wind and other renewable technologies should contact NREL support at:

National Renewable Energy Laboratory 15013 Denver West Parkway Golden, Colorado, 80401 Tel.: 303.384.6939 Email: jedisupport@nrel.gov.

The model was developed by Marshall Goldberg of MRG & Associates, under contract with the National Renewable Energy Laboratory. Persons wishing more information on the methodology or data in the model should contact him at:

MRG & Associates 17935 Starduster Dr. Nevada City, California, 95959 Tel.: 530.432.9373

Email: MRGAssociates@earthlink.net

The JEDI model utilizes multipliers derived from IMPLAN data using the IMPLAN Version 3.0 Social Accounting & Impact Analysis Software. Persons wishing more information on the IMPLAN data or the software should contact the IMPLAN Group.

IMPLAN Group, LLC 16740 Birkdale Commons Parkway Suite 206 Huntersville, North Carolina 28078 Tel: 651.439.4421

www.implan.com

#### JEDI - WIND

#### Jobs and Economic Development Impact (JEDI) Model

#### Frequently Asked Questions (FAQ)

#### How do I know if I have the most current version of the JEDI model?

The most current version of the JEDI model is available on the Department of Energy web site at www.windpoweringamerica.gov. Click on "Economic Development" on the left side of the page (in Program Areas). Once there, scroll down and click on "Jobs and Economic Development Impact (JEDI) Model." Scroll down and click on "Download the JEDI Model." (See also, getting on the JEDI mailing list, in FAQ.)

#### How can I determine which version of the JEDI model I have?

The version (release number) of the model you are currently using is listed in the "About JEDI" worksheet contained in this model.

#### Is there a mailing list I can get on to be notified by email when new versions of JEDI are released?

Yes, to get on the JEDI mailing list go to the Department of Energy web site at www.windpoweringamerica.gov. Click on "Economic Development" on the left side of the page (in Program Areas). Once there, scroll down and click on "Jobs and Economic Development Impact (JEDI) Model." Scroll down and click on "Updates." Enter your contact information, submit, and you will be placed on the JEDI mailing list.

#### When I open up the model I receive a security alert message stating "the macros in the file have been disabled," how do I change the security setting so I can run the model with the macros enabled?

The message you are receiving is related to the level of security you have chosen in your Excel<sup>TM</sup> set up. To change the setting for opening files, open Excel<sup>TM</sup>, on the top toolbar, click on "tools," then "macros" then "security." Reset the security level to "medium," this will enable you to choose to enable or disable macros each time you open a file. Alternately, the model can be successfully run with the macros disabled.

#### Where can I get more information on input-output modeling and using the JEDI model?

To view and/or download JEDI related publications go to the Department of Energy's web site at www.windpoweringamerica.gov. Click on "Economic Development" on the left side of the page (under Program Areas). Additional information on these topics and access to publications is available by then clicking on "Jobs and Economic Impact (JEDI) Model. Once there, scroll down to "Publications" and click on any of the links. (See also, Is additional technical support available, in FAQ.)

#### How do I run a county or regional level analysis?

Running a county or regional level analysis is similar to running a state level analysis, although there are two key differences users must keep in mind. First, the model does not contain county or regional level multipliers, thus users must obtain these and add them into the model. (See FAQ on obtaining county or regional level multipliers and how to add in the data) Second, to run a county or regional level analysis users must enter the county or regional population in the Project Description area. The population provides a reference for the model to automatically insert 'local share' defaults for the analysis

#### Where can I get county or regional level data to add-in to the model to run a county or region specific analysis?

County level multipliers and personal consumption expenditure patterns are available from a number of sources. Users familiar with IMPLAN or input-output modeling can purchase the raw county level data and derive the multipliers themselves, purchase them from someone familiar with input-output modeling, purchase them directly from IMPLAN (www.implan.com), or contact MRG & Associates (mrgassociates@earthlink.net), the model developer.

#### How do I add in county or regional level multipliers and the personal consumption expenditure data?

Adding-in county or regional level multipliers and personal consumtption expenditure data involves going to the "User Add-in Location" worksheet in this model and cutting and pasting the data into their respective locations. With the data installed it is also necessary to insert the county or region name, the year of the data, and the name of the state

#### What does the "local share" refer to?

The "local share" refers to the percentage of each expenditure that is actually spent locally (i.e., in the state, county or region being analyzed). For example, if \$1 million is going to be spent on construction materials and half (\$500,000) of this total will be purchased from local suppliers, we say the "local share" is 50 percent.

#### What does the term "full-time equivalent for a period of one year" refer to in the jobs results?

The term refers to a job that is held (and wages paid) for a period of one year. This is based on 2,080 hours (52 weeks times 40 hours per week). For example, if the analysis indicates there are 100 construction jobs, there will be the equivalent of 100 workers, working full-time, for the entire year. If the construction period is two years, the job impacts (100 jobs) are spread over the two year construction period. In this example, there will be an average of 50 full-time jobs (100 jobs divided by 2 years) during each of the years. Similarly, if the construction period is less than one year, for example, 9 months (75 percent of a full year), then the number of persons actually employed and working full-time during that period will be greater since they will not be employed and working for an entire year. In this example, there will be an average of 133 full-time workers (100 jobs divided by .75 percent of the year) during the 9 month construction period

#### I want to make my analysis as accurate as possible, where can I get information to adjust the default "local share" values (in the ProjectData worksheet) for my state or county?

Since the "local share" is directly related to the availability of local businesses and services and their ability to meet the construction and annual operating demands of the project, it is important to have an accurate picture of these local resources. This can be obtained in a number of ways: contacting experienced and knowlegeable persons in the area, contacting local business and contractor organizations and/or the local chamber of commerce, among others.

#### I want to make changes to the default labor construction and/or O&M costs, wage rates or employer payroll overhead but when I do I receive a pop up instructing me to only make changes if I change other wage and/or salary related cells. Why is this?

The model uses the total labor costs and the average wages per hour to calculate the number of construction workers and O&M workers. Therefore, if a User chooses to modify the default values, they override the default ratios programed into the model. Thus, if the User increases (or decreases) the total labor costs without changing the wage per hour, the results will show more workers. Similarly, if the average wage per hour is increased (or decreased), without a subsequent increase in the total labor costs, the results will show fewer workers.

#### I have used previous versions of the JEDI Wind model and my earlier results are significantly different from results with the newer version. Why is this?

There are a number of reasons why this may occur. First, with each new model release, updated "on-the-ground" information from project developers and survey research has been incorporated into the model. Similarly, changes in reporting format, such as revising direct impacts to include only "on-site" spending in the more recent versions, will change how some of the results appear. Newer versions may also include updated multipliers that directly affect the results. And finally, user modifications to default data and local shares, as well as running a state versus a county or regional analysis will yield significantly varied results.

## When I change the construction (\$ per kW) or O&M (\$ per kW) cost in the Project Description area, the labor costs remain the same but the other project costs

change. Why don't all the project costs change?

The model is designed to allocate labor costs based on default wage and overhead costs and employment (job) ratios, unless the costs are modified by the user.

Therefore any changes in the total construction or O&M costs in the Project Description area do not impact labor costs. See also FAQ related to User changes to labor

#### I am interested in viewing and possibly editting internal formulas within the model, how do I access them?

The JEDI model contains several intermediate worksheets that are an integral part of the model analysis. These worksheets are not designed to be changed by users. Several of these worksheets, including default data, calculations, and deflators may be viewed by merely clicking on the respective worksheet and scrolling to the right. Although these sheets may be viewed by users they are protected and can not be editted. The model contains two additional worksheets: multipliers and household expenditures. These worksheets are hidden to protect proprietary data derived from IMPLAN (Minnesota Implan Group).

#### Is additional technical support available?

Yes, technical support is available by contacting Suzanne Tegen, technical monitor at the National Renewable Energy Laboratory. She can be reached at 303-384-6939 or by email at Suzanne.Tegen@nrel.gov.

# **JEDI - WIND**

# **Jobs and Economic Development Impact Model**

This demonstration model is designed to estimate the statewide economic impacts associated with developing and operating land-based wind power generation facilities in the United States. The economic impacts identified include jobs, earnings, output and value added for the construction period and annually once the windfarm is up and running. A user defined "add-in" location (e.g., county or region) option is also available.

#### Steps to complete an economic impact analysis:

- 1. Enter project descriptive data
- Choose to accept default project cost data (based on project descriptive data entered), or review and enter new project data.
- 3. If you choose to accept project default values (enter a "Y" in the designated cell) go directly to

### **Wind Farm Project Data**

INSTRUCTIONS:

Begin by entering Project Location (from pull-down list) and other Descriptive Data.

After inserting required data press enter (or cursor to the next cell) to continue. Once Descriptive Data is complete, choose "Y" or "N" on Line 24 to continue.

Choose "Y" to accept Project Cost and Local Share defaults or "N" to review/modify values.

To utilize new values in analysis you must choose an "N" in "Utilize Model Default Values (below)?" - Line 24 Additional information is available by pointing to the red triangles located in cell corners and in the FAQ tab.

Only those cells with a white background can be changed (accept new values).

Project Descriptive Data	
Project Location	NEW YORK
Year of Construction	2019
Total Project Size - Nameplate Capacity (MW)	300
Number of Projects (included in Total Project Size)	1
Turbine Size (kW)	3,950
Number of Turbines	76
Installed Project Cost (\$/kW)	\$1,690
Operations and Maintenance Cost (\$/kW)	\$24.00
Money Value (Dollar Year)	2017

Utilize Project Cost Data default values in analysis?
Choose "Y" to accept default values below or "N" to over-

ride default values and utilize new user defined values as entered below. See FAQ for related topics.

Modify Project Cost Data (change data below)

If desired, default values (in cells below - based on *Project Descriptive Data* entered above) may be restored by pressing the 'Restore Default Values' button. *Note: it is not necessary to restore defaults to incorporate default Project Cost Data in system analysis - simply choose "Y" in cell B24 above.* 

Ν

Project Cost Data		01	B	
Construction Costs	Cost	Cost Per kW	Percent of Total Cost	Local Share
Equipment Costs	Oust	I CI K	rotal Gost	Local Ollarc
Turbines (excluding blades and towers)	\$226,808,986	\$756	43.3%	0%
Blades	\$53,099,094	\$177	10.1%	0%
Towers	\$58,788,282	\$177	11.2%	0%
		\$190 \$135	7.7%	0%
Transportation	\$40,582,879			0%
Equipment Total	\$379,279,241	\$1,264	72.4%	
Balance of Plant				
Materials				
Construction (concrete, rebar, equip, roads and site prep)	\$54,805,851	\$183	10.5%	90%
Transformer	\$6,199,678	\$21	1.2%	0%
Electrical (drop cable, wire, )	\$6,534,880	\$22	1.2%	100%
HV line extension	\$11,937,045	\$40	2.3%	70%
Materials Subtotal	\$79,477,453	\$265	15.2%	
Labor				
Foundation	\$3,224,762	\$11	0.6%	95%
Erection	\$3,652,501	\$12	0.7%	75%
Electrical	\$5,322,794	\$18	1.0%	70%
Management/Supervision	\$2,762,008	\$9	0.5%	0%
Misc.	\$19,266,000	\$64	3.7%	50%
Labor Subtotal	\$34,228,066	\$114	6.5%	
Development/Other Costs				
HV Sub/Interconnection				
Materials	\$3,766,597	\$13	0.7%	90%
Labor	\$1,153,783	\$4	0.2%	10%
Engineering	\$5,125,395	\$17	1.0%	0%
Legal Services	\$2,793,340	\$9	0.5%	100%
Land Easements	\$0	\$0	0.0%	100%
Site Certificate/Permitting	\$1,306,976	\$4	0.2%	100%
Development/Other Subtotal	\$14,146,091	\$47	2.7%	
Balance of Plant Total	\$127,851,609	\$426	24.4%	
Subtotal (all cost without taxes)	\$507,130,851	\$1,690	96.8%	
Sales Tax (Material and Equipment Purchases)	\$16,726,953	\$56	3.2%	100%
Total	\$523,857,803	\$1,746	100.0%	

		Cost	Percent of		
ahan.	Cost	Per kW	Total Cost	Local Share	
abor	De not channe II chan Den	I C			and the state of t
ersonnel Field Salaries	Do not change 'Labor Per				
	\$ 777,663	\$2.59 \$0.25	10.8% 1.0%	100%	See comment - point cursor to
Administrative	\$ 73,734 \$ 138,251	\$0.25 \$0.46	1.0%	100% 100%	red triangle in cell corner.
Management Labor/Personnel Subtotal	\$ 138,251 \$989,648	\$3.30	13.7%	100%	
Naterials and Services	\$303,040	\$5.50	13.176		
	6470.044	60.50	2.407	4000/	
Vehicles	\$172,811	\$0.58	2.4%	100%	
Site Maint/Misc. Services Fees. Permits. Licenses	\$67,396	\$0.22	0.9%	80%	
	\$33,698	\$0.11	0.5%	100%	
Utilities	\$134,793	\$0.45	1.9% 18.0%	100%	
Insurance	\$1,296,082 \$67,396	\$4.32 \$0.22	0.9%	0% 100%	
Fuel (motor vehicle gasoline) Consumables/Tools and Misc. Supplies	\$438,076	\$1.46	6.1%	100%	
Replacement Parts/Equipment/ Spare Parts Inventory		\$1.46	53.2%	2%	
Materials and Services Subtotal	\$3,838,995 \$6,049,247	\$20.16	83.8%	270	
ales Tax (Materials & Equipment Purchases)	\$177,995	\$0.59	2.5%	100%	
other Taxes/Payments	\$0	\$0.00	0.0%	100%	
otal O&M Cost	Ф	\$24.06	100.0%	10070	
otal Oam Cost	4	\$24.00	100.0%		
Other Parameters					
inancial Parameters				Local Share	
				Local Share	
Debt Financing	80%			0%	
Percentage financed Years financed (term)	10			U 76	
Interest rate	6%				
Equity Financing/Repayment	0 70				
Percentage equity	20%				
Individual Investors (percent of total equity)	0%			100%	
Corporate Investors (percent of total equity)	100%			0%	
Return on equity (annual interest rate)	12%			0 70	
Repayment term (years)	10				
ax Parameters	10				
Local Property Tax Rate (avg millage rate - \$/\$1,000)	NA				
Assessed value (percent of construction cost)	NA NA				
Abbessed value (percent of construction cost)	1474				
Taxable Value	NA				
Taxes Per MW	NA				
Local Taxes	\$2,340,000			100%	
Local Sales Tax Rate	4.00%			100%	
and Lease Parameters				10010	
Land Lease Cost (per turbine)	NA				
Number of Turbines	76				
Land Lease (total cost)	9				
Lease Payment recipient (F = farmer/household, O = Other)	1			100%	
ayroll Parameters					
Construction Labor	Wage per hour	Emplo	yer Payroll O	verhead	
Foundation	\$21.44		37.6%		
Erection	\$24.28		37.6%		
Electrical	\$32.17		37.6%		
Management/Supervision	\$43.73		37.6%		
O&M Labor	Wage per hour	Emplo	yer Payroll O	verhead	
Field Salaries (technicians, other)	\$29.25		37.6%		
Administrative	\$18.72		37.6%		
Management/Supervision	\$46.80		37.6%		

Wind Farm - Project Data Summary b	ased on Us	er modificatio	ns to defaเ	ılt values
Project Location		NEW YORK		
Year of Construction		2019		
Total Project Size - Nameplate Capacity (MW)		300		
Number of Projects (included in total)		1		
Turbine Size (kW)		3950		
Number of Turbines		76		
talled Project Cost (\$/kW)		\$1.746	\$1,746 \$1,690 with	
Annual O&M Cost (\$/kW)		\$24.06		46 without taxes
Money Value (Dollar Year)		2017	,	
Total Installed Project Cost		\$523,857,803		
Local Spending		\$107,710,517		
Total Annual Operational Expenses		\$		
Direct Operating and Maintenance Costs		\$		
Local Spending		\$1,967,118		
Other Annual Costs				
Local Spending				
Debt and Equity Payments				
Property Taxes				
Land Lease		\$		
<b>Local Economic Impacts - Summary Result</b>	s			
	Jobs	Earnings	Output	Value Added
During construction period				
Project Development and Onsite Labor Impacts				
Construction and Interconnection Labor	130	\$9.6		
Construction Related Services	17	\$1.2		
Total	148	\$10.8	\$12.4	\$11.4
Turbine and Supply Chain Impacts	542	\$38.7	\$110.5	\$57.8
Induced Impacts	208	\$15.6	\$38.9	\$25.3
Total Impacts	898	\$65.1	\$161.9	\$94.5
During operating years (annual)				
Onsite Labor Impacts	12	\$0.9	\$0.9	\$0.9
Local Revenue and Supply Chain Impacts	17	\$1.6	\$6.6	\$5.0
Induced Impacts	14	\$1.1	\$2.7	\$1.8
Total Impacts	43	\$3.6	\$10.2	\$7.7
Notes: Earnings and Output values are millions of dollars in year 201		*		Ÿ
time equivalent for a period of one year (1 FTE = 2,080 hours). Wind				
and equivalent for a period of one year (11 12 - 2,000 floars). Willia	Tarri Workers melades	noia tecrimiciano, admini	otration and	

management. Economic impacts "During operating years" represent impacts that occur from wind farm operations/expenditures. The analysis does not include impacts associated with spending of wind farm "profits" and assumes no tax abatement unless noted.

Totals may not add up due to independent rounding. Results are based on User modifications to default values.

Detailed Wind Farm Project Data Costs	NEW YORK	
Construction Costs	Cost	Local Share
Equipment		
Turbines	\$226,808,986	0%
Blades	\$53,099,094	0%
Towers	\$58,788,282	0%
Transportation	\$40,582,879	0%
Equipment Total	\$379,279,241	
Balance of Plant		
Materials		
Construction (concrete rebar, equip, roads and site prep)	\$54,805,851	90%
Transformer	\$6,199,678	0%
Electrical (drop cable, wire, )	\$6,534,880	100%
HV line extension	\$11,937,045	70%
Materials Subtotal	\$79,477,453	
Labor		
Foundation	\$3,224,762	95%
Erection	\$3,652,501	75%
Electrical	\$5,322,794	70%
Management/supervision	\$2,762,008	0%
Misc.	\$19,266,000	50%
Labor Subtotal	\$34,228,066	
Development/Other Costs		
HV Sub/Interconnection		
Materials	\$3,766,597	90%
Labor	\$1,153,783	10%
Engineering	\$5,125,395	0%
Legal Services	\$2,793,340	100%
Land Easements	\$0	100%
Site Certificate	\$1,306,976	100%
Development/Other Subtotal	\$14,146,091	
Balance of Plant Total	\$127,851,609	
Sales Tax (Materials & Equipment Purchases)	\$16,726,953	100%
Total Project Costs	\$523,857,803	

Wind Plant Annual Operating and Maintenance Costs	Cost	Local Share
Labor Costs		
Personnel		
Field Salaries	\$777,663	100%
Administrative	\$73,734	100%
Management	\$138,251	100%
Labor/Personnel Subtotal	\$989,648	
Materials and Services		
Vehicles	\$172,811	100%
Misc. Services	\$67,396	80%
Fees, Permits, Licenses	\$33,698	100%
Misc. Materials	\$134,793	100%
Insurance	\$1,296,082	0%
Fuel (motor vehicle gasoline)	\$67,396	100%
Tools and Misc. Supplies	\$438,076	100%
Spare Parts Inventory	\$3,838,995	2%
Materials and Services Subtotal	\$6,049,247	
Sales Tax (Materials & Equipment Purchases)	\$177,995	100%
Other Taxes/Payments	\$0	100%
Total (with Sales Tax and Other Taxes/Payments)	\$	
Debt Payment (average annual)		0%
Equity Payment - Individuals		100%
Equity Payment - Corporate		0%
Property Taxes		100%
Land Lease	\$	100%
Total Annual Operating and Maintenance Costs	\$	
Other Parameters		
Financial December		Local Share
Financial Parameters		
Debt Financing	0.00/	00/
Percentage financed	80%	0%
Years financed (term)	10	
Interest rate	6%	
Equity Financing	20%	
Percentage equity Individual Investors (percent of total equity)	0%	100%
Corporate Investors (percent of total equity)	100%	0%
Return on equity (annual interest rate)	12%	
Repayment term (years) Tax Parameters	10	
Local Property Tax Rate (avg millage rate - \$/\$1,000)	NA	
Assessed value (percent of construction cost)	NA	
Taxable Value	NA	
Taxes Per MW	NA NA	
Local Taxes		100%
Local Taxes Local Sales Tax Rate	\$2,340,000 4.0%	100%
Land Lease Parameters	4.0%	100 /0
	NA	
Land Lease Cost (per turbine) Land Lease (total cost)	d INA	
	3	100%
Lease Payment recipient (F = farmer/household, O = Other)  Payroll Parameters	-	100%
Payroll Parameters  Construction Labor	Average Wege ner have	Employer Poyrell Coats
Foundation	Average Wage per hour	
	\$21.44	37.6%
Electrical	\$24.28	37.6%
Electrical  Management (Companishing	\$32.17	37.6%
Management/Supervision	\$43.73	37.6%
O&M Labor	Average Wage per hour	
Field Salaries (technicians, other)	\$29.25	37.6%
Administrative	\$18.72	37.6%
Management	\$46.80	37.6%

MyCounty (name)		Year of Data				
MyRegion (includes)		Year of Data				
State (Name)						
Jobs Per Million Dollars Change in Jobs Direct Multipliers	Final Demand MyCounty	MyRegion	Personal	Consumptio MyCounty	n Expenditures	(PCE
Agriculture	0.000	0.000		0.000	0.000	
Mining	0.000	0.000		0.000	0.000	
Construction	0.000	0.000		0.000	0.000	
Manufacturing	0.000	0.000		0.000	0.000	
Fabricated Metals	0.000	0.000		0.000	0.000	
Machinery	0.000	0.000		0.000	0.000	
Electrical Equipment	0.000	0.000		0.000	0.000	
TCPU	0.000	0.000		0.000	0.000	
Wholesale Trade	0.000	0.000		0.000	0.000	
Retail Trade	0.000	0.000		0.000	0.000	
FIRE	0.000	0.000		0.000	0.000	
Misc. Services	0.000	0.000		0.000	0.000	
Professional Services	0.000	0.000		0.000	0.000	
Government	0.000	0.000		0.000	0.000	
	0.000	0.000	Total		0.000	
Jobs Per Million Dollars Change in	Final Demand		Total	0.0000	0.0000	
Jobs Indirect Multipliers	MyCounty	MyRegion				
Agriculture	0.000	0.000				
Mining	0.000	0.000				
Construction	0.000	0.000				
Manufacturing	0.000	0.000				
abricated Metals	0.000	0.000				
Machinery	0.000	0.000				
Electrical Equipment	0.000	0.000				
rcpu	0.000	0.000				
Wholesale Trade	0.000	0.000				
Retail Trade	0.000	0.000				
FIRE	0.000	0.000				
Misc. Services	0.000	0.000				
Professional Services	0.000	0.000				
Government	0.000	0.000				
Jobs Per Million Dollars Change in		MaDavis				
Jobs Induced Multipliers	MyCounty	MyRegion				
Agriculture	0.000	0.000				
Mining	0.000	0.000				
Construction	0.000	0.000				
Manufacturing	0.000	0.000				
Fabricated Metals	0.000	0.000				
Machinery	0.000	0.000				
Electrical Equipment	0.000	0.000				
TCPU	0.000	0.000				
Wholesale Trade	0.000	0.000				
Retail Trade	0.000	0.000				
	0.000	0.000				
FIRE						
Misc. Services Professional Services	0.000 0.000	0.000 0.000				

Earnings Per Million Dollars Chan Earnings Direct Multipliers	MyCounty	MyRegion
Agriculture	0.000	0.000
Mining	0.000	0.000
Construction	0.000	0.000
Manufacturing	0.000	0.000
Fabricated Metals	0.000	0.000
Machinery	0.000	0.000
Electrical Equipment	0.000	0.000
TCPU	0.000	0.000
Wholesale Trade	0.000	0.000
Retail Trade	0.000	0.000
FIRE	0.000	0.000
Misc. Services	0.000	0.000
Professional Services	0.000	0.000
Government	0.000	0.000
	5.500	3.330
<b>Earnings Per Million Dollars Chan</b>	ge in Final Demand	
Earnings Indirect Multipliers	MyCounty	MyRegion
Agriculture	0.000	0.000
Mining	0.000	0.000
Construction	0.000	0.000
Manufacturing	0.000	0.000
Fabricated Metals	0.000	0.000
Machinery	0.000	0.000
Electrical Equipment	0.000	0.000
TCPU	0.000	0.000
Wholesale Trade	0.000	0.000
Retail Trade	0.000	0.000
FIRE	0.000	0.000
Misc. Services	0.000	0.000
Professional Services	0.000	0.000
	0.000	0.000
Government	0.000	0.000
		0.000
Earnings Per Million Dollars Chan	ge in Final Demand	
Earnings Per Million Dollars Chan Earnings Induced Multipliers	ge in Final Demand MyCounty	MyRegion
Earnings Per Million Dollars Chan Earnings Induced Multipliers Agriculture	ge in Final Demand MyCounty 0.000	MyRegion 0.000
Earnings Per Million Dollars Chan Earnings Induced Multipliers Agriculture Mining	ge in Final Demand MyCounty 0.000 0.000	MyRegion 0.000 0.000
Earnings Per Million Dollars Chan Earnings Induced Multipliers Agriculture Mining Construction	ge in Final Demand MyCounty 0.000 0.000 0.000	MyRegion 0.000 0.000 0.000
Earnings Per Million Dollars Chan Earnings Induced Multipliers Agriculture Mining Construction Manufacturing	ge in Final Demand MyCounty 0.000 0.000 0.000 0.000	MyRegion 0.000 0.000 0.000 0.000
Earnings Per Million Dollars Chan Earnings Induced Multipliers Agriculture Mining Construction Manufacturing Fabricated Metals	ge in Final Demand MyCounty 0.000 0.000 0.000 0.000 0.000	MyRegion 0.000 0.000 0.000 0.000 0.000
Earnings Per Million Dollars Chan Earnings Induced Multipliers Agriculture Mining Construction Manufacturing Fabricated Metals Machinery	ge in Final Demand MyCounty  0.000 0.000 0.000 0.000 0.000 0.000 0.000	MyRegion 0.000 0.000 0.000 0.000 0.000 0.000
Earnings Per Million Dollars Chan Earnings Induced Multipliers Agriculture Mining Construction Manufacturing Fabricated Metals Machinery Electrical Equipment	ge in Final Demand MyCounty  0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	MyRegion 0.000 0.000 0.000 0.000 0.000 0.000
Earnings Per Million Dollars Chan Earnings Induced Multipliers Agriculture Mining Construction Manufacturing Fabricated Metals Machinery Electrical Equipment TCPU	ge in Final Demand MyCounty  0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	MyRegion  0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
Earnings Per Million Dollars Chan Earnings Induced Multipliers Agriculture Mining Construction Manufacturing Fabricated Metals Machinery Electrical Equipment TCPU Wholesale Trade	ge in Final Demand MyCounty  0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	MyRegion  0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
Earnings Per Million Dollars Chan Earnings Induced Multipliers Agriculture Mining Construction Manufacturing Fabricated Metals Machinery Electrical Equipment TCPU Wholesale Trade Retail Trade	ge in Final Demand MyCounty  0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	MyRegion  0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
Earnings Per Million Dollars Chan Earnings Induced Multipliers Agriculture Mining Construction Manufacturing Fabricated Metals Machinery Electrical Equipment TCPU Wholesale Trade Retail Trade FIRE	ge in Final Demand MyCounty  0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	MyRegion  0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
Earnings Per Million Dollars Chan Earnings Induced Multipliers Agriculture Mining Construction Manufacturing Fabricated Metals Machinery Electrical Equipment TCPU Wholesale Trade Retail Trade FIRE Misc. Services	ge in Final Demand MyCounty  0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	MyRegion  0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
Earnings Per Million Dollars Chan Earnings Induced Multipliers Agriculture Mining Construction Manufacturing Fabricated Metals Machinery Electrical Equipment TCPU Wholesale Trade Retail Trade FIRE	ge in Final Demand MyCounty  0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	MyRegion  0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000

Output Per Million Dollars Change	in Final Domand	
Output Direct Multipliers	MyCounty	MyRegion
Agriculture .	0.000	0.000
Mining	0.000	0.000
Construction	0.000	0.000
Manufacturing	0.000	0.000
Fabricated Metals	0.000	0.000
Machinery	0.000	0.000
Electrical Equipment	0.000	0.000
TCPU	0.000	0.000
Wholesale Trade	0.000	0.000
Retail Trade	0.000	0.000
FIRE	0.000	0.000
Misc. Services	0.000	0.000
Professional Services	0.000	0.000
Government	0.000	0.000
Output Per Million Dollars Change		
Output Indirect Multipliers	MyCounty	MyRegion
Agriculture	0.000	0.000
Mining	0.000	0.000
Construction	0.000	0.000
Manufacturing	0.000	0.000
Fabricated Metals	0.000	0.000
Machinery	0.000	0.000
Electrical Equipment	0.000	0.000
TCPU	0.000	0.000
Wholesale Trade	0.000	0.000
Retail Trade	0.000	0.000
FIRE	0.000	0.000
Misc. Services	0.000	0.000
Professional Services	0.000	0.000
Government	0.000	0.000
Output Per Million Dollars Change	in Final Demand	
Output Induced Multipliers	MyCounty	MyRegion
Agriculture	0.000	0.000
Mining	0.000	0.000
Construction	0.000	0.000
Manufacturing	0.000	0.000
Fabricated Metals	0.000	0.000
Machinery	0.000	0.000
Electrical Equipment	0.000	0.000
TCPU	0.000	0.000
Wholesale Trade	0.000	0.000
Retail Trade	0.000	0.000
FIRE	0.000	0.000
Misc. Services	0.000	0.000
Professional Services	0.000	0.000
Government	0.000	0.000

Value Added Per Million Dollars C	hange in Final Demand	
Value Added Direct Multipliers	MyCounty	MyRegion
Agriculture	0.000	0.000
Mining	0.000	0.000
Construction	0.000	0.000
Manufacturing	0.000	0.000
Fabricated Metals	0.000	0.000
Machinery	0.000	0.000
Electrical Equipment	0.000	0.000
TCPU	0.000	0.000
Wholesale Trade	0.000	0.000
Retail Trade	0.000	0.000
FIRE	0.000	0.000
Misc. Services	0.000	0.000
Professional Services	0.000	0.000
Government	0.000	0.000
Value Added Per Million Dollars C		
Value Added Indirect Multipliers	MyCounty	MyRegion
Agriculture	0.000	0.000
Mining	0.000	0.000
Construction	0.000	0.000
Manufacturing	0.000	0.000
Fabricated Metals	0.000	0.000
Machinery	0.000	0.000
Electrical Equipment	0.000	0.000
TCPU	0.000	0.000
Wholesale Trade	0.000	0.000
Retail Trade	0.000	0.000
FIRE	0.000	0.000
Misc. Services	0.000	0.000
Professional Services	0.000	0.000
Government	0.000	0.000
Value Added Per Million Dollars C	hange in Final Demand	
Value Added Induced Multipliers	MyCounty	MyRegion
Agriculture .	0.000	0.000
Mining	0.000	0.000
Construction	0.000	0.000
Manufacturing	0.000	0.000
Fabricated Metals	0.000	0.000
Machinery	0.000	0.000
Electrical Equipment	0.000	0.000
TCPU	0.000	0.000
Wholesale Trade	0.000	0.000
Retail Trade	0.000	0.000
FIRE	0.000	0.000
Misc. Services	0.000	0.000
Professional Services	0.000	0.000
Government	0.000	0.000

## **Warning**

This Worksheet contains Data and Formulas that are an integral part of the JEDI model.

Although the data and formulas are available for review they must not be changed.

Any changes to the data or formulas will impact the analysis and may invalidate the model results.

To view the data and formulas simply scroll over to the adjacent columns to the right.

	Number of Turbines	MW	Total Installed Co	net	Const Jobs/ Foundation		0&M Jobs/ Field Tech	Default 300 10.8
	76	300	\$1,690	031	Erection		Admin	1 6
	Construction	300	User		Electrical	58	Management Total	1 2 14
	Cost Per KW	Project Cost	Cost Per KW	Cost Per KW	Management/si MW Per Turbini	185	TOtal	14
	\$1,690	\$507,000,000	\$24.00	\$24.00	2300			
Project Data	Default Values - Ba	sed on Cost Pe	r KW from Projec	ct Data sheet	Very Small 30,000	Small 100,000	Medium 300,000	Large 400000
Construction Costs	Cost	Cost Per KW	Percent of Cost	State Local Share	County Local Share	County Local Share	County Local Share	County Local Share
Balance of Plant Materials								
Construction (concrete rebar, equip, roads and site prep)	\$54,805,851	\$183	10.8%	90%	4%	12%	90%	90%
Transformer	\$6,199,678	\$21	1 2%		0%	0%	0%	0%
Electrical (drop cable, wire, ) HV line extension	\$6,534,880 \$11,937,045	\$22 \$40	1 3% 2.4%		0% 0%	0% 0%	0% 0%	100% 70%
Subtotal	\$79,477,453	\$265	15 68%		070	070	0 70	1070
Labor								
Foundation Erection	\$3,224,762 \$3,652,501	\$11 \$12	0 6% 0.7%		2% 1%	9% 2%	29% 7%	95% 75%
Electrical	\$5,322,794	\$18	1 0%		1%	5%	14%	70%
Management/supervision	\$2,762,008	\$9	0 5%	0%	0%	0%	0%	0%
Misc.	\$19,266,000	\$64	3 8%		0%	0%	0%	50%
Subtotal Subtotal	\$34,228,066 \$113,705,519	\$114 \$379	6.75% 22.43%					
Equipment Costs	ψ110,700,010	ψοιο	22.4070					
Turbines (excluding blades and towers)	\$226,808,986	\$756	44.7%		0%	0%	0%	0%
Blades	\$53,099,094	\$177	10.5%		0%	0%	0%	0%
Towers Transportation	\$58,788,282 \$40,582,879	\$196 \$135	11.6% 8.0%		0% 0%	0% 0%	0% 0%	0% 0%
Subtotal	\$379,279,241	\$1,264	74 81%		0,0	0,0	0,0	0,0
Development/Other Costs								
HV Sub/Interconnection Materials	\$4,920,379	\$16 \$13	1 0% 0.7%		1% 1%	6% 6%	18% 18%	90% 90%
Labor	\$3,766,597 \$1,153,783	\$13 \$4	0.7%		0%	0%	0%	10%
Engineering	\$5,125,395	\$17	1 0%		0%	0%	0%	0%
Legal Services	\$2,793,340	\$9	0 6%		0%	0%	0%	100%
Land Easements Site Certificate/Permitting	\$0 \$1,306,976	\$0 \$4	0 0% 0 3%		100% 100%	100% 100%	100% 100%	100% 100%
Subtotal	\$14,146,091	\$47	2.79%		10070	10070	10070	10070
Subtotal All Costs (without sales tax)	\$507,130,851	\$1,690						
Sales Tax (Materials & Equipment Purchases)	\$16,726,953	\$56		100%	100%	100%	100%	100%
Total Project Cost	\$523,857,803	\$1,746			Very Small	Small	Medium	Large
					30,000	100,000	300,000	400,000
Wind Farm Annual Operating and Maintenance Co	S Cost	Cost	Percent	Local Share	County Local Share	County Local Share	County Local Share	County Local Share
Wind I dilli Alliiddi Operating dild Maintendilee Oc	,	Per KW	of Cost	Local Ghare	Local onaie	Local Ollare	Local Ollare	Local offare
Personnel								
Field Salaries	\$904,259	\$3 01	12 56%		100%	100%	100%	100%
Administrative Management	\$85,737 \$160,757	\$0 29 \$0 54	1.19% 2 23%		100% 100%	100% 100%	100% 100%	100% 100%
Subtotal	\$1,150,753	\$3 84	15 98%		10070	10070	10070	10070
Warranty/Maintenance Services	\$0	\$0 00	0 00%	0%	0%	0%	0%	0%
Total	\$1,150,753	\$3 84	15 98%					
Materials and Services								
Vehicles		Per KW						
	\$172,811	<b>Per KW</b> \$0 58	2.40%		0%	0%	100%	100%
Site Maint/Misc. Services	\$67,396	\$0 58 \$0 22	0 94%	80%	1%	5%	13%	80%
Fees, Permits, Licenses	\$67,396 \$33,698	\$0 58 \$0 22 \$0.11	0 94% 0.47%	80% 100%	1% 100%	5% 100%	13% 100%	80% 100%
	\$67,396	\$0 58 \$0 22	0 94%	80% 100% 100%	1%	5%	13%	80%
Fees, Permits, Licenses Utilities Insurance Fuel (motor vehicle gasoline)	\$67,396 \$33,698 \$134,793 \$1,296,082 \$67,396	\$0 58 \$0 22 \$0.11 \$0.45 \$4 32 \$0 22	0 94% 0.47% 1 87% 18 00% 0 94%	80% 100% 100% 0% 100%	1% 100% 100% 0% 100%	5% 100% 100% 0% 100%	13% 100% 100% 0% 100%	80% 100% 100% 0% 100%
Fees, Permits, Licenses Utilities Insurance Fuel (motor vehicle gasoline) Consumables/Tools and Misc. Supplies	\$67,396 \$33,698 \$134,793 \$1,296,082 \$67,396 \$438,076	\$0 58 \$0 22 \$0.11 \$0.45 \$4 32 \$0 22 \$1.46	0 94% 0.47% 1 87% 18 00% 0 94% 6 08%	80% 100% 100% 0% 100%	1% 100% 100% 0%	5% 100% 100% 0%	13% 100% 100% 0% 100% 24%	80% 100% 100% 0%
Fees, Permits, Licenses Utilities Insurance Fuel (motor vehicle gasoline) Consumables/Tools and Misc. Supplies Replacement Parts/Equipment/ Spare Parts Inventory Subtotal	\$67,396 \$33,698 \$134,793 \$1,296,082 \$67,396 \$438,076 \$3,838,995 \$6,049,247	\$0 58 \$0 22 \$0.11 \$0.45 \$4 32 \$0 22	0 94% 0.47% 1 87% 18 00% 0 94%	80% 100% 100% 0% 100% 100% 2%	1% 100% 100% 0% 100% 2%	5% 100% 100% 0% 100% 10%	13% 100% 100% 0% 100%	80% 100% 100% 0% 100% 100%
Fees, Permits, Licenses Utilities Insurance Fuel (motor vehicle gasoline) Consumables/Tools and Misc. Supplies Replacement Parts/Equipment/ Spare Parts Inventory Subtotal Sales Tax (Materials & Equipment Purchases)	\$67,396 \$33,698 \$134,793 \$1,296,082 \$67,396 \$438,076 \$3,838,995 \$6,049,247 \$177,995	\$0 58 \$0 22 \$0.11 \$0.45 \$4 32 \$0 22 \$1.46 \$12.80	0 94% 0.47% 1 87% 18 00% 0 94% 6 08% 53 32%	80% 100% 100% 0% 100% 2%	1% 100% 100% 0% 100% 2%	5% 100% 100% 0% 100% 10%	13% 100% 100% 0% 100% 24%	80% 100% 100% 0% 100% 100%
Fees, Permits, Licenses Utilities Insurance Fuel (motor vehicle gasoline) Consumables/Tools and Misc. Supplies Replacement Parts/Equipment/ Spare Parts Inventory Subtotal Sales Tax (Materials & Equipment Purchases) Other Taxes/Payments	\$67,396 \$33,698 \$134,793 \$1,296,082 \$67,396 \$438,076 \$3,838,995 \$6,049,247	\$0 58 \$0 22 \$0.11 \$0.45 \$4 32 \$0 22 \$1.46 \$12.80	0 94% 0.47% 1 87% 18 00% 0 94% 6 08% 53 32%	80% 100% 100% 0% 100% 100% 2%	1% 100% 100% 0% 100% 2%	5% 100% 100% 0% 100% 10%	13% 100% 100% 0% 100% 24%	80% 100% 100% 0% 100% 100%
Fees, Permits, Licenses Utilities Insurance Fuel (motor vehicle gasoline) Consumables/Tools and Misc. Supplies Replacement Parts/Equipment/ Spare Parts Inventory Subtotal Sales Tax (Materials & Equipment Purchases)	\$67,396 \$33,698 \$134,793 \$1,296,082 \$67,396 \$438,076 \$3,838,995 \$6,049,247 \$177,995	\$0 58 \$0 22 \$0.11 \$0.45 \$4 32 \$0 22 \$1.46 \$12.80	0 94% 0.47% 1 87% 18 00% 0 94% 6 08% 53 32%	80% 100% 100% 0% 100% 2%	1% 100% 100% 0% 100% 2%	5% 100% 100% 0% 100% 10%	13% 100% 100% 0% 100% 24%	80% 100% 100% 0% 100% 100%
Fees, Permits, Licenses Utilities Insurance Fuel (motor vehicle gasoline) Consumables/Tools and Misc. Supplies Replacement Parts/Equipment/ Spare Parts Inventory Subtotal Sales Tax (Materials & Equipment Purchases) Other Taxes/Payments Total (with Sales Tax and Other Taxes/Payments Financing (avg ann debt payment) Equity Payment - Individuals (avg ann payment)	\$67,396 \$33,698 \$134,793 \$1,296,082 \$67,396 \$438,076 \$3,838,995 \$6,049,247 \$177,995	\$0 58 \$0 22 \$0.11 \$0.45 \$4 32 \$0 22 \$1.46 \$12.80	0 94% 0.47% 1 87% 18 00% 0 94% 6 08% 53 32%	80% 100% 100% 0% 100% 2%	1% 100% 100% 0% 100% 2%	5% 100% 100% 0% 100% 10%	13% 100% 100% 0% 100% 24%	80% 100% 100% 0% 100% 100%
Fees, Permits, Licenses Utilities Insurance Fuel (motor vehicle gasoline) Consumables/Tools and Misc. Supplies Replacement Parts/Equipment/ Spare Parts Inventory Subtotal Sales Tax (Materials & Equipment Purchases) Other Taxes/Payments Total (with Sales Tax and Other Taxes/Payments Financing (avg ann debt payment) Equity Payment - Individuals (avg ann payment) Equity Payment - Corporations (avg ann payment)	\$67,396 \$33,698 \$134,793 \$1,296,082 \$67,396 \$438,076 \$3,838,995 \$6,049,247 \$177,995	\$0 58 \$0 22 \$0.11 \$0.45 \$4 32 \$0 22 \$1.46 \$12.80	0 94% 0.47% 1 87% 18 00% 0 94% 6 08% 53 32%	80% 100% 100% 0% 100% 2%	1% 100% 100% 0% 100% 2%	5% 100% 100% 0% 100% 10%	13% 100% 100% 0% 100% 24%	80% 100% 100% 0% 100% 100%
Fees, Permits, Licenses Utilities Insurance Fuel (motor vehicle gasoline) Consumables/Tools and Misc. Supplies Replacement Parts/Equipment/ Spare Parts Inventory Subtotal Sales Tax (Materials & Equipment Purchases) Other Taxes/Payments Total (with Sales Tax and Other Taxes/Payments Financing (avg ann debt payment) Equity Payment - Individuals (avg ann payment)	\$67,396 \$33,698 \$134,793 \$1,296,082 \$67,396 \$438,076 \$3,838,995 \$6,049,247 \$177,995	\$0 58 \$0 22 \$0.11 \$0.45 \$4 32 \$0 22 \$1.46 \$12.80	0 94% 0.47% 1 87% 18 00% 0 94% 6 08% 53 32% 84 02%	80% 100% 100% 0% 100% 100% 100%	1% 100% 100% 0% 100% 2%	5% 100% 100% 0% 100% 10%	13% 100% 100% 0% 100% 24%	80% 100% 100% 0% 100% 100%
Fees, Permits, Licenses Utilities Insurance Fuel (motor vehicle gasoline) Consumables/Tools and Misc. Supplies Replacement Parts/Equipment/ Spare Parts Inventory Subtotal Sales Tax (Materials & Equipment Purchases) Other Taxes/Payments Total (with Sales Tax and Other Taxes/Payments Financing (avg ann debt payment) Equity Payment - Individuals (avg ann payment) Equity Payment - Corporations (avg ann payment) Land Lease	\$67,396 \$33,698 \$134,793 \$1,296,082 \$67,396 \$438,076 \$3,838,995 \$6,049,247 \$177,995	\$0 58 \$0 22 \$0.11 \$0.45 \$4 32 \$0 22 \$1.46 \$12.80	0 94% 0.47% 1 87% 18 00% 0 94% 6 08% 53 32%	80% 100% 100% 0% 100% 100% 100%	1% 100% 100% 0% 100% 2%	5% 100% 100% 0% 100% 10%	13% 100% 100% 0% 100% 24%	80% 100% 100% 0% 100% 100%

Other Parameters							
Financial Parameters			Local Share				
Debt Financing							
Percentage financed	80%		0%				
Years financed (term)	10						
Interest rate	6.3%						
Average Annual Payment (Interest and Principal)	\$						
Equity Financing/Repayment			Local Share				
Percentage equity	20%						
Individual Investors (percent of equity)	0%		100%				
Corporate Investors (percent of equity)	100%		0%				
Return on equity	12%						
Repayment term (years)	10						
Tax Parameters							
Local Property/Other Tax Rate (average millage rate - \$/\$1,000 a	NA NA	0%					
Assessed Value (percent of construction cost)	NA	100%					
,		100%					
Taxable Value	NA	#VALUE!					
Taxes Per MW	NA						
Local Taxes	NA	#VALUE!	100%				
Local Sales Tax Rate	4.00%		100%				
Land Lease Parameters							
Land Lease Cost (per turbine)							
Land Lease (total cost)							
Lease Payment Recipient (F = farmer/household, O = Other)	F	1	5 100%				
Warranty/Maintenance Services	not applicable						
Cost per Turbine							
Payroll Parameters	Payroll Cost	wage/hour	Payroll expense	Payroll expens Default	Us	ser Revised	
Construction Labor							Default
Foundation	\$29 5	\$21.44	\$8.06	38%	49.93	49.93	61356
Erection	\$33.4	1 \$24.28	\$9.13	38%	39.42	39.42	69494
Electrical	\$44 2	\$32.17	\$12.10	38%	40.47	40.47	92067
Management/Supervision	\$60.1	7 \$43.73	\$16.44	38%	0.00	0.00	125156
O&M Labor		121.6	51	1.50 Direct P	lant Emplo	oyees	
Field Salaries (technicians, other)	\$40 2	\$29.25	\$11.00	38%	10.80	9.29	83728
Administrative	\$25.7		\$7.04	38%	1.60	1.38	53586
Management	\$64.4		\$17.60	38%	1.20	1.03	133964
		9	15	1	13.60	11.70	

					Ann A	vg Increase 0.00	2	005-2008	0.17					
	Avera	age installed project	ct cost per kW 2001	2002	1940	2004	2005	2006	2007	2008	2009	2010	2011	2012
					2003									
	2	1284	1031	1225	1135	1075	1236	1496	1689	2043	2043	2043	2043	1940
			ruction Loc. Adj. stalled Cost (per KW)	)	1.17 1983									
0														
Ů		30000												
		100000			300000			400000		Percent	Δνα	Loc Adi	Percent	
-0.429	8%	0%	(0.50)	78%	-27%	(3.00)	0%	90%	0.1114	0.0881	Avg 171	Loc Adj 171	0.0861	
-0.429	0%	0%	(0.50)	0%	0%	(3.00)	0%	0%	0.0126	0.0223	43	43	0.0218	
-0.429	0%	0%	(0.50)	0%	0%	(3.00)	100%	-300%	0.0133	0.0105	20	20	0.0103	
-0.429	0%	0%	(0.50)	0%	0%	(3.00)	70%	-210%	0.0243 0.1615	0.0192 0.1400	37 272	37 272	0.0188 0.1370	
-0.429	8%	-2%	(0.50)	19%	0%	(3.00)	66%	-170%		0.0302	59	69	0.0346	0.27
-0.429	1%	0%	(0.50)	5%	0%	(3.00)	68%	-198%		0.0302	59	69	0.0346	0.27
-0.429	4%	-1%	(0.50)	9%	0%	(3.00)	56%	-155%		0.0333	65	76	0.0381	0.30
-0.429 -0.429	0% 0%	0% 0%	(0.50) (0.50)	0% 0%	0% 0%	(3.00)	0% 50%	0% -150%		0.0181 0.0000	35 0	41 0	0.0208 0.0000	0.16 0.00
-0.423	070	070	(0.50)	070	070	(5.00)	30 /0	-130 /0		0.1119 0.2519	217 489	254 526	0.1281 0.2650	1.00
-0.429	0%	0%	(0.50)	0%	0%	(3.00)	0%	0%	0.4610	0.4306	835	835	0.4212	
-0.429 -0.429	0% 0%	0% 0%	(0.50) (0.50)	0% 0%	0% 0%	(3.00)	0% 0%	0% 0%	0.1079 0.1195	0.1008 0.1116	196 217	196 217	0.0986 0.1092	
-0.429	0%	0%	(0.50)	0%	0%	(3.00)	0%	0%	0.0825	0.0770	149	149	0.0754	
525			(====)	-,-		(4.44)			0.7708	0.7200	1397	1397	0.7043	
-0.429	5%	-2%	(0.50)	12%	0%	(3.00)	72%	-197%	0.0100	0.0196	38	44	0.0224	
-0.429	0%	0%	(0.50)	0%	0%	(3.00)	0%	0%	0.0104	0.0064	12	12	0.0063	
-0.429 -0.429	0%	0%	(0.50)	0%	0%	(3.00)	100%	-300%	0.0104	0.0004	12	1	0.0005	
-0.429	0%	100%	(0.50)	0%	100%	(3.00)	0%	100%	0.0000	0.0000	0	0	0.0000	
-0.429	0%	100%	(0.50)	0%	100%	(3.00)	0%	100%	0.0027	0.0014	3	3	0.0014	
									0.0288	0.0280	54	61	0.0306	
-0.429	0%	100%	(0.50)	0%	100%	(3.00)	0%	100%	0.0027	0.0014	\$1,940 3	\$1,983 3	0.0014	
									0.0380	-0.1119				
-0.429	0%	100%	(0.50)	0%	100%	(3.00)	0%	100%						
-0.429 -0.429	0%	100%	(0.50)	0%	100%	(3.00)	0%	100%						
-0.429	0%	100%	(0.50)	0%	100%	(3.00)	0%	100%						
-0.429	0%	0%	(0.50)	0%	0%	(3.00)	0%	0%						
-0.429	0%	0%	(0.50)	100%	-50%	(3.00)	0%	100%		0 4%	0.0319	0.0319		0.0286
-0.429	4%	-1%	(0.50)	8%	1%	(3.00)	67%	-189%		0.0710	0.0536	0.0536		0.0111
-0.429	0%	100%	(0.50)	0%	100%	(3.00)	0%	100%		0.0143	0.0108	0.0108		0.0056
-0.429	0%	100%	(0.50)	0%	100%	(3.00)	0%	100%		0.0576	0.0435	0.0435		0.0223
-0.429	0%	0%	(0.50)	0%	0%	(3.00)	0%	0%		0.2013	0.1520	0.1520		0.2143
-0.429 -0.429	0% 7%	100% -1%	(0.50) (0.50)	0% 15%	100% 2%	(3.00)	0% 76%	100% -203%		0.0303 0.4242	0.0229 0.3203	0.0229 0.3203		0.0111 0.0724
-0.429	0%	0%	(0.50)	0%	0%	(3.00)	2%	-6%		0.4242	0.1201	0.3203		0.6346
		- **	\/			,,				1.000	0.755			<del>-</del>

2013 1940	2014 1940	2015 1940	2016 1940	2017 1940	2018 1940	2019 1940	2020 1940	2021 1940	2022 1940	2023 1940	2024 1940	2025 1940	2026 1940	2027 1940	2028 1940	2029 20 1940 19	
							Avg. Turbir 2003 and e After 2003	ne Size (KW Parlier	7) 700 1500	1500		O&M Cost <=20 MW 100 MW	\$25.56 per \$20.56 per				
Const. Jobs/ Const. Jobs Foundation Erection Electrical Management Foundation Job Erection Jobs/N Electrical/MW Management/sı Misc.	0.781276 0.781276 0.859403 0.328045 0.0380	0.568201 0.625021 0.238578 0.0380	0.355125 0.390638	0.0380	0.241485 0.265634 0.101396 0.0380	0.0380	0.191768 0.210944 0.08052 0.0380		0.175195 0.192715 0.073562 0.0380	300	185 0.175195 0.175195 0.192715 0.073562	Total Jobs 53 53 58 22 185	Local Jobs Loc 50 39 40 0 130 User Revised 3224762 3652501 5322794 2762008	50 39 40 0 130	50 39 40 0 130		
0&M Jobs/ Field Tech Admin Management Total Tech/MW Admin/MW Mgmt/MW  65575 110356 22138 89535 312725 47064 658984 247719 1553496	30 2.00 0.30 0.50 2.8 0.067 0.010 0.017 0.983 1.000 172811 67396 438076 33698 438076 3838995 6049247 177995	60 2.40 0.60 1.00 4.0 0.040 0.010 0.017 1.000 0.985	75 3.00 0.75 1.00 4.8 0.040 0.010 0.013 1.000 1.000 0.989	100 4.0 1.0 1.0 6.0 0.040 0.010 1.000 0.992 0.992	150 6.0 1.0 1.0 8.0 0.040 0.007 1.000 1.000 0.994	200 8.0 1.3 1.0 10.3 0.040 0.007 0.005 0.998 0.996	250 9.0 1.3 1.0 11.3 0.036 0.005 0.004 1.000 1.000	300 0.036 0.005 0.004 1.000 1.000	100 7 1 1 MW 0.070 0.010 0.010		Tech labor Admin labo Mgmt labor	r per MW		0.036 0.005 0.004		D&M Cost per KW D&M Cost Adj funci	\$20.56 tior 0.9973 26 21

Govt													
Heal h/Ins/ Total	30.5% User Revised Data 38% Payroll Cost wage/hour		Payroll expense Payro	Payroll expense									
	\$29 50	\$21.44	\$8.06	38%	61356								
	\$33.41	\$24.28	\$9.13	38%	69494								
	\$44 26	\$32.17	\$12.10	38%	92067								
	\$60.17	\$43.73	\$16.44	38%	125156								
		122		2								ad	per KW adjust
	\$40 25	\$29.25	\$11.00	38%	83728	904259	\$34.40	\$25.00	\$9.40	38%	71555		•
	\$25.76	\$18.72	\$7.04	38%	53586	85737	\$22.02	\$16.00	\$6 02	38%	45795	73273	
	\$64.41	\$46.80	\$17.60	38%	133964	160757	\$55.04	\$40.00	\$15 04	38%	114488	137386	
		92		_								983454	
												167298	\$0.56

	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
rnment	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000	1.0000
Professional Serv Government	0000	0000	0000	0000	0.0000	00000	0000	0000	0000	0.0000	0000	0000	0000	0000
rofessional	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.	0.0
	0.000.0	0.000.0	0.000.0	0.000.0	0.000.0	0.000.0	0.000.0	0.000.0	0.000.0	0.000.0	0.000.0	0.5044	0.000.0	0.0000
Other Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FIRE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000	1.0000	0.0000	0.000	0.0000
	0.2923	0.000.0	0.000.0	0.000.0	0.000.0	0.000.0	0.000.0	0.000.0	0.000.0	0.3113	0.000.0	0.3611	0.000.0	0.0000
Wholesale Retail Trade	25	74	00	98	00	- 62	51	00	00	87	00	21	0000	0000
Wholes	6 0.0725	5 0.0074	0.0000	0 0.4186	0.0000	9 0.3679	1 0.4751	0.0000	0 1.0000	0 0.6887	0.0000	4 0.0921	0	0
2	0.0516	0.6305	0.0000	0.0230	0.0000	0.000	0.0121	1.0000	0.0000	0.0000	0.0000	0.0424	0.0000	0.0000
Electrical Equip TCPU	0.000.0	0.000.0	0000.0	0.000.0	0000.0	0.000.0	0.5128	0.000.0	0.000.0	0000.0	0.000.0	0.000.0	0000.0	0.000.0
Electrica	_	_	_	_	_	_	_	_	_	_	_	_	_	_
chinery	0.0000	0.0000	0.0000	0.0000	0.0000	0.6313	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Manufac Fabricated Meta Machinery	0.0000	0.0000	0.0000	0.0000	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
c Fabricat	0	0	0	4	0	0	0	0	0	0	0	0	0	0
ner Manufa	0.0000	0.0000	0.0000	0.5584	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.000.0	0.000.0	1.0000	0.000.0	0.000.0	0.000.0	0.0000	0.000.0	0.000.0	0.000.0	0.000.0	0.0000	0.000.0	0.0000
Construction														
	0.000	0.3621	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Mining	37	00	00	00	00	00	00	00	00	00	00	00	00	00
nre	0.5837	0.0000	0.0000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000	0.000	0.000	0.000	0.0000
Agriculture														

Alabama Alaska Arizona Arkansas California Colorado Connecticut Delaware District of CFloric	da Georgia Hawaii
Taxes per MW         \$15.651         \$6.173         \$9.266         \$5.676           State Taxes per MW         \$7.575	
\$7,575	
US average cost per MW \$8,570 US median cost per MW \$7,399	
Sales Tax 0.0400 0.0000 0.0560 0.0650 0.0750 0.0290 0.0635 0.0000 0.0575	0.0600 0.0400 0.0400
0.0400	
#N/A	
2016 Alabama Alaska Arizona Arkansas California Colorado Connecticut Delaware District of (Florid Property assessment ratio (%) 30% 0% NA 20% NA NA 100% 100% NA	100% 40% NA
Average millage rate (\$/\$1000 assessed value)         \$42.50         \$0.00 NA         \$46.69 NA         NA         \$19.44         \$23.40 NA           Property assessment ratio (%)         NA	\$17.33 \$30.00 NA
Average millage rate (\$/\$1000 assessed value)  NA	
Source: NREL 11/2016	
ldaho Illinois Indiana Iowa Kansas Kentucky Louisiana Maine Maryland Massachus Michigan Minnesota Mississippi Missouri Montana Myl	County MyRegion Nebraska Nevada
Idaho         Illinois         Indiana         Iowa         Kansas         Kentucky         Louisiana         Maryland         Massachus Michigan         Minnesota         Mississippi         Missouri         Montana         My           \$3 842         \$6 900         \$15 798         \$4 500         \$2 900         \$14 542         \$8 727         \$16 680         \$18 586         \$2 800         \$14 857	\$3 942 \$7 279
0.0600 0.0625 0.0700 0.0600 0.0650 0.0600 0.0550 0.0600 0.0625 0.0600 0.0688 0.0700 0.0423 0.0000 #	‡N/A #N/A 0.0550 0.0685
	County MyRegion Nebraska Nevada
0% NA NA NA NA 100% 10% 100% NA 0% NA 0% 15% NA 3% \$0.00 NA NA NA NA \$11.40 \$151.00 \$14.72 NA \$0.00 NA \$0.00 \$112.57 NA \$435.00 \$	3% 3% 0% 35% 435.00 \$435.00 \$0.00 \$31.60
	to West Virgiı Wisconsin Wyoming
\$10,152         \$7,575         \$10,708         \$2,813         \$21,968         \$6,435         \$1,750         \$4,878         \$6,864         \$10,986         \$11,120         \$9,900	\$1,515 \$1,939 \$7,519
0.0000 0.0700 0.0513 0.0400 0.0475 0.0500 0.0575 0.0450 0.0000 0.0600 0.0700 0.0600 0.0450 0.0700 0.0625 0.0600 0.0430 0.0650 0.0600	0.0500 0.0400 0.0515 <u>#N/A</u>
New Hamp New Jerse New Mexic New York North Carc North Dakc Ohio Oklahoma Oregon Pennsylvai Rhode Isla South Carc South Dak Tennessee Texas United Sta' Utah Vermont Virginia Washing NA 100% NA NA 100% NA NA 100% NA NA 100% 11% 0% 55% NA NA 0% 100% 0% NA	to West Virgii Wisconsin Wyoming 0% 0% NA
NA \$23.51 NA NA \$6.52 NA \$0.00 NA NA NA \$27.62 \$467.00 \$0.00 \$34.00 NA NA \$0.00 \$6.68 \$0.00 NA	\$0.00 \$0.00 NA

## **Warning**

This Worksheet contains Data and Formulas that are an integral part of the JEDI model.

Although the data and formulas are available for review they must not be changed.

Any changes to the data or formulas will impact the analysis and may invalidate the model results.

To view the data and formulas simply scroll over to the adjacent columns to the right.

#### Conversion to Year 2014 dollars and back for consistency with multiplier data.

Year of I	Multiplier Data	2014	Re	egion of Analysis	NE	W YORK										
Year of	Construction \$s	2017														
	Deflator		0.938													
	Inflator		1.066													
	imator															
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
2005\$	1.0000	1.0325	1.0606	1.0826	1.0952	1.1048	1.1273	1.1478	1.1676	1.1875	1.2036	1.2226	1.2446	1.2686	1.2941	1.3200
00000	1.000	0.969	0.943	0.924	0.913	0.905	0.887	0.871	0.857	0.842	0.831	0.818	0.804	0.788	0.773	0.758
2006\$	0.9685	1.0000	1.0272	1.0485	1.0607	1.0700	1.0917	1.1117	1.1308	1.1501	1.1657	1.1841	1.2053	1.2287	1.2533	1.2784
2007\$	1.033 0.9429	1.000 0.9736	0.974 1.0000	0.954 1.0208	0.943 1.0326	0.935 1.0417	0.916 1.0629	0.900 1.0823	0.884 1.1009	0.870 1.1197	0.858 1.1349	0.845 1.1528	0.830 1.1735	0.814 1.1962	0.798 1.2202	0.820 1.2446
2007\$	1.061	1.027	1.000	0.980	0.968	0.960	0.941	0.924	0.908	0.893	0.881	0.867	0.852	0.836	0.820	0.804
2008\$	0.9237	0.9538	0.9797	1.0000	1.0116	1.0205	1.0413	1.0603	1.0785	1.0969	1.1118	1.1294	1.1496	1.1719	1.1953	1.2193
2000\$																
20000	1.083	1.049	1.021	1.000	0.989	0.980	0.960	0.943	0.927	0.912	0.900	0.885	0.870	0.853	0.837	0.820
2009\$	0.9131 1.095	0.9428 1.061	0.9684 1.033	0.9885 1.012	1.0000 1.000	1.0088 0.991	1.0293 0.972	1.0481 0.954	1.0661 0.938	1.0843 0.922	1.0990 0.910	1.1164 0.896	1.1364 0.880	1.1584 0.863	1.1816 0.846	1.2053 0.830
2010\$	0.9051	0.9346	0.9600	0.9799	0.9913	1.0000	1.0203	1.0390	1.0568	1.0748	1.0894	1.1067	1.1265	1.1483	1.1713	1.1948
2010\$	1.105	1.070	1.042	1.021	1.009	1.000	0.980	0.963	0.946	0.930	0.918	0.904	0.888	0.871	0.854	0.837
2011\$	0.8871	0.9160	0.9408	0.9604	0.9715	0.9801	1.0000	1.0183	1.0358	1.0534	1.0677	1.0846	1.1041	1.1254	1.1480	1.1710
20119	1.127	1.092	1.063	1.041	1.029	1.020	1.000	0.982	0.966	0.949	0.937	0.922	0.906	0.889	0.871	0.854
2012\$	0.8712	0.8995	0.9240	0.9431	0.9541	0.9625	0.9821	1.0000	1.0172	1.0345	1.0486	1.0652	1.0842	1.1052	1.1274	1.1500
20120	1.148	1.112	1.082	1.060	1.048	1.039	1.018	1.000	0.983	0.967	0.954	0.939	0.922	0.905	0.887	0.870
2013\$	0.8565	0.8843	0.9084	0.9272	0.9380	0.9463	0.9655	0.9831	1.0000	1.0171	1.0309	1.0472	1.0659	1.0866	1.1083	1.1306
20.00	1.168	1.131	1.101	1.079	1.066	1.057	1.036	1.017	1.000	0.983	0.970	0.955	0.938	0.920	0.902	0.885
2014\$	0.842	0.870	0.893	0.912	0.922	0.930	0.949	0.967	0.983	1.000	1.014	1.030	1.048	1.068	1.090	1.112
	1.188	1.150	1.120	1.097	1.084	1.075	1.053	1.035	1.017	1.000	0.987	0.971	0.954	0.936	0.918	0.900
2015\$	0.831	0.858	0.881	0.900	0.910	0.918	0.937	0.954	0.970	0.987	1.000	1.016	1.034	1.054	1.075	1.097
	1.204	1.166	1.135	1.112	1.099	1.089	1.068	1.049	1.031	1.014	1.000	0.984	0.967	0.949	0.930	0.912
2016\$	0.818	0.845	0.867	0.885	0.896	0.904	0.922	0.939	0.955	0.971	0.984	1.000	1.018	1.038	1.058	1.080
	1.223	1.184	1.153	1.129	1.116	1.107	1.085	1.065	1.047	1.030	1.016	1.000	0.982	0.964	0.945	0.926
2017\$	0.804	0.830	0.852	0.870	0.880	0.888	0.906	0.922	0.938	0.954	0.967	0.982	1.000	1.019	1.040	1.061
	1.245	1.205	1.174	1.150	1.136	1.127	1.104	1.084	1.066	1.048	1.034	1.018	1.000	0.981	0.962	0.943
2018\$	0.788	0.814	0.836	0.853	0.863	0.871	0.889	0.905	0.920	0.936	0.949	0.964	0.981	1.000	1.020	1.041
	1.269	1.229	1.196	1.172	1.158	1.148	1.125	1.105	1.087	1.068	1.054	1.038	1.019	1.000	0.980	0.961
2019\$	0.773	0.798	0.820	0.837	0.846	0.854	0.871	0.887	0.902	0.918	0.930	0.945	0.962	0.980	1.000	1.020
	1.294	1.253	1.220	1.195	1.182	1.171	1.148	1.127	1.108	1.090	1.075	1.058	1.040	1.020	1.000	0.980
2020\$	0.758	0.782	0.804	0.820	0.830	0.837	0.854	0.870	0.885	0.900	0.912	0.926	0.943	0.961	0.980	1.000
	1.320	1.278	1.245	1.219	1.205	1.195	1.171	1.150	1.131	1.112	1.097	1.080	1.061	1.041	1.020	1.000

Source: Deflators and Inflators derived from data contained in the Budget of the United States Government: Table 10.1 - Gross Domestic Product and Deflators Used in the Historical Tables 1940-2020.

https://www.whitehouse.gov/omb/budget/Historicals
Updated November 2016. Deflators for 2021-2040 assume average annual inflation rate derived from 2014-2020 GDP values.

2021	2022	2023	2024	2025	2026	2027	2028	2029	2030			
1.3434	1.367	1 391	1.416	1.441	1.466	1.492	1 519	1.546	1.573	1.601	1.629	1 658
0.744	0.732	0.719	0.706	0.694	0.682	0.670	0 658	0.647	0.636	0.625	0.614	0 603
1.3010	1.324	1 348	1.371	1.396	1.420	1.445	1.471	1.497	1.523	1.550	1.578	1 606
0.769	0.755	0.742	0.729	0.717	0.704	0.692	0 680	0.668	0.656	0.645	0.634	0 623
1.2666	1.289	1 312	1.335	1.359	1.383	1.407	1.432	1.457	1.483	1.509	1.536	1 563
0.790	0.776	0.762	0.749	0.736	0.723	0.711	0 698	0.686	0.674	0.663	0.651	0 640
1.2409	1.263	1 285	1.308	1.331	1.355	1.379	1.403	1.428	1.453	1.479	1.505	1 532
0.806	0.792	0.778	0.765	0.751	0.738	0.725	0.713	0.700	0.688	0.676	0.665	0 653
1.2266	1.248	1 270	1.293	1.316	1.339	1.363	1 387	1.411	1.436	1.462	1.488	1 514
0.815	0.801	0.787	0.774	0.760	0.747	0.734	0.721	0.709	0.696	0.684	0.672	0 661
1.2159	1.237	1 259	1.282	1.304	1.327	1.351	1 375	1.399	1.424	1.449	1.475	1 501
0.822	0.808	0.794	0.780	0.767	0.753	0.740	0.727	0.715	0.702	0.690	0.678	0 666
1.1917	1.213	1 234	1.256	1.278	1.301	1.324	1 347	1.371	1.395	1.420	1.445	1.471
0.839	0.825	0 810	0.796	0.782	0.769	0.755	0.742	0.729	0.717	0.704	0.692	0 680
1.1703	1.191	1 212	1.234	1.255	1.278	1.300	1 323	1.347	1.370	1.395	1.419	1.444
0.855	0.840	0 825	0.811	0.797	0.783	0.769	0.756	0.743	0.730	0.717	0.705	0 692
1.1506	1.171	1.192	1.213	1.234	1.256	1.278	1 301	1.324	1.347	1.371	1.395	1.420
0.869	0.854	0 839	0.825	0.810	0.796	0.782	0.769	0.755	0.742	0.729	0.717	0.704
1.131	1.151	1.172	1.192	1.213	1.235	1.257	1 279	1.302	1.325	1.348	1.372	1 396
0.884	0.869	0 854	0.839	0.824	0.810	0.796	0.782	0.768	0.755	0.742	0.729	0.716
1.116	1.136	1.156	1.176	1.197	1.218	1.240	1 262	1.284	1.307	1.330	1.354	1 378
0.896	0.880	0 865	0.850	0.835	0.821	0.807	0.793	0.779	0.765	0.752	0.739	0.726
1.099	1.118	1.138	1.158	1.179	1.199	1.221	1 242	1.264	1.287	1.309	1.333	1 356
0.910	0.894	0 879	0.864	0.849	0.834	0.819	0 805	0.791	0.777	0.764	0.751	0.737
1.079	1.099	1.118	1.138	1.158	1.178	1.199	1 220	1.242	1.264	1.286	1.309	1 332
0.926	0.910	0 895	0.879	0.864	0.849	0.834	0 819	0.805	0.791	0.777	0.764	0.751
1.059	1.078	1 097	1.116	1.136	1.156	1.176	1.197	1.218	1.240	1.262	1.284	1 307
0.944	0.928	0 912	0.896	0.880	0.865	0.850	0 835	0.821	0.807	0.793	0.779	0.765
1.038	1.057	1 075	1.094	1.114	1.133	1.153	1.174	1.194	1.216	1.237	1.259	1 281
0.963	0.947	0 930	0.914	0.898	0.882	0.867	0 852	0.837	0.823	0.808	0.794	0.781
1.018	1.036	1 054	1.073	1.092	1.111	1.131	1.151	1.171	1.192	1.213	1.234	1 256
0.983	0.966	0 949	0.932	0.916	0.900	0.885	0 869	0.854	0.839	0.825	0.810	0.796

1.687	1.717	1.748	1.778	1.810	1.842	1.875		
0.593	0.582	0.572	0.562	0.553	0.543	0.534		
1.634	1.663	1.692	1.722	1.753	1.784	1.815		
0.612	0.601	0.591	0.581	0.571	0.561	0.551		
1.591	1.619	1.648	1.677	1.707	1.737	1.767		
0.629	0.618	0.607	0.596	0.586	0.576	0.566		
1.559	1.586	1.614	1.643	1.672	1.701	1.732		
0.642	0.631	0.620	0.609	0.598	0.588	0.578		
1.541	1.568	1.596	1.624	1.653	1.682	1.712		
0.649	0.638	0.627	0.616	0.605	0.595	0.584		
1.527	1.554	1.582	1.610	1.638	1.667	1.697		
0.655	0.643	0.632	0.621	0.610	0.600	0.589		
1.497	1.523	1.550	1.578	1.606	1.634	1.663		
0.668	0.657	0.645	0.634	0.623	0.612	0.601		
1.470	1.496	1.522	1.549	1.577	1.605	1.633		
0.680	0.669	0.657	0.645	0.634	0.623	0.612		
1.445	1.471	1.497	1.523	1.550	1.578	1.605		
0.692	0.680	0.668	0.657	0.645	0.634	0.623		
1.421	1.446	1.472	1.498	1.524	1.551	1.579		
0.704	0.692	0.680	0.668	0.656	0.645	0.634		
1.402	1.427	1.452	1.478	1.504	1.530	1.557		
0.713	0.701	0.689	0.677	0.665	0.654	0.642		
1.380	1.404	1.429	1.455	1.480	1.507	1.533		
0.725	0.712	0.700	0.688	0.676	0.664	0.652		
1.356	1.380	1.404	1.429	1.454	1.480	1.506		
0.738	0.725	0.712	0.700	0.688	0.676	0.664		
1.330	1.354	1.377	1.402	1.427	1.452	1.478		
0.752	0.739	0.726	0.713	0.701	0.689	0.677		
1.304	1.327	1.350	1.374	1.399	1.423	1.449		
0.767	0.754	0.741	0.728	0.715	0.703	0.690		
1.278	1.301	1.324	1.347	1.371	1.395	1.420		
0.782	0.769	0.755	0.742	0.729	0.717	0.704		
2006 2007 4 6 5 7	7 2008 2009 8 10 9 11	2010 2011 12 14 13 15	2012 2013 16 18 17 19	2014 2015 20 22 21 23	2 24	2017 2018 26 28 27 29	2019 30 31	2020 32 33

### Warning

This Worksheet contains Data and Formulas that are an integral part of the JEDI model.

Although the data and formulas are available for review they must not be changed.

Any changes to the data or formulas will impact the analysis and may invalidate the model results.

To view the data and formulas simply scroll over to the adjacent columns to the right.

#### Economic Impact Analysis for

#### NEW YORK Wind Power Plant

•	Cost	Purchased Local	!	Local \$ Spending	
Balance of Plant					
Materials					
Construction (concrete rebar	\$54,805,851	90%		\$49,325,266	
Transformer	\$6,199,678	0%		\$0	
Electrical (drop cable, wire, )	\$6,534,880	100%		\$6,534,880	
HV line extension	\$11,937,045	70%		\$8,355,931	
Subtotal	\$79,477,453			\$64,216,077	
Labor					
Foundation	\$3,224,762	95%		\$3,063,524	
Erection	\$3,652,501			\$2,739,376	
Electrical	\$5,322,794			\$3,725,956	
Management/supervision	\$2,762,008			\$0 \$0,633,000	
Misc. Subtotal	\$19,266,000 \$34,228,066			\$9,633,000 \$19,161,856	9528856
Subtotal	\$113,705,519			\$83,377,933	0020000
Equipment Costs	, ,,,,,,,,			, , - ,	
Turbines (excluding blades ar	\$226,808,986	0%		\$0	
Blades	\$53,099,094	0%		\$0	
Towers	\$58,788,282			\$0	
Transportation	\$40,582,879			\$0	0.004
Subtotal	\$379,279,241			\$0	0.894
Development/Other Costs HV Sub/Interconnection					Labor
Materials	\$3,766,597	90%		\$3,389,937	
Labor	\$1,153,783			\$115,378	103204
Engineering	\$5,125,395			\$0	.00201
Legal Services	\$2,793,340			\$2,793,340	
Land Easements	\$0			\$0	
Site Certificate	\$1,306,976				Eng. & Prof. Svcs.&
Subtotal All Coata (without	\$14,146,091				Other Sectors (not C
Subtotal All Costs (withou Sales Tax (Materials &	1 \$507,130,851			\$90,983,564	
Equipment Purchases)	\$16,726,953	100%		\$16,726,953	
Total	\$523,857,803				Manufacturing Jobs
	\$1,746			, , ,	<b>9</b>
Year	2017		nvert to 2014 dollars	0.94	
<b>Construction Costs Local De</b>	mand		0		
	Demand	٦	Γotal	Adj Demand	
			Millio	ons of 2014 dollars	3338
Agriculture	\$0		\$0	\$0.000	\$96,816
Mining	\$0		\$0	\$0.000	Const
Construction	\$67,313,258		\$67,313,258	\$63.147	\$8.9
Manufacturing	\$9,924,816		\$9,924,816	\$9.310	\$0.1
Fabricated Metals	\$0		\$0	\$0.000	\$54.1
Machinery	\$0		\$0	\$0.000	
Electrical Equipment	\$0		\$0	\$0.000	
TCPU	\$0		\$0	\$0.000	
Wholesale Trade	\$0		\$0	\$0.000	
Retail Trade	\$4,816,500		\$4,816,500	\$4.518	
FIRE	\$0		\$0	\$0.000	
Misc. Services	\$4,816,500		\$4,816,500	\$4.518	
Professional Services	\$2,805,514		\$2,805,514	\$2.632	
Government	\$18,033,928		\$18,033,928	\$16.918	
Total	\$107,710,517		\$107,710,517	\$101.04	
	. , -,		. , -,	, - , -	

Wind Farm Annual Operati	ng and Maintenan	ce Costs				Gross incl benefits	3		
	Cost	Local Share	E	mpl Earnings	Local \$ Spending	Empl Earnings	Govt Share	Health Ben, etc.	
Variable Costs									
Personnel									
Field Salaries	\$777,663		100%	\$485,214	\$485,214	\$722,303	\$55,359	\$237,089	
Adminstrative	\$73,734		100%	\$46,005	\$46,005	\$68,485	\$5,249	\$22,480	
Manangement	\$138,251		100%	\$86,260	\$86,260	\$128,409	\$9,842	\$42,149	
Subtotal	\$989,648			\$617,480	\$617,480	\$919,198	\$70,450	\$301,718	\$989,648
Warranty/Maintenance Service	\$0								
Total	\$989,648								
Fixed Costs									
Materials and Services									
Vehicles	\$172,811		100%		\$172,811				
Misc. Services	\$67,396		80%		\$53,917				
Fees, Permits, Licenses	\$33,698		100%		\$33,698				
Utilities	\$134,793		100%		\$134,793				
Insurance	\$1,296,082		0%		\$0				
Fuel (gals)	\$67,396		100%		\$67,396				
Tools and Misc. Supplies	\$438,076		100%		\$438,076				
Spare Parts Inventory	\$3,838,995		2%		\$76,780				
Subtotal	\$6,049,247	\$	20.16		\$977,471				
Sales Tax (Materials &									
Equipment Purchases)	\$177,995		100%		\$177,995				
Other Taxes/Payments	\$0		100%		\$0				
Financing (debt payment)			0%		\$0	\$0	Debt Pmt - Loca	al share Avg Ann Int	erest
Equity Payment - Individuals			100%		\$0	\$0	Equity Pmt - Inc	lividual Share Avg A	nn Interest
Equity Payment - Corporate			0%		\$0	\$0	Equity Pmt - Co	rporate Share Avg A	Ann Interest
Property Taxes			100%		\$2,340,000		Υ		Υ
Land Lease			100%		3	\$	To House	\$0 To	o FIRE
Total									
Total (without debt, equity, prop Total cost per KW		\$				\$ 3,782,371			
	Local Share	1.0		0.5					



	Demand	PCE-Land Lease	PCE -Equity	Total	Adj Demand - Million
		To Farm/House	To Individuals	w/o Plant Empl	2014 Dollar
Agriculture	\$0		\$0	\$3,793	\$0.004
Mining	\$0		\$0	\$0	\$0.000
Construction	\$0		\$0	\$0	\$0.000
Manufacturing	\$32,156		\$0	\$70,087	\$0.066
Fabricated Metals	\$0		\$0	\$0	\$0.000
Machinery	\$0		\$0	\$0	\$0.000
Electrical Equipment	\$9,843		\$0	\$9,843	\$0.009
TCPU	\$138,638		\$0	\$186,685	\$0.175
Wholesale Trade	\$505,331		\$0	\$564,756	\$0.530
Retail Trade	\$230,609		\$0	\$349,461	\$0.328
FIRE	\$301,718		\$0	\$482,524	\$0.453
Misc. Services	\$27,195		\$0	\$818,695	\$0.768
Professional Services	\$0		\$0	\$12,644	\$0.012
Government	\$2,622,143		\$0	\$2,632,258	\$2.469
Гotal	\$3,867,634		\$0	\$5,130,745	5 \$4.81
Plant Employees		Earnings - Gross		\$989,648	\$0.000
Plant Employees		Employee - (SSI, Me	7%	\$70,450	0%
Field Salaries/Technicians	9.29	Other benefits	30%	\$301,718	
Administrative/Secretarial		Earnings (minus taxes	, benefits, etc)	\$617,480	)
Site Management Total	1.03 11.7				
Plant Employee Spending			PCE		Adj Demand - Million
			Plant Emp		2014 Dollar
Agriculture			\$1,852		\$0.002
Mining			0.2		የበ በበበ

PCE	Adj Demand - Million
Plant Emp	2014 Dollars
\$1,852	\$0.002
\$0	\$0.000
\$0	\$0.000
\$18,524	\$0.017
\$0	\$0.000
\$0	\$0.000
\$0	\$0.000
\$23,464	\$0.022
\$29,022	\$0.027
\$58,043	\$0.054
\$390,018	\$0.366
\$386,542	\$0.363
\$6,175	\$0.006
\$4,940	\$0.005
\$918,580	\$0.862
	Plant Emp \$1,852 \$0 \$0 \$18,524 \$0 \$0 \$0 \$0 \$0 \$0 \$23,464 \$29,022 \$58,043 \$390,018 \$386,542 \$6,175 \$4,940

Annual O&M Costs Local Demand	l	<b>Construction Costs</b>	Local Demand
	Demand	Demand	
Agriculture	\$0	\$0	\$0
Mining	\$0	\$0	\$0
Construction	\$0	\$67,313,258	\$50,396,934
Manufacturing	\$57,585	\$9,924,816	\$7,638,698
Fabricated Metals	\$0	\$0	\$0
Machinery	\$0	\$0	\$0
Electrical Equipment	\$19,195	\$0	\$0
TCPU	\$134,793	\$0	\$0
Wholesale Trade	\$0	\$0	\$0
Retail Trade	\$678,283	\$4,816,500	\$3,686,000
FIRE	\$301,718	\$0	\$0
Misc. Services	\$53,917	\$4,816,500	\$3,686,000
Professional Services	\$0	\$2,805,514	\$2,159,282
Government	\$2,622,143	\$18,033,928	\$1,005,922
Total	\$3,867,634	\$107,710,517	\$68,572,836

Default							Default							
From DefaultData							From Default	Data						
Debt - Loan Repayment S			_				Equity - Indiv							
Year		erest Pmt		ncipal Pmt		I Pmt	Year		nterest Pn	nt		oal Pmt	Total Pmt	
	1 \$	26,402,433	\$		\$	57,752,449		1		-	\$	-	\$	-
	2 \$ 3 \$			33,325,066 35,424,545		57,752,449		2		-	\$ \$	-	\$ \$	-
	3 \$ 4 \$	22,327,903 20,096,157	\$ \$	37,656,292	э \$	57,752,449 57,752,449		4		-	э \$	-	\$ \$	-
	5 \$	17,723,810	\$	40,028,638	э \$	57,752,449			Ф \$	-	\$ \$		\$ \$	-
	6 \$	15,202,006	\$	42,550,442	\$	57,752,449		6		_	\$	-	\$	
	7 \$	12,521,328	\$	45,231,120	\$	57,752,449		7		_	\$	_	\$	_
	8 \$	9,671,768	\$	48,080,681		57,752,449		8		-	\$	-	\$	-
	9 \$	6,642,685	\$	51,109,764	\$	57,752,449		9		-	\$	-	\$	-
	10 \$	3,422,770	\$	54,329,679	\$	57,752,449		10	\$	-	\$	-	\$	-
	11 \$	-	\$	-	\$	-		11	\$	-	\$	-	\$	-
	12 \$	-	\$	-	\$	-		12		-	\$	-	\$	-
	13 \$	-	\$	-	\$	-		13		-	\$	-	\$	-
	14 \$	-	\$	-	\$	-		14		-	\$	-	\$	-
	15 \$	-	\$	-	\$	-		15		-	\$	-	\$	-
	16 \$	-	\$	-	\$	-		16		-	\$	-	\$	-
	17 \$	-	\$	-	\$	-		17		-	\$	-	\$	-
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	19 \$ 20 \$	-	\$ \$	-	\$ \$	-		19 20		-	\$ \$	-	\$ \$	-
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	22 \$		э \$	-	э \$	-		22		-	\$ \$		\$ \$	
	23 \$		\$	_	\$			23		_	\$	-	\$	
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	25 \$	_	\$	_	\$	-		25		_	\$	_	\$	_
	26 \$	-	\$	-	\$	-		26		-	\$	-	\$	-
	27 \$	-	\$	-	\$	-		27		-	\$	-	\$	-
	28 \$	-	\$	-	\$	-		28	\$	-	\$	-	\$	-
	29 \$	-	\$	-	\$	-		29	\$	-	\$	-	\$	-
	30 \$	-	\$	-	\$	-		30	\$	-	\$	-	\$	-
Total	\$	158,438,243	\$	419,086,243	\$	577,524,485	Total		\$	-	\$	-	\$	-
AvgAnn	\$	15,843,824	\$	41,908,624	\$	57,752,449	AvgAnn		\$	-	\$	-	\$	-
3														
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User Modified (from Proje	le Inte 1 \$	erest Pmt 26,402,433	Prin	ncipal Pmt 31,350,015	\$	57,752,449		idual Inv I 1	restment R nterest Pn \$	epay	ment S Princip \$	chedule	Total Pmt	estment pa - -
User Modified (from Proje	le Inte 1 \$ 2 \$	erest Pmt 26,402,433 24,427,382	Prin \$ \$	ncipal Pmt 31,350,015 33,325,066	\$ \$	57,752,449 57,752,449		idual Inv I 1 2	restment R nterest Pn \$ \$	epay nt -	ment S Princip \$ \$	chedule oal Pmt -	Total Pmt \$ \$	estment pa - - -
User Modified (from Proje	le Inte 1 \$	erest Pmt 26,402,433	Prin	ncipal Pmt 31,350,015	\$	57,752,449		idual Inv I 1	restment R nterest Pn \$ \$ \$	epay nt -	ment S Princip \$	chedule pal Pmt - -	Total Pmt	estment pa - - - -
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User Modified (from Proje Loan Repayment Schedu	le  1	erest Pmt 26,402,433 24,427,382 22,327,903 20,096,157 17,723,810 15,202,006 12,521,328 9,671,768 6,642,685 3,422,770	PR \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	1,350,015 31,350,015 33,325,066 35,424,545 37,656,292 40,028,638 42,550,442 45,231,120 48,080,681 51,109,764 54,329,679	********************	57,752,449 57,752,449 57,752,449 57,752,449 57,752,449 57,752,449 57,752,449 57,752,449 57,752,449 57,752,449	Equity - Indiv	idual Inv I 1 1 2 3 4 5 6 6 7 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 23 24 25 26 26 27 27 28 28 29 20 20 20 20 20 20 20 20 20 20	restment Rn Interest Pn \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$	epay t - - - - - - - - - - -	ment S Princip \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	chedule call Pmt	Total Pmt \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	-

Default From DefaultData Equity - Corporate Investment Repayment Schedule Interest Pmt Principal Pmt Total Pmt Year 12,572,587 \$ 5,970,320 \$ 18,542,907 2 \$ 11,856,149 \$ 6,473,248 \$ 18,329,397 11,053,738 \$ 7,250,038 \$ 18,303,775 3 \$ 10,155,038 \$ 8,120,042 \$ 18,275,080 5 \$ 9,148,493 \$ 9,094,447 \$ 18,242,940 6 8,021,164 \$ 10,185,781 \$ 18,206,944 6,758,554 \$11,408,074 \$ 18,166,629 8 \$ 5,344,432 \$ 12,777,043 \$ 18,121,475 9 \$ 3,760,615 \$14,310,289 \$ 18,070,904 1,986,740 \$ 16,027,523 \$ 18,014,263 10 \$ 11 \$ \$ \$ 12 \$ \$ \$ 13 \$ \$ \$ 14 \$ \$ \$ 15 \$ \$ \$ 16 \$ \$ \$ 17 \$ \$ \$ 18 \$ \$ \$ 19 \$ \$ \$ 20 \$ \$ \$ 21 \$ \$ \$ 22 \$ \$ \$ 23 \$ \$ \$ 24 \$ \$ \$ 25 \$ \$ \$ 26 \$ \$ \$ 27 \$ \$ \$ 28 \$ \$ \$ 29 \$ \$ \$ 30 \$ \$ \$ ########## Total 80,657,510 \$ 182,274,315 AvgAnn 8,065,751 \$10,161,680 \$ 18,227,431 User Modified (from Project Data worksheet - based on equity investment parameters Equity - Corporate Investment Repayment Schedule Interest Pmt Principal Pmt Total Pmt 1 \$ 12,572,587 \$ 5,970,320 \$ 18,542,907 11,856,149 \$ 6,686,758 \$ 18,542,907 3 \$ 11,053,738 \$ 7,489,169 \$ 18,542,907 4 10,155,038 \$ 8,387,869 \$ 18,542,907 9,148,493 \$ 9,394,414 \$ 18,542,907 6 \$ 8,021,164 \$ 10,521,743 \$ 18,542,907 7 6,758,554 \$ 11,784,353 \$ 18,542,907 5,344,432 \$13,198,475 \$ 18,542,907 9 \$ 3,760,615 \$14,782,292 \$ 18,542,907 10 1,986,740 \$ 16,556,167 \$ 18,542,907 11 \$ 12 \$ \$ \$ 13 \$ \$ \$ 14 \$ \$ \$ 15 \$ \$ \$ 16 \$ \$ \$ 17 \$ \$ \$ 18 \$ \$ \$ 19 \$ \$ \$ 20 \$ \$ \$ 21 \$ \$ \$ 22 \$ \$ \$ 23 \$ \$ \$

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\$ 185,429,071

8,065,751 \$ 10,477,156 \$ 18,542,907 Wind Power Plant Economic Impact Model

24 \$ 25 \$

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Total

AvgAnn 12/9/2017 Default From DefaultData

Equity - Corpora	te In	vestment Rep	ayment Schedu	le	
Year	Inte	erest Pmt	Principal Pmt	Total Pmt	
•	l \$	12,572,587	\$ 5,970,320	\$ 18,542,	907
2	2 \$	11,856,149	\$ 6,473,248	\$ 18,329,	397
3	3 \$	11,053,738	\$ 7,250,038	\$ 18,303,	775
4	\$	10,155,038	\$ 8,120,042	\$ 18,275,	080
Ę	5 \$	9,148,493	\$ 9,094,447	\$ 18,242,	940
6	\$	8,021,164	\$ 10,185,781	\$ 18,206,	944
7		6,758,554	\$ 11,408,074	\$ 18,166,	
8		5,344,432	\$ 12,777,043	\$ 18,121,	475
9	\$	3,760,615	\$ 14,310,289	\$ 18,070,	904
10		1,986,740	\$ 16,027,523	\$ 18,014,	263
11		-	\$ -	\$	-
12		-	\$ -	\$	-
13	3 \$	-	\$ -	\$	-
14		-	\$ -	\$	-
15	5 \$	-	\$ -	\$	-
16	\$	-	\$ -	\$	-
17		-	\$ -	\$	-
18		-	\$ -	\$	-
19		-	\$ -	\$	-
20		-	\$ -	\$	-
21		-	\$ -	\$	-
22		-	\$ -	\$	-
23		-	\$ -	\$	-
24		-	\$ -	\$	-
25		-	\$ -	\$	-
26		-	\$ -	\$	-
27		-	\$ -	\$	-
28		-	\$ -	\$	-
29		-	\$ -	\$	-
30		-	\$ -	\$	-
Total	\$	80,657,510	##########	\$ 182,274,	
AvgAnn	\$	8,065,751	\$ 10,161,680	\$ 18,227,	431

User Modified (from Project Data worksheet - based on equity investment parameters Equity - Corporate Investment Repayment Schedule

Principal Pmt Total Pmt Interest Pmt 1 \$ 12,572,587 \$ 5,970,320 \$ 18,542,907 11,856,149 \$ 6,686,758 \$ 18,542,907 3 \$ 11,053,738 \$ 7,489,169 \$ 18,542,907 4 \$ 10,155,038 \$ 8,387,869 \$ 18,542,907 9,148,493 \$ 9,394,414 \$ 18,542,907 8,021,164 \$10,521,743 \$ 18,542,907 6 \$ 7 \$ 6,758,554 \$11,784,353 \$ 18,542,907 8 \$ 5,344,432 \$13,198,475 \$ 18,542,907 9 \$ 3,760,615 \$14,782,292 \$ 18,542,907 1,986,740 \$ 16,556,167 \$ 18,542,907 10 \$ 11 \$ \$ \$ 12 \$ \$ \$ 13 \$ 14 \$ \$ \$ 15 \$ \$ \$ 16 \$ \$ 17 \$ \$ 18 \$ \$ \$ 19 \$ \$ 20 \$ \$ 21 \$ \$ \$ \$ 22 \$ \$ 23 \$ \$ 24 \$ \$ 25 \$ 26 \$ \$ \$ 27 \$ 28 \$ \$ 29 \$ \$ \$ 30 \$ \$ \$ 80,657,510 ######## \$ 185,429,071

		lotal	\$0.003	\$0.000	\$0.000	\$0.041	\$0.000	20 000	\$0.008	10140	1000	90.00	\$0.386	\$0.524	\$0.953	\$0.013	13 247	747.00	90.924		\$6.314 \$7.666		Total	\$0004	20000	20.000	\$0005	20000	\$0.000	20 000	50.010	\$0.012	\$0.027	50.146	\$0.201	\$0.003	\$0.002	\$1.268	\$1.351				Total	\$0.004	\$0.000	\$0.046	\$0.000	\$0.000	\$0.006	\$0.614	\$0.413	\$1.154	0	\$3.249	¢0.862	\$7.192	\$7.666
		_		\$0.000			\$0.000		\$0.001							\$0.003		91 450			\$1.552		nduced	000 0\$	\$0.000				\$0.000				\$0.014			\$0.001		\$0.219	\$0.234				Induced	\$0.00	\$0.000	\$0.011	\$0.000	\$0.000	\$0.00	\$0.124	\$0.099	\$0.356		\$0.004		\$1.675	\$1.785
		_							\$0.002					\$0.088				90.130		ollars	\$4.026 \$0.737 \$4.944 \$0.936		Indirect			\$0.000			\$0.000		\$0.006		\$0.013					\$0.187	\$0.199					\$0.00	\$0.000	\$0.015	\$0.000	\$0.000	\$0.002	\$0.130	\$0.088	\$0.269		\$0.004		\$0.878	\$0.936
	ped					\$0.020	\$0.000		\$0.003					\$0.343	\$0.528	\$0.008				2017 Do	\$4.944	lue Added	Direct															\$0.862	\$0.919	9		e		\$0.002	\$0.000	\$0.020	\$0.000	\$0.000	\$0.003	\$0.360	\$0.225	\$0.528	0	\$0.008	\$0.862	\$4.639	\$4.944
	Va																					2	•																			Λa	0	\$0.00	\$0.000	\$0.126	\$0.000	\$0.000	\$0.015	\$0.944	\$0.667	\$2.075	0	\$4.072	\$0,00	\$9.589	\$10.221
		lotal	\$0.005	\$0.000	\$0.000	\$0.100	\$0.000	\$0.00	\$0.015	\$0.307	40.00	40.09	\$0.572	\$0.722	\$1.409	\$0.021	\$4 065	44.003	90.13		\$8.648		Total	\$0.001	\$0.00	\$0.000	800 0\$	\$0.00	\$0.000	\$0.00	\$0.017	\$0.019	\$0.041	\$0.218	\$0.303	\$0.004	\$0.003	\$1.476	\$1.573	) -			Total														
		Induced	\$0.001	\$0.000	\$0.000	\$0.013	\$0.000	20 000	\$0.002	EO 051	0.00	101.04	\$0.131	\$0.143	\$0.372	\$0.005	\$1 338	00000	162.24		\$2.385 \$2.744		nduced	0000	\$0.000	000 09	\$0.003	000 09	\$0.000	20 000	900.04	600.08	\$0.022	\$0.116	\$0.176	\$0.002	\$0.003	\$0.337	\$0.359	9			Induced	\$0.001	\$0.000	\$0.016	\$0.000	\$0.000	\$0.002	\$0.191	\$0.153	\$0.547	0	\$1.341		\$2.574	\$2.744
		_		\$0.000			\$0.000		\$0.004							\$0.004		200.00		ollars	\$1.133		Indirect			20.000			20.000				\$0.019					\$0.277	\$0.295					\$0.001	\$0.000	\$0.027	\$0.000	\$0.000	\$0.00	\$0.196	\$0.132	\$0.397	0	\$0.257		\$1.340	\$1.428
	Output	Direct	\$0.004	\$0.000	\$0.000	\$0.066	\$0.000	\$0.000	80.00	\$0.175	0 0	90.00	\$0.328	\$0.453	\$0.768	\$0.012	\$2.469	62.409	5-0-4-6	2017 Dollars	\$5.130 \$6.049	Output	Direct	\$0.00	30.00	\$0.000	\$0.017	0000	\$0.000	\$0.00	\$0.022	\$0.027	\$0.054	\$0,366	\$0.363	\$0.006	\$0.00\$	\$0.862	\$0.919	) )		Output	Direct	\$0.005	\$0.000	\$0.083	\$0.000	\$0.000	\$0.003	\$0.557	\$0.382	\$1.131	6	\$2.474		\$5.675	\$6.049
\$666		lotal	\$0.002	\$0.000	\$0.000	\$0.024	\$0.000	\$0.00	\$0.004	\$0.095	9 000	40.00	\$0.244	\$0.266	\$0.691	\$0.008	\$0.635	60.033	\$2.307		\$2.459 \$3.641		Total	\$0,000	\$0.000	\$0.000	\$0.003	\$0.000	\$0.000	\$0.00	\$0.006	\$0.008	\$0.016	\$0.085	\$0.125	\$0.002	\$0.001	\$1.109	\$1.182	) : :		:	Total	\$0.002	000.0\$	\$0.027	\$0.000	\$0.000	\$0.004	\$0.345	\$0.260	\$0.817		\$0.010	\$0.862	\$3.416	\$3.641
		Induced	\$0.000	\$0.000	\$0.000	\$0.00\$	\$0.000	\$0.000	\$0.001	\$0.00	90.040	90.00	\$0.052	\$0.057	\$0.149	\$0.002	\$0.536	40.330	90.090		\$0.955 \$1.098		Induced	000 0\$	\$0.000	\$0.000	\$0.004	\$0.000	\$0.000	\$0.000	\$0.003	\$0.004	\$0.009	\$0.046	\$0.070	\$0.001	\$0.001	\$0.135	\$0.144	)			Induced	\$0.001 \$0.000	000.0%	\$0.006	\$0.000	\$0.000	\$0.00	\$0.076	\$0.061	\$0.219	6	\$0.003		\$1.030	\$1.098
		Indirect	\$0.000	\$0.000	\$0.000	\$0.007	\$0.000	\$0.000	\$0.001	\$0.03	90.029	90.00	\$0.045	\$0.048	\$0.117	\$0.002	80.08	\$0.039 \$0.40F	\$0.423	ollars	\$0.453 \$0.572		Indirect	000 0\$	\$0.000	\$0.000	\$0.00	30 000	\$0.000	\$0.000	\$0.004	\$0.004	\$0.007	\$0.039	\$0.055	\$0.001	\$0.000	\$0.112	ollars \$0.120	2			Indirect	\$0.000	\$0.000	\$0.009	\$0.000	\$0.000	\$0.033	\$0.080	\$0.052	\$0.172	0	\$0.003		\$0.537	\$0.572
ollars	Eamings	Direct	\$0.001	\$0.000	\$0.000	\$0.012	\$0.000	\$0.000	\$0.002	\$0.04	9 6	90.100	\$0.147	\$0.161	\$0.425	\$0.005	0000	40.000	40.30	2017	\$1.052 \$1.971	Farnings	Direct															\$0.862	<b>2017 Dollars</b>	) )		Earnings	Direct	\$0.000 \$0.000	\$0.000	\$0.012	\$0.000	\$0.000	\$0.002	\$0.189	\$0.147	\$0.425	0	\$0.005	980	\$1.849	\$1.971
2014 D		lotal	0.04	0.00	0.00	0.32	0.00	000	0.05	1 33	20	5.0	4.89	2.66	6.73	0.13	20.8	54.5	71.17	Inflate to	27.72 42.54		Total		00.0	0.00	50.0	00.0	0.00	000	60.0	60.0	0.22	1.12	1.52	0.02	0.02	14.83	Inflate to			:	Total	0.04	8.0	0.37	0.00	0.00	1 41	3.63	5.11	8.25		0.15 8.06	11 70	42.54	
		Induced	0.00	0.00	0.00	0.08	0.00	00 0	0.01	20.0	5 6	0.90	0.76	0.85	2.00	0.03	9 92	14.05	08.	=	11.95		Induced	000	00.0	000	0.00	000	000	00 0	0.04	0.05	0.13	0.68	0.94	0.01	0.01	1.89	=				Induced	0.0	8.0	0.10	0.00	0.00	0.0	1.01	0.89	2.95		6.96		13.84	
oyees		Indirect	0.00	0.00	00:00	0.10	0.00	000	0.02	0.30	0.00	0.0	0.56	0.54	1.22	0.02	110	5 7	- 0.		4.81 6.05	μ	Indirect	000	00.0	00:0	500	000	00:0	000	0.05	0.04	0.09	0.43	0.58	0.01	0.00	1.24			ses	:	Indirect	0.0	0.00	0.13	0.00	0.00	0.02	0.92	0.65	1.79	0	1.10		9.09	
Without Plant Employees	Jobs	Direct	0.03	0.00	0.00	0.15	0.00	00 0	0.02	0.62	20.0	0/:1	3.57	1.28	3.51	0.08		90.00			10.95 22.65	Plant Employees Only	Direct															11.696	\$6.050		With Plant Employees	Jobs	Direct	0.03	0.00	0.15	00.00	0.00	0.02	1.70	3.57	3.51	6	0.00	11 70	22.65	2017 Dollars
																		F	0.00		es																																				20.
																					Without Plant Employees With Plant Employees																							Agriculture	Construction	Manufacturing	Fabricated	Machinery	Electrical	Wholesale	Retail Trade	FIRE Misc. Services	Professional	Government	Plant	Total	Inflate to

	Supporting Document	
Construction Costs	Cost	Local Share
Balance of Plant		
Materials		
Construction (concrete rebar, equip, roads and site prep)	\$54,805,851	90%
Transformer	\$6,199,678	0%
Electrical (drop cable, wire, )	\$6,534,880	100%
HV line extension	\$11,937,045	70%
Materials Subtotal	\$79,477,453	
Labor		
Foundation	\$3,224,762	95%
Erection	\$3,652,501	75%
Electrical	\$5,322,794	70%
Management/supervision Misc.	\$2,762,008	0% 50%
Labor Subtotal	\$19,266,000 \$34,228,066	50%
Subtotal	\$113,705,519	
Equipment Costs		
Turbines	\$226,808,986	0%
Blades	\$53,099,094	0%
Towers	\$58,788,282	0%
Transportation	\$40,582,879	0%
Equipment Subtotal	\$379,279,241	
Development/Other Costs HV Sub/Interconnection	\$0	0%
Materials	\$3,766,597	90%
Labor	\$1,153,783	10%
Engineering	\$5,125,395	0%
Legal Services	\$2,793,340	100%
Land Easements	\$0	100%
Site Certificate	\$1,306,976	100%
Other Subtotal  Subtotal All Costs (without sales tax)	\$14,146,091 \$507,130,851	
Sales Tax (Materials & Equipment Purchases)	\$16,726,953	100%
Total Project Costs	\$523,857,803	\$1,746
Wind Plant Annual Operating and Maintenance Cos	ts	
	Cost	Local Share
Variable Costs		
Personnel		
Field Salaries	\$777,663	100%
Adminstrative	\$73,734	100%
Manangement	\$138,251	100%
Personnel Subtotal	\$989,648	
Warranty/Maintenance Services	\$0	0%
Total	\$989,648	
Fixed Costs		
Materials and Services		
Vehicles	\$172,811	100%
Misc. Services	\$67,396	80%
Fees, Permits, Licenses	\$33,698	100%
Misc. Materials	\$134,793	100%
Insurance	\$1,296,082	0%
Fuel (gals)	\$67,396	100%
Tools and Misc. Supplies	\$438,076	100%
Spare Parts Inventory	\$3,838,995	2%
Subtotal	\$6,049,247	
Sales Tax (Materials & Equipment Purchases)	\$177,995	100%

#### Other Taxes/Payments

#### Total (with Sales Tax and Other Taxes/Payments

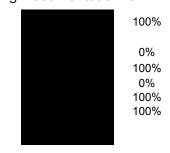
Debt Payment (average annual) Equity Payment - Individuals

**Equity Payment - Corporate** 

Property Taxes

Land Lease

**Total Annual Operating and Maintenance Costs** 



#### **Other Parameters**

		Local Share	
Financial Parameters			
Debt Financing			
Percentage financed	80%	0%	
Years financed (term)	10		
Interest rate	6%		
Equity Financing			
Percentage equity	20%		
Individual Investors (percent of total equity)	0%	100%	
Corporate Investors (percent of total equity)	100%	0%	
Return on equity (annual interest rate)	12%		
Repayment term (years)	10		
Tax Parameters			
Local Property/Other Tax Rate (percent of taxable value)	NA		
Assessed value (percent of construction cost)	NA		
Taxable Value (percent of assessed value)	0%		
Taxable Value	NA		
Taxes Per MW	NA		
Local Taxes	\$2,340,000	100%	
Local Sales Tax Rate	4.0%	100%	
Land Lease Parameters			
Land Lease Cost (per turbine)	NA_		
Land Lease (total cost)	\$		
Lease Payment recipient (F = farmer/household, O = Other)	F	100%	
Payroll Parameters	Base Wage per Hour	Annual Wage	Employer Payroll Costs
Construction Labor	004.44	044.500	07.00/
Foundation	\$21.44	\$44,588	37.6%
Erection	\$24.28	\$50,502	37.6%
Electrical	\$32.17	\$66,906	37.6%
Management/Supervision	\$43.73	\$90,952	37.6%
O&M Labor	Base Wage per Hour	Annual Wage	Employer Payroll Costs
Field Salaries (technicians, other)	\$29.25	\$60,846	37.6%
Administrative	\$18.72	\$38,941	37.6%
Management	\$46.80	\$97,353	37.6%

### Local Economic Impacts - Summary Results

	Jobs	Earnings	Output	/alue Addec
During construction period				
Direct Impacts	148	\$10.8	\$12.4	\$11.4
Onsite Construction Only (labor and interconnection)	130	\$9.6	\$9.6	\$9.6
Other Onsite Construction Related Services (Engin. and Prof. Services)	17	\$1.2	\$2.8	\$1.8
Indirect Impacts	542	\$38.7	\$110.5	\$57.8
Induced Impacts	208	\$15.6	\$38.9	\$25.3
Total Impacts (Direct, Indirect, Induced)	898	\$65.1	\$161.9	\$94.5
During operating years (annual)				
Direct Impacts				
Onsite Wind Farm Labor Only (field techs, admin., mgmt.)	12	\$0.92	\$0.92	\$0.92
Indirect Impacts	17	\$1.62	\$6.6	\$5.0
Induced Impacts	14	\$1.1	\$2.7	\$1.8
Total Impacts (Direct, Indirect, Induced)	43	\$3.6	\$10.2	\$7.7

### Young / Sommer LLC

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November 29, 2017

Via Email to Secretary@dps.ny.gov

Hon. Kathleen H. Burgess
Secretary to the Commission
New York State Public Service Commission
Agency Building 3
Albany, NY 12223

Re:

Case No. 15-F-0122: Application of Baron Winds LLC, for a Certificate of Environmental Compatibility and Public Need Pursuant to Article 10 to Construct a Major Electric Generating Facility in the Towns of Cohocton, Dansville, Fremont, and Wayland, County of Steuben, New York

### Dear Secretary Burgess:

Baron Winds LLC ("Baron Winds") is proposing to construct and operate a wind electric generating facility in the Towns of Cohocton, Dansville, Fremont, and Wayland, Steuben County, New York (the "Facility"). To construct and operate the Facility, Baron Winds is seeking a certificate of environmental compatibility and public need (CECPN) from the New York State Board on Electric Generation Siting and the Environment (the "Siting Board") pursuant to Article 10 of the Public Service Law (PSL) and the Siting Board's rules (16 NYCRR Part 1000 et seq.).

Pursuant to PSL 164 and 16 NYCRR 1000.6, and as agreed by the parties, Baron Winds hereby files its Application electronically with the Secretary through the Public Service Commission's Document Matter Management (DMM) System. A check for application intervenor funding as required by PSL 164(6) has been filed under separate cover.

The Application follows the statutory requirements of Article 10 (PSL 164(1)), the Siting Board's rules (16 NYCRR 1001 et seq.), and the executed Stipulations. The Application contains, among other things, a description of the proposed Facility and the studies or program of studies conducted to evaluate potentially significant adverse environmental and health impacts, and the results of those studies along with proposed minimization and mitigation measures, where necessary.

Hon. Kathleen H. Burgess Secretary to the Commission November 29, 2017 Page 2 of 3

Enclosed with the Application is the testimony of each expert witness the Applicant intends to offer at any hearing as required by PSL 165 (16 NYCRR 1000.6(c)(1)). The testimony includes the qualification of each witness and specifies the portion of the application for which each witness is responsible for or supports. (See Attachment 1 to this letter for copies of the pre-filed testimony.)

Pursuant to PSL 164(2) and 16 NYCRR 1000.6(a), copies of the Application are being served upon the parties listed on the attached service list. (See Attachment 2 of this letter for a copy of the Affidavit of Service on the service list.)

Pursuant to 16 NYCRR 1000.7(a) and 1000.7(b)(1), notice of the Application with a summary (the "Application Notice") was published in The Evening Tribune on November 16, 2017 and The Leader on November 17, 2017, which is, per the regulations, at least three (3) days in advance of the date on which the Application is being filed. (See Attachment 3 of this letter for the Evening Tribune proof and Affidavit of Publication consistent with 16 NYCRR 1000.7(1). The Leader proof and Affidavit will be provided separately when it is received from the newspaper.

Pursuant to 16 NYCRR 1000.7(b)(2), a letter enclosing a copy of the Application Notice was served on each member of the State Legislature in whose district any portion of the Facility is to be located as proposed on November 21, 2017, which is at least three (3) days in advance of the date on which the Application is being filed. (See Attachment 4 for a copy of the letter and Application Notice, together with proof of service.)

Pursuant to 16 NYCRR 1000.7(b)(3), on November 21, 2017, which is at least three (3) days in advance of the date on which the Application is being filed, an email attaching a copy of the Application Notice was served on all persons who have filed a statement with the Secretary to the Siting Board that they desire to receive all such notices. (See Attachment 5 for a copy of the email and Application Notice, together with proof of service.)

Pursuant to Section 5.6 of the Applicant's Public Involvement Program Plan (PIP), a letter enclosing a copy of the Application Notice was served on stakeholders (i.e., all landowners within 5,000 feet of proposed facility components) at least seven days in advance of the date on which the application is being filed. Separate submissions were made via email and regular mail based on the information provided by the stakeholder to the Applicant. (See Attachment 6 for a copy of the letter and Application Notice, together with proofs of service.)

Pursuant to 16 NYCRR 1000.6(c)(5), the following are the names, addresses, telephone numbers and e-mail addresses of the Applicant and its Attorney:

Applicant:

Baron Winds LLC EverPower Wind Holdings, Inc. 1251 Waterfront Place, 3<sup>rd</sup> Floor Pittsburgh, PA 15222 Tel. (412) 253-9419 Fax (412) 578-9757 info@everpower.com Applicant's Attorney:
James A. Muscato II
YOUNG/SOMMER LLC
Executive Woods
5 Palisades Drive
Albany, New York 12205
Tel. (518) 438-9907 ext. 243
Fax (518) 438-9914
imuscato@youngsommer.com

Hon. Kathleen H. Burgess Secretary to the Commission November 29, 2017 Page 3 of 3

Finally, enclosed is a copy of the cover letter for the Applicant's motion and comprehensive brief pursuant to 16 NYCRR submitted to Presiding Examiners Costello and Villa, whereby the Applicant requests protection from public disclosure of certain information contained in its Application. (See Attachment 7 for a copy of the letter requesting confidentiality.)

Please do not hesitate to call me with any questions.

Respectfully submitted.

James A. Muscato II Jessica Ansert Klami

Attorneys for Baron Winds LLC

Enclosures:

Attachment 1: Pre-Filed Testimony

Attachment 2: Application Service List and Affidavit of Service

Attachment 3: Notice of Application with Publication Affidavits

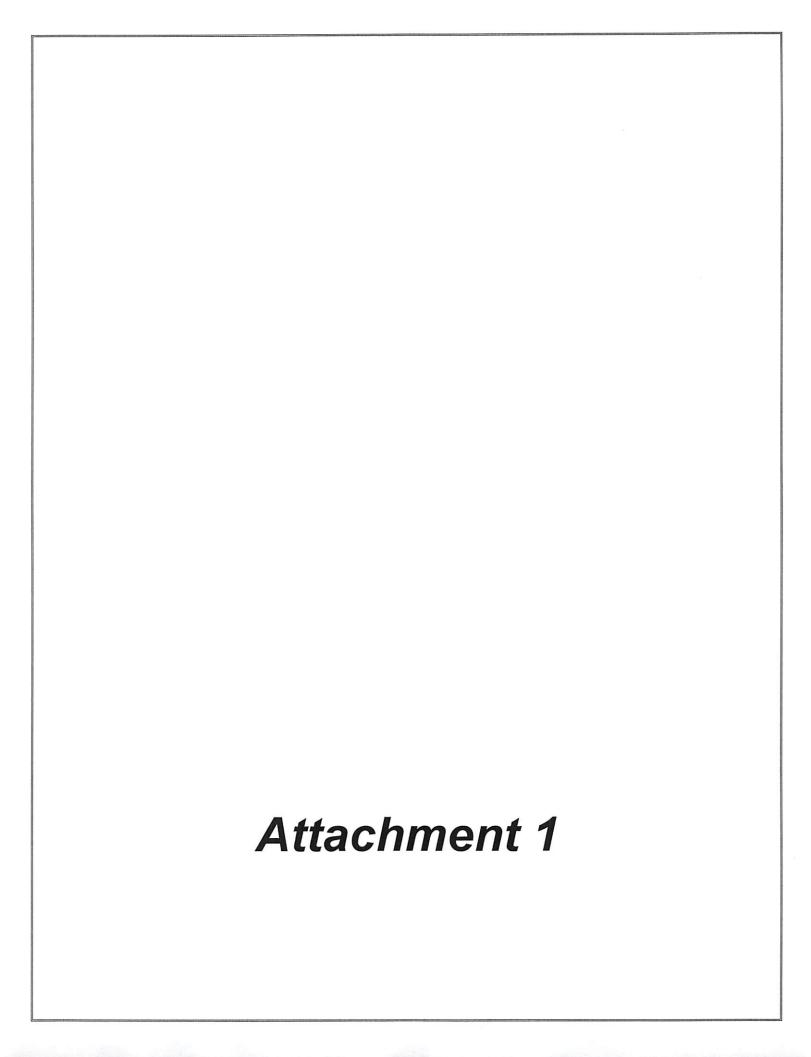
Attachment 4: Notice of Application served on members of State Legislature with proof of service

Attachment 5: Notice of Application served on parties identified in DMM with proof of filing

Attachment 6: Notice of Application served on stakeholders as required by PIP with proofs of service

Attachment 7: Cover Letter regarding Confidential Information

cc: Service List



Case No. 15-F-0122 Brazell

#### STATE OF NEW YORK PUBLIC SERVICE COMMISSION

Application of Baron Winds Project for a Certificate under Article 10 of the Public Service Law

Case No. 15-F-0122

PRE-FILED TESTIMONY OF

BENJAMIN R. BRAZELL

PRINCIPAL

ENVIRONMENTAL DESIGN & RESEARCH,

LANDSCAPE, ARCHITECTURE, ENGINEERING

& ENVIRONMENTAL SERVICES, D.P.C.

217 MONTGOMERY STREET, SUITE 1000

SYRACUSE, NEW YORK, 13202

Case No. 15-F-0122 Brazell

- 1 Q: Please state your name, employer, and business address.
- 2 A: Benjamin R. Brazell, Environmental Design & Research, Landscape, Architecture, Engineering &
- 3 Environmental Services, D.P.C. ("EDR"), 217 Montgomery Street, Suite 1000, Syracuse, NY 13202-
- 4 1942.
- 5 Q: What is your position at EDR?
- 6 A: Principal
- 7 Q: How long have you been employed with EDR?
- 8 A: I have been employed by EDR since 2004.
- 9 Q: Please describe your educational background and professional experience.
- A: I received a Bachelor of Science Degree in Natural Resources Ecosystem Assessment from North 10 Carolina State University in Raleigh, North Carolina in 2001. I have been employed by EDR since 11 12 February 2004. Since that time, I have worked in the capacity as Ecologist, Project Manager, Senior Project Manager, and Director of the Environmental Division before becoming Principal of 13 Environmental Services in 2014. I have over 15 years of experience performing and/or supervising 14 15 projects involving wetlands delineations, state and federal wetland permitting, habitat and ecosystem analysis, environmental impact assessments, and preparation of numerous state siting board 16 applications and environmental impact statements. My resume is attached. 17
- 18 Q: Please describe your current responsibilities with EDR.
- 19 A: As Principal, I oversee all aspects of EDR's environmental assessment projects.
- 20 Q: Have you previously testified before the New York State Public Service Commission or Siting
- 21 Board on Electric Generation?
- A: I have previously provided written rebuttal and sur-rebuttal testimony, and as an expert witness I was subject to cross examination under oath, in the Matter of Cassadaga Wind LLC's Application for a
- Certificate of Environmental Compatibility and Public Need (Case No. 14-F-0490). In addition, I

Case No. 15-F-0122 Brazell

25		previously sponsored testimony in the Matter of National Grid's petition to Amend the Article VII
26		Certificate of Environmental Compatibility and Public Need for the 115 kV Fenner to Cortland #3
27		(formerly the Oneida to Cortland #3, PSC Case 70346) Transmission Line.
28	Q:	Have you previously served as an expert witness before any other court, agency, or other
29		body on the subject you plan to offer testimony on today?
30	A:	I previously served as an expert witness in the Matter of the Application of Paulding Wind Farm III
31		LLC for a Certificate of Environmental Compatibility and Public Need, for the Timber Road III
32		Transmission Line, before the Ohio Power Siting Board (Case No. 15-1737-EL-BTX).
33	Q:	What is the purpose and scope of your testimony in this proceeding?
34	A:	To sponsor certain portions of the Baron Winds Project Application or the Exhibits thereto.
35	Q:	What portion(s) of the Application is your testimony sponsoring?
36	A:	Exhibit 1: General Requirements, Exhibit 3: Location of Facilities, Exhibit 4: Land Use, Exhibit 6:
37		Wind Power Facilities, Exhibit 9: Alternatives, Exhibit 11: Preliminary Design Drawings, Exhibit 17:
38		Air Emissions, Exhibit 21: Geology, Seismology and Soils, Exhibit 22: Terrestrial Ecology and
39		Wetlands, Exhibit 23: Water Resources and Aquatic Ecology, Exhibit 28: Environmental Justice.
40	Q:	Were these Exhibits, Application sections, or studies prepared by you or under your direction
41		and supervision?
42	A:	Yes.
43	Q:	In your testimony, will you refer to, or otherwise rely upon, any studies, publications, data or
44		documents produced by persons other than yourself/your company? If so, please cite these
45		sources. [These are independent studies, etc.]
46	A:	References are provided in the corresponding Exhibits.
47	Q:	Does this conclude your testimony?
48	A:	Yes.





Ben is an environmental impact assessment and regulatory specialist with more than 15 years of professional experience. Ben has been directly involved in the environmental review and permitting of over 20 commercial wind power projects, including a variety of resource analyses such as wetland delineations, ecological surveys, environmental impact analysis, state and federal wetland permitting, New York State Environmental Quality Review Act (SEQRA) compliance, and siting board compliance. Ben's specialized expertise includes environmental impact analysis, SEQRA, Article VII and Article 10 of the NYS Public Service Law, and Ohio Power Siting Board (OPSB) compliance, state and federal wetland permitting, stream and wetland mitigation design and monitoring. He has specialized training and expertise in stream restoration and mitigation, wetland delineations, ecological surveys, shadow flicker analysis, and visual impact assessment.

As a Director of Environmental Services with EDR, Ben's responsibilities include conducting and managing environmental monitoring compliance; conducting and managing/coordinating report writing: preparing various environmental review and permitting documents, including Environmental Impact Statements; State Siting Board/Public Service Commission Applications; Biological Evaluations; wetland delineation reports, ecological survey reports, wetland monitoring reports; conducting wetland delineations, including boundary flagging, global positioning system (GPS) data entry, and wetland data collection.

#### education

North Carolina State University, Raleigh, NC, Bachelor of Science, 2001.

#### professional affiliations

Member, New York State Wetlands Forum

Member, Alliance for Clean Energy New York

Member, American Wind Energy Association

Member, American Wind Energy Association Siting & Environmental Compliance Committee

### employment history

Principal, Environmental Design & Research, Landscape Architecture, Engineering & Environmental Services, D.P.C., Syracuse, NY, 2011 - Present.

Associate, EDR Environmental Services, LLC, Syracuse, NY, 2010 - Present

Division Manager, EDR Environmental Services, LLC, Syracuse, NY, 2009 - Present.

Project Manager, Environmental Design & Research, Syracuse, NY, 2004

Project Scientist, EcoScience Corporation, Raleigh, NC, 2001 - 2003.

Dendrology Tutor, North Carolina State University, 2001.

### project experience

Cassadaga Wind Project – Managing EDR's responsibilities associated with this 126 MW project located in the Towns of Cherry Creek, Charlotte, Arkwright, and Stockton, Chautauqua County, New York. This project is being reviewed under Article 10 of the Public Service Law and is the first Article 10 Application submitted in the State of New York. To date, EDR has prepared the Public Involvement Program Plan, the Preliminary Scoping Statement, Stipulations, the Article 10 Application and associated supplements, rebuttal testimony, and assisted with the preparation of briefs and reply briefs.

Jericho Rise Wind Farm – Serving as EDR's Principal-in-Charge for the SEQRA review for this 37-turbine, 78 MW project, located in the Towns of Bellmont and Chateauguy, Franklin County, New York. EDR prepared a Supplemental EIS, a Final EIS, and multiple support studies including a Visual Impact Assessment, Shadow Flicker Analysis, Cultural Resources Reports (Archaeology and Historic Resources), a Wetland Delineation Report, and a Rare Plant Survey. EDR is also responsible for obtaining wetland/stream permits from the U.S. Army Corps of Engineers and the NYS Department of Environmental Conservation.



**Arkwright Summit Wind Farm** – Serving as EDR's Principal-in-Charge for the SEQRA review for this 36-turbine, 78 MW project, located in the Town of Arkwright, Chautauqua County, New York. EDR prepared a Supplemental EIS, a Final EIS, and multiple support studies including a Visual Impact Assessment and Shadow Flicker Analysis. EDR is also responsible for obtaining wetland/stream permits from the U.S. Army Corps of Engineers and the NYS Department of Environmental Conservation.

Scioto Ridge Wind Farm – Managed the preparation of a Certificate Application submitted to the Ohio Power Siting Board for this 176-turbine, 300 MW project located in Hardin and Logan Counties, Ohio. EDR's responsibilities included attending work sessions with OPSB staff, directing other subconsultants, coordinating internal staff resources, and assuring a complete application was prepared/submitted in accordance with the Ohio Administrative Code. Also managed the preparation of a separate Certificate Application for the associated 4.8-mile 345 kilovolt transmission line, which was submitted subsequent to the wind farm application and also accepted as complete following its first submittal.

**Copenhagen Wind Project** – Directing EDR's responsibilities as a third-party consultant to the USFWS. As a result of potential impacts to federally-listed species, the developer is applying for an Incidental Take Permit. EDR is responsible for preparing all NEPA documentation associated with this action.

Crown City Wind Energy Project – Directed EDR's SEQRA review for this 44-turbine, 71 MW project, located in the Towns of Cortlandville, Homer, Solon, and Truxton, Cortland County, New York. EDR prepared a Draft EIS, and throughout this process worked closely with the Lead Agency's consultant. In support of the Draft EIS, EDR also prepared a Visual Impact Assessment, Shadow Flicker Analysis, Addendum Cultural Resources Report, and a Socioeconomic Report.

**Buckeye II Wind Power Project** – Managed the preparation of a comprehensive Application for a Certificate of Environmental Compatibility and Public Need submitted to the Ohio Power Siting Board for this 56-turbine, 140 MW project located in Champaign County, Ohio. EDR's responsibilities included conducting initial site reconnaissance to define the project layout, attending various work sessions with OPSB review staff, directing other subconsultants, coordinating internal staff resources, and assuring a complete application was prepared/submitted in accordance with the Ohio Administrative Code.

Allegany Wind Power Project – Directed EDR's SEQRA review for this 29-turbine, 72.5 MW project, located in the Town of Allegany, Cattaraugus County, New York. EDR prepared a Draft and a Final EIS, which resulted in successful issuance of SEQRA findings statement and local discretionary approvals in July 2011. Through these efforts, EDR has worked closely with the Lead Agency Special Counsel and consultant throughout the SEQRA review process, coordinated with interested state and federal regulatory agencies, and managed numerous subconsultants. EDR was also responsible for preparation of the SWPPP in accordance with the SPDES General Permit, which was approved by the NYSDEC in September 2011.

Hardscrabble Wind Power Project (Compliance Monitoring) – Initially managed EDR's role as Environmental Monitor for the construction and restoration of this 37-turbine project located in the Towns of Fairfield, Norway, and Little Falls, Herkimer County, New York. In addition to preparing an Environmental Compliance Manual and providing compliance training to the project contractors, EDR's responsibilities included overseeing construction activities, monitoring the environmental, agricultural, and archeological conditions on the construction site, reporting on compliance with environmental permits and conditions (including federal, state, and local permits and approvals), conducting bi-weekly SWPPP inspections in accordance with the SPDES General Permit, and serving as a liaison between agency representatives and the project contractor/developer.

Timber Road II Wind Farm – Managed the preparation of a comprehensive Application for a Certificate of Environmental Compatibility and Public Need submitted to the Ohio Power Siting Board for this 109-turbine, 150 MW project located in Paulding County, Ohio. EDR's responsibilities included attending various work sessions with OPSB review staff, directing other subconsultants, coordinating internal staff resources, and assuring a complete application was prepared/submitted in accordance with the Ohio Administrative Code. Irrespective of the project's aggressive schedule, EDR played a critical role in meeting the permitting deadline.

Timber Road I Wind Farm – Managed the preparation of a comprehensive Application for a Certificate of Environmental Compatibility and Public Need submitted to the Ohio Power Siting Board for this 35-turbine, 49 MW project located in Paulding County, Ohio. EDR's responsibilities included attending various work sessions with OPSB review staff, directing other subconsultants, coordinating internal staff resources, and assuring a complete application was prepared/submitted in accordance with the Ohio Administrative Code (the application was accepted as complete following its first submittal).

**Buckeye Wind Power Project** – Managed the preparation of the first ever Application for a Certificate of Environmental Compatibility and Public Need submitted to the Ohio Power Siting Board for a wind power project in Ohio. This 70-turbine, approximately 130 MW project is located in Champaign County, Ohio, EDR's experience in the wind industry proved invaluable when working OPSB staff, interpreting the State of Ohio's new wind law, directing the efforts of local consulting firms, and coordinating with the project sponsor and legal counsel. The Application was accepted as complete after the first submission.



Howard Wind Power Project – Led EDR's SEQRA review for this 25-turbine, 62 MW project, located in the Town of Howard, Steuben County, New York. EDR prepared a Draft and Final EIS, and worked closely with the Lead Agency (SCIDA) Special Counsel and consultant throughout the SEQRA review process. EDR also assisted the Town of Howard (SEQRA Involved Agency) in their issuance of a Findings Statement, and obtained a local Special Use Permit. In addition, EDR obtained NYSDEC authorization under Section 401 of the Clean Water Act, and Corps authorization under Section 404 of the Clean Water Act. This project is currently under construction, and EDR's continued involvement includes obtaining authorization for various project modifications, preparing a Draft and Final EIS for a two-turbine project expansion, which is expected to be approved in August 2011, and assisting the project contractor/developer with regulatory compliance during construction.

Hardscrabble Wind Power Project (Permitting) – Coordinated EDR's SEQRA review for this 37-turbine, 74 MW project, located in the Towns of Fairfield, Norway, and Little Falls, Herkimer County, New York. EDR prepared a Draft, Supplemental, and Final EIS, and worked closely with the Lead Agency's Special Counsel and consultant through the preparation of SEQRA Findings and local Special Use Permits. EDR also obtained regulatory authorization from the Corps of Engineers and NYSDEC, designed the compensatory wetland mitigation area, obtained permit amendments necessitated by construction-driven project changes, and we are currently responsible for monitoring/reporting on the success of the wetland mitigation in accordance with Corp of Engineers/NYSDEC permit conditions. Construction was completed in early 2011, and restoration is anticipated to conclude in the summer/fall of 2011.

WindFarm Prattsburgh - Managed the preparation of a Draft and Final EIS for a 44-turbine, 75 MW project in the Towns of Prattsburgh and Italy, Steuben and Yates Counties, New York. By working closely with the Lead Agency (Steuben County Industrial Development Agency [SCIDA]) and the Lead Agency's Special Counsel and consultant, EDR successfully navigated WindFarm Prattsburgh through the SEQRA review process.

Jordanville Wind Power Project – Managed EDR's preparation of a Draft, Supplemental, and Final EIS for a 67-turbine, 136 MW project in the Towns of Warren and Stark, Herkimer County, New York. In support of this project, EDR prepared the local special use permit applications, which initiated the SEQRA review of the subject action, assisted in Lead Agency determination, and prepared three EIS's to guide the SEQRA review. EDR worked closely with the Lead Agency (Town of Warren) Special Counsel and consultant during the SEQRA review process. Subsequently, EDR prepared a fourth EIS, which addressed the reduced 40-turbine, 80 MW project.

Citizens Airtricity Wind Power Project - Coordinated EDR's SEQRA review for the 40 MW Citizens Airtricity Wind Power Project located in the Towns of Stockbridge, Eaton, Madison, and Augusta, Madison and Oneida Counties, New York. The Town of Stockbridge Planning Board assumed the role of Lead Agency for this project, which became operational in 2007.

Green Power Energy Wind Power Project – Managed the SEQRA review for this 5-turbine (9 MW) project located in Madison County, NY, including the preparation of a Full EAF, presenting the SEQRA document at local town board meetings, and continuous client and agency correspondence and subconsultant coordination. Conducted on-site ecological surveys and wetland/stream delineations.

Article VII Application – Maple Ridge 230 kV Transmission Line Project – Managed the preparation of Volume II (Plan and Profile Drawings) of the EM&CP document for the 10.3-mile-long 230 kilovolt kV transmission line corridor in Lewis County, New York. Conducted on-site ecological surveys and wetland/stream delineations, worked closely with NYS Public Service Commission staff throughout the project review process, and coordinated the efforts of other consultants.

Maple Ridge Wind Power Project – Assisted in the preparation of various project permits, including state and federal wetland permitting, for the 330-megawatt (MW) Maple Ridge Wind Power Project on the Tug Hill Plateau in Lewis County, New York. Conducted on-site ecological surveys and wetland/stream delineations.

**Great Bay Solar, Somerset County, MD** – Directed environmental permitting studies in support of Maryland Public Service Commission review for a Certificate of Public Convenience and Necessity (CPCN), including preparation of an Environmental Review Document (ERD), wetland delineations, Visual Assessment, Phase 1 Archaeological Survey, Historic Resources Assessment, rare plant survey, wetland permitting, and local permitting for a proposed 100 MW solar energy project located on 800-acres.

Buckeye Wind Power Project, Champaign County, OH – Managed the preparation of the first ever Application on for a Certificate of Environmental Compatibility and Public Need submitted to the Ohio Power Siting Board for a wind power project in Ohio. This 70-turbine, approximately 130 MW project and EDR's experience in the wind industry proved invaluable when working OPSB staff, interpreting the State of Ohio's new wind law, directing the efforts of local consulting firms, and coordinating with the project sponsor and legal counsel. The Application was accepted as complete after the first submission.



Critical Issues Analyses – Managed the preparation of numerous confidential analyses for potential wind power project in multiple states, which addressed issues ranging from anticipated public acceptance to jurisdictional reviews and threatened and endangered species concerns.

Onondaga County, Lakeview Amphitheatre Project, Syracuse, NY – Managed preparation of the project's Draft Environmental Impact Statement (DEIS), Final Environmental Impact Statement (FEIS), Findings Statement and worked closely with the project team to assure compliance with the State Environmental Quality Review Act (SEQRA). This effort included preparing an Environmental Assessment Form (EAF), assisting with designating Onondaga County as the SEQRA Lead Agency, issuing a Determination of Significance, and preparing a Draft and Final Scoping Document. In support of the DEIS, conducted multiple resource-specific analyses including visual impact assessment, ecological and cultural resource evaluations, and final document formatting and organization. Responded to over 400 substantive comments in preparation of the FEIS.

**SUNY Cortland Student Life Center, City of Cortland, Cortland County, NY** – Directed SEQRA review process on behalf of the State University Construction Fund, including preparation of a EAF and DEIS, numerous DEIS support studies (Visual Assessment, Archaeological Sensitivity Assessment, and Historic Resources Impact Assessment), Phase I ESA, and FEIS. Prepared Draft and Final Scoping Document; and coordinated the public hearing on Scoping and the public hearing on the DEIS. Participated in numerous project-specific meetings with local representatives, and on behalf of the State University Construction Fund, and acted as the sole representative during important meetings with local officials and stakeholders.

SUNY University at Buffalo School of Medical and Biological Sciences, City of Buffalo, Erie County, NY – Directed SEQRA review process on behalf of the State University Construction Fund, including preparation of DEIS and support studies (Visual Assessment, Archaeological Sensitivity Assessment, and Historic Resources Impact Assessment), conducted SEQRA public hearing, preparation of FEIS and SEQRA Findings Statement for a proposed 600,000 GSF new medical/educational complex (under construction) sited on the University at Buffalo Downtown Campus.

SUNY University at Albany Emerging Technology and Entrepreneurship Complex (ETEC), Albany, NY – Directed SEQRA review process on behalf of the State University Construction Fund, including preparation of a Scoping Document, Supplement Environmental Impact Statement (SEIS, Phase 1B Archaeological Survey, Visual Assessment, and coordination of traffic study (by sub-consultant) on behalf of the State University Construction Fund (SUCF) for a 12-acre site proposed for new academic building (under construction) sited on the New York State Office of General Services (OGS) Harriman Campus.

**SUNY Binghamton University School of Pharmacy, Binghamton, NY** – Managed SEQRA process on behalf of the SUCF, including preparation of DEIS and support studies (including, Visual Assessment, Archeological Sensitivity Assessment, and Historic Resources Impact Assessment), conducted SEQRA public hearing, preparation of EAF, FEIS, and SEQRA Findings Statement for a proposed new 110,000 SF science/educational building in the City of Binghamton.

St. Regis Mohawk Reservation Wetland Analysis, St. Regis Mohawk Indian Reservation in Franklin County, NY – Directed EDR's wetland reconnaissance investigation, delineation, and reporting efforts associated with a proposed expansion of the Akwesasne Casino. Digital design files were also provided to EDR in order to make a determination regarding potential impact to identified wetlands.

**Murfreesboro Solar Project, Hertford County, NC** – Prepared a jurisdictional analysis and permit screening evaluation for this 5 MW solar power project. EDR's responsibilities included review of various resource databases, agency consultation, coordination with a local consulting firm, and preparing written response to specific agency comments.

Snooks Pond Permitting, Town of Manlius, Onondaga County, NY – Managed the complex permitting of a single-family residence, which required discretionary approval from federal, state, and local agencies. EDR obtained Corps of Engineers authorization under Section 404 of the Clean Water Act, NYSDEC authorization under the Freshwater Wetlands Act (Article 24 of the Environmental Conservation Law), the Protection of Waters Program (Article 15 of the Environmental Conservation Law), and Section 401 of the Clean Water Act, and Town of Manlius Planning Board authorization under the local Grading and Excavation provisions.

Athens Generating Project Wetland Monitoring, Green County, NY – Directed field surveys/collected data and prepared monitoring reports, which detailed the success of project-specific wetland mitigation sites in accordance with federally issued permits.

**Wallkill Loop Upgrade, Orange County, NY –** Managed the Pre-Construction Notification document for in-kind replacement of wood pole structures within a 4.6-mile long transmission line right-of-way.

The Crossings Residential Subdivision, Onondaga County, NY – Managed a Wetland Delineation Report, obtained Corps and NYSDEC wetland permits, and prepared a Detailed Wetland Mitigation Plan for a 146-lot residential subdivision.



At The Mill Residential Subdivision, Onondaga County, NY - Obtained NYSDEC wetland permits for a 22-lot residential subdivision.

Sanctuary at the Pastures II Residential Subdivision, Onondaga County, NY - Obtained NYSDEC wetland permits for a 9-lot residential subdivision.

Cincinnatus Central School District Expansion, Cortland County, NY – Managed SEQRA documentation, conducted field investigations, and corresponded with regulatory personnel for the proposed school expansion project.

Monroe County A-E Term Services Contracts (2016-2017) – Managed three local Prime Consultants, EDR is providing Landscape Architecture, Site/Civil Engineering, Community Planning, Ecological and Cultural Resource Management, Visualization, and Regulatory Compliance services on an as-needed basis.

Monroe County / Genesee Transportation Council, Irondequoit Seneca Trail, Town of Irondequoit, NY – Directed ecological consulting services as part of development of site analysis, feasibility assessment, and production of concept-level planning and design for a 10-plus mile urban multi-use trail along the Genesee River from the northern end of the El Camino Trail through Seneca Park (Olmstead-designed) to the Irondequoit Lakeside Trail near the O'Rourke Bridge in the Town of Irondequoit.

City of Rochester, Main Street Streetscape Improvement Project, Rochester, NY – Directed the project which included a rehabilitate pedestrian and bicycle facilities along East Main Street, including increased signage and enhancements to an urban plaza. Coordinating completion of the environmental review section of the Department of Transportation (DOT) Design Approval Document, including relevant screenings, assessments, and required DOT/FHWA checklists including the FEAW (Federal Environmental Affects Worksheet). Specific items being addressed are threatened & endangered species, cultural resources, and parks and recreational resources.

NYS Thruway Authority Term Contract for Bridge Rehabilitation in Western New York – Directed Ecological and Cultural Resource Management, and Regulatory Compliance services on an as-needed basis as sub-consultant to Stantec.

NYSDOT / Onondaga County / Costello Parkway Highway Rehabilitation & Bridge Replacement Project, Town of Minoa, NY – Directed environmental compliance and regulatory documentation for highway rehabilitation and proposed bridge rehabilitation project. Prepared SEQRA and NEPA checklist documents, an environmental assessment report for all ecological, cultural and aesthetic resources within the project area. Prepared preliminary environmental investigations in compliance with the criteria contained in the NYSDOT Environmental Procedures Manual. Prepared Phase 1 ESA and Phase 1A Cultural Resource Assessment.

NYSDOT / Onondaga County / Pompey Center Road Highway Rehabilitation & Bridge Replacement Project, Town of Pompey, NY - Directed environmental compliance and regulatory documentation for highway rehabilitation and proposed bridge replacement project. Prepared SEQRA and NEPA checklist documents, an environmental assessment report for all ecological, cultural and aesthetic resources within the project area. Prepared preliminary environmental investigations in compliance with the criteria contained in the NYSDOT Environmental Procedures Manual.

NYSDOT / Madison, Oneida & Herkimer County / Highway Rehabilitation & Bridge Replacements, NY - Directed environmental compliance and regulatory documents for several highway rehabilitation and six (6) proposed bridge replacement projects. Phase 2 services include SEQRA and NEPA checklist documents, an environmental assessment report for all ecological, cultural and aesthetic resources within the project area. Prepared preliminary environmental investigations in compliance with the criteria contained in the NYSDOT Environmental Procedures Manual. Prepared Phase 1 ESA and Phase 1A Cultural Resource Assessment.

NYSDOT / Onondaga Lake Parkway (NY Route 370) from Old Liverpool Road to I-81 Access & Final Design Project, Onondaga County, NY — Managed environmental regulatory compliance, ecological and cultural resource management for proposed highway and bridge rehabilitation/replacement; and parkway corridor enhancements. The scope of work for this project includes preparation of SEQRA and NEPA documents, an environmental assessment report for all ecological, cultural and aesthetic resources (including wetlands) within the project area, Phase 1 Environmental Site Assessment and Phase 1A Cultural Resource Assessment.

NYS Office of Parks, Recreation & Historic Preservation Term Contract for Engineering Services (Western, Central and Capital Regions) – Directed Ecological and Cultural Resource Management, and Regulatory Compliance services on an as-needed basis as sub-consultant to D&B Engineering, Beardsley and C&S Engineers.

CNYRTA A-E Services Term Agreement (2015-2024) – Directed Landscape Architecture, Site/Civil Engineering, Regulatory Compliance, Community Planning, Ecological and Cultural Resources Management, and Visualization services on an as-needed basis as sub-consultant to C&S Engineers.



#### presentations/volunteer experience

Local Control vs. State Siting. Does it even Matter? 2016 AWEA Siting Conference, Charleston, SC. March 2016.

Presenter. Wind Development Non-Wildlife Siting Issues - Sounds, Planes, and Views...Oh my! 2015 AWEA Siting Conference, Austin, TX. March, 2015.

Presenter. Wetlands: Mapped vs. Actual, What You Don't Know About Wetlands Could Hurt Your Project. Environmental Breakfast Club of Central New York, Syracuse, NY. March, 2014.

Presenter. Successful Siting and Community Acceptance. 2013 AWEA Ohio Wind Energy Summit, Columbus, OH. September, 2013.

Poster Presentation. An Overview of the Relationship Between Permit Commitments and Construction Realities. 2013 AWEA Wind Power Conference, Chicago, IL. May, 2013.

Presenter. Typical Impacts & Benefits of Wind Power Development in New York State. 2012 Annual Conference, NY Upstate Chapter ASLA, Binghamton, NY. June, 2012.

Poster Presentation. New York's Article 10 Regulations, Potential Implications on New York State Wind Power Development and a Comparison to the Ohio Siting Process. 2012 AWEA Wind Power Conference, Atlanta, GA. May, 2012.

Presenter. The Relationship Between Permit Commitments and Construction Realities. 2012 NYS Wetlands Forum Annual Conference, Utica, NY. March, 2012

Presenter. SUNY College of Environmental Science and Forestry (ESF), Renewable Energy Course. March 2010.

Presenter. Herkimer-Oneida County Land Use Training Conference. October 2009.

Presenter. Herkimer-Oneida County Wind Energy Conference. April 2008.

Volunteer. USFWS, Indiana Bat Telemetry Study, Glen Park Hibernaculum, Jefferson County. 2004.

#### STATE OF NEW YORK PUBLIC SERVICE COMMISSION

Application of Baron Winds Project for a Certificate under Article 10 of the Public Service Law

Case No. 15-F-0122

#### PRE-FILED TESTIMONY OF:

PATRICK J. HEATON

**PRINCIPAL** 

ENVIRONMENTAL DESIGN & RESEARCH,

LANDSCAPE ARCHITECTURE, ENGINEERING

& ENVIRONMENTAL SERVICES, D.P.C.

217 MONTGOMERY STREET, SUITE 1000

SYRACUSE, NEW YORK 13202

- 1 Q: Please state your name, employer, and business address.
- 2 A: My name is Patrick Heaton. My employer is Environmental Design & Research, Landscape
- Architecture, Engineering & Environmental Services, D.P.C. ("EDR"). My business address is 217
- 4 Montgomery Street, Suite 1000, Syracuse, New York 13202.
- 5 Q: What is your position at EDR?
- 6 A: Principal and Director of Cultural Resources.
- 7 Q: How long have you been employed with EDR?
- 8 A: I have been employed at EDR since 2010.
- 9 Q: Please describe your educational background and professional experience.
- 10 A: I hold a Master of Arts in Anthropology from New York University, New York, New York. I hold a Bachelor of Arts in Anthropology from Hartwick College, Oneonta, New York. I am a Registered 11 Professional Archaeologist and satisfy the Professional Qualifications for Archaeology and Historic 12 13 Preservation per the U.S. Secretary of Interior's Standards for Archaeology and Historic Preservation Projects (36 CFR Part 61). I have over 15 years of experience conducting cultural resources 14 investigations and visual impact assessments for a variety of energy generation and transmission 15 projects. Additional information on my experience is presented in my curriculum vitae ("CV"), which 16 is included as an attachment. 17
- 18 Q: Please describe your current responsibilities with EDR.
- A: As a Principal within EDR's Environmental Division, I oversee all aspects of the firm's projects related to cultural (i.e., archaeological and historic) resources, as well as managing environmental permitting projects. I am responsible for managing cultural resources surveys and visual impact analyses on behalf of EDR's clients. I have over 15 years of experience performing and/or supervising projects

23		involving archaeological and/or historic resources, environmental impact assessments, and visual
24		impact assessments.
25	Q:	Have you previously testified before the New York State Public Service Commission or Siting
26		Board on Electric Generation?
27	A:	Yes.
28	Q:	Have you previously served as an expert witness before any other court, agency, or other
29		body on the subject you plan to offer testimony on today?
30	A:	Yes, I have provided testimony to the New York State Public Service Commission ("PSC") regarding
31		cultural resources surveys and visual impact assessment in the Matter of Cassadaga Wind LLC's
32		Application for a Certificate of Environmental Compatibility and Public Need (Case No. 14-F-0490).
33		I previously sponsored testimony regarding the cultural resources investigations conducted for the
34		Central Hudson A and C Line Rebuild Project. In addition, I provided testimony before the Public
35		Service Commission of Maryland regarding the review of environmental impacts (including cultural
36		resources and visual impacts) for the Great Bay Solar I Project.
37	Q:	What is the purpose and scope of your testimony in this proceeding?
38	A:	To sponsor certain portions of the Baron Winds Project Application or the Exhibits thereto.
39	Q:	What portion(s) of the Application is your testimony sponsoring?
40	A:	Exhibit 20.
41	Q:	Were these Exhibits, Application sections, or studies prepared by you or under your direction
42		and supervision?
43	A:	Yes.
44	Q:	In your testimony, will you refer to, or otherwise rely upon, any studies, publications, data or
45		documents produced by persons other than yourself/your company? If so, please cite these
46		sources. [These are independent studies, etc.]

- A: References are provided in Exhibit 20.
- 48 Q: Does this conclude your testimony?

49 A: Yes.





Patrick Heaton is a Principal and the Director of Cultural Resources at EDR. He is a Registered Professional Archaeologist (RPA) with more than 20 years of experience managing and directing cultural resources (i.e., archaeological and historic sites) compliance, environmental permitting, and historic preservation projects, and meets the Qualifications for the Secretary of the Interior's Standards for Archaeology and Historic Preservation (per 36 CFR 61). His primary areas of technical expertise include archaeology, cultural resources management, visual impact assessment, cultural resources mitigation, and environmental permitting compliance and strategy, including State Historic Preservation Office (SHPO) consultation, Section 106 of the National Historic Preservation Act, the National Environmental Policy Act (NEPA), and the New York State Environmental Quality Review Act (SEQRA).

As Director of Cultural Resources, Patrick oversees and conducts cultural resources surveys, archaeological investigations, historic preservation planning projects, historic resources visual effects analysis, and develops avoidance and/or mitigation strategies for archaeological and historic resources. Mr. Heaton has significant experience with transportation, energy transmission, and utility-scale renewable energy (wind and solar) projects in New York, New England, Ohio, and Maryland.

#### education

New York University, New York, NY, Master of Arts in Anthropology, 1999.

Hartwick College, Oneonta, NY, Bachelor of Arts in Anthropology, 1994.

### registration / certifications

Registered Professional Archaeologist (RPA), 2000.

Meets the Secretary of Interior's Standards for Historic Preservation Projects (36 CFR Part 61).

### professional affiliations

Member, Council for Northeast Historical Archaeology.

Member, New York Archaeological Council.

Member, New York State Archaeological Association (NYSAA).

Vice-President, Board of Directors (2014-2016), Preservation Association of Central New York (PACNY).

Executive Board (2006-2007), Professional Archaeologists of New York City (PANYC).

### employment history

Principal and Director of Cultural Resources Services, Environmental Design & Research, Landscape Architecture, Engineering and Environmental Services, D.P.C., Syracuse, NY, 2013 to Present.

Project Manager, Environmental Design & Research, Landscape Architecture, Engineering and Environmental Services, D.P.C., Syracuse, NY. 2010 to 2013.

Associate, Principal Archaeologist, and Project Manager, John Milner Associates, Inc., Croton-on-Hudson, NY, 2004 to 2010.

Project Archaeologist, John Milner Associates, Inc., Croton-on-Hudson, NY, 2000 to 2004.

Graduate Teaching Assistant, Anthropology Department, New York University, 1997 to 2000.

Research Consultant, Sass Conservation, Inc., Yonkers, NY, 1998 to 2000.

Field Archaeologist, Various Firms, NY, RI, MA, PA, CT, 1995 to 1999.

#### project experience

**Mohawk Solar, Montgomery County, NY** – Principal-in-Charge and Project Manager for preparation of environmental permitting studies for proposed 1,000 MW solar energy facility pursuing a certificate of environmental compatibility and public need under Article 10 of the New York State Public Service Law. Services have included preparation of a Public Involvement Program Plan, Preliminary Scoping Statement, Phase 1A archaeological and historic resources surveys, wetland reconnaissance, threatened and endangered species habitat assessment, public outreach support, and agency consultation.



South Fork Wind Farm, On-shore Transmission Line and Substation Facilities, Suffolk County, NY – Principal-in-Charge and Project Manager for State Historic Preservation Office (SHPO) consultation, Phase 1 archaeological survey, historic-architectural resources survey, and Visual Impact Assessment (VIA) as part of consultant team with AECOM and VHB in support of an New York State Public Service Law Article VII application for a 138kV underground transmission line and new substation associated with a proposed 90-MW offshore wind energy project.

South Fork Wind Farm, Outer Continental Shelf, Rhode Island-Massachusetts Wind Energy Lease Area – Technical Director for historic resources visual effects analysis in support of National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act by the Bureau of Ocean Energy Management (BOEM) review by for a proposed 90-MW offshore wind energy project.

Flint Mine Solar, Greene County, NY – Project Manager for preparation of environmental permitting studies for proposed 1,000 MW solar energy facility pursuing a certificate of environmental compatibility and public need under Article 10 of the New York State Public Service Law. Services have included preparation of an environmental permitting Critical Issues Analysis, siting design support, assistance with Public Involvement Program Plan, Phase 1A archaeological investigation, SHPO consultation, wetland reconnaissance, threatened/endangered species habitat assessment, and regulatory agency consultation.

Interstate 81 (I-81) Viaduct Project – Archaeological Assessment, City of Syracuse, Onondaga County, NY – Project Manager for Phase 1A Archaeological Sensitivity Assessment conducted to help support Section 106 of the National Historic Preservation Act consultation and National Environmental Policy Act (NEPA) review as part of a consultant team with Parsons and AKRF, Inc. on behalf of the New York State Department of Transportation (NYSDOT) for the replacement of approximately 5 miles of elevated highways (NYSDOT PIN 3501.60). Coordinated State Historic Preservation Office (SHPO) consultation and assisted with public outreach events/meetings and preparation.

Interstate 81 (I-81) Viaduct Project – Visual Impact Assessment, City of Syracuse, Onondaga County, NY – Project Manager for Visual Impact Assessment in accordance with Federal Highway Administration (FHWA) standards conducted to help support NEPA review as part of a consultant team with Parsons, AKRF, Inc., and TWMLA for the replacement of approximately 5 miles of elevated highways (NYSDOT PIN 3501.60).

**Block Island Wind Farm, Block Island, RI** – Assisted with management and preparation of VIA for the first offshore wind farm constructed in the United States. Block Island Wind Farm includes 5 wind turbines and is a 30 MW facility located 3 miles off Block Island in the Atlantic Ocean. Project role included field photography, coordination of visual impact analyses, and technical report writing.

City of Oneida FEMA Archaeological Monitoring, Madison County, NY – Principal-in-Charge for archaeological investigations, construction monitoring, and SWPPP preparation for demolition of 154 structures in the City of Oneida (HMGP Project #4031-0035).

Coxsackie Correctional Facility, Greene County, NY – Principal-in-Charge for Phase 1 archaeological survey. Phase II-III archaeological site investigation and data recovery, wetland delineations, and wetland permitting for a proposed 8-acre Training Facility.

Great Bay Solar I, Somerset County, MD. – Principal-in-Charge and Project Manager for environmental permitting studies in support of Maryland Public Service Commission review for a Certificate of Public Convenience and Necessity (CPCN), including preparation of an Environmental Review Document (ERD), wetland delineations, visual Assessment, Phase 1 archaeological survey, Phase II archaeological site investigation, historic resources assessment, rare plant survey, wetland permitting, and local permitting for a proposed 100 MW solar energy project located on 800-acres.

**Solar Development Project (Private Client), Worcester County, MD** – Principal-in-Charge for environmental permitting studies in support of an application for a Certificate of Public Convenience and Necessity (CPCN) from the Maryland Public Service Commission, including preparation of an Environmental Review Document (ERD), wetland delineation and permitting, threatened/endangered species habitat assessment) and cultural (archaeological and historic) resources studies for a proposed 100 MW solar energy project located on 900-acres.

**Walton River Gas Main HDD**, **Delaware County**, **NY –** Principal-in-Charge for Phase I archaeological survey and Phase II archaeological site investigations for a proposed gas main adjacent to the West Branch of the Delaware River.

Beaver Road Industrial Park, Monroe County, NY - Principal-in-Charge for Phase 1B archaeological investigations for a 49-acre parcel.

Onondaga Creekwalk Phase II, City of Syracuse, Onondaga County, NY – Principal-in-Charge for environmental permitting services and cultural resources surveys as part of a consultant team with C&S Engineers for the a 2.2-mile recreational trail along Onondaga Creek (NYSDOT PIN 355.14). Services provided as part of coordinated SEQRA/NEPA review included: preparation of a Section 106 Project Submittal Package; Phase 1 Archaeological



and Historic Resources Surveys; rare, threatened, and endangered (RTE) species assessments; Section 4(f) Consultation correspondence; and, the environmental portions of a NYSDOT Design Approval Document.

New York State Thruway Authority (NYSTA) Term Contract for Bridge Rehabilitation in Western New York — Principal-in-charge for environmental and cultural resources services to support environmental permitting as part of consultant team with Stantec for NYSTA bridge rehabilitation projects. Services include: preparation of Section 106 Project Submittal Packages; Phase 1A Archaeological Assessments and/or Phase 1 Archaeological Surveys; wetland reconnaissance and/or delineations; rare, threatened, and endangered (RTE) species assessments; Section 4(f) Consultation correspondence; and, the environmental portions of Design Approval Documents.

Onondaga Lake Parkway/NY Route 370, City of Syracuse, Onondaga County, NY – Principal-in-Charge for environmental permitting studies as part of coordinated SEQRA/NEPA review as part of a consultant team with Lochner for the reconstruction and safety improvements of 2-mile parkway (NYSDOT PIN 3287.17). Services include wetland delineation and permitting, rare, threatened, and endangered (RTE) species assessments, groundwater modeling, historic landscape inventory, and visual impact assessment.

Arkwright Summit Wind Farm, Chautauqua County, NY – Project Manager for environmental permitting for a proposed 36-turbine, 78-megawatt (MW) wind energy facility and associated 3-mile generator lead line. Services include managing review under New York State Environmental Quality Review Act (SEQRA), including Lead Agency coordination, preparation of Supplemental Environmental Impact Statement (SEIS), Final Environmental Impact Statement (FEIS), Visual Impact Assessment, shadow flicker analysis, supplemental Phase 1B Archaeological Survey, Historic Resources Assessment, and preparation of Joint Application for Permit for wetland permitting for submission to the U.S. Army Corps of Engineers and New York State Department of Environmental Conservation (NYSDEC).

Cassadaga Wind Farm, Chautauqua County, NY – Technical Director for Phase 1 Archaeological Survey, Historic Resources Survey, State Historic Preservation Office (SHPO) consultation, and Visual Impact Assessment in support of Article 10 Application to the New York State Board on Electrical Generating Siting and the Environment for a proposed 70 wind turbine, 126 MW wind energy facility.

Baron Winds Project, Steuben County, NY – Technical Director for Phase 1 Archaeological Survey, Historic Resources Survey, State Historic Preservation Office (SHPO) consultation in support of Article 10 Application to the New York State Board on Electrical Generating Siting and the Environment for a proposed (up to) 300 MW wind energy project with up to 80 wind turbines.

North Carolina Wind Energy Lease Areas, NC – Project Manager for a visual assessment conducted as part of a National Environmental Policy Act (NEPA) Environmental Assessment for the North Carolina Wind Energy Area. Commissioned by the Bureau of Ocean Energy Management (BOEM) and ICF, EDR's visual assessment included identification of visually sensitive sites (e.g., historic sites), field photography, and the production of daytime and nighttime photo simulations demonstrating the potential visibility and visual impact of offshore meteorological towers. This project also included the production of time-lapse videos showing the towers visual impact over an 18-hour period.

University at Albany Emerging Technology and Entrepreneurship Complex (ETEC), Albany County, NY – Principal-in-Charge for SEQRA review, including preparation of a Scoping Document, Supplement Environmental Impact Statement (SEIS), Phase 1B Archaeological Survey, Visual Assessment, FEIS, SEQRA Findings Statement, and coordination of traffic study (by sub-consultant) on behalf of the State University Construction Fund (SUCF) for a 12-acre site proposed for new academic building on the New York State Office of General Services (OGS) Harriman Campus.

Amherst State Park Pedestrian Improvements Project, Town of Amherst, Erie County, NY – Technical Director for a Phase 1 Archaeological Survey, SHPO consultation, and development of archaeological site avoidance measures for a proposed 1-mile multi-use/pedestrian trail.

Rochester Genesee Regional Transit Authority (RGRTA) Seneca Bus Facility, Village of Waterloo, Seneca County, NY – Principal-in-Charge and Project Manager for preparation of Phase 1 Archaeological Survey and wetland reconnaissance as part of consultant team with AKRF, Inc. in support of NEPA review of 1-acre transit facility.

West River Greenway Trail, Grand Island, NY – Principal-in-Charge and Project Manager for a Phase 1 Archaeological Survey and visual renderings as part of consultant team with C&S Engineers, Inc. for a proposed 8-mile multi-use/pedestrian trail along the Niagara River.

American Packaging Facility, Town of Chili, Monroe County, NY – Principal-in-Charge and Project Manager for preparation of Phase 1 Archaeological Survey and SHPO consultation for a proposed 35-acre commercial/light industrial facility.



Interstate 690 (I-690) Teall Avenue & Beech Street Interchange, City of Syracuse, Onondaga County, NY – Project Manager and Technical Director for Visual Assessment and Archaeological Resources Screening as part of National Environmental Protection Act (NEPA) review and Section 106 consultation as part of a consultant team with Parsons and AKRF, Inc. on behalf of the NYSDOT for a bridge replacement and intersection improvement of 0.5-mile elevated highway.

Canalways Trail, City of Syracuse, Onondaga County, NY – Technical Director for Section 106 Project Submittal Package and Phase 1A Archaeological Assessment as part of a consultant team with CHA for the design and construction of a 2.7-mile recreational trail along the shoreline of Onondaga Lake (NYSDOT PIN 3950.49).

**Penn Forest Wind Farm, Carbon County, PA –** Project Manager for preliminary visual assessment, visual fieldwork, viewshed analysis, visual simulations, and preparation of public outreach materials for proposed 40-turbine wind energy facility.

**Stiles Brook Wind Farm, Towns of Windham and Grafton, VT –** Project Manager for preliminary visual assessment, visual fieldwork, viewshed analysis, visual simulations, and preparation of public outreach materials for proposed 30-turbine wind energy facility.

Village of Mohawk Substation Relocation, Herkimer County, NY – Principal-in-Charge and Project Manager for Phase 1 Archaeological Survey conducted as part of Section 106 of the National Historic Preservation Act consultation for a proposed 1.2-acre substation relocation project. Project sponsored by New York Governor's Office of Storm Recovery (GOSR) and Federal Emergency Management Agency (FEMA).

Town of Nichols Highway Garage, Tioga County, NY – Principal-in-Charge and Project Manager for Phase 1 Archaeological Survey conducted as part of Section 106 of the National Historic Preservation Act consultation for a 7.0-acre site proposed for relocation of a municipal highway garage. Project sponsored by New York Governor's Office of Storm Recovery (GOSR) and U.S. Department of Housing and Urban Development (HUD).

Jericho Rise Wind Farm, Franklin County, NY – Technical Director for Phase 1B archaeological survey, historic resources survey and effects analysis, and SHPO consultation in support of SEQRA review and U.S. Army Corps of Engineers wetland permitting for a proposed 37 wind turbine, 78 MW wind energy facility.

Liverpool Village Cemetery Restoration Plan, Village of Liverpool, Onondaga County, NY – Principal-in-Charge for a historic landscape preservation planning and restoration project, associated NYS Consolidated Funding Application (CFA), and public outreach for a 6-acre cemetery listed on the National Register of Historic Places (NRHP).

Cumberland Bay State Park, Camping Area Comfort Station Replacements, Clinton County, NY – Principal-in-Charge and Project Manager for Phase 1 Archaeological Survey for proposed comfort station replacements in a state park on Lake Champlain. Services provided as part of a consultant team with Beardsley Architects & Engineers, D.P.C. for a Term Services Agreement with the New York State Office of Parks, Recreation, and Historic Preservation (NYSOPRHP).

Montezuma Heritage Park and Giardina Park, Town of Montezuma, Cayuga County, NY – Principal-in-Charge and Project Manager for Phase 1A Archaeological Resources Surveys in support of historic preservation planning for a proposed 168-acre heritage park that interprets archaeological remains of the Erie and Cayuga-Seneca Canals and an additional 16-acre town park.

Rochester Genesee Regional Transit Authority (RGRTA) Main Street Campus Improvements, City of Rochester, Monroe County, NY – Principal-in-Charge and Project Manager for preparation of Phase 1B Archaeological Survey in support of NEPA review of 3-acre transit facility.

Binghamton University School of Pharmacy, Village of Johnson City, Broome County, NY - Principal-in-Charge and Project Manager for SEQRA review (including preparation of a Full Environmental Assessment Form, or EAF) and Phase 1A Archaeological Assessment on behalf of the State University Construction Fund (SUCF) for a 5.5-acre site proposed for new academic building.

**Maxwell Field Streambank Stabilization Project, City of Oneida, Madison County, NY –** Principal-in-Charge and Project Manager for Phase 1 Archaeological Survey for 0.3-acre streambank stabilization project.

Chain Works District Redevelopment Project, City of Ithaca, Tompkins County, NY – Principal-in-Charge for preparation of Phase 1A Archaeological Survey in support of SEQRA review of 95-acre historic industrial site proposed for redevelopment.



Central Hudson Gas & Electric W-H and G Transmission Lines, Ulster County & Dutchess County, NY – Technical Director for SHPO consultation, archaeological surveys, and visual impact studies in support of NYS Public Service Commission Part 102 Applications for the refurbishment of a 13-mile transmission-line and an 11-mile transmission line.

**Coye Hill Wind Farm, Tolland County, CT –** Project Manager for Natural Resources Impact Evaluation Report and consultation with the Connecticut SHPO in support of Petition for a Declaratory Ruling from the Connecticut Siting Council for proposed 4-turbine, 12 MW wind energy project.

**NFG Dunkirk Pipeline, Chautauqua County, NY** – Principal-in-Charge and Project Manager for SHPO consultation and Phase 1A/1B Archaeological Surveys in support of NYS Public Service Commission Article VII Application for a proposed 9-mile natural gas pipeline.

Rochester Genesee Regional Transit Authority (RGRTA) Orleans County Transit Facility, Orleans County, NY – Project Manager for preparation of Phase 1A Archaeological Survey in support of NEPA review of proposed 2-acre bus storage/service facility.

Great Bay Wind Project, Somerset County, MD – Project Manager for preparation of cultural resources surveys, consultation with the Maryland Historical Trust (MHT), and Visual Impact Assessment for a proposed 35-turbine, 100 MW wind energy project. Services provided in support of Maryland Public Service Commission review for a CPCN and Section 106 consultation as part of NEPA review by the U.S. Fish and Wildlife Service in association with Bald and Golden Eagle Protection Act take permit review.

Onondaga Lake West Revitalization Area, Village of Solvay, Onondaga County, NY – Project Manager for preparation of Phase 1 cultural resources surveys of 400-acre brownfield area and proposed streetscape improvements.

**Van Dyke Road Substation, Albany County, NY –** Technical Director for Visual Impact Assessment and Phase 1 archaeological survey for a proposed 4.3-acre substation site and 1.6-mile underground transmission duct bank.

**Batavia Senior Housing Project, Genesee County, NY –** Project Manager for Phase 1 Archaeological Survey and prepared Phase 2 Archaeological Site Investigation Work Plan for a 13.5-acre site proposed for development as a senior housing facility.

Copenhagen Wind Project, Lewis County, NY – Technical Director for preparation of Phase 1A/1B Archaeological Survey and Historic Resources Survey, New York SHPO consultation, Visual Impact Assessment, and prepared sections of Draft Environmental Impact Statement (DEIS) and FEIS as part of SEQRA review for proposed 47-turbine, approximately 79 MW wind energy project.

**Black Oak Wind Farm, Tompkins County, NY –** Technical Director for Phase 1A Cultural Resources Survey, Historic Resources Visual Effects Analysis, and SHPO consultation in support of SEQRA review for a proposed 7-wind turbine, 14-MW wind energy project.

Downtown Syracuse Commercial Historic District, City of Syracuse, Onondaga County, NY – Project Manager for preparation of National Register of Historic Places (NRHP) nomination and Multiple Property Documentation Form on behalf of the Downtown Committee of Syracuse, Inc. for a proposed 21-acre historic district. The nomination was approved by the National Park Service and listed on the NRHP on May 7, 2013.

Chittenango Landing Dry Dock Complex Cultural Landscape Report, Town of Sullivan, Madison County, NY – Project Manager for preparation of Part 1 of a Cultural Landscape Report (CLR) on behalf of the Chittenango Landing Canal Boat Museum for a 6-acre historic site/museum listed on the NRHP. The interpretive site includes a 19th-century dry dock complex and associated buildings located on the Erie Canal.

Aquidneck Island Reliability Project, Newport, RI – Technical Director for visual fieldwork, visual simulations, and report preparation for a Visual Impact Assessment (VIA) for the proposed upgrade of approximately 4.4 miles of National Grid 69 kV transmission line to 115 kV.

Mary Cariola Children's Center, Town of Henrietta, Monroe County, NY – Project Manager for a Phase 1 Archaeological Survey conducted as part of SEQRA review for a proposed residential facility for disabled children located on 1.3-acres.

Central Hudson Gas & Electric A and C Transmission Lines, Dutchess County, NY – Technical Director for SHPO consultation, Phase 1 Archaeological Survey, and Visual Impact Assessment in support of Article VII application for the rebuild of 11 miles of 115 kV transmission lines.

Indian Point Energy Center (IPEC), Westchester County, NY – On behalf of Scenic Hudson, Inc., and Riverkeeper, coordinated preparation of visual simulations and Visual Impact Assessment for a proposed closed-cycle cooling (CCC) system at a nuclear energy facility.

Scioto Ridge Wind Farm, Hardin and Logan Counties, OH – Prepared Cultural Resources Survey Work Plans in support of Ohio Power Siting Board (OPSB) Certificate Application for proposed wind energy project with up to 176 wind turbines and a generating capacity of up to 300 MW.



University at Buffalo School of Medical and Biological Sciences, City of Buffalo, Erie County, NY – Project Manager for SEQRA process on behalf of the State University Construction Fund, including preparation of DEIS and support studies (Visual Assessment, Archaeological Sensitivity Assessment, and Historic Resources Impact Assessment), conducted SEQRA public hearing, preparation of FEIS, and SEQRA Findings Statement for a proposed ~600,000 gross square foot medical/educational facility located on the University at Buffalo's Downtown Campus.

Wild Meadows Wind Project, Grafton and Merrimack Counties, NH – Technical Director for visual fieldwork/photography and presented visual resources analyses and simulations at public open houses conducted in support of Section 106 of the National Historic Preservation Act (NHPA) consultation for a proposed 37-turbine, 74 MW wind energy project.

Loveless Farms, Town of Skaneateles in Onondaga County, NY – Technical Director for Phase 1 Archaeological Survey and Visual Impact Assessment in support of SEQRA review for a proposed 18-lot subdivision located on 47-acres.

White Pine Commerce Park, Town of Clay, Onondaga County, NY – Project Manager for Phase 1 Archaeological Survey and SHPO consultation for Onondaga County Industrial Development Authority (OCIDA) in support of SEQRA review for a 300-acre parcel and 4-mile sewer line.

Empire Brewing Company Farmstead Brewery, Town of Cazenovia, Madison County, NY – Project Manager for visual assessment, viewshed analyses, visual simulations, and analysis of visual effects on NRHP-listed properties as part of SEQRA review for a proposed craft brewery.

Wilcox Estates, Town of Barton in Tioga County, NY – Project Manager for a Phase 1 Archaeological Survey as part of SEQRA review for a proposed 32-lot subdivision located on 20-acres.

Barcelona Water Improvement District, Town of Westfield in Chautauqua County, NY – Project Manager and Technical Director for a Phase 1 Archaeological Survey as part of Section 106 of the NHPA review for a 4-mile long public water system located in the hamlet of Barcelona.

Village of Danforth Historic Resources Survey, Syracuse, Onondaga County, NY – Project Manager for development of public outreach strategy, historic resource inventory forms, and visual field guide to enable community volunteers to conduct a Neighborhood Historic Resource Survey and NRHP eligibility evaluation of over 300 buildings for the City of Syracuse Bureau of Planning and Sustainability.

**SUNY Cortland Student Life Center, City of Cortland, Cortland County, NY** – Project Manager for SEQRA process on behalf of the State University Construction Fund, including preparation of DEIS, support studies (including, Visual Impact Assessment, Phase 1A Cultural Resources Survey, and Phase 1 Environmental Site Assessment), FEIS and SEQRA Findings Statement for proposed recreational athletic facility.

**Newfield Covered Bridge, Town of Newfield, Tompkins County, NY –** Project Manager for preparation of a Phase 1A Cultural Resources Survey for a NRHP-listed historic bridge rehabilitation (NYSDOT PIN 37550).

Owasco River Greenway Trail, City of Auburn and Town of Fleming, Cayuga County, NY – Technical Director for Phase 1A Cultural Resources Survey for a proposed 8.4-mile-multi-modal recreational trail (NYSDOT Project 375557).

Niagara Falls Underground Railroad Heritage Area Management Plan, Niagara County, NY – Cultural resources specialist for preparation of a Heritage Area Management Plan (HAMP) authorized under Section 35.05 of the New York State Parks, Recreation, and Historic Preservation Law to identify and encourage heritage tourism opportunities related to the Underground Railroad in the Niagara Falls vicinity. ASLA Award for Historic Preservation.

Seneca Park Zoo Parking Lot Expansion, City of Rochester and Town of Irondequoit, Monroe County, NY – Project Manager for a Phase 1 Archaeological Survey in support of SEQRA review on behalf of Monroe County Parks Department for a 1.5-acre parcel.

Crown City Wind Project, Cortland County, NY – Technical Director for Cultural Resources Survey, Visual Impact Assessment, and prepared DEIS sections as part of SEQRA review for proposed 44-turbine, approximately 71 MW wind energy project.

**Buckeye II Wind Project, Champaign County, OH –** Technical Director for Visual Impact Assessment for a proposed 56-turbine, 140 MW wind energy project in support of an Application for a Certificate of Environmental Compatibility and Public Need to the Ohio Power Siting Board (OPSB).

**Monticello Hills Wind Project, Otsego County, NY** – Project Manager for SEQRA process and preparation of permitting support studies (including Full Environmental Assessment Form, Visual Impact Assessment, wetland delineation, shadow-flicker analysis, Phase 1A Cultural Resources Survey, Historic Resources Survey, and Phase 1B Archaeological Survey) for a proposed six-turbine, 18 MW wind energy project.



**South Mountain Wind Project, Delaware County, NY** – Project Manager for preparation of environmental permitting studies in support of SEQRA review (including wetland delineation, threatened and endangered species habitat assessment, and timber rattlesnake survey) for a proposed community-scale wind energy project.

Smokey Avenue Wind Project, Otsego County, NY – Project Manager for preparation of environmental permitting studies in support of SEQRA review (including Shadow Flicker Analysis, ballooning fieldwork and visibility study, and Phase 1A Cultural Resources Survey) for proposed community-scale wind energy project.

Roaring Brook Wind Power Project, Lewis County, NY – Technical Director for supplemental/addendum Phase 1B Archaeological Survey in association with project layout revisions for a proposed 79MW wind energy project.

Sackets Harbor Battlefield National Historic Landmark (NHL) Nomination, Jefferson County, NY – Prepared sections of NHL nomination and Battlefield Preservation Plan for the 260-acre War of 1812 battlefield in Sackets Harbor, under a grant from the American Battlefield Protection Program of the National Park Service.

Warren Hull Family Home and Farmstead, Erie County, NY – Coordinated preparation of graphic displays for cultural landscape historic overview and treatment plan to support restoration of the landscape at a ca. 1825 landmark house museum.

Long Island - New York City Offshore Wind Project, Queens, Nassau, and Suffolk Counties, NY – Project Manager for preparation of visual simulations, web-based presentation, and associated visualization services for a proposed 350 MW offshore wind energy project located in the Atlantic Ocean approximately 13-miles off the coast.

**Allegany Wind Power Project, Cattaraugus County, NY** – Technical Director for supplemental/addendum Phase 1B Archaeological Survey in association with review of construction plans by New York SHPO for a proposed 29-turbine, 72.5 MW wind energy project.

Horse Creek Wind Farm, Jefferson County, NY – Technical Director for a Visual Impact Assessment, including viewshed analysis, field work, photographic simulations, and VIA report for a proposed 50-turbine, 100 MW wind energy project.

**Tioga Downs Wastewater Improvement Project, Tioga County, NY –** Project Manager for a Phase 1 Archaeological Survey and Phase 2 Archaeological Site Investigation of a pre-contact Native American archaeological site for a wastewater treatment facility and 0.5-mile water line.

**Collegetown Terrace, Tompkins County, NY** – Served as Lead Agency's consultant for SEQRA review and prepared FEIS on behalf of the City of Ithaca Planning & Development Board for a 16-acre, 1,260-unit student housing project.

Big Savage 138 kV Generator Lead, Allegany County, MD – Technical Director for Visual Impact Assessment and Cultural Resources Assessment for Maryland Public Service Commission CPCN review of a proposed 7-mile transmission line.

Marble River Wind Project, Clinton County, NY – Technical Director for cultural resources and visual impacts analyses for SEQRA permitting review of a revised layout for a 74-wind turbine, 222 MW wind energy project.

Amherst State Park Veterans Memorial, Erie County, NY – Project Manager for a Phase 1B Archaeological Survey for a proposed veterans' memorial and 1,500-foot footpath in Amherst State Park.

Timber Road II Wind Project, Paulding County, OH – Technical Director for a Visual Impact Assessment for a 109-turbine, 150 MW wind energy project in support of an Application for a Certificate of Environmental Compatibility and Public Need submitted to the Ohio Power Siting Board (OPSB).

Hardscrabble Wind Power Project, Herkimer County, NY – Technical Director for supplemental Phase 1B Archaeological Survey, construction monitoring, and compliance with U.S. Army Corps of Engineers/SHPO Memorandum of Agreement for a 37-turbine, 74 MW wind energy project.

Benson Mines Meteorological Tower, St. Lawrence County, NY – Technical Director for visual assessment, ballooning fieldwork, and visual simulations in accordance with the Adirondack Park Agency (APA) Visual Analysis Methodology for a proposed 160-foot meteorological tower.

**Deerfield Wind Power Project, Bennington County, VT –** Prepared sections of Supplemental DEIS for a 15-turbine, 30 MW wind energy project located in the Green Mountain National Forest, as part of NEPA review on behalf of the U.S. Department of Agriculture (USDA) National Forest Service.

National Grid 115 kV Line, Lighthouse Hill to Coffeen Street, Oswego and Jefferson Counties, NY – Prepared visual impact assessment portion of Part 102 Report for a 40-mile 115 kV transmission line maintenance and refurbishment project.



# Patrick J. Heaton, RPA, Principal Director of Cultural Resources

National Grid Eastover Road Substation and Tap Line, Town of Schagticoke, Rensselaer County, NY – Ballooning/visual impact assessment fieldwork for a proposed 6.4-acre 230/115 kV substation and 0.75-mile 155 kV tap line.

# publications/presentations

Presenter. It's a Brave New World: Online Consultation with the New York State Historic Preservation Office (SHPO). 2015 New York State Wetlands Forum Conference, Syracuse, NY. April, 2015.

Poster Presentation. The Effect of Larger Rotor Diameters and Taller Hub Heights on Shadow Flicker Impacts. 2013 American Wind Energy Association (AWEA) Wind Conference, Chicago, IL. May, 2013.

Presenter. Cultural Heritage Planning: History as a Marketable Asset. Annual Conference of the New York Upstate Chapter of the American Planning Association, Corning, NY. September, 2012.

Presenter. Use of Visualization Techniques and Computer Graphics to Address the Visibility and Appearance of Off-shore Wind Projects. 2011 AWEA Offshore Wind Conference, Baltimore, MD. October, 2011.

Heaton, Patrick J., J. Sanderson Stevens, L.E. Branch-Raymer, & J. Wettstaed. 2010. Archaeological Investigations of an Early Farmstead Site in Shelby County, Indiana. Indiana Archaeology 5(2):74-95.

Heaton, Patrick J. 2003. The Rural Settlement History of the Hector Backbone. Northeast Historical Archaeology 32:19–28.

Heaton, Patrick J. 2003. Farmsteads and Finances in the Finger Lakes: Using Archival Sources in a GIS Database. Northeast Historical Archaeology 32:29–44.

Six, Janet, Patrick J. Heaton, Susan Malin-Boyce, & James A. Delle. 2003. The Artifact Assemblage from the Finger Lakes National Forest Archaeology Project. Northeast Historical Archaeology 32:79–94.

Delle, James A., & Patrick J. Heaton. 2003. The Hector Backbone: A Quiescent Landscape of Conflict. Historical Archaeology 37(3):93-110.

Heaton, Patrick J. 2000. Book review of *Nineteenth- and Early Twentieth-Century Domestic Site Archaeology in New York State*, edited by John P. Hart and Charles L. Fisher, New York State Museum Bulletin No. 495, Albany, NY, 2000. Published in Northeast Anthropology 60:93-94.

STATE OF NEW YORK	
PUBLIC SERVICE COMMISS	ION

Application of Barron Wind Project for a Certificate under Article 10 of the Public Service Law

Case No. 15-F-0122

### PRE-FILED TESTIMONY OF:

JOHN D. HECKLAU

**ENVIRONMENTAL DESIGN & RESEARCH,** 

 ${\tt LANDSCAPE} \ {\tt ARCHITECTURE}, \ {\tt ENGINEERING} \ \& \ {\tt ENVIRONMENTAL} \ {\tt SERVICES}, \ {\tt D.P.C.}$ 

217 MONTGOMERY STREET, SUITE 1000, SYRACUSE, NY

- 1 Q: Please state your name, employer, and business address.
- 2 A: My name is John Hecklau. My employer is Environmental Design & Research, Landscape
- Architecture, Engineering & Environmental Services, D.P.C. ("EDR"). My business address is 217
- 4 Montgomery Street, Suite 1000, Syracuse, New York 13202.
- 5 Q: What is your position at EDR?
- 6 A: I am a Principal in EDR's Environmental Division.
- 7 Q: How long have you been employed with EDR?
- 8 A: 28 years.
- 9 Q: Please describe your educational background and professional experience.
- A: I received a Bachelor of Arts in Biology from Middlebury College in Middlebury, Vermont in 1979. I 10 11 then went on to receive a Master of Science in Environmental and Forest Biology, Specializing in Wildlife Biology, from the State University of New York, College of Environmental Science and 12 Forestry in Syracuse, New York in 1982. I am a Certified Wildlife Biologist, and worked for the 13 14 Connecticut Department of Environmental Protection (Wildlife Bureau) and the New York Power Authority (Environmental Programs) before joining EDR in 1989. I have over 30 years of experience 15 performing and/or supervising projects involving wetlands delineations, environmental impact 16 assessments, vegetation and wildlife studies, visual impact assessments, natural resource 17 management planning, wetland permitting, and environmental compliance monitoring. Additional 18 information on my experience is presented in my curriculum vitae ("CV"), which is included as 19 Attachment JDH-1. 20
- 21 Q: Please describe your current responsibilities with EDR.
- A: As a Principal within EDR's Environmental Division, I oversee all of EDR's environmental permitting, impact assessment, and management projects. I am responsible for visual impact analysis, wetland

permitting, natural resource management planning, environmental impact analysis, and 24 environmental compliance monitoring on behalf of EDR's clients. I have extensive experience 25 reviewing environmental impacts, including visual impacts. I have worked on numerous electric 26 power development and transmission line projects in which I have been responsible for 27 conducting/coordinating the visibility analysis and the visual/aesthetic impact assessments. 28 Have you previously testified before the New York State Public Service Commission or Siting Q: 29 **Board on Electric Generation?** 30 A: Yes, I have submitted testimony in Case No. 97-F-1563, Athens Generating; Case No. 98-F-1968, 31 Ramapo Energy Limited Partnership; Case No. 99-F-1191, Astoria Energy, LLC; Case No. 03-T-32 0515, Flat Rock Wind Power; Case No. 10-T-0154, St. Lawrence Gas Company, Inc.; and Case No. 33 13-T-0469, Central Hudson & Gas Electric Corporation. 34 35 Q: Have you previously served as an expert witness before any other court, agency, or other body on the subject you plan to offer testimony on today? 36 A: Yes, I provided visual testimony to the Rhode Island Energy Facilities Siting Board (EFSB) on the 37 38 Aguidneck Island Reliability Project (Docket No. SB-2016-01), the Rhode Island Reliability Project (Docket No. SB 2008-02) and the Southern Rhode Island Transmission Project (Docket No. SB-39 2005-01), and to the New Hampshire Site Evaluation Committee (SEC) on the Merrimack Valley 40 Reliability Project and the Groton Wind Power Project. I have also provided visual testimony to the 41 Perguimans and Chowan County (NC) Commissions on the Timbermill Wind Farm. 42 Q: What is the purpose and scope of your testimony in this proceeding? 43 A: To sponsor certain portions of the Baron Wind Project Application or the Exhibits thereto. 44 What portion(s) of the Application is your testimony sponsoring? 45 Q:

A:

46

Exhibit 24.

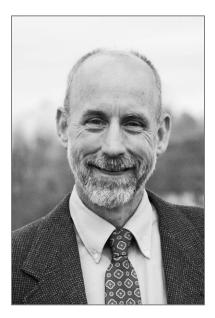
47	Q:	Were these Exhibits, Application sections, or studies prepared by you or under your direction
48		and supervision?
49	A:	Yes.
50	Q:	In your testimony, will you refer to, or otherwise rely upon, any studies, publications, data or
51		documents produced by persons other than yourself/your company? If so, please cite these
52		sources. [These are independent studies, etc.]
53	A:	No.
54	Q:	Does this conclude your testimony?

A:

55

Yes.





John is a certified Wildlife Biologist with over 30 years of environmental planning and consulting experience, the majority of which has been associated with energy projects. He has been directly involved in the environmental review and permitting of over 40 commercial wind power projects as well as, hydro relicensing studies, and environmental impact assessments for power plants, transmission lines, and gas franchises. His expertise covers all facets of utility permitting, including siting, environmental review and analysis, ecological surveys, wetland delineation and permitting, liaison with regulatory agencies, as well as environmental compliance during construction.

Since 1993, John has served as principal-in-charge or project manager on all of the firm's visual impact assessment projects. Along with managing these projects, his role has typically included analyzing the results of the visual impact assessment, and completing the necessary reports and permitting required by federal, state, and local agencies. In addition to his professional experience, John has provided expert witness testimony, made numerous presentations, and published articles on visual impact issues associated with utility-scale wind power projects.

### education

State University of New York, College of Environmental Science and Forestry, Syracuse, NY, *Master of Science in Environmental and Forest Biology*, Specializing in Wildlife Biology, 1982.

Middlebury College, Middlebury, VT, Bachelor of Arts in Biology, 1979.

### professional affiliations

Member, The Wildlife Society.

Certified Wildlife Biologist, The Wildlife Society.

Planning Board Member/Chairman, Town of Kirkland, NY.

Member, American Wind Energy Association.

## registration / certifications

Wildlife Biologist - The Wildlife Society.

# employment history

Principal, Environmental Design & Research, Landscape Architecture, Engineering & Environmental Services, D.P.C., Syracuse, NY 2008 - Present.

Project Manager/Senior Ecologist, Environmental Design & Research, Syracuse, NY, 1995 - Present.

Ecologist, Environmental Design & Research, Syracuse, NY, 1989 - 1994.

Self-Employed Environmental Consultant, John D. Hecklau, Clinton, NY, 1988

Resource Manager, Environmental Programs Division, New York State Power Authority, Marcy, NY, 1984 - 1987.

Wildlife Biologist, Connecticut Department of Environmental Protection, Burlington, CT, 1983 -1984.

Wildlife Consultant, Central Park Conservancy, New York, NY, 1982 - 1983

# project experience

Icebreaker Wind Project, Erie County, Cleveland, OH – Oversaw federal permitting efforts for a proposed 20-megawatt (MW) demonstration wind project off-shore of Cleveland, Ohio in Lake Erie. Permitting efforts included Section 404/Section 10 with the U.S. Army Corps of Engineers, Section 401 Water Quality Certification from the Ohio EPA, and approval from the International Joint Commission.

Jericho Rise Wind Farm, Towns of Bellmont and Chateauguy, Franklin County, NY – Directed the SEQRA review for this 37-turbine, 78 MW project. Oversaw preparation of a Supplemental EIS, a Final EIS, and multiple support studies including a Visual Impact Assessment, a Shadow Flicker Analysis, Cultural Resources Reports (Archaeology and Historic Resources), a Wetland Delineation Report, and a Rare Plant Survey. Also coordinated preparation of local Wind Energy Permit Application and wetland/stream permit applications submitted to the U.S. Army Corps of Engineers and the NYS Department of Environmental Conservation.



**Sodeman Road Substation, Saratoga County, NY** – Directed the preparation of an Article VII Application for a new National Grid substation tying into an existing Article VII transmission line. Also prepared a Visual Impact Assessment (VIA), wetland delineation, and alternatives analysis for the project. Coordinated preparation of noise study and Stormwater Pollution Prevention Plan (SWPPP), and provided expert witness testimony.

**Aquidneck Island Reliability Project, Newport, RI** – Directed the preparation of the Visual Impact Assessment (VIA) for the proposed upgrade of approximately 4.4 miles of National Grid 69 kV transmission line to 115 kV. The VIA also addressed construction of a new substation and retirement/removal of five substations. Specific tasks included field verification of project visibility, definition of landscape similarity zones and viewer groups, identification of sensitive resources/receptors, development of viewshed maps, preparation of visual simulations, impact evaluation, and preparation of the VIA report.

Wild Meadows and Groton Wind Farms, Danbury & Groton, NH – Directed the preparation of Visual Impact Assessments (VIAs) and Shadow Flicker Analyses for two commercial wind power projects in New Hampshire. VIAs included viewshed analysis, photo documentation and visual simulations. Also assisted with public outreach efforts and state Site Evaluation Committee proceedings, including preparation of pre-filed testimony, response to discovery requests, and participation in a technical session and adjudicatory hearings as an expert witness.

Block Island Wind Farm, Block Island, RI – Directed preparation of Visual Impact Assessments (VIAs) for the proposed Block Island Wind Farm and associated on-shore transmission facilities. The wind farm is a 30 MW facility located in the Atlantic Ocean, 3 miles off the coast. On-shore facilities include electrical lines, switchyards, and substations. The project involved the preparation of daytime and nighttime simulations of the offshore turbines from viewpoints on Block Island and the mainland. Simulations of the above-ground on-shore components of the project were also prepared, including landscaping and architectural façade treatments of the switchyards. VIAs also included an inventory of visually sensitive resources, viewshed analysis, cross section analysis, and evaluation of visual impact. In addition to the VIAs, managed preparation of various presentation graphics for public outreach purposes, including poster boards, animated simulations, an interactive web site, and an animated "fly-through" video of the wind farm.

Eastover Road New 230/115kV Station and Transmission Line Loops, Rensselaer County, NY – Directed all environmental and civil engineering support to National Grid in their development of the proposed Eastover Road Substation and Tap Lines. Services provided on this project included preparation of a Visual Impact Assessment, on-site wetland delineation and permitting, SEQRA documentation, OPRHP coordination, Part 102 report preparation, site grading, and stormwater design, wetland mitigation area design and documentation, preparation of Stormwater Pollution Prevention Plan (SWPPP), and SWPPP inspections during construction.

Environmental Compliance Monitoring during Wind Farm Construction, New York and Massachusetts – Directed environmental compliance monitoring during construction of four different wind farms for three different developers in New York and Massachusetts (Hardscrabble, Hoosac, Arkwright Summit and Copenhagen). Assisted with preparation of the Environmental Compliance Manuals and provided compliance training to project contractors. Oversaw and assisted EDR field staff with daily on-site monitoring, weekly Stormwater Pollution Prevention Plan (SWPPP) inspections, preparing reports, coordinating resolution of compliance issues with Construction Site Manager and contractors, and assuring compliance with local, state, and federal permit conditions.

**CWM Wetland Permitting, Model City, NY –** Directed multiple wetland delineation and permitting efforts on several potential landfill expansion sites at the CWM Chemical Services facility. Jurisdictional wetlands on site were identified and delineated in accordance with the 1987 Corps of Engineers Wetland Manual, and delineation reports were prepared and submitted to the U.S. Army Corps of Engineers. Also participated in agency jurisdictional determinations and development of wetland mitigation area designs, including a 4.5-acre wetland mitigation area incorporated into a compensatory flood storage basin. Also provided monitoring of mitigation area success in accordance with wetland permit requirements.

Deerfield Wind Power Project, Towns of Searsburg and Readsboro, Bennington County, VT – Directed the preparation of a National Environmental Policy Act (NEPA) compliant Environmental Impact Statement (EIS) for the first wind power project proposed on U.S. Department of Agricultural (USDA) Forest Service land. The project involves the proposed construction of 17 2.0 MW wind turbines on forested ridges in the Green Mountain National Forest. Project activities included preparation of a Public Information Plan, significant public outreach, project scoping, coordination with Forest Service staff, and review of subconsultant resource reports for inclusion in the EIS. A draft supplemental draft, and final EIS were prepared for the project. Responses to over 500 public comments on the draft EIS and 1,000 comments on the supplemental draft were prepared.

New England East-West Solution Project, MA, RI, CT – Directed preparation of Visual Impact Assessments (VIAs) for multiple National Grid transmission system improvement projects in Rhode Island and Massachusetts. The transmission system improvements involve upgrade of existing transmission lines, construction of new transmission lines, construction of new substations, and existing substation upgrades. Prepared VIAs for each project that included the identification of existing visually sensitive resources, photo documentation of existing views, and description of existing landscape character along over 75



miles of proposed transmission line route. Viewshed analyses of existing and proposed facilities were conducted, and over 20 visual simulations were prepared and rated by a professional panel of landscape architects. VIA reports were included in applications submitted to the State Utility Siting Boards. Also prepared pre-filed visual testimony, responded to discover requests, and provided testimony before the Rhode Island Energy Facility Siting Board.

Blenheim-Gilboa Pumped Storage Project, Schoharie County, NY – Directed the design, construction, and post-construction monitoring of 6+ acres of wetland mitigation areas to compensate for impacts associated with slope stabilization activities at the New York Power Authority's Blenheim-Gilboa Pumped Storage Power Project. Mitigation plans required installation of an impervious bentonite liner, and incorporated a pedestrian path and bridge system to provide enhanced recreational and educational opportunities at the Power Authority's visitor's center. Performed five years of follow-up monitoring to document successful development of wetland characteristics.

Southern Rhode Island Transmission Project, RI – Directed the preparation of the Visual Impact Assessment (VIA) and Supplemental VIA prepared for the proposed upgrade and extension of approximately 26 miles of an existing National Grid 115 kV transmission line in southern Rhode Island. The effort consisted of fieldwork, definition of landscape similarity zones and viewer groups, identification of sensitive resources/receptors, development of viewshed maps and visual simulations, impact evaluation, and preparation of the VIA report. Also provided expert witness testimony to the Rhode Island Energy Facility Siting Board.

Cohocton and Marble River Wind Power Projects, Steuben County and Clinton County, NY – Directed State Environmental Quality Review Act (SEQRA) compliance for these commercial wind power projects. Work on these projects included project layout/environmental field review to assure that impacts on wetlands, agricultural land and ecological resources were minimized. Conducted or oversaw all environmental support studies on these projects and incorporated the results of these studies into Draft Environmental Impact Statements. Prepared Supplemental Draft Environmental Impact Statements to address project changes, and Final Environmental Impact Statements to address all public and agency comments on both of these projects. Also completed state and federal wetland permitting for the Cohocton Project.

Commercial Wind Power Project Visual Impact Assessments – Directed the preparation of Visual Impact Assessments (VIAs) for 15 commercial wind power projects in Upstate New York. The VIAs for these projects the visual character and significant aesthetic resources with a 5 or 10-mile visual study area. Viewshed analysis, line-of-sight cross sections, field review, and computer-assisted visual simulations were used to evaluate the potential visibility and visual impact of these projects. Notable projects include the Madison, Fenner, Maple Ridge, Jordanville, Hardscrabble, Cohocton, Dutch Hill, Dairy Hills, Howard, Munnsville, Alabama Ledge and Roaring Brook projects, totaling over 1,400 MW of proposed wind power.

Maple Ridge Wind Power Project, Lewis County, NY – Directed State Environmental Quality Review Act (SEQRA) compliance, including preparation of Draft and Final Environmental Impact Statements (DEIS/FEIS) for the largest commercial wind power project in the Northeast. Oversaw production of all support studies and directly prepared ecological, wetlands, agricultural, and visual studies for 300 MW wind power project on the Tug Hill Plateau. Incorporate study results into the DEIS and responded to all public and agency comment in the FEIS. Also assisted with state and federal wetland permitting on the project.

Maple Ridge 230 kV Transmission Line Project, Lewis County, NY – Directed the preparation of Article VII Application to New York State Public Service Commission for a 10.3-mile-long 230 kV transmission line corridor. Conducted ecological, wetland, and visual fieldwork, prepared Visual Impact Assessment report, and provided expert witness testimony on ecological and visual issues.

Munnsville, Fenner, and Madison Wind Power Projects, Madison County, NY –Directed the expanded Environmental Assessment Forms (EAFs) for these three commercial wind power projects. Work on the projects included project layout/environmental field review to assure that wetland impacts were avoided and impacts to agricultural and ecological resources minimized. Conducted or coordinated support studies addressing potential visual, cultural, noise, ecological, avian and agricultural impacts. Summarized results into expanded EAFs. On each of these projects the Lead Agency issued a Negative Declaration under SEQRA, indicating that no significant adverse environmental impacts were anticipated. Monitored environmental compliance during construction of the Munnsville and Madison Projects.

**LIPA Offshore Wind Park, Long Island, NY** – Directed the preliminary visual studies associated with a 150 MW offshore wind power project being proposed by the Long Island Power Authority (LIPA). Project included preparation of visual simulations from heavily used beaches and state parks on the South shore. Graphics were used for public information and outreach efforts.

Cape Wind Offshore Wind Farm, Nantucket Sound, MA – Directed the production of visual simulations and other graphics/analysis for America's first proposed offshore wind power facility. Prepared visual methodology write-up for the project, responded to agency questions and information requests, and



described the methodology and results of EDR's visual studies at a public/agency forum sponsored by the Massachusetts Technology Forum. The project's visual impact was a sensitive issue, subject to intense scrutiny by various interest groups.

E-183 115 kV Transmission Line Relocation Project, Cities of Providence and East Providence, RI – Directed the preparation of a Visual Impact Assessment (VIA) of the proposed relocation of approximately 1.2 miles of existing overhead transmission line. VIA included viewshed analysis of existing and proposed towers, line-of-sight cross sections, field evaluation/photo documentation, preparation of visual simulations, and visual impact evaluation using the ACOE VRAP methodology.

Conjunction Empire Connection Transmission Line Corridor — Directed the preparation of ecological and visual inventories and impact evaluations undertaken in support of the Article VII Application for a proposed DC transmission line running parallel the New York State Thruway from south of Albany to New York City. The visual study assessed potential impacts of proposed overhead segments as well as converter stations for proposed underground transmission line segments. Met extremely tight 30-day schedule for completion of studies.

Reliant Energy Astoria Repowering Project, Queens County, NY – Directed Visual Impact Assessment for proposed repowering of the existing Astoria Generating Project. The study involved identification of landscape similarity zones and viewer groups, viewshed mapping, cross sections, and visual simulations. Assisted with development of visual impact mitigation options, and provided expert witness testimony.

TransEnergie Cross-Sound Cable Project, New Haven, CT and Shoreham, NY – Directed the study and prepared Visual Impact Assessment (VIA) report assessing visual impacts of submarine cable crossing of Long Island Sound. VIA focused on the visual impact of above-ground transition stations and associated structures.

**Neptune Regional Transmission System Project, Sayreville, NJ to Nassau County, Long Island, NY**– Directed the study and prepared Visual Impact Assessment (VIA) report assessing visual impacts of aboveground components of submarine/underground transmission line in New York City metropolitan area. VIA focused on the visual impact of transition stations in Manhattan and on Long Island.

Ramapo Energy Project, Rockland County, NY – Directed the preparation of comprehensive visual impact analysis for a proposed 1,100 MW gas-fired power plant proposed by American National Power. Study involved background data collection, viewshed mapping, line-of-sight cross sections, field evaluation, visual simulations, evaluation of visual impacts using the U.S. Army Corps of Engineers methodology, and exploration of various visual mitigation measures. Wrote the Visual Impact Assessment report and assisted with preparation of the visual section of the Article X Application and provided expert witness testimony. Also assisted with ecological investigations, and preparation of Application text and testimony dealing with wildlife issues.

Athens Power Project, Village of Athens, NY – Evaluated visual resources and visual impacts associated with construction of a 1,080 MW power plant proposed by PG&E National Energy Group. Also delineated state and federal wetlands and documented ecological conditions on the project site and along proposed off-site utility (gas, water, and electric transmission) corridors associated with the project. Assisted with field data collection, agency liaison, and preparation of a wetland delineation report and functional analysis. Oversaw preparation of the Ecological Resources and Visual Resources sections of the Article X Application, and provided expert witness testimony on potential ecological impacts. Project was the first permitted under New York's Article X power plant siting regulations.

St. Lawrence Gas, Lewis County and St. Lawrence County, NY – Directed Environmental Impact Assessment Reports for proposed natural gas distribution systems. Reports included an inventory of environmental resources within the proposed franchise areas, as well as assessment of anticipated impacts and proposed mitigation measures. Lewis County project involved wetland delineation and permitting, and assistance with preparation of construction drawings.

Avoca Natural Gas Storage Project, Steuben and Schuyler Counties, NY – Evaluated the environmental impacts of a proposed natural gas storage project. Project included wetland delineation, vegetation, fish and wildlife inventory (including identification of endangered species and critical habitats), viewshed/visibility analysis and preparation of ecological resource reports for the Federal Energy Regulatory Commission (FERC) license applications. Reports described ecological resources within study area, along with potential impacts to these resources resulting from construction and operation of the project, and proposed means of mitigating adverse impacts.

Central Hudson Gas & Electric Corporation, A and C Lines Rebuild Project, Dutchess County, NY – Directed preparation of an Article VII application, and associated support studies, for the rebuild of 11 miles of 115 kV transmission lines. Along with the preparation of the application, participated in settlement negotiations with state agencies, and oversaw production of the Environmental Management & Construction Plan (EM&CP). Will also be overseeing environmental compliance monitoring during project construction.



Article VII Compliance Monitoring – Directed environmental compliance monitoring on three Article VII projects in Upstate New York. Projects included a 48-mile long natural gas pipeline (St. Lawrence Gas Norfolk to Chateauguay Transmission Line), an 11-mile long 115 kV transmission line (Central Hudson A and C Line Rebuild Project) and a new substation tying into an existing Article VII line (National Grid Five Mile Road Substation). Directed efforts of onsite Environmental Monitors to assure compliance with all conditions of the project Environmental Management and Construction Plan (EM&CPs) and Stormwater Pollution Prevention Plans (SWPPPs). Assisted with environmental training of contractors, agency liaison, and reporting. Worked with agency staff and project sponsors to assure compliance with all environmental protection requirements during project construction, including protection of wetlands and streams, active agricultural land, threatened and endangered species, and archeological resources.

**Joseph Davis State Park, NYSOPRHP, Village of Lewiston, NY** - Inventoried vegetation and wildlife species, and existing natural communities'/wildlife habitat and wetland delineation with potential for hydric inclusions. Prepared Environmental Impact Statement for a 180-acre portion of the 300-acre park.

Niagara River Gorge Rim Restoration Plan - The Wild Ones National & City of Niagara Falls, NY - Directed ecological studies for development of restoration plan for the Niagara River Gorge RIM that included a study to propose closing the Robert Moses Parkway.

Ohio Street Launch & Old Bailey Woods, Buffalo Niagara Riverkeepers, City of Buffalo, NY – Directed ecological studies for shoreline and riparian habitat restoration that included monitoring and maintenance plan development.

South Buffalo Golf Course, Feasibility Study, City of Buffalo, NY – Directed wetland delineation and ecological assessment to explore the feasibility of constructing a new, 18-hole, links style golf course on exiting landfills and adjacent properties in South Buffalo.

Riverview Commerce Park, Town of Tonawanda, NY – Directed the preparation of the environmental impact statement, DEIS and FEIS, ecological survey, field delineation of wetlands and Waters of the U.S., wetland mitigation and monitoring plan, Joint Application for Permit, and SWPPP. Also managed SEQRA process, site remediation and site development activities.

**Bicentennial Park/Scenic Woods Master Plan, Town of Grand Island, NY** – Directed the wetland delineation and environmental permitting process as part of the development of a master plan for 229 acres of environmentally sensitive public open space. The Master Plan integrates community input with recreational and ecological design principles to produce a balanced, nature-oriented park design.

Muir Woods, Town of Amherst, NY – Directed wetland mitigation plan, and environmental assessments for proposed 326-acre planned community situated in the natural environment of the Audobon New Community District. The NYS Office of Parks, Recreation & Historic Preservation recognized this project with a Preservation Award.

Canal Ponds Business Park, Town of Greece, NY – Directed environmental assessment aspects of master developed by EDR to organize more than 3 million SF of building, parking and drives around a natural open space system. Established wetlands as a key feature of the site. Obtained all necessary permits by providing a thorough EIS. Army Corps of Engineers recognized this site as a benchmark for developer, design and agency collaboration.

**Black Creek Park, Monroe County Parks, Towns of Chili & Riga, NY** – Directed the development of a master plan for a largely undeveloped 1,500-acre County park, one third of which is made up of wetlands. Responsible for comprehensive study of ecological resources including field inventory of all wildlife, wetlands, and natural communities within the park, and an evaluation of the ecological significance/sensitivity of various areas. Oversaw wetland delineation and state and federal wetland permitting.

**Mendon Ponds Park, Monroe County Parks, Town of Mendon, NY** - Directed ecological study of this 1,500-acre County park. The park is a designated *National Natural Landmark*, well known for its variety of rare species and unique natural communities, including fens, bogs, oak openings, and prairie remnants. Study involved species inventory, analysis of ecological value of various areas of the park, and management recommendations for the protection and enhancement of the park's ecological resources.

Town of Grand Island, Bicentennial Park/Scenic Woods Master Plan – Directed the wetland delineation and environmental permitting process as part of the development of a master plan for 229 acres of environmentally sensitive public open space. The Master Plan integrates community input with recreational and ecological design principles to produce a balanced, nature-oriented park design.

Albany Pine Bush Preserve, Albany County, NY – Developed and updated a comprehensive management plan for a unique inland pine-barrens community. Project involved extensive data collection, public participation, and close coordination with members of the Albany Pine Bush Preserve Commission. Plan included resource inventory, management recommendations, an implementation plan, and an Environmental Impact Statement that addressed the potential impacts of plan implementation, including land acquisition, fire management, and increased public use.



Powder Mills Park Master Plan Update, Monroe County Parks, Town of Perinton, NY – Directed ecological assessments as part of the development of a master plan for the park. This is a unique park that protects and preserves important natural, historic, and cultural areas and landscapes. The park will be preserved and enhanced to provide environmental quality and a diversity of appropriate and sustainable recreational activities.

Irondequoit Bay & Ellison Park Area Master Plan Update, Monroe County, NY – Directed ecological assessments as part of the master plan updates for 6 Monroe County Parks around Irondequoit Bay. The Bay Area Parklands are a system of parks and trails that protect and preserve important natural, historic, and cultural areas and landscapes. The parks will be preserved and enhanced to provide environmental quality and a diversity of appropriate and sustainable recreational activities.

### publications / presentations

Presenter, Herkimer-Oneida Counties Comprehensive Planning Program / Land Use Training Conference, Marcellus Shale: Local Municipal Options, October 2011.

Presenter, Land Use Planning Workshop, *The Benefits of Sustainable Community Planning & Design*, Jefferson Community College *Center* for Community Studies, April 2011.

Hecklau, J. 2010. Technical Considerations in the Preparation of Visual Simulations of Off-Shore Wind Power Projects. Presentation at the American Wind Energy Association North American Off-Shore Wind Conference & Exhibition. October 5-7, 2010, Atlantic City NJ.

Hecklau, J. and J. Gagliano. *Local Review of Commercial Wind Power Projects*. Presentation at Onondaga County Planning Federation Conference. January 21, 2009, Syracuse, NY.

Hecklau, J. and M. Scipioni. *Measuring Success of Wetland Mitigation & Monitoring*. Presentation at Sustainable Solutions. June 12, 2008, Rochester, NY. American Society of Landscape Architects, New York Upstate Chapter Annual Conference.

Hecklau, J. and B. Brazell. State and Environmental Quality Review Act & Public Participation. Presentation at Wind Energy Conference. April 5, 2008, Herkimer County Community College. Sponsored by Herkimer-Oneida Counties Comprehensive Planning Program.

Hecklau, J. 2006. Evaluating the Visual Impacts of Wind Power Projects. North American Wind Power. 3 (June): 48-52.

Hecklau, J. *Visual Characteristics of Wind Turbines*. Presentation at Technical Considerations in Siting Wind Developments Research Meeting. December 1-2, 2005, Washington, DC. Sponsored by the National Wind Coordinating Committee.

Hecklau, J. Evaluating Visual/Aesthetic Impacts of Wind Power Projects. Presentation at the Second Wind Power Project Siting Workshop, Siting Wind Power Projects in the Eastern U.S. March 8-9, 2005 Boston, MA. Sponsored by the American Wind Energy Association (AWEA).

Lamanna, B. and J. Hecklau. 2002. The Windmills of Madison County. New York State Conservationist. 56(5): 8-11.

Hecklau, J. Overview of Wind Permitting Frameworks in Different Settings. Case Study 1: Madison, NY. Presentation at New England Wind Power Siting Workshop, October 24, 2001, Boston, MA. Sponsored by the National Wind Coordinating Committee.

Hecklau, J.D., C. Palmero, E.T. Liverman and J. deWall Malefyt. 1987. Reducing the environmental impacts of stream crossings on a 345kV transmission line in New York. In W.R. Byrnes and H.A. Holt, eds. Fourth Symp. on Environmental Concerns in Rights-of-Way Manage. Purdue Univ., West Lafayette, IN.

Liverman, E.T., J.D. Hecklau and C. Palmero. 1987. *Minimization of soil erosion and siltation during construction of the Marcy-South 345kV transmission facilities*. pp. 241-253. In Erosion Control: You're Gambling Without It. Proc. of Conf. XVII. International Erosion Control Assoc., Pinole, CA. 335 pp.

Case No. 15-F-0122 Humphrey

## STATE OF NEW YORK PUBLIC SERVICE COMMISSION

Application of Baron Winds LLC for a Certificate under Article 10 of the Public Service Law

Case No. 15-F-0122

PRE-FILED TESTIMONY OF

TODD E. HUMPHREY

HIGHWAY DEPARTMENT MANAGER

C&S ENGINEERS, INC.

499 COLONEL EILEEN COLLINS BOULEVARD

SYRACUSE, NEW YORK, 13212

Case No. 15-F-0122 Humphrey

- 1 Q: Please state your name, employer, and business address.
- 2 A: Todd E. Humphrey, C&S Engineers Inc., 499 Col. Eileen Collins Blvd., Syracuse, NY 13212.
- 3 Q: What is your position at C&S?
- 4 A: Highway Department Manager.
- 5 Q: How long have you been employed with C&S?
- 6 A: I have been employed by C&S since 2005.
- 7 Q: Please describe your educational background and professional experience.
- I received a Bachelor of Science Degree in Civil Engineering from Syracuse University in Syracuse, New York in 1987. I received my New York State Professional Engineering license in 1994. I have been employed by multiple firms in the practice of transportation engineering in my career. I have been employed by C&S since March 2005. Since that time, I have worked in the capacity as Senior Project Engineer and Highway Department Manager. I have approximately 28 years of experience performing and/or supervising projects involving traffic analysis, highway design, pavement rating, accident studies, and cost estimating. My resume is attached.
- 15 Q: Please describe your current responsibilities with C&S.
- A: As Highway Department Manager, I oversee most aspects of C&S's transportation design projects not involving bridge or structural design.
- 18 Q: Have you previously testified before the New York State Public Service Commission or
  19 Siting Board on Electric Generation?
- A: I recently provided pre-filed testimony in the matter of Cassadaga Wind LLC Application for a

  Certificate of Environmental Compatibility and Public Need Pursuant to Article 10 to Construct a

  126 MW Wind Energy Project; Case No. 14-F-0490.
- Q: Have you previously served as an expert witness before any other court, agency, or other body on the subject you plan to offer testimony on today?

Case No. 15-F-0122 Humphrey

25	A:	No.
26	Q:	What is the purpose and scope of your testimony in this proceeding?
27	A:	To sponsor certain portions of the Baron Winds Project Application or the Exhibits thereto.
28	Q:	What portion(s) of the Application is your testimony sponsoring?
29	A:	Exhibit 25: Effect on Transportation.
30	Q:	Were these Exhibits, Application sections, or studies prepared by you or under you
31		direction and supervision?
32	A:	Yes.
33	Q:	In your testimony, will you refer to, or otherwise rely upon, any studies, publications, data
34		or documents produced by persons other than yourself/your company? If so, please cite
35		these sources.
36	A:	Yes. References are listed in Exhibit 25.
37	Q:	Does this conclude your testimony?
38	A:	Yes.



#### **Education**

B.S., Civil Engineering, Syracuse University, 1987

# Registration and Certifications

Professional Engineer, New York, 1994

### Professional Organizations

American Public Works Association

American Society of Highway Engineers

New York State Association of Transportation Engineers

# Todd E. Humphrey, P.E. Highway Department Manager

Todd has more than 28 years of design experience in various transportation and traffic related projects. His experience accrued on more than 200 projects includes highway design, traffic signal design, report preparation, public presentations, traffic and accident studies, utility relocations, right-of-way acquisitions, bridge rehabilitation and reconstruction, at-grade railroad crossings, environmental studies, surveying, drainage, work zone traffic control, project/program management, and design-build project de-

livery for over 50 state and municipal agencies and private developers.

## **Experience**

### **Highway Design for New York State Department of Transportation**

PIN 3045.55; Route 104 Rehabilitation/Widening, City of Oswego for NYSDOT Region 3, 3/09 to 4/10—For this 1.8 km conversion of a three lane urban and rural principal arterial highway to a five lane facility, Todd is responsible for leading the design of work zone traffic control, ensuring road work can be completed safely and efficiently while accommodating over 22,000 daily motorists through the project area. Contract drawings include design for three phases of construction, an off site detour for a secondary road being reconstructed, temporary signage and access to businesses, and three temporary traffic signals. Project Cost, \$8,300,000 (C&S is prime: 54%)

PIN 4077.08; Route 77 Rehabilitation, Towns of Darien and Pembroke for NYSDOT Region 4, 10/08 to 4/10—Manager responsible for multiple design components of 12 km long project to rehabilitate and widen a rural state highway connecting the NYS Thruway, NYS Routes 5 and 33, U.S. Route 20, and the Darien Lake Theme Park Resort. Todd is responsible for quality production of preliminary and final design for traffic and accident analyses, traffic signals, work zone traffic control, storm drainage and storm water management. Project Cost, \$6,000,000 (C&S was subconsultant: 27 %)

PIN 3752.16, D260880; Butternut, Spencer and Court Street over I-81 Bridge Rehabilitation and I-81 1R project, I-690 to Park Street bridge, City of Syracuse for NYSDOT Region 3, 7/07 to 10/08—Project manager responsible for final design of work zone traffic control schemes for replacement of three bridges over I-81 in the City of Syracuse, including pavement rehabilitation of 1.3km of Interstate Route 81 mainline, ramps, and connectors. Design included 28 separate traffic control schemes and three detours for bridge closures. Todd was responsible for production of 81 drawings and quality assurance of 261 subconsultant produced drawings. Project Cost, \$10,000,000 (C&S was prime: 54%)

PIN 3506.04, D260706; Pavement Rehabilitation of Interstate 690, City of Syracuse for NYSDOT Region 3, 7/07 to 12/07—Project manager responsible for final design of work zone traffic control schemes for pavement rehabilitation of 4.3 km of I-690 in the City of Syracuse, including ramps, connectors, and a system interchange with Interstate Route 81 accommodating over 100,000 vehicles per day. A total of 196 contract drawings were required, encompassing mainline lane closures and detours on city streets. Project Cost, \$7,400,000 (C&S was prime: 100%)

PIN 3057.48, D015265; Replacement of 4-Bridges on Route 13, Cortland County for NYSDOT Region 3, 4/05 to 12/06—Multiple bridge replacement project. Design services are for Phases I thru VI, involving on-site temporary detour bridges at 2 sites, staged construction at 1 site, and off-site detour at 1 site. Todd was directly responsible for development of work zone traffic control and detours for the design ap-



proval document, and conceptual, preliminary and final plan stages of development. Project Cost, \$3,100,000 (C&S was prime: 82%)

PIN 3804.39 and 3804.66, D015104; I-81 and I-690 Element Specific Bridge Repairs, City of Syracuse for NYSDOT Region 3, 1/02 to 4/05—Multiphase contract involved repair of 299 substructures on 44 bridges and replacement of 124 deck joints on Interstate highway. Extensive maintenance and protection of traffic involved: city street detours, pedestrian detours, signal and intersection modifications, temporary pedestrian walks, temporary concrete barrier to protect structural lifting. Short and long term Interstate highway and ramp closures required detours over city streets. In other cases Interstate lane closures allowed onsite traffic maintenance. Responsible for designing site specific, scale drawings totaling 99 sheets for Phase I and 245 sheets for Phase II. Project Cost, \$26,000,000 (C&S was prime)

PIN 5307.90; U.S. Route 62 (Niagara Falls Boulevard) Town of Wheatfield, Niagara County for NYSDOT Region 5, 10/01 to 9/04—Project involved widening, realignment and reconstruction of 4-lane, high volume, high speed arterial in a suburban setting, including replacing 2 traffic signals and 2 bridges. Preliminary M&PT design utilizes staged construction, maintaining two way traffic by using temporary pavement. Complexity raised by need to maintain access to adjacent businesses separated from highway by parallel creek while relocated channel is constructed. Method utilizes staged culvert replacement and temporary access drives between parcels. Other provisions include signed bicycle detour and offsite detour for intersecting roads closed during bridge replacement. Project Cost, \$14,400,000 (Prime consultant)

PIN P108.20; Route 17 (Future Interstate 86) Interchange Spacing and Geometrics Study, Delaware, Sullivan, and Orange Counties for NYSDOT Mobility Management Bureau, 9/00 to 2/02—Participated in two year planning study regarding upgrade of 46 interchanges in a 106 mile corridor between Exit 84 in Delaware County and Exit 131 in Orange County. Responsible for preparing four technical memorandums: Documentation of Conditions, Assessment of Needs, Preliminary Corridor Study Report, and Final Corridor Study Report. Tasks included cost estimates, field studies, series of nine public meetings, developing mapping, and generating proposed improvements. Team leader for data collection effort. Primary author of reports. Also participated in PIN 8006.69 programming document for all I-86 related improvements in Orange County, encompassing \$116,600,000 in estimated upgrades. (Prime consultant)

PIN 3013.03, D258548; Route 174 over Nine Mile Creek, Town of Marcellus for NYSDOT Region 3, 1997-2000—Replacement of arch bridge in constricted stream gorge setting. Todd performed final highway design including temporary bridge alignment shift and temporary approach roadway, pedestrian walkways, temporary traffic signal, offsite detours for intersecting road closures, guiderail replacement, and waterline relocation. Project Cost, \$1,500,000 (Prime consultant)

PIN 9002.09; Route 12A, Town of Chenango for NYSDOT Region 9, 1999-2000—Responsible for quality control review and design activities in preparation of Advance Detail Plans for a 1.4 km suburban highway reconstruction project. (Prime consultant)

PIN 3015.3; Route 3 over Little Salmon River, Village of Mexico for NYSDOT Region 3, 1998-2000—Prepared design report and final highway design for replacement of bridge in village setting. Final design required layout of two off-site detours: a truck detour using all state highways, and a local detour using village streets, involving street and intersection rehabilitation. Onsite M&PT included temporary pedestrian bridge which also suspended temporary waterline. Design also included sidewalks, closed drainage, and dry hydrant. Project Cost, \$800,000 (Prime consultant)

PIN 3015.25; Route 3 over Sage Creek, Town of Mexico for NYSDOT Region 3, 1998-2000—Responsible for oversight and review of subconsultant-prepared Phase I-VI design work, including preparation of design report and plan drawings. Project Cost, \$500,000 (Prime consultant)

PIN 1056.17 – Route 8 over Hudson River, Riparius for NYSDOT Region 1, 2000—Todd performed initial field studies and preparation of design alternatives for highway approach realignment and replacement of truss bridge in Adirondack Park, including replacement of at-grade crossing of



Upper Hudson River Railroad. Prepared and submitted Final Design Report. Project Cost, \$5,000,000 (Prime Consultant)

PIN 3045.41 - Route 104 over CSX, Town of Mexico for NYSDOT Region 3, 2000—Participated in Phase I-IV design studies and preparation of draft design report for replacement bridge at temporary on-site detour crossing of CSX Montreal Secondary. Project Cost, \$3,000,000 (Prime Consultant)

PIN 1460.31 - Route 32, CR 301 to CR 308, Albany County for NYSDOT Region 1, 2000— Project engineer responsible for Phase I-IV design studies for reconstruction and realignment of 6.12 km of rural highway in the Onesquethaw Valley Historic District. Included coordination with FHWA and SHPO, managing subconsultant performing survey, public information meeting, environmental analysis, and visual impact analysis. Submitted Final Design Report/Environmental Assessment. Project Cost, \$9,000,000 (Prime Consultant)

PIN 3075.42, D258270 - Route 13, South Cortland/Virgil Road to Cortland City Line for NYSDOT Region 3, 2000—Todd performed final design for reconstructing a four lane arterial in an urban commercial corridor. Specific details included modifying four traffic signals, intersection layouts, commercial driveway consolidation, waterline replacement, staged box culvert construction employing temporary sheet piling, rubblizing and widening existing pavement, extensive closed drainage replacement, and maintaining two-way traffic over half of the four-lane road in each phase. Project Cost, \$5,000,000 (Prime Consultant)

PIN 3243.03 - MBC Asphalt Concrete Resurfacing of NYS Routes 173/175 for NYSDOT Region 3 and Route 175 at OCC entrance for Onondaga Community College, 1999—Responsible for design and preparation of contract plans for signalized intersection reconstruction and pavement widening at main campus entrance as mitigation for technology center construction. Integrated drawings into and coordinated with existing Region 3 paving project. (Prime consultant)

PIN 2009.13 – Route 167, City of Little Falls for NYSDOT Region 2, 2000—Todd participated in preparation of Expanded Project Proposal, field work and preliminary design for replacement of multi-span bridge over Route 5, CSX, Mohawk River and NYS Barge Canal, and prepared the final design report presenting three alternatives for the project. Studies included floodplain evaluation, visual assessment, hazardous waste screening, public outreach, and detour analysis. Project Cost, \$11,000,000 (Prime Consultant)

PIN 3028.08 - Route 281, SR 13 to I-81 Ramp, City of Cortland and Town of Cortlandville for NYSDOT Region 3, 1999—As project engineer, prepared Expanded Project Proposal scoping document for reconstruction of 6.1 km urban arterial, a two lane highway with development related congestion problems. Tasks included accident analysis, traffic data collection and balancing, public information program, traffic delay study and capacity analysis for 26 intersections, culvert and guiderailing field inspections, groundwater analysis for EPA sole-source aquifer, cost estimating, and report preparation. Project Cost, \$11,600,000 (Prime Consultant)

PIN 3010.10, D257844 – Route 92 over Limestone Creek, Town of Manlius for NYSDOT Region 3, 1998—Project engineer responsible for complete Phase I-VI design excluding bridge, encompassing: design report, highway geometry, intersection design, erosion control, waterline relocation, capacity study for onsite detour, public meeting, property takings and relocations. Four-stage M&PT design included phase-specific traffic signal modifications, lane shifts, maintaining traffic on local road under bridge, temporary pavement, and maintaining commercial driveway access. Project involved staged replacement of bridge on high volume, high speed suburban highway. Project Cost, \$1,800,000 (Prime Consultant)

**NYS Route 342 over Gridley Creek for NYSDOT Region 3, 1995**—Responsible for final design of on-site maintenance and protection of traffic for staged bridge replacement and highway reconstruction project. (Prime Consultant)

PIN 3019.15, D258254 - Canton Street over Conrail Bridge Replacement for NYSDOT Region 3, 1999—This project consisted of the replacement of BIN 3313220 over Conrail and the reconstruction of Warners Road, Canton Street, and Railroad Street in the Towns of Van Buren and Camillus,



Onondaga County. Responsibilities included preliminary highway design, design report preparation, and quality assurance review of final bid documents. (Prime consultant)

PIN 2034.98 – Route 5 over West Canada Creek for NYSDOT Region 2, 1995—Responsible for highway design of bridge replacement project in the Village of Herkimer from Phase I-IV design studies up through final PS&E. (Prime Consultant)

PIN 2326.10 – Route 5A over Sauquoit Creek, Town of New Hartford for NYSDOT Region 2, 1995—Todd was responsible for quality assurance review and revisions to subconsultant's final highway approach design in a bridge replacement project near congested roadways serving Sangertown Mall. Project Cost, \$2,000,000 (Prime Consultant)

PIN 3314.28, D256611 – Route 34, Venice Center to Auburn for NYSDOT Region 3, 1996—Responsible for complete Phase I-VI design of 13.5 mile 3R project in Cayuga County from design report through construction. Pavement design required five different typical sections to match existing conditions. Project included replacing five box culverts with onsite detours. Project Cost, \$6,000,000 (Prime Consultant)

PIN 1753.30 – U.S. Route 4 (Third Street) Bridge over Poestenkill, City of Troy for NYSDOT Region 1, 1995—Prepared design report and detour design for rehabilitation of historic stone arch bridge in urban setting. Project Cost, \$2,000,000 (Prime Consultant)

**PIN 2l34.09 - Route 5, Tribes Hill-Amsterdam for NYSDOT Region 2, 1994**—Performed various final highway design activities for 3.3 mile highway reconstruction, including alignments, superelevation, and typical sections. (Prime Consultant)

PIN 7751.09 - Franklin County Route 24, Brainardsville Road for NYSDOT Region 7, 1994—Responsible for final design of 6.0 mile highway reconstruction project to final PS&E submittal, including supervision of designers and drafters, preparation of wetland permits, and coordination with NYSDEC and APA. Project Cost, \$3,800,000 (Prime Consultant)

PIN 3034.66 and 3034.90, D256135 - Route 5 over Finger Lakes Railway for NYSDOT Region 3, 1999—Responsible for complete Phase I-VI design through PS&E for construction of temporary at-grade detour crossing; complete Phase I-IV design of final reconstructed alignment; and oversight/review of final design through PS&E of permanent at-grade crossing. (Prime Consultant)

#### Transportation Design for Municipal and Other Clients

PIN 6753.12 and 6753.13, Traffic Signal System Upgrade–Corridors 3 and 4, City of Elmira, NY, 2012—As department manager, responsible for QA/QC of design and documents for traffic signal improvements at twenty-five (25) intersections throughout the City of Elmira. Improvements consist primarily of complete traffic signal replacement, along with a few decommissions where signals are no longer warranted. Design also includes replacing curb ramps, sidewalk, and minor paving. Project Cost, \$3,730,000 (C&S is Prime Consultant)

PIN 3754.64, Traffic Signal Upgrades—Phase 2, City of Ithaca, NY, 2012—As department manager, responsible for QA/QC of design and documents for the replacement of five traffic signal installations in the CBD coordinated signal system of downtown Ithaca. Project includes design of new mast arm traffic signals to replace old equipment. Project Cost, \$700,000 (C&S is Prime Consultant)

PIN 3754.86, Traffic Signal Upgrades, Onondaga County DOT, NY, 2011—As department manager, responsible for QA/QC of design and documents for replacing traffic signal equipment at four isolated intersection in Onondaga County. Project includes design of a new mast arm traffic signal installations with all new appurtenances and ADA compliant curb ramps. Project Cost, \$770,000 (C&S is Prime Consultant)

Terminal Access Road Improvements for Long Island MacArthur Airport, Ongoing—Manager in charge of design and plan drawing preparation for the following land side design components of this airport service road, parking, and terminal area improvement project: traffic signs, pavement



markings, overhead signs, terminal signing, construction sequencing and work zone traffic control. Project Cost, \$10,000,000 (C&S is Prime Consultant)

PIN 4754.04 – Alderman Road bridge over Ganargua Creek for Wayne County, Ongoing—Responsible for highway approach related design activities for this locally administered federal aid project involving replacement of a single span bridge in a rural setting with separate off-site traffic detours for passenger vehicles and large trucks. Todd led design efforts for intersection realignment with NYS Route 31, traffic and accident studies, detour route evaluations, roadside drainage, roadway approach geometry and typical pavement sections. Project Cost, \$1,200,000 (C&S is Prime Consultant)

PIN 3754.46 – Syracuse University Connective Corridor for City of Syracuse, Ongoing—The overall vision of the Connective Corridor is to create a cutting-edge cultural and economic development linking University Hill with downtown Syracuse. The project addresses a two mile long route from Syracuse University at Waverly Avenue to Genesee Street, under the I-81 viaduct, then along a route to be selected through downtown, west to Armory Square and West Street. Improvements include a pedestrian and bicycle corridor, cultural areas, transit shelters, information kiosks, park restoration, and dedicated bus route. The project is sponsored by the City of Syracuse with significant involvement from Syracuse University. C&S was selected to assist the City with project management for the initial design and construction phase. Services include participation in design consultant selection, contract negotiations, independent fee estimating, and conducting a partnering workshop for stakeholders. As the project progresses through design, C&S will be a reviewer and facilitator in all aspects of the project, including public outreach, design studies, and bid document preparation. Project Cost, \$4,000,000 (C&S is Prime Consultant)

PIN 3950.27 – Tioughnioga River Trail for Cortland County Department of Highways, 2008—Project manager for locally administered federal-aid enhancement project involving Phase I-IV design of 2.7 mile paved trail for non-motorized use between Yaman Park in the City of Cortland and Albany Street/Main Street historic district in the Village of Homer, with an estimated construction cost of \$1,500,000. (C&S is Prime Consultant)

West Loop Road reconstruction for Corning Community College, 2007—Project manager in charge of design and construction administration for campus renewal project involving 2,300 feet of asphalt roadway on a new alignment, including sidewalks, reconstruction and expansion of five parking lots with a capacity of 600 vehicles, and installation of 45 drainage structures to improve conveyance of stormwater runoff. Project Cost, \$2,200,000 (C&S is Prime Consultant)

PIN 4753.60 – Exchange Street Reconstruction for City of Geneva, 2008—Project manager responsible for Phase I-VI design and construction support of locally administered federal aid project, involving reconstructing and widening 1.8 km of urban street on National Highway System, including utility, drainage, railroad crossing, and traffic signal replacement. Project Cost, \$6,000,000 (C&S is Prime Consultant)

PIN 3752.99 – Syracuse Creekwalk Phase 1 for City of Syracuse, 2005—Responsible for design of maintenance and protection of traffic for vehicles and pedestrians for this locally administered federal aid enhancement project, which is one component of an urban multi-use trail along Onondaga Creek in a city setting. (C&S is Prime Consultant)

PIN 3950.23 – Main Street (NYS Route 96) Corridor Enhancements for Village of Trumansburg, 2005—Responsible for maintenance & protection of traffic plans for this locally administered federal aid enhancement project, which involved streetscape improvements and utility replacements. (C&S is Prime Consultant)

PIN 2753.96 – Swamp Road (CR 78) bridge over Sangerfield River for Madison County Department of Highways, 2005—Responsible for design report preparation and highway approach design for this locally administered federal aid project involving replacement of a single span bridge in a rural setting with off-site traffic detour. Project Cost, \$500,000 (C&S is Prime Consultant)

County Route 22 Replacement of Retaining Walls Adjacent to East Brook for Delaware Coun-



- ty Department of Public Works, 2005—Project involved replacement of a displaced and undermined gabion wall system (146m length). East Brook is located in a mountainous watershed with a predominately bedrock stream bed; it is subject to rapidly rising water levels and stream bank overflow during, and after, intense rainfall events. Todd was responsible for the highway components of the project, including alignment, typical sections, guiderailing layout, detour routes, and cost estimates. Project Cost, \$600,000 (C&S is Prime Consultant)
- PIN 3753.48 Element Specific Riverbank Stabilization for City of Oswego, 2005—Project involved rock-anchor tied-back soldier pile and lagging wall (112 m length) to prevent continued active subsidence of embankment supporting East First Street (NYS Route 48), adjacent to the Oswego River within the City of Oswego. Todd was responsible for the highway components of the project, including alignment, typical sections, guiderailing layout, maintenance and protection of traffic, signing, pavement markings, and cost estimates. Project Cost, \$1,200,000 (C&S is Prime Consultant)
- PIN 3752.98 Taft Road reconstruction for Onondaga County Department of Transportation, 2009—Project manager responsible for Phase I-VI design of locally administered federal aid project, involving rehabilitation and widening 5.3 km of arterial highway in a suburban setting, including utility, drainage, and traffic signal replacement. Coordination with NYSDOT Region 3 required for interchange improvements at Taft Road and I-81. Project Cost, \$7,000,000 (C&S is Prime Consultant)
- **NYS Route 298 at West Willow Properties for PEMCO, 2005**—Responsible for design of highway work permit plans submitted to NYSDOT Region 3. Project involved creating a four way signalized intersection at Collamer Road and Kinne Street. Project Cost, \$400,000 (Prime Consultant)
- West Dorm Drive for SUNY College at Oneonta, 2005—Project Manager for improvements to campus main entrance, access roads, and parking facilities, including drainage, sidewalks, signing, pavement markings, landscaping, signature entrance, and pavement rehabilitation. (Prime Consultant)
- Route 38/34B/CR 107A Grade Separation IPP for Tompkins County, 2004—Responsible for preparing initial Project Proposal for proposed grade separation of State and County highways in Peruville and other highway improvements to an off system intersection, for submission to NYSDOT Region 3. (Prime Consultant)
- NYS Route 96 improvements for Waterloo Central School District, 2004—Project engineer responsible for contract documents and highway work permit from NYSDOT Region 3, involving driveway entrance improvements and waterline installation for renovation to Skoi-Yase Elementary School in Waterloo, New York. (Prime Consultant)
- U.S. Route 11 improvements for Tri-State Auto Auction, Cicero, New York, 2004—Project engineer responsible for contract documents and highway work permit from NYSDOT Region 3, involving new driveway entrance and pavement rehabilitation along a state highway. (Prime Consultant)
- PIN 2753.81 Floyd Avenue reconstruction for City of Rome, 2004—Project engineer for locally administered federal-aid project involving Phase I-VI design of 2.0 km urban street reconstruction, including water line replacement and five signalized intersections, with an estimated construction cost of \$3,400,000. (Prime Consultant)
- Park Street improvements for Wendy's Restaurant, City of Syracuse, 2003—Responsible for city highway work permit design documents, involving turning lane improvements for a new fast food restaurant construction. Included coordination with NYSDOT Region 3 due to proximity of I-81 exit ramp. (Prime Consultant)
- Route 57 at Elmcrest Road for Wegmans, Liverpool, New York, 2003—Project engineer responsible for design documents and Onondaga County highway work permit, involving construction of an additional turning lane for a supermarket expansion. (Prime Consultant)
- PIN 2753.73 -Bingley Road bridge replacement for Madison County Department of Highways, 2004—Lead highway designer for locally administered federal-aid project involving replacement of single span bridge over Chittenango Creek and approach work including intersection with NYS Route 13, with an estimated construction cost of \$700,000. (Prime Consultant)



West Spencer Street Reconstruction for the City of Ithaca, 2004—Project engineer responsible for schematic, preliminary and final design for conversion of 1,700 foot long one way street into a two way street with increased traffic capacity and on-street parking, including improvements at two intersections and construction of a roundabout. Significant public outreach program. Included construction support. Project Cost, \$3,000,000 (Prime Consultant)

South Meadow Street Widening for City of Ithaca, 2004—Project engineer responsible for preliminary and final design for widening two highway segments and bridge on NYS Route 13/34/96 from four lanes to five lanes, including Highway Work Permit approval from NYSDOT Region 3. Included construction support and as-built plans. Project Cost, \$3,200,000 (Prime Consultant)

PIN 3753.38 - McGraw-Marathon Road bridge over Smith Brook for Cortland County Department of Highways, 2004—Responsible for phase I-VI design of locally administered federal aid project involving replacement of an arch bridge and reconstruction of highway approaches. Project Cost, \$570,000 (Prime consultant)

County Routes 57 and 64 (Warners Road) for Onondaga County Department of Transportation, 2005—Project engineer in charge of preliminary and final design for 4.77 km highway reconstruction project. Design elements included road realignment, right of way acquisition, closed drainage, signing and pavement markings. Tasks included design report, public presentation, and bid documents. Project Cost, \$5,000,000 (Prime Consultant)

NYS Route 46 improvements for P&C Supermarkets, Rome, New York, 2002—Project engineer responsible for contract documents and highway work permit from NYSDOT Region 2, involving improvements to existing commercial driveways for a multi-tenant retail development anchored by a renovated grocery store. (Prime Consultant)

County Route 187 (Oak Orchard Road) over Mud Creek for Onondaga County Department of Transportation, 2002—Project engineer responsible for design of highway approach section and alignments, guiderailing layout, temporary signal and off-site detour plan for bridge rehabilitation project. (Prime Consultant)

Barnes Avenue bypass feasibility study for City of Utica, 2002—Project engineer responsible for studying alternatives to replace a deteriorated bridge crossing the CSX mainline, including new alternate roadway alignments that would eliminate the crossing. (Prime Consultant)

Hancock Air Park Redevelopment, Town of Cicero, New York, 2002—Project engineer responsible for quality assured design of full depth roadway reconstruction associated with commercial redevelopment of former military base. (Prime Consultant)

County Routes 48 and 205 (West Taft Road and Allen Road) for Onondaga County Department of Transportation, 2002—Design of intersection improvements that include upgrade of traffic signal equipment and road widening. Todd was responsible for the completion of preliminary design, supplemental survey identification, pavement evaluation, preparation of a design report, public information meetings, preparation of advance detail plans and final construction documents. Project Cost, \$600,000 (Prime Consultant)

U.S. Route 11 at Cicero Community Campus for MDA, 2002—Responsible for design and preparation of highway work permit plans for signalization and pavement widening at intersection associated with development of multi-faceted community center complex. Coordinated with NYSDOT Region 3. Project Cost, \$500,000 (Prime Consultant)

NYS Route 13 at P&C, Village of Pulaski, for Penn Traffic, 2002—Responsible for final design of improvements to intersection of existing state highway with new entrance road to new supermarket. Mitigation included highway widening, installation of traffic signal and modification of two nearby railroad preemption activated traffic signals. Required coordination with NYSDOT Region 3 for Highway Work Permit. (Prime Consultant)

PIN 7803.93 – Colton Bridge and Trail for Town of Colton, 2004—Responsible for Phase I-VI of locally administered federal aid enhancement project involving multi-use recreational trail and



bridge over Raquette River in St. Lawrence County. Included coordination with NYSDEC, Adirondack Park Agency, and property owners. Project Cost, \$1,000,000 (Prime Consultant)

Conservation Place road improvements for Onondaga County Department of Parks and Recreation, 2001—Project engineer responsible for quality assured design of full depth roadway and sidewalk reconstruction of main entrance into the Rosamond Gifford Zoo at Burnet Park in the city of Syracuse. (Prime Consultant)

NYS Route 298 at Collamer Business Park for COR Development, 2004—Responsible for conceptual design and preliminary plans for improvements to Route 298 in Dewitt at entrance to new business park, including modifications within Interstate Route 481 interchange. Involved meetings with NYSDOT and town engineer. (Prime Consultant)

**Jefferson County Industrial Park, Town of Watertown, 2002**—Responsible for site feasibility study, draft generic impact statement, and highway design plans for multi-phase infrastructure expansion of industrial park from 120 acres to over 200 acres in size, including improved access to State Route 12F, coordinated with NYSDOT Region 7. Project Cost, \$2,000,000 (Prime Consultant)

NYS Routes 173 and 175 improvements at Castlebar Circle for Dunkin Donuts, 2000—Project engineer responsible for design of traffic signal upgrades and turning lane addition associated with traffic mitigation at a retail development. Coordinated with NYSDOT Region 3 for highway work permit. (Prime Consultant)

County Routes 57 and 63 (Warners Road) for Onondaga County Department of Transportation, 2000— Project engineer in charge of preliminary and final design for 3.75 km highway reconstruction project. Design elements included road realignment, right of way acquisition, closed drainage, signing and pavement markings. Tasks included design report, public presentation, and bid documents. Project Cost, \$3,000,000 (Prime Consultant)

County Route 14 over Oswegatchie River for St. Lawrence County, 2000—Responsible for highway approach design associated with truss bridge replacement, including relocation of bridge-supported utilities during and after construction. (Prime Consultant)

PIN 3752.56 – County Route 1A for Oswego County, 2000—Responsible for managing preliminary design studies for locally administered federal-aid project involving 1.6 km of rural highway realignment and reconstruction.

Fair Street bridge for Putnam County, 2000—Project engineer responsible for traffic study and report, accident analysis, draft design report, and right-of-way impact analysis for bridge and highway improvements to suburban highway, involving congested intersections. Project was locally administered federal aid. (Prime Consultant)

County Routes 53 (Kirkville Road) and 77 (Fly Road) for Onondaga County Department of Transportation, 2000—Responsible for complete Phase I-VI design of an intersection widening project, including signal replacement and 1.35 km of pavement work. Prepared design report and PS&E package. Project Cost, \$1,000,000 (Prime Consultant)

PIN 3035.21 - County Route 91 (Old Route 57) for Onondaga County Department of Transportation, 2000—Responsible for preliminary design of 7.5 km locally administered federal-aid corridor project between Liverpool and Gaskin Road, involving pavement rehabilitation and coordination of 13 traffic signals. Project Cost, \$1,700,000 (Prime Consultant)

County Route 69 (East Molloy Road) for Onondaga County Department of Transportation, 1997—Responsible for Phase I-VI design of 1.16 mile urban street rehabilitation including intersection with US Route 11 in Mattydale. Work included full depth reconstruction, milling and overlay, driveways, sidewalks, and closed drainage. (Prime Consultant)

PIN 7752.05 – Franklin County Route 4 bridges over Salmon River and East Branch Deer Creek for NYSDOT Region 7 and Franklin County Highway Department, 1998—Responsible for Phase I-IV design of locally administered federal aid project involving replacement of two bridges



in consecutive seasons. Also responsible for design and preparation of Phase V-VI highway plans, including supervision of designers, drafters, and subconsultant. Design elements included right-of-way acquisition, stabilization of historic structure, two signed off-site detours, intersection geometry, drainage culverts, and temporary stream fording for farm vehicles. Project Cost, \$1,500,000 (Prime Consultant)

County Route 46 (Morgan Road) for Onondaga County Department of Transportation, 1997–responsible for complete Phase I-VI design of 1.24 mile rural reconstruction project, including design report and PS&E package. Supervised designers, drafters, and subconsultants performing survey and pavement corings. (Prime Consultant)

County Routes 1 and 1A at Alcan entrance for Oswego County, 1995—Responsible for design and preparation of contract plans for realignment and reconstruction of skewed intersection of two county roads, including replacement of a large box culvert. (Prime Consultant)

Oneida-Herkimer Solid Waste Management Authority Traffic Study, 2000—Performed intensive traffic study for proposed two county landfill in the Town of Ava, in preparation for EIS document and NYSDEC permit, involving engineering and traffic studies of several hundred miles of highway in NYSDOT Region 2, including NYS Routes 12, 12D, 26, 46, 69, 294, 365, and 790 between Utica, Rome, and the landfill site. Also prepared complete highway work permit drawings for safety widening and improvements on Route 294 at landfill entrance. Study included considering rail transport as alternate method, and explored TOFC/COFC/RoadRailer options and preliminary layout of tracks at loading and unloading facilities. (Prime Consultant)

#### **Publications and Presentations**

Co-presenter at 2007 NYSATE Technical Conference "Aerial Orthoimagery can save you M&PT design money" for PDH credit

Case No. 15-F-0122 Kaliski

## STATE OF NEW YORK PUBLIC SERVICE COMMISSION

Application of Baron Winds LLC for

Case No. 15-F-0122 a Certificate under Article 10 of the Public Service Law

PRE-FILED TESTIMONY OF:

KENNETH KALISKI

SENIOR DIRECTOR

**RSG** 

55 RAILROAD ROW

WHITE RIVER JUNCTION, VERMONT 05001

Case No. 15-F-0122 Kaliski

- 1 Q: Please state your name, employer, and business address.
- 2 A: My name is Kenneth Kaliski. I am employed by RSG in White River Junction, Vermont.
- 3 Q: What is your position at RSG?
- 4 A: I am a Senior Director at RSG.

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- 5 Q: How long have you been employed with RSG?
- 6 A: I have been employed by RSG for over 30 years.
- 7 Q: Please describe your educational background and professional experience.
  - I have a BA in Biology and Environmental Studies from Dartmouth College and a BE in Engineering from the Thayer School of Engineering at Dartmouth College. My educational experience includes coursework in sound level monitoring, noise control engineering, active noise control, indoor and outdoor acoustical modeling, vibration control, sound level meter design, the physics and mathematics involving sound and its propagation, biology, environmental health, and environmental engineering.
  - I am a licensed professional engineering in the states of Vermont, New Hampshire, Michigan, Massachusetts, and Illinois. I am Board Certified through the Institute of Noise Control Engineering (INCE) and formally served on INCE's Board of Directors and Vice President of Board Certification. Within INCE I am currently the co-chairman of the Wind Turbine Technical Activity Committee. I am also a member of the Acoustical Society of America and serve on its Noise Technical Activity Committee.
  - I have been involved in noise from wind projects since 1993. I am actively involved in research involving wind turbine noise and have more than a dozen publications on the subject. My resume is attached.
- 23 Q: Please describe your current responsibilities with RSG.
- 24 A: I oversee the Acoustics and System Dynamics Group.

Case No. 15-F-0122 Kaliski

25	Q:	Have you previously testified before the New York State Public Service Commission or
26		Siting Board on Electric Generation?
27	A:	I recently provided written and oral testimony in the matter of Cassadaga Wind LLC Application for
28		a Certificate of Environmental Compatibility and Public Need Pursuant to Article 10 to Construct a
29		126 MW Wind Energy Project; Case No. 14-F-0490.
30	Q:	Have you previously served as an expert witness before any other court, agency, or other
31		body on the subject you plan to offer testimony on today?
32	A:	Yes, I have testified before the Vermont Public Service Board, the Maine Department of
33		Environmental Protection, Maine Board of Environmental Protection, Maine Legislature, Ohio
34		Power Siting Board, and many other quasi-judicial settings (Planning Commissions, Zoning
35		Boards, County Commissions, etc.)
36	Q:	What is the purpose and scope of your testimony in this proceeding?
37	A:	To sponsor certain portions of the Baron Winds Project Application or the Exhibits thereto.
38	Q:	What portion(s) of the Application is your testimony sponsoring?
39	A:	Exhibit 19: Noise and Vibration. RSG prepared a Noise Impact Assessment for the construction
40		and operation of the Baron Winds Wind Farm, related facilities and ancillary equipment.
41	Q:	Were these Exhibits, Application sections, or studies prepared by you or under your
42		direction and supervision?
43	A:	Yes.
44	Q:	In your testimony, will you refer to, or otherwise rely upon, any studies, publications, data
45		or documents produced by persons other than yourself/your company? If so, please cite
46		these sources. [These are independent studies, etc.]
47	A:	References are provided in Exhibit 19 and RSG's report.
48	Q:	Does this conclude your testimony?

Case No. 15-F-0122 Kaliski

49 A: Yes.





# KENNETH KALISKI, PE, INCE BD. CERT. Senior Director

Ken Kaliski has 30 years of experience, having worked in all of RSG's market areas with a focus on engineering and advanced analytics. His technical specialty is in noise control engineering, where he works on projects such as community noise monitoring and modeling, architectural acoustics, transportation noise, and industrial noise control. He also works on complex modeling projects in the fields of market and energy research. Ken is the co-holder of Patent 7,092,853 for an Environmental Noise Monitoring System.

#### **EXPERIENCE**

30 years

#### **EDUCATION**

BE, Engineering, Thayer School of Engineering, Dartmouth College (2002)

AB, Biological Sciences and Environmental Studies, Dartmouth College (1985)

#### **PROJECT EXPERIENCE**

**Spruce Mountain Wind, Maine** – Conducted assessment of turbulence intensity and potential impacts to amplitude modulation during permitting. During post-construction, ongoing management of continuous 24/7/365 compliance monitoring system. Developed software for processing combining 50 ms sound monitoring data with turbine SCADA and met tower instrumentation to assess sound pressure level, amplitude modulation, and tonal sound over 10-minute compliance periods.

Massachusetts Research Study on Wind Turbine Acoustics – Leading a study on wind turbine sound to help the State of Massachusetts Clean Energy Center and Department of Environmental Protection improve the regulation of wind turbines in the State. The study includes detailed data collection around five wind projects in New England, support to the Wind Turbine Technical Advisor Committee of the MassDEP, and quantitative analysis of factors such as infrasound, amplitude modulation, sound levels, and sound propagation modeling.

**Highland Plantation Wind Farm –** Managed the noise study for the Highland Plantation Wind Farm near Bingham, Maine. The project included long-term sound monitoring at five locations around the site and modeling the 39 turbines proposed for the project. Sound propagation modeling was done to assess conformance with the Maine DEP standards, and mitigation was recommended in a report as part of the permitting proceedings.

**Saddleback Ridge Wind Farm** – Conducted the pre-construction noise study for the Saddleback wind farm under both the old and new Maine noise standards. Participated in public meetings and hearings for the 33 MW project near Carthage, Maine.

Review of Wind Project on Behalf of Oakfield Township – Retained by the Oakfield Township in Maine, reviewed the noise portion of the application of First Wind to construct a wind farm. Provided presentations to the Township on general noise topics and, separately, on the findings of our review. Consulted to the Wind Energy Committee on language for a proposed ordinance.

**Wind Farm Noise Analysis** – Conducted a study of the noise impacts of the Brodie Mountain Wind Project specifically with respect to a nearby condominium development. Sound levels were monitored continuously over several days and these monitored levels were then correlated against ridgeline wind speed.

**Deerfield Wind Farm, VT** – Prepared a noise study for Vermont's Section 248 filing on a 34 MW wind power project proposed for southern Vermont. The project included background sound monitoring, sound propagation modeling of the wind turbines and substation, and preparation of reports and exhibits. Sound modeling included analyses of 8760 hours of meteorology. A report was prepared and testimony was presented to the Section 248 Board

**Noise Forecasting for a Wind Turbine Demonstration Project, VT** – conducted noise measurements and modeling for a proposed 12-tower wind turbine project by the Green Mountain Power Company in Searsburg, Vermont. Used the NTerrain model to quantify the effects of atmospheric loss, vegetation, wind, and terrain features on octave-band noise levels in the area.

**Black Fork Wind** – Conducted a noise assessment of this 100.5 MW wind project in Richland and Crawford Counties in Ohio. Monitored background sound levels over a two-week period for eight locations over an eight-day period. Correlated wind speed measured at project met towers with background wind speeds and assessed the average background sound level over all sites for use in comparing modeled wind turbine sound levels to Ohio's relative sound standard. Presented testimony to Ohio Power Siting Board.

**Review of Wind Turbine Impact Study, Maine –** For the Maine Land Use Regulatory Council, reviewed the noise impacts for a proposed 580 turbine, 210 MW wind farm in the Boundary Region in western Maine.

**Kingdom Community Wind** – Prepared a noise assessment of a 63 MW wind project in Lowell, Vermont. The project included background sound monitoring at six locations, detailed sound modeling to assessment annualized impacts, testimony before the Public Service Board, and ongoing post-construction sound monitoring.

Kansas Wind Farm Study – Conducted sound propagation modeling for a proposed 100 MW wind farm in Kansas. Measured background sound levels at several locations around the proposed site. Calibrated the sound model using measurements at an operating wind farm in Kansas. Prepared a report comparing the impacts to a noise standard and suggested mitigation necessary to meet the standard.

#### **PUBLICATIONS**

McCunney, R., Mundt, K., Colby, D., Dobie, R., Kaliski, K., and Blais, M., "Wind Turbines and Health; A Critical Review of the Scientific Literature," Journal of Occupational and Environmental Medicine 56(11) 2014.

Kaliski, K.; Duncan, E.; McPhee, P; West, C.R.; O'Neal, R.; Zimmerman, J.; Snyder, J., "The Massachusetts research study on wind turbine acoustics - Methods and goals", Proceedings of NoiseCon14, Fort Lauderdale, Florida, 2014.

Kaliski, K., Neeraj, G., Prevalence of complaints related to wind turbine noise in northern New England," Proceedings of Meetings on Acoustics, Vol 19, 2013

Kaliski, K., "Winning Community Acceptance: Dispelling Myths and Promoting the Realities about Wind Power – Noise Impacts," AWEA New England Regional Wind Energy Summit, 2012, and AWEA Community Wind Working Group webinar, 2012

Kaliski, K., Wilson, D.K., Vecherin, S., Duncan, E., "Improving Predications of Wind Turbine Noise Using PE Modeling," *Proceedings of the 2011 Institute of Noise Control Engineers NOISECON 2011* 

Kaliski, K., and Duncan, E. "Calculating Annualized Sound Levels for a Wind Farm," *Acoustical Society of America, Proceedings of Meetings on Acoustics*, Vol. 9, 2010.

Park, L, Lawson, S, Kaliski, K., Newman, P. and Gibson, A. "Modeling and Mapping Hiker's Exposure to Transportation Noise in Rocky Mountain National Park," *Park Science* Vol. 26 No 3, Winter 2009-2010.

Kaliski, K. and Duncan, E. "Propagation modeling Parameters for Wind Power Projects," *Sound & Vibration Magazine*, Vol. 24 no. 12, December 2008.

Duncan, E. and Kaliski, K. "Improving Sound Propagation Modeling for Wind Turbines," *Acoustics 08*, Paris 2008.

Kaliski, K. "Sound Advice: Evaluating Noise Impacts in a Changing Landscape," American Wind Energy Association Fall Symposium, November 2008.

Kaliski, K., and Duncan, E. "Propagation Modeling Parameters for Wind Turbines," *Proceedings of the 2007 Institute of Noise Control Engineers NOISECON* 2007.

Collier, R. and Kaliski, K. "A Low-Complexity Environmental Noise Monitoring System for Unattended Operation in Remote Locations," Presented at the *Acoustical Society of America conference*, Salt Lake City, 2007.

Hathaway, K, and Kaliski, K. "Assessing Wind Turbines using Relative Noise Standards," *Proceedings of the 2006 Institute of Noise Control Engineers INTERNOISE* 2006.

Kaliski, K. H., Mills-Tettey, A., Seitaridou, E., Collier, R. "Low-Complexity Continuous Noise Monitoring System for Communities, Small Airports, and Remote Areas," *Proceedings of the 2001 Institute of Noise Control Engineers NOISECON 2001.* 

#### **PRESENTATIONS**

Kaliski, K., Lozupone, D., McPhee, P., O'Neal, R., Zimmerman, J., Wilson, K., Rowan-West, C., "The MassCEC Wind Turbine Noise Research Project – Research Goals and Preliminary Results," Acoustical Society of America, Indianapolis, 2014.

Kaliski, K., Duncan, D., McPhee, P., O'Neal, R., Zimmerman, J., Rowan West, C., "The Massachusetts Research Study on Wind Turbine Acoustics – Methods and Goals", American Wind Energy Association 2014.

Kaliski, K., "Wind Turbines – Noise Generation, Exposure, and Stressors," Society of Environmental Toxicology and Chemistry North Atlantic Chapter, 2013

Kaliski, K., Neeraj, G. "Prevalence of complaints related to wind turbine noise in northern New England," 21st International Congress on Acoustics, Montreal, 2013

Kaliski, K., "Winning Community Acceptance: Dispelling Myths and Promoting the Realities about Wind Power – Noise Impacts," AWEA New England Regional Wind Energy Summit, 2012, and AWEA Community Wind Working Group webinar, 2012

Kaliski, K., "Topics in Public Acceptance, Human Impacts: Sounds and Shadow Flicker," New England Wind Energy Education Project Conference *Wind Energy in New England: Understanding the Issues Affecting Public Acceptance*, 2011

Kaliski, K., "Wind Turbine Noise Regulation," (webinar) New England Wind Energy Education Project, 2010

Kaliski, K. "Sound Advice: Evaluating Noise Impacts in a Changing Landscape," American Wind Energy Association Windpower 2009 Conference and Exposition 2009.

Kaliski, K. "Calibrating Sound Propagation Models for Wind Power Projects," *State of the Art in Wind Siting Seminar*, October 2009, National Wind Coordinating Collaborative.

Kaliski, K., Aultman-Hall, L. (organizer), "Transportation, Health, and Environment," University of Vermont Honors College seminar, 2008

Kaliski, K. "Challenges and Opportunities for Noise Mapping in the United States," *Acoustics 08*, Paris 2008.

#### LICENSES, CERTIFICATIONS, MEMBERSHIPS, AND AFFILIATIONS

- Qualified Environmental Professional, Institute of Professional Environmental Practice
- Licensed Professional Engineer (PE), States of Vermont, New Hampshire, Massachusetts, and Michigan
- Board Certified, Institute of Noise Control Engineering
- Acoustical Society of America
- Air and Waste Management Association
- Institute of Professional Environmental Practice
- Tau Beta Pi Engineering Society

Case No. 15-F-0122 Nadeau

## STATE OF NEW YORK PUBLIC SERVICE COMMISSION

Application of Baron Winds LLC for a Certificate under Article 10 of the Public Service Law

Case No. 15-F-0122

PRE-FILED TESTIMONY OF:
MICHAEL J. NADEAU

DIRECTOR OF ENGINEERING

APPLIED HIGH VOLTAGE, LLC

403 NEW KARNER RD.

ALBANY, NEW YORK 12205

Case No. 15-F-0122 Nadeau

- 1 Q: Please state your name, employer, and business address.
- 2 A: Michael J. Nadeau; Applied High Voltage, LLC; 403 New Karner Rd., Albany, NY 12205.
- 3 Q: What is your position at Applied High Voltage?
- 4 A: Director of Engineering.
- 5 Q: How long have you been employed with Applied High Voltage?
- 6 A: Three and half years.

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A:

- 7 Q: Please describe your educational background and professional experience.
- 8 A: Bachelors of Science Electrical Engineering, Villanova University, 2007; Academic Certificate –
- 9 Power Systems Protection and Relaying, University of Idaho, In Progress. Licensed Professional
- 10 Engineer NY, WA, NV, WV, CA, HI. My resume is attached.
- 11 Q: Please describe your current responsibilities with Applied High Voltage.
  - Responsible for all engineering and design activities of an engineering/procurement/construction company for high-voltage substation and transmission projects. Development and tracking of department staffing, budgets and costs on an overall and per-project basis. Project estimating, proposals, scheduling, planning, resource loading and production. Creation and maintenance of company's engineering and design procedures, standards, work instructions, equipment specifications, QA/QC documents. Main point of contact and coordination with numerous utility, renewable and industrial clients for engineering activities, including early-stage project development, feasibility and cost estimates. Develop and maintain new client relationships through focused, responsive support and quality deliverables. Active contribution with project work including acting as Engineer of Record, quality/constructability reviews, overall engineering coordination, technical subject matter expertise and detailed design work. Responsible for creating, developing and tracking department administrative functions, including performance reviews, employee training, etc.

Case No. 15-F-0122 Nadeau

25	Q:	Have you previously testified before the New York State Public Service Commission or
26		Siting Board on Electric Generation?
27	A:	I recently provided written and oral testimony in the matter of Cassadaga Wind LLC Application for
28		a Certificate of Environmental Compatibility and Public Need Pursuant to Article 10 to Construct a
29		126 MW Wind Energy Project; Case No. 14-F-0490.
30	Q:	Have you previously served as an expert witness before any other court, agency, or other
31		body on the subject you plan to offer testimony on today?
32	A:	No.
33	Q:	What is the purpose and scope of your testimony in this proceeding?
34	A:	To sponsor certain portions of the Baron Winds Project Application or the Exhibits thereto.
35	Q:	What portion(s) of the Application is your testimony sponsoring?
36	A:	Exhibit 8: Electric Systems Production Modeling, Exhibit 34: Electric Interconnection, Exhibit 35:
37		Electric and Magnetic Fields.
38	Q:	Were these Exhibits, Application sections, or studies prepared by you or under your
39		direction and supervision?
40	A:	Yes.
41	Q:	In your testimony, will you refer to, or otherwise rely upon, any studies, publications, data
42		or documents produced by persons other than yourself/your company? If so, please cite
43		these sources. [These are independent studies, etc.]
44	A:	References are listed in Exhibit 8, 34 and 35.
45	Q:	Does this conclude your testimony?
46	A:	Yes.

# MICHAEL J. NADEAU, P.E.

680 Maple Lane | Niskayuna, NY 12309 | (484)-680-0046 | mnadeau01@gmail.com

### **Summary**

An accomplished Electrical Engineer with experience in high voltage power systems (up to 345kV), including electrical and physical aspects of substation design. Knowledgeable in protection and control systems, specification and procurement of electrical equipment for project construction, and transmission line and underground cable projects.

# <u>Professional Experience</u> APPLIED HIGH VOLTAGE, LLC, Albany, NY DIRECTOR OF ENGINEERING

August 2013 – Present

Responsible for all engineering and design activities of an engineering/procurement/construction company for high-voltage substation and transmission projects. Development and tracking of department staffing, budgets and costs on an overall and per-project basis. Project estimating, proposals, scheduling, planning, resource loading and production. Creation and maintenance of company's engineering and design procedures, standards, work instructions, equipment specifications, QA/QC documents. Main point of contact and coordination with numerous utility, renewable and industrial clients for engineering activities, including early-stage project development, feasibility and cost estimates. Develop and maintain new client relationships through focused, responsive support and quality deliverables. Active contribution with project work including acting as Engineer of Record, quality/constructability reviews, overall engineering coordination, technical subject matter expertise and detailed design work. Responsible for creating, developing and tracking department administrative functions, including performance reviews, employee training, etc.

# ALTRAN SOLUTIONS CORP., Albany, NY ENGINEER 3

October 2012 - August 2013

Lead Electrical Engineer for utility substation projects including Protection and Control (P&C), Physical Layout and Electrical Wiring and Schematics. Developed detailed scope of work for Utility T&D Projects. Acted as main technical point of contact with clients, vendors and utility engineers. Developed project cost and schedule estimates.

# CG POWER SOLUTIONS USA, INC. / MSE POWER SYSTEMS, INC., Albany, NY LEAD ENGINEER, ELECTRICAL

March 2011 – September 2012

Direct supervision and technical guidance for multiple electrical engineers and designers in Electrical Engineering department. Responsible for development, oversight and quality review of complete electrical design packages for high-voltage substations for utility and non-utility clients. Acted as lead/main engineer on multiple projects (including substation, transmission and wind farm collection system work) and is responsible for overall quality control, internal and external coordination, and technical interfaces with clients, utilities and vendors. Development of company technical standards and work procedures. Selected as department representative for working group tasked with the creation of a standardized substation package to support the company's new business model initiative. Supported Commercial Operations team by developing project estimates and proposals. Administered and managed department staffing, salary planning, project assignments, performance evaluations, employee development and administrative tasks.

### PROJECT ENGINEER ASSOCIATE ENGINEER INTERN (Seasonal)

September 2010 – March 2011 June 2007 – September 2010 2004 - 2007

Responsible for development, oversight and quality review of complete electrical design packages for high voltage substations for utility and non-utility clients. Responsible for technical details and creation of single-line diagrams, AC schematics, DC schematics, equipment wiring diagrams, communication architecture, relay panel layout, AC/DC panel layout, cable schedule, logic diagrams, interlock schemes, general arrangements, grounding and conduit plans and details, lightning protection and control building layout. Reviewed and applied industry standards and technical project specifications from the client. Performed various engineering calculations (station battery, AC load, conduit fill, CT burden, lightning protection, etc.) and prepared project-specific equipment specifications for procurement.

#### **Education**

B.S., Electrical Engineering, Cum Laude, Villanova University, Villanova, PA – May 2007 Academic Certificate, Power Systems Protection and Relaying, University of Idaho, Moscow, ID - In Progress

#### **Professional Affiliations**

IEEE - Institute of Electrical and Electronics Engineers (Power and Energy Society; Substations Committee)

- Vice-Chair - WG D8 (IEEE 1267) - Guide for Development of Specifications for Turnkey Substation Projects

#### **Professional Licenses**

Professional Engineer - NY, WA, NV, WV, CA, HI

#### **Computer Skills**

Microsoft Word, Excel, Outlook, Access, Powerpoint, Project WinIGS, CDEGS, CYMCAP, ASPEN, ETAP, AcSELerator, Autodesk AutoCAD (2000 and later), Raster Design Case No. 15-F-0122 Peterson

## STATE OF NEW YORK PUBLIC SERVICE COMMISSION

Application of Baron Winds LLC for a Certificate under Article 10 of the Public Service Law

Case No. 15-F-0122

PRE-FILED TESTIMONY OF:

TREVOR PETERSON

PROJECT MANAGER

STANTEC CONSULTING SERVICES INC.

30 PARK DRIVE

TOPSHAM, MAINE, 04086

Case No. 15-F-0122 Peterson

- 1 Q: Please state your name, employer, and business address.
- 2 A: Trevor Peterson, Stantec Consulting Services Inc., 30 Park Drive, Topsham, Maine, 04086.
- 3 Q: What is your position at Stantec?
- 4 A: I am a senior wildlife biologist and project manager.
- 5 Q: How long have you been employed Stantec?
- 6 A: I have been employed at Stantec since 2003.
- 7 Q: Please describe your educational background and professional experience.
- A: I earned my Bachelors degree in Biology and Environmental Studies from Bowdoin College in 2002. I am currently enrolled in a PhD program in University of Maine's Ecology and Environmental Sciences program where I am studying use of long-term acoustic bat survey datasets to study bat migration and manage potential impacts at wind projects. During my time at Stantec, I have conducted and managed a wide range of ecological surveys, focusing since 2006 on bird and bat issues at proposed and existing wind projects. Please see my resume attached.
- 14 Q: Please describe your current responsibilities with Stantec.
- 15 A: I design and conduct field studies and existing data as needed to support our clients' needs,
  16 typically related to assessing and measuring impacts to birds and bats associated with
  17 development and operation of commercial wind energy projects. I am also a technical lead within
  18 the company for acoustic bat survey methods.
- 19 Q: Have you previously testified before the New York State Public Service Commission or 20 Siting Board on Electric Generation?
- A: I recently provided written and oral testimony in the matter of Cassadaga Wind LLC Application for a Certificate of Environmental Compatibility and Public Need Pursuant to Article 10 to Construct a 126 MW Wind Energy Project; Case No. 14-F-0490.

Case No. 15-F-0122 Peterson

24	Q:	Have you previously served as an expert witness before any other court, agency, or other		
25		body on the subject you plan to offer testimony on today?		
26	A:	I provided written and oral testimony on potential impacts to birds and bats at the proposed Laurel		
27		Mountain Wind Energy Project in West Virginia, before the West Virginia Public Service		
28		Commission (Case No. 08-0109-E-CS-CN).		
29	Q:	What is the purpose and scope of your testimony in this proceeding?		
30	A:	To sponsor certain portions of the Baron Winds Project Application or the Exhibits thereto.		
31	Q:	What portion(s) of the Application is your testimony sponsoring?		
32	A:	Exhibit 22: Terrestrial Ecology and Wetlands. Specifically my testimony is to provide explanations		
33		of results of pre-construction bird and bat studies conducted by Stantec and the associated		
34		appendices.		
35	Q:	Were these Exhibits, Application sections, or studies prepared by you or under your		
36		direction and supervision?		
37	A:	Yes.		
38	Q:	In your testimony, will you refer to, or otherwise rely upon, any studies, publications, data		
39		or documents produced by persons other than yourself/your company? If so, please cite		
40		these sources. [These are independent studies, etc.]		
41	A:	References are listed in Exhibit 22 and Stantec's reports.		
42	Q:	Does this conclude your testimony?		
43	A:	Yes.		

Project Manager, Senior Wildlife Biologist



Mr. Peterson is a senior wildlife biologist and project manager specializing in renewable energy projects, bird and bat migration, and rare species assessments. He focuses on solutions to quantify and manage turbine-related wildlife impacts at terrestrial and offshore commercial wind projects. Since joining the company in 2003, Trevor's project experience has included a wide range of wide range of wildlife surveys at proposed and existing wind projects, rare bat surveys, breeding bird surveys, raptor surveys, nocturnal radar surveys, vernal pool water quality and ecological monitoring, rare turtle telemetry and demographic studies, natural community characterization, and vegetation monitoring. He is a PhD candidate in the University of Maine's Ecology and Environmental Science program, where he is researching the use of long-term acoustic bat data to study bat migration and predict and manage potential impacts from land-based and offshore wind projects. Before working at Stantec, Trevor worked seasonally for the National Park Service at Acadia National Park and Isle Royale National Park and as an island caretaker for the Maine Island Trail Association. Mr. Peterson serves as Stantec's technical lead for acoustic bat surveys, responsible for updating equipment, survey methods, and data analysis/reporting methods.

#### PROFESSIONAL EXPERIENCE

- Stantec Consulting Services Inc. 2007-present. Project Manager and Senior Wildlife Biologist
- Woodlot Alternatives, Inc. 2003-2007. Project Manager
- Acadia National Park. 2000. Biological Technician
- Isle Royale National Park. 1999. Biological Technician

#### **EDUCATION**

PhD candidate in Ecology and Environmental Science program, University of Maine, Orono, Maine, 2017

Semester Program in Costa Rica, Tropical Field Biology, Environmental Studies, and Spanish, Duke University, Durham, North Carolina, 2000

AB, Biology/Environmental Studies, Summa cum Laude, Phi Beta Kappa, Bowdoin College, Brunswick, Maine, 2002

40-Hour Hazwoper Certification, OSHA, Topsham, Maine, 2005

OSHA 8-Hour HAZWOPER Refresher Certification, Topsham, Maine, 2017

McMillan Offshore Survival Training, Castine, Maine, 2016

#### **MEMBERSHIPS**

Member, The Wildlife Society, Maine

Member, Northeast Bat Working Group

Member, Northeast Regional Migration Monitoring Network

#### PROJECT EXPERIENCE

#### Renewable Energy, Offshore

Regional Offshore Acoustic Bat Monitoring, Gulf of Maine, mid-Atlantic, Great lakes

Senior Biologist and Project Manager. Developed and implemented survey techniques and data analysis for long-term (2009–2014) acoustic bat monitoring in the Gulf of Maine, mid-Atlantic, and Great Lakes. Surveys included long-term monitoring at over 40 locations including remote islands, offshore weather buoys, ships, and coastal sites. Project was funded by Stantec, the US Department of Energy, and supported by federal, state, academic, and NGO partners.

## Tracking Bats using Nanotag Telemetry in the Gulf of Maine

Senior Biologist and Project Manager. Developed and implemented survey techniques to track bats along the Maine coast using nanotag technology. Constructed and installed 5 telemetry receivers along the coast to supplement an existing network of monitoring stations. Project was funded by Stantec and supported by federal, state, academic, and NGO partners.

Project Manager, Senior Wildlife Biologist

#### Renewable Energy

## Pre-construction Avian and Bat Surveys at Proposed Wind Energy Project, Texas

Project Manager and Field Supervisor. Developed an innovative work scope to conduct a variety of field surveys focusing on assessing potential impacts to Mexican free-tailed bats and managed a variety of field surveys including nocturnal radar surveys, NEXRAD data analysis, acoustic bat monitoring, and visual night-vision surveys. Mr. Peterson also coordinated discussions between project developers, state wildlife agencies, and non-profit groups.

## Avian and Bat Surveys at proposed New Creek Wind Energy Project, Grant County, West Virginia

Project Manager, Field Supervisor, Expert Witness. Developed protocols for pre-construction and post-construction bird and bat field surveys within wind project. Coordinated field efforts, including breeding bird surveys, raptor surveys, bat mist-netting surveys, bat telemetry surveys, acoustic bat surveys, carcass monitoring, and curtailment studies. Managed correspondence between the developer, operator, and state and federal wildlife agencies. Prepared survey reports, a site-specific bird and bat risk assessment, and direct testimony, all of which were presented at public hearings.

## Avian and Bat Surveys at Laurel Mountain Wind Energy Project, Randolph and Barbour Counties, West Virginia

Project Manager, Field Supervisor, Expert Witness. Conducted bird and bat field surveys within proposed wind project. Coordinated pre-construction and post-construction field efforts, including breeding bird surveys, raptor surveys, bat mist-netting surveys, acoustic bat surveys, carcass monitoring, and curtailment studies. Managed correspondence between the developer, operator, and state and federal wildlife agencies. Prepared survey reports, avian bird and bat risk assessment, testimony, and a site-specific Avian and Bat Protection Plan.

## Avian and Bat Surveys at Armenia Mountain Wind Energy Project, Tioga and Bradford Counties, Pennsylvania

Project Manager and Field Supervisor. Conducted bird and bat field surveys within proposed wind project. Coordinated field efforts, including breeding bird surveys, raptor surveys, bat mist-netting surveys, and acoustic bat surveys. Managed correspondence between the developer and state and federal wildlife agencies. Prepared survey reports and a site-specific bird and bat risk assessment for the project. Managed two years of post-construction monitoring according to Pennsylvania Game Commission protocols.

## Post-construction Avian and Bat Mortality Monitoring at Forward and Lookout Wind Projects, Somerset County, Pennsylvania

Project Manager and Field Supervisor. As the Project Manager for post-construction bird and bat mortality surveys at two of the first operational wind projects to participate in Pennsylvania's Voluntary Cooperative Wind Energy agreement, Mr. Peterson developed survey work scopes, and coordinated fieldwork for multiple years of monitoring, including daily mortality surveys, acoustic bat surveys, and diurnal raptor surveys. Mr. Peterson also coordinated project-related agency communications with state and federal wildlife agencies.

#### **Natural Resource Services**

## Acoustic Bat Surveys: Proposed Road Corridors, Tennessee

Technical and Field Supervisor. Conducted acoustic bat surveys in a variety of habitats within 67-kilometer long segments of multiple potential highway corridors within a National Forest for the Tennessee Department of Transportation. Completed data analysis and prepared survey reports.

## Indiana Bat and Rare Bird Surveys at Proposed Wind Energy Project, Jefferson and Oswego Counties, New York

Project Manager and Field Supervisor. Coordinated multiple years of habitat evaluations, acoustic bat surveys, and radio telemetry surveys for Indiana bats at a proposed wind project in northwestern New York. Mr. Peterson also coordinated and conducted field surveys for breeding birds and rare birds within the area.

<sup>\*</sup> denotes projects completed with other firms

Project Manager, Senior Wildlife Biologist

## Spotted Turtle and Vernal Pool Monitoring on Greenbush Railroad, Southeastern Massachusetts

Project Manager, Field Team Leader, Field Technician.

Managed a field crew responsible for monitoring the water quality, invertebrate diversity, amphibian populations, and plant communities within vernal pools located in a commuter rail corridor. Led efforts to document and track populations of spotted turtles within the same corridor. Assisted with development of amphibian/turtle crossing structures, and protocols for testing the effectiveness of these structures.

## Natural Community Surveys and Resource Inventory, Moosehead Lake Region, Maine

Field Scientist. Mr. Peterson conducted natural community surveys and rare species surveys, classified natural communities, identified rare plants and animals, and evaluated potential wildlife habitat within parcels proposed for development and conservation within a large proposed development in Maine's north woods.

## Eastern Box Turtle Protection Plan, Construction Monitoring, and Relocation, Duxbury, Massachusetts

Field Scientist. Mr. Peterson developed a protocol to protect box turtles during construction in compliance with MESA, and participated in fieldwork efforts, which included preconstruction searches, construction monitoring, turtle handling/relocation, and habitat management.

#### Blue-Spotted Salamander Surveys and Relocation, Reading, Massachusetts

Field Scientist. Mr. Peterson developed and implemented a survey protocol to inventory, identify, and relocate blue and yellow-spotted salamanders from an upland area proposed for development. Coordinated communications with state wildlife agencies.

### Diamondback Terrapin Habitat Assessment and Nesting Surveys, Massachusetts

Field Scientist. Mr. Peterson developed survey protocols and conducted and assessment of suitable habitat features to evaluate mating and nesting activities of a newly discovered diamondback terrapin population at a former landfill proposed for mixed use development in southern Massachusetts.

<sup>\*</sup> denotes projects completed with other firms

Project Manager, Senior Wildlife Biologist

#### **PUBLICATIONS**

Peterson, T.S. Bats in the rotor zone...managing risk with acoustics. Presented at the 2nd International Bat Echolocation Symposium, Tuscon, Arizona, 2017.

Peterson, T.S. and A.J. Gravel. How do mortality and activity relate? Presented at the American Wind Energy Association Wind Project Siting and Environmental Compliance Conference, Austin, Texas, 2017.

Peterson, T.S. Unprecedented change in Maine bats; evidence of the widespread effects of white-noise syndrome. Presented at the Maine Chapter of the Wildlife Society 41st Annual Meeting, Bangor, Maine, 2017.

Peterson, T.S., S.K. Pelletier and M. Giovanni. Long-term bat monitoring on islands, offshore structures, and coastal Sites in the Gulf of Maine, mid-Atlantic, and Great Lakes - final report. *Prepared for the US Department of Energy*, 2016.

Peterson, T.S. Bats in the rotor zone...managing risk with acoustics. Presented at the National Wind and Wildlife Coordinating Collaborative Wind and Wildlife Research Meeting XI, Broomfield, Colorado, 2016.

Peterson, T.S. Bats offshore!. WREN Webinar Presented Online, 2016.

Peterson, T.S. Managing risk to bats at offshore wind projects: Applying Lessons Learned from Onshore. Presented at the Northeast Bat Working Group, South Portland, Maine, 2015.

Peterson, T.S., S. Pelletier. Bats Offshore...Results of a long-term regional acoustic study. Poster Presentation at the American Wind Energy Association Offshore WindPower 2015, Baltimore, Maryland, 2015.

Peterson, T.S., S. Pelletier, S. Boyden, L. Wight, and K. Watrous. Tracking bats on the Maine coast using nanotags. Presented at the Northeast Natural History Conference, Springfield, Massachusetts, 2015.

Peterson, T.S. Northern long-eared bats and potential impacts on wind projects in New England. Marine Ocean & Wind Industry Initiative Webinar Presented Online, 2015.

Peterson, T.S., S.K. Pelletier, S.A. Boyden, and K.S. Watrous. Offshore acoustic monitoring of bats in the Gulf of Maine. *Northeastern Naturalist* 21(1): 86-107, 2014.

Peterson, T.S., S. Pelletier, S. Boyden, L. Wight, and K. Watrous. Tracking bats offshore using nanotag technology - a pilot study in the Gulf of Maine.

Presented at the Energy Ocean International Conference, Atlantic City, New Jersey, 2014.

Peterson, T.S., S. Pelletier, S. Boyden, L. Wight, and K. Watrous. Where, When and Why are Bats Offshore...and What are the Implications for Offshore Wind Energy?. Presented at the Northeast Fish and Wildlife Conference, Portland, Maine, 2014.

Peterson, T.S., S. Boucher, and L. Berube. The aerosphere as wildlife habitat - managing risk.. Presented at the Northeastern Association of Fish and Wildlife Agencies, Portland, Maine, 2014.

Project Manager, Senior Wildlife Biologist

Hildt, S. and T. Peterson. Surveying the damage: tools and techniques. *Invited Presentation at the NRDA Short Course, University of Massachusetts*, 2014.

Pelletier, S.K., K.S. Omland, K.S. Watrous and T.S. Peterson, Information synthesis on the potential for bat interactions with offshore wind facilities - final report. US Department of the Interior, Bureau of Ocean Energy Management, Headquarters. Herndon, Virginia. OCS Study BOEM 2013-01163. 119 pp, 2013.

Pelletier, S.K. and T.S. Peterson. Wind Power & Bats Offshore - What are the risks? A current understanding of offshore bat activity. Presented at the American Wind Energy Association Offshore WindPower 2013, Providence, Rhode Island, 2013.

Peterson, T.S., S. Boyden, and K. Watrous. Comparison of Automated and Manual Identification Methods for Acoustic Bat Survey Datasets: Implications for Future Protocols. Poster Presentation at the Northeast Bat Working Group Meeting: Albany, New York, 2013.

Pelletier, S.K., T. Peterson, S. Boyden, K. Watrous, and J. Perkins. Ongoing Offshore Acoustic Bat Research in the Atlantic and Great Lakes Regions. Poster Presentation at the Northeast Bat Working Group Meeting: Albany, New York, 2013.

Johnson, J.S., L.E. Dodd, J.D. Kiser, T.S. Peterson, and K.S. Watrous. Food Habits of Myotis leibii along a Forested Ridgetop in West Virginia. *Northeastern Naturalist* 19(4): 665-672, 2012.

Peterson, T.S. A New Look at Bat Activity and Wind Speed in the Rotor Zone. Poster Presentation at the Northeast Bat Working Group Meeting: Carlisle, Pennsylvania, 2012.

Peterson, T.S., J. Costa, K. Omland, and K. Watrous. Use of Pre-construction Acoustic Bat Data to Design and Forecast Site-specific Curtailment Plans. Poster Presentation at the NWCC Wind Wildlife Research Meeting IX: Denver, Colorado, 2012.

Johnson, J.S., K.S. Watrous, G.J. Giumarro, T.S. Peterson, S.A. Boyden, and M.J. Lacki. Seasonal and geographic trends in acoustic detection of tree-roosting bats. *Acta Chiropterologica*, *13(1)*: 157-168, 2011.

Johnson, J.S., J.D. Kiser, K.S. Watrous, and T.S. Peterson. Day-roosts of Myotis leibii in the Appalachian Ridge and Valley of West Virginia. *Northeastern Naturalist* 18 (1): 95-106., 2011.

Peterson, T.S., S.K. Pelletier, S.A. Boyden. Acoustic Survey of Offshore Bat Activity and Migration in the Gulf of Maine. Presentation at the Maine Chapter of the Wildlife Society Wind and Wildlife Meeting, Orono, Maine, 2011.

Peterson, T.S. A Discussion of a Suitable Framework and Scale for Modeling and Managing Impacts to Migratory Bats at Wind Projects. Presented at the NWCC Wind Wildlife Research Meeting VIII; Lakewood, Colorado, 2010.

Giumarro, G.J., K.S. Watrous, J.S. Johnson, T.S. Peterson, S.A. Boyden, and M.J. Lacki. Correlation of bat acoustic activity to bat mortality in the eastern United States: a broader understanding of seasonal and geographic trends in acoustic detection of tree-roosting bats. *Presented at the NWCC Wind Wildlife Research Meeting VIII, Lakewood, Colorado*, 2010.

Project Manager, Senior Wildlife Biologist

Peterson, T.S, K.S. Watrous, and S.K. Pelletier. Combining technologies to assess potential impacts to Mexican free-tailed bats in central Texas. Poster presentation at the NWCC Wind Wildlife Research Meeting VIII, Lakewood, Colorado, 2010.

Pelletier, S.K., G.C. Kendrick, T.S. Peterson, and A.J. Gravel. Atlantic Offshore Bird & Bat Pilot Study: 2009 Results. Poster Presentation at the AWEA Offshore Energy Conference, Atlantic City, New Jersey, 2010.

Pelletier, S.K., T.S. Peterson, and G.C. Kendrick. Understanding of the Current Knowledge of Offshore Wind and Wildlife Issues. *Presented at the NWCC Wind Wildlife Research Meeting VIII; Lakewood, Colorado*, 2010.

Giumarro, G.J., K.S. Watrous, T.S. Peterson, S.A. Boyden, M.J. Lacki, and J.S. Johnson. Seasonal and geographic trends in acoustic detection of treeroosting bats. *Presented at the Windpower Conference and Exhibition, Dallas, Texas*, 2010.

Giumarro, G., T.S. Peterson, C.W. Meinke, and S.K. Pelletier. Understanding Risk to Long-distance Migratory Bats in Canada using an Ecological Risk Framework. Presented at the CanWEA Environmental Assessment Siting Workshop, Halifax, Nova Scotia, 2009.

Pelletier, S., G. Kendrick, G. Giumarro, T. Peterson, and A. Gravel. Gulf of Maine Offshore Bat and Bird Project. Poster Presentation at AWEA Offshore Energy Conference; Boston, Massachusetts, 2009.

Giumarro, G., J.S. Johnson, T.S. Peterson, K.S. Watrous, and S. Boyden. Summary of Seasonal Distribution of Migratory Tree Bats in the Northeastern United States Using Passive Acoustic Sampling. Presented at the 1st International Symposium on Bat Migration. Berlin, Germany, 2009.

Giumarro, G., S. Pelletier, K. Watrous, T. Peterson, and J. Johnson. Seasonal Distribution of Tree Bats in the Northeast Using Passive Acoustic Sampling. Poster Presentation at the Windpower Conference and Exhibition, Chicago, Illinois, 2009.

Pelletier, S.K., C.W. Meinke, T.S. Peterson, and A.J. Gravel. Radar and acoustic bat surveys in pre and post-construction bird and bat mortality monitoring. Poster Presentation at the AWEA Conference in Los Angeles, California, 2008.

Pelletier, S.K., A.J. Gravel, and T.S. Peterson. Nocturnal avian flight heights relative to risk of collision with wind turbines. Presented at the NWCC Wind Wildlife Research Meeting VII, Milwaukee, Wisconsin, 2008.

Meinke, C.W., T.S. Peterson, J.P. Lortie, and S.K. Pelletier. Assessing risk to bats from wind facilities using the weight-of-evidence approach to ecological risk assessment. Presentation at the joint meeting of the Northeast Bat Working Group and the Southeastern Bat Diversity Network. Blacksburg, Virginia, 2008.

Lortie, J.P., G. Giumarro, R.D. Roy, and T.S. Peterson. Using ecological risk assessment to characterize risk to birds and bats at wind farms. *Presentation at the 14th Annual Conference of the Wildlife Society, Tucson, Arizona*, 2007.

Project Manager, Senior Wildlife Biologist

Peterson, T.S., A. Uesugi, and J. Lichter. Tree recruitment limitation by introduced snowshoe hares, Lepus americanus, on Kent Island, New Brunswick. Canadian Field Naturalist 119 (4). 569-572, 2005.

Case No. 15-F-0122 Rice

# STATE OF NEW YORK PUBLIC SERVICE COMMISSION

Application of Baron Winds Project for a Certificate under Article 10 of the Public Service Law

Case No. 15-F-0122

PRE-FILED TESTIMONY OF

JANE E. RICE

PRINCIPAL

ENVIRONMENTAL DESIGN & RESEARCH,

LANDSCAPE, ARCHITECTURE, ENGINEERING

& ENVIRONMENTAL SERVICES, D.P.C.

217 MONTGOMERY STREET, SUITE 1000

SYRACUSE, NEW YORK, 13202

Case No. 15-F-0122 Rice

- 1 Q: Please state your name, employer, and business address.
- 2 A: Jane E. Rice, Environmental Design & Research, Landscape, Architecture, Engineering &
- 3 Environmental Services, D.P.C. ("EDR"), 217 Montgomery Street, Suite 1000, Syracuse, NY 13202-
- 4 1942.
- 5 Q: What is your position at EDR?
- 6 A: Principal, Director of Planning
- 7 Q: How long have you been employed with EDR?
- 8 A: I have been employed by EDR since 2005.
- 9 Q: Please describe your educational background and professional experience.
- A: I received a Bachelor of Arts Degree from Creighton University in Omaha, Nebraska in 1981, a Juris 10 Doctor from Creighton Law School in 1986. I practiced law with several private law firms until 1991 11 12 when I joined the master program at State University of New York College of Environmental Science and Forestry. I obtained a Masters in Landscape Architecture in 1995. I was employed by Clough 13 Harbor and Associates until 2005 when I joined EDR. Since 1995 I have worked in the capacity as 14 Planner, Project Manager, Senior Project Manager, and Principle and Director of the Planning 15 practice. I have over 20 years of experience in community and land use planning, with 10 years of 16 experience preparing and/or supervising projects involving socioeconomic reports for wind energy 17
- 18 projects.
- 19 Q: Please describe your current responsibilities with EDR.
- 20 A: As Principal, I oversee all aspects of EDR's planning projects.
- 21 Q: Have you previously testified before the New York State Public Service Commission or Siting
- 22 **Board on Electric Generation?**

Case No. 15-F-0122 Rice

23	A:	I have previously provided written rebuttal and sur-rebuttal testimony, and as an expert witness I was
24		subject to cross examination under oath, in the Matter of Cassadaga Wind LLC's Application for a
25		Certificate of Environmental Compatibility and Public Need (Case No. 14-F-0490).
26	Q:	Have you previously served as an expert witness before any other court, agency, or other
27		body on the subject you plan to offer testimony on today?
28	A:	No.
29	Q:	What is the purpose and scope of your testimony in this proceeding?
30	A:	To sponsor certain portions of the Baron Winds Project Application or the Exhibits thereto.
31	Q:	What portion(s) of the Application is your testimony sponsoring?
32	A:	Exhibit 27: Socioeconomic Effects
33	Q:	Were these Exhibits, Application sections, or studies prepared by you or under your direction
34		and supervision?
35	A:	Yes.
36	Q:	In your testimony, will you refer to, or otherwise rely upon, any studies, publications, data or
37		documents produced by persons other than yourself/your company? If so, please cite these
38		sources. [These are independent studies, etc.]
39	A:	References are provided in the corresponding Exhibits.
40	Q:	Does this conclude your testimony?
41	A:	Yes.





Jane is the Director of Planning at EDR. She is a certified planner and a licensed attorney with more than 25 years of professional experience. Jane's expertise includes project management, community and land use planning, economic development, waterfront revitalization planning, smart growth management and analysis, zoning, stakeholder involvement and engagement. She is currently a member of the American Institute of Certified Planners, American Planning Association, New York State Bar Association, New York State Planning Federation Board of Directors, and Vice President of the Onondaga County Planning Federation Board of Directors. She has also served as Chairperson of the Village of Fayetteville Planning Board for more than 15 years. Jane is a sought-after lecturer in topics related to Environmental Integrity, Sustainable Land Use Planning & Design, Resource Conservation Strategies, Form Based Zoning, Community Character, and Community Engagement.

As the Director of Planning at EDR, Jane is responsible for assigning, scheduling and coordinating assistance from the in-house multi-disciplined team of professionals. She remains hands-on throughout the project, overseeing and advising the EDR Team as needed, as well as providing quality assurance. In all cases she vets her projects through a sustainability analysis to ensure solutions are economically, environmentally, and socially sustainable over time.

## education

*Master of Landscape Architecture*: State University of New York College of Environmental Sciences and Forestry, Syracuse, NY, May 1996.

Juris Doctor: Creighton University School of Law, Omaha, Nebraska (Aug 1982 – Dec 1983), Albany Law School, Albany, NY (Jan 1984 – May 1985).

Bachelor of Arts in Political Science, Creighton University, Omaha, NE, May 1981.

## professional affiliations

Vice President, Onondaga County Planning Federation Board

Chairperson, Fayetteville Planning Board

Member, New York State Bar Association

Member, Board of Directors, New York State Planning Federation

Member, American Planning Association

## registration / certifications

American Institute of Certified Planners (AICP)

Juris Doctor

## employment history

*Principal, Director of Planning, Senior Planner,* Environmental Design & Research, Landscape Architecture and Engineering and Environmental Resources, D.P.C, August 2005 – present.

Community Planner, Independent Consultant, 2004 - 2005.

Community Planner, Clough Harbour & Associates LLP, Syracuse, NY, 1997 – 2004.

Attorney at Law, Independent Consultant, 1991 – 1994.

Attorney at Law, Scolaro Law Firm, 1987 - 1991.

## wind project experience

**Galloo Island Wind Farm – Jefferson County, NY –** Oversaw the preparation of Exhibit 27 Socioeconomic Effects and a full standalone Socioeconomic Report for the Article 10 Application. Project is currently under review.

Cassadaga Wind Farm – Chatauqua County, NY – Oversaw the preparation of Exhibit 27 Socioeconomic Effects and a full standalone Socioeconomic Report for the Article 10 Application. Also prepared written testimony and served as a expert witness for socioeconomic effects.

Environmental Design & Research, Landscape Architecture, Engineering, & Environmental Services, D.P.C. www.edrdoc.com



Copenhagen Wind Farm – Lewis County, NY – Oversaw the preparation of Socioeconomic section in the Environmental Impact Statement (EIS). Project is currently under construction, and was reviewed and approved through preparation of EISs in accordance with the State Environmental Quality Review Act (SEQRA), while also receiving approval from the New York State Department of Environmental Conservation (NYSDEC) under Article 15 and 24 of the Environmental Conservation Law (ECL);

Allegany Wind Power Project – Cattaraugus County, NY – Oversaw the preparation of a standalone Socioeconomic Report as an appendix to the EIS. Project was reviewed and approved in accordance with the State Environmental Quality Review Act (SEQRA), and fully aligned with all necessary permits.

**Icebreaker Offshore Wind Farm – Cuyahoga County, OH –** Oversaw the preparation of full standalone Socioeconomic Report as a component of the Application for Certificates of Environmental Compatibility and Public Need (Certificate Application). Project is currently in the process of review from the Ohio Public Service Board.

Scioto Ridge Wind Farm – Hardin and Logan Counties, OH – Oversaw the preparation of full standalone Socioeconomic Report as a component of the Application for Certificates of Environmental Compatibility and Public Need (Certificate Application).

Crown City Wind Energy Project – Cortland County, NY – Oversaw the preparation of a standalone Socioeconomic Report as an appendix to the EIS. Project was reviewed in accordance with the State Environmental Quality Review Act (SEQRA).

## other project experience

Onondaga Lake – Town of Geddes Lakeshore Enhancement Project, Onondaga County, NY – Directed team that created site plans and designs, and conducted extensive community outreach and engagement activities, for adaptive reuse and ecological restoration of the 4,000 acres of the former Allied Corporation property (now owned by Honeywell Corporation). The purpose of this project is to remediate and reuse the Super Fund site in a more environmentally sensitive manner.

Syracuse Metropolitan Transportation Authority, Transit Study Phase 1 (SMART 1) on behalf of the CNY Regional Transportation Authority, Syracuse, NY – Directed team providing community planning services, that include outreach and engagement activities to a team of national consultant to advance recommendations identified in the Syracuse Transit Analysis to pursue a higher-intensity transit services along the Destiny/Regional Transportation Center to Syracuse University and James Street/South Avenue corridors.

NYSDOS / Town & Village of Clayton - Local Waterfront Revitalization Program (LWRP), Jefferson County, NY - Directed team that developed the LWRP, conducted extensive community outreach and engagement activities, evaluated site and designed segments of the new RiverWalk waterfront connection and access to the St. Lawrence River.

NYSDOT / The Riverwalk, Village of Clayton, (Phase 2 – NYSDOS / Phase 3 – NYSDOT / LAFA Region 3) Jefferson County, NY – Directed site planning and design services, that include community outreach and engagement activities in support of Phase 2 of the Riverwalk Project. Currently responsible for coordinating design of best options to support Phase 3 implementation.

NYSDOS / City of Syracuse - Hiawatha Boulevard-Lodi Street Brownfield Opportunity Area Program (BOA), Syracuse, NY — Directed team (with Sasaki Associates) that developed a Nomination Study that incorporates a 136-acre area with 11 potential brownfield properties. This is a main artery to a vital, heavily traveled section of Syracuse. It is also an area that is suffering from depressed commercial properties and deteriorating housing stock, both of which are intermixed with active businesses. Managed team that developed the BOA, conducted extensive community outreach and engagement activities, evaluated site and designed visionary outcomes for this a low income neighborhood.

NYSDOS / City of Ogdensburg - Local Waterfront Revitalization Program (LWRP), St. Lawrence County, NY — Directed team that developed an amendment to the LWRP, conducted extensive community outreach and engagement activities, designed conceptual land use patterns, and assisted the City in identifying policies and procedures that will implement the LWRP through a series of priority projects for the purpose of improving waterfront connections and economic development opportunities.

NYSDOS / Town of Alexandra & Village of Alexandria Bay - Local Waterfront Revitalization Program (LWRP), Jefferson County, NY - Directed team that identified and designed visionary outcomes for revitalization of the St. Lawrence River waterfront. Assisted in identifying opportunities for waterfront use and development, and to adopt appropriate policies and implementation strategies. Ongoing development projects include improvement to the existing Scenic View Park and creation of a new river walk along the River. Conducted extensive community outreach and engagement activities.



NYSDOT / Syracuse I-81 Viaduct – Step 2 Scoping & Preliminary Design Project, Syracuse, NY – Currently responsible for coordinating extensive community outreach and engagement activities as a member of the Parsons Team to determine design of best options for redevelopment of this major transportation hub project located close to Downtown and University Hill area.

NYSDOS / Village of Sackets Harbor - Local Waterfront Revitalization Program (LWRP), Jefferson County, NY – Directed team that developed the LWRP, conducted extensive community outreach and engagement activities, evaluated site and designed visionary outcomes. This effort included analyzing opportunities and constraints in the Village, establishing a framework of policies to protect and enhance the resources of the Village and connections to the St. Lawrence River, and by developing proposals to capitalize on the opportunities of the waterfront within the context of established policies.

NYSDOT / NYSOPRHP - Niagara Falls Robert Moses Parkway Removal - Step 2 Scoping & Preliminary Design Project, Niagara Falls, NY - Directed extensive community outreach and engagement activities, and landscape design to determine and depict best options, for redevelopment of the northern section of this major transportation corridor project.

NYSDOT / City of Rochester, East Main Street Marketing District Plan, Rochester, NY (LAFA Region 4) – Directed site planning services, that include community outreach and engagement services, to a team of national and local consultants to identify multi-modal circulation, access and parking improvements along with recommendations for land use development, streetscape enhancements, and community branding, as well as strategies to promote housing opportunities in the area.

Niagara Gorge RIM Ecological Restoration Plan (Robert Moses Parkway Removal Study), City of Niagara Falls, NY — Directed team that quantified economic, environmental, and social costs and benefits of roadway removal and natural resource restoration proposal, and that analyzed various potential impacts including traffic distribution, active transportation, buffering, naturalization, environmental quality, and local economic development opportunities. American Society of Landscape Architects Merit Award for Planning

Agricultural Enhancement Plans, Tioga, Broome and Ontario County, NY – Directed public participation and outreach activities, researching countywide agricultural land uses, and agricultural economic concerns, advising county on analysis of priority lands to be protected, and drafting recommendations to drive sustainable growth consistent with industry and environmental best practices, and NYSDAM guidelines.

New York Rising Community Reconstruction Plan, Herkimer, Madison, & Oneida County, NY – Directed the New York Rising Community Reconstruction Program that was established by the New York State Department of State in the wake of several severe weather events including Hurricanes Sandy and Irene, Tropical Storm Lee, and the devastating floods of 2013. The program leverages state investments to assist with reconstruction projects directed toward damaged infrastructure, as well as other projects that are intended to mitigate against future risks and increase their resiliency in the face of future storm events. As a member of the consulting team EDR assisted with community outreach throughout Madison, Oneida, and Herkimer Counties, where back-to-back storms flooded entire communities twice within three days – washing out roads, bridges, utilities, and other infrastructure. The New York Rising Countywide Resiliency Plan (for each county) represents the first steps that the county and state will take toward implementing priority projects, and ultimately creating a more resilient Madison, Oneida, and Herkimer County.

Robert Moses Parkway North Segment Step 2 Scoping & Preliminary Design Project, Niagara Falls, NY – Directed the restoration of the Niagara Gorge Rim along the upper Niagara River will be transformative for the City of Niagara Falls. A one-mile stretch of the 50-year old, four-lane Robert Moses Parkway from Main Street in the City of Niagara Falls to its intersection with Findlay Drive will be removed to allow for a re-greening of the park with multi-use trails, improved scenic overlooks, and other park amenities. Whirlpool Street will be improved as a complete street reconnecting the neighborhoods to the park. As one of the subconsultants on the consulting team EDR worked on developing three alternative concepts from which the preferred concept was selected, as well as simulations to illustrate the proposed gateways, streetscape improvements, and other scenic overlooks. We participated in community outreach, engaging the community throughout the process, and provided an assessment of potential impacts on ecological resources, including threatened and endangered species.

Hiawatha Boulevard-Lodi Street Brownfield Opportunity Area Program, City of Syracuse, NY — Directed the team that served as the Lead Consultant in association with Sasaki Associates to create a Nomination Study for the Hiawatha Boulevard/Lodi Street Brownfield Opportunity Area within the City of Syracuse. This BOA incorporates a 136-acre area with approximately 11 potential brownfield properties. The area is a main artery to a vital, heavily traveled section of Syracuse. It is also an area that is suffering from depressed commercial properties and deteriorating housing stock, both of which are intermixed with active businesses. This BOA presents strategic opportunities to stimulate economic development and community revitalization. It is in close proximity to the Carousel Center, a regional retail mall which has recently expanded, and that attracts millions of visitors each year, providing



a critical mass of people and vehicles passing through the Hiawatha Boulevard corridor. The project area also serves as a major transportation route to access the Alliance Bank Stadium, the home field of the Chiefs, which averages half a million ticket sales per year. It is also situated adjacent to the Central New York Regional Market, which houses hundreds of stands and attracts more than a million visitors annually, as well as the Regional Transportation Center. As a result, this BOA provides a significant opportunity for the successful redevelopment of vacant, underutilized and blighted properties located in an area with very high visibility. (2011-2013)

Girl Scouts Feasibility Study and Master Plan, Tomkins County, Ithaca, NY – Directed a campus and facilities master plan as developed for all 65 acres of Camp Comstock. This master planning process included, site visits, stakeholder meetings, research on local development regulations, and historic and cultural resources relevant to the camp. The effort included improvements to existing facilities as well as new facilities and uses intended to generate new and sustainable revenues for the Girl Scouts. While developing the master plan we continuously discussed operational and programming issues / needs / preferences so that all aspects are aligned with the recommendations for future improvements and new development. The final Master Plan Report includes the initial feasibility study for all four Girl Scout Camps, the recommendation to initially invest in Camp Comstock for facility improvements as well program development, and the Master Plan with planning and design details on connectivity throughout the main camp, facility improvements, new development and minor but critically important amenities.

Plan for Reconnecting the Erie Canal Gateway, Town of DeWitt, Onondaga County, NY - Directed the EDR team that was collaborating with the town of DeWitt to prepare a plan for the revitalization of the waterfront along the NYS Canal System. The plan is proposed to include: visioning for the historic canal corridor, assessment of development patterns, identification of land and water use controls, and development of revitalization policies and implementation strategies. Work will include planning for a segment of the canal way trail that would close the gap between the Town of Dewitt and the Town of Camillus.

Agricultural and Farmland Protection Plan, Ontario County, NY – Directed the EDR team that was collaborating with Ontario County in the development of their Enhancement Plan. EDR is designing and facilitating a community outreach plan with the goal of engaging local farmers, agricultural producers, and stakeholders in the local agricultural business, and facilitated several focus group meetings. With the community's direct input, and through targeted analysis, we will make recommendations that touch upon local land use regulations, regional policies in support of agricultural producers and businesses, marketing, economic development, and implementation procedures for the Agricultural Enhancement Plan.

Skunk City Neighborhood Master Plan, Syracuse, NY – Directed the EDR team that worked in collaboration with staff from the Department of Neighborhood and Business Development and neighborhood advocates, which drafted the Skunk City Neighborhood Master Plan for the City of Syracuse in 2012. Located on the city's west side, between Strathmore, Tipp Hill, and the Near Westside, Skunk City is a neighborhood where relatively modest public investments could have an outsized impact on residents' quality of life. Our work within the neighborhood sought to increase neighborhood safety, stabilize property values, encourage new investment, reutilize abandoned properties, and improve pedestrian connectivity within and around the neighborhood. The principal intent of the Skunk City Neighborhood Master Plan is to make strategic and incremental improvements where such actions could have a positive influence on the environmental, economic, and social fabric of the community.

Sackets Harbor Zoning, Sackets Harbor, Jefferson County, NY – Directed the EDR team that was retained along with Joel Russell, Esq. to assist the Village of Sackets Harbor in rewriting their zoning regulations to foster the village's growth with a sensitivity towards its cultural resources and its traditional village core and rural edge. EDR completed a community buildout visualization to assist villagers envision its future growth under the then-existing zoning regulations. The potential loss of natural and cultural resources prompted the village to undertake the development of a new hybrid zoning code that applies a form-based structure. The new zoning law provides development regulations that address site layout, architectural treatments, and landscape standards that preserve the natural resources within the community. The new zoning law utilizes graphics and tables to provide clarity and improve readability.

Carrier Dome Rainwater Harvesting, Syracuse, NY – Directed the EDR team that designed and developed interpretive materials. In the spirit of the Onondaga County Save the Rain program and with the goal of increasing its sustainable practices, Syracuse University embraced the concept of capturing and using the rainwater that falls on the roof of the Carrier Dome. With the Rainwater Harvesting System enough water is captured to flush half the Dome's toilets and urinals during major Dome events. The Rain Water Harvesting System consists of two exterior 25,000-gallon storage tanks, and two interior 4,500 gallon tanks that will hold rainwater captured from approximately one third of the Carrier Dome's roof. Teamed with a local engineering firm, and two Syracuse University graphic design students, EDR facilitated several design workshops with students and faculty to design, select, and develop a logo for the Carrier Dome Rain Harvesting System as well as wall murals and a 3D model/video. EDR facilitated the design of interior



interpretive wall murals, exterior signage, and an interpretive video about the rainwater harvesting process as well benefits derived from using such a system.

Oswego Brownfield Opportunity Area Program, Oswego County, NY - Directed the team that provided planning and design services to identify what is needed to achieve a coherent and integrated urban development program that preserves and protects the best of what exists, and incorporates new development in a compatible manner. The design will build on existing infrastructure, incorporate existing historic fabric where appropriate, and identify appropriate patterns and forms for new development. EDR has also been charged with identifying what is necessary to create a memorable place through development of an urban design concept that incorporates a clear organization of sites, streets and open space. (2010-2012)

Finger Lakes Sustainability Plan - Directed the team charged with development of indicators of sustainability in the agricultural and forestry sectors of a 9-county region in Western New York. Facilitated outreach initiatives and analyzed strategies and targets for sustainable development.

Comprehensive Plan Update, Town of Canandaigua, NY - Directed the team that researched existing conditions, and analyzed economic and demographic changes over time. Worked with local advisory committee to craft goals and recommended actions for plan implementation. Managed team that development of Natural Resources Inventory for examination of development proposals by local Environmental Conservation Board.

Zoning Amendments - Directed the team that researched local land use patterns and development trends, and identification of options for land protection and development strategies. Worked with Town staff and board members to shape improve existing conservation subdivision ordinance

Niagara Falls Underground Railroad Heritage Area Management Plan (HAMP), City of Niagara Falls, NY - Directed the team that researched existing economic and demographic conditions within Niagara County. Managed team that researched history of Underground Railroad that helped shape management strategies. The HAMP was authorized under Section 35.05 of the New York State Parks, Recreation, and Historic Preservation Law to identify and encourage heritage tourism opportunities related to Underground Railroad in the vicinity of Niagara Falls District.

Syracuse Metropolitan Transportation Council & Town of Clay, NY - Three Rivers Point Waterfront Access Study - Directed the team that provided planning and design services to determine best use for 75 acres of prime waterfront land located at the intersection of the Oswego, Seneca and Oneida Rivers. The property is an abandoned oil transfer station. In Phase 1, a conceptual master plan was developed to depict a mixed-use development. The plan also recommended public space and access to the water, along with a sensitive approach to the historic and cultural values of the Town and the site. As a result, the Town received funding to mitigate the Brownfield and demolish deteriorated buildings to make the site more attractive to investment.

Agricultural and Farmland Protection Plan, Tioga County, NY - Directed the EDR team that collaborated with Tioga County in the development of their Agriculture and Farmland Protection Plan. We designed and facilitated a community outreach plan with the goal of engaging local farmers, agricultural producers, and stakeholders in the local agricultural business. EDR developed, facilitated, and analyzed a SWOT (Strengths, Weaknesses, Opportunities, and Threats) exercise with farmers throughout the county, focusing on alternative energy opportunities, commerce and marketing, and public policy. With the community's direct input, and through targeted analysis, our findings and recommendations touched upon local land use regulations, regional policies in support of agricultural producers and businesses, marketing, economic development, and implementation procedures for the Agricultural and Farmland Protection Plan.

## publications / presentations

Presenter, Onondaga County Planning Federation, McIntyre Commons: A Case Study in Brownfield Redevelopment, Community Character, and Environmental Integrity, March 5, 2015

Presenter, Onondaga County Planning Federation, Form-Based Zoning: A Creative Approach, March 13, 2014

Presenter, Onondaga County Planning Federation, Sustainable Land Use Planning & Resource Conservation Strategies, March 14, 2013

Panelist, GreeningUSA Green Bag Lunch Series, Sustainable Land Use Planning & Resource Conservation Strategies, 2013.

Presenter, Sustainable Community Planning, APA/ASLA Upstate NY Chapters Joint-Conference, Utica NY, September 2011.

Presenter, Land Use Planning Workshop, The Benefits of Sustainable Community Planning & Design, Jefferson Community College Center for Community Studies, 2011.

Land Use Training Workshop for Herkimer-Oneida Counties, Herkimer-Oneida Counties Comprehensive Planning Program, 2010.



Land Use Planning Workshop for Jefferson County, 2009.

Annual Planning Symposium for the Onondaga County Planning Federation, Syracuse, NY, 2008 and 2009.

Case No. 15-F-0122 Troy

## STATE OF NEW YORK PUBLIC SERVICE COMMISSION

Application of Baron Winds LLC for a Certificate under Article 10 of the Public Service Law

Case No. 15-F-0122

PRE-FILED TESTIMONY OF

DANIEL J. TROY, P.E.

SENIOR PROJECT MANAGER

GZA GEOENVIRONMENTAL OF NEW YORK

535 WASHINGTON STREET, 11<sup>TH</sup> FL.

BUFFALO, NEW YORK, 14203

Case No. 15-F-0122 Troy

1	Q:	Please state your name, employer, and business address.	
2	A:	Daniel J. Troy, GZA GeoEnvironmental of New York, 535 Washington Street, 11th Floor, Buffalo,	
3		New York 14203.	
4	Q:	What is your position at GZA GeoEnvironmental of New York?	
5	A:	Senior Project Engineer.	
6	Q:	How long have you been employed with GZA GeoEnvironmental of New York?	
7	A:	Approximately 20 Years.	
8	Q:	Please describe your educational background and professional experience.	
9	A:	B.A., Geological Sciences from SUNY at Buffalo, 1986; B.S., Civil Engineering from University of	
10		Utah, 1995; Professional Engineer in New York State, 2003; LEED AP, 2008. My resume is	
11		attached.	
12	Q:	Please describe your current responsibilities with GZA GeoEnvironmental of New York.	
13	A:	General responsibilities as a senior project manager include completion and supervision of field	
14		and technical activities, data analysis interpretation, report and design preparation, and client and	
15		regulatory agency contact and coordination.	
16	Q:	Have you previously testified before the New York State Public Service Commission or	
17		Siting Board on Electric Generation?	
18	A:	I recently provided pre-filed testimony in the matter of Cassadaga Wind LLC Application for a	
19		Certificate of Environmental Compatibility and Public Need Pursuant to Article 10 to Construct a	
20		126 MW Wind Energy Project; Case No. 14-F-0490.	
21	Q:	Have you previously served as an expert witness before any other court, agency, or other	
22		body on the subject you plan to offer testimony on today?	
23	A:	No.	
24	Q:	What is the purpose and scope of your testimony in this proceeding?	

Case No. 15-F-0122 Troy

25	A:	To sponsor certain portions of the Baron Winds Project Application or the Exhibits thereto.		
26	Q:	What portion(s) of the Application is your testimony sponsoring?		
27	A:	Exhibit 21: Geology, Seismology and Soils. GeoEnvironmental of New York (GZA) conducted a		
28		Preliminary Geotechnical Assessment, for the Cassadaga Wind Project to assess general		
29		constructability of the proposed Facility from a geological standpoint.		
30	Q:	Were these Exhibits, Application sections, or studies prepared by you or under your		
31		direction and supervision?		
32	A:	Yes.		
33	Q:	In your testimony, will you refer to, or otherwise rely upon, any studies, publications, data		
34		or documents produced by persons other than yourself/your company? If so, please cite		
35		these sources. [These are independent studies, etc.]		
36	A:	References are included in Exhibit 21 and in GZA's report.		
37	Q:	Does this conclude your testimony?		
38	A:	Yes.		

### **RESUME**





#### Education

B.S., 1995, Civil Engineering, University of Utah

B.A., 1986, Geology, State University of New York at Buffalo

#### Registrations & Certificates

Professional Engineer – 2003, New York, #081139 LEED® AP – 2008 Certified Energy Auditor-In-Training –

2012, Association of Energy Engineers®

#### Areas of Specialization

- Property Condition Assessments
- Environmental Site Assessments
- Remedial Investigation/Feasibility Studies
- Landfill Design / Construction Management
- Geotechnical Engineering/Investigations
- CQA/CQC Management, Monitoring and Testing

## Daniel J. Troy, P.E., LEED® AP

Senior Project Manager

## **Summary of Experience**

Mr. Troy has over 20 years of professional experience in conducting a variety of projects including environmental and geotechnical studies, solid waste design and construction oversight, and Level I property condition assessments (PCAs) for both private and public clients. Clients include industry, commercial, governmental and municipal agencies, developers, financial institutions, and architecture/engineering firms. Environmental project work has included conducting and managing Phase I and Phase II Environmental Site Assessments (ESA), Preliminary Site Assessments (PSA), Interim Remedial Measures (IRM), Remedial Investigations / Feasibility Studies (RI/FS) and remedial design, monitoring and implementation. Solid waste and geotechnical work included solid waste management facility engineering and design, construction management, and construction quality assurance / quality control (QA/QC) management, monitoring and testing, footer and foundation assessment and design and slope stability analysis. PCA project work has included managing and conducting PCAs on a variety of facilities including historic residential dwellings, apartment buildings, schools, high rise office buildings and commercial/industrial facilities. Responsibilities as a senior project manager include completion and supervision of field and technical activities, staffing, data analysis interpretation, report and design preparation, and client and regulatory agency contact and coordination.

#### RELEVANT PROJECT EXPERIENCE

#### GEOTECHNICAL ENGINEERING PROJECTS:

- Completed geotechnical evaluations for proposed large-scale wind turbine projects located in Erie, Herkimer, Steuben, Cattaraugus and Allegany counties in New York State and in Krayne, Pennsylvania, including desk top studies and geotechnical investigation drilling (including soil/rock testing). Geotechnical reporting included recommendations for shallow and deep turbine foundations and construction recommendations including requirements for excavation, dewatering, access roads, buried transmission lines and construction lay down areas.
- **Embankment evaluation and recommendations report** prepared for a fly ash settling pond owned by a **western New York** coal fired power plant. Evaluation included completion of soil borings and testing and topographic survey of subject area, sample data interpretation and utilization of PCSTABL slope stability program.
- Project manager for numerous geotechnical investigations for public and private
  utility companies, including an electrical distribution company, ethanol
  manufacturing plant, coal and natural gas fired power plants, hydroelectric and
  wind power generation companies. Investigations included subsurface evaluations
  (soil borings, test pits, electrical and thermal resistivity testing) for new facility
  construction, equipment expansion, existing structural evaluation and
  embankment evaluations.



## Daniel J. Troy, P.E., LEED® AP

Senior Project Manager

## SOLID WASTE ENGINEERING AND CONSTRUCTION MANAGEMENT PROJECTS:

- Assisted a local coal fired power plant at two of their facilities to verify the specific facilities Coal Combustion Residual (CCR) units are in compliance with the newly issued United States Environmental Protection Agencies Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule, as presented in the Federal Register Volume 80 No 74 dated April 17, 2015. Mr. Troy has been completing specific CCR rule tasks for both facilities including Weekly, Monthly and Annual Inspections for CCR Surface Impoundments; Weekly and Annual Inspections of CCR Landfills; Preparation of fugitive dust control plans for qualifying CCR landfills and plants; and provided the required annual professional opinion on compliance of surface impoundments.
- Mr. Troy was the construction contractors Quality Control Manager for the Fresh Kills Landfill Section 6/7 closure located in Staten Island, NY from May 2007 through January 2008. Responsibilities included general oversight and documentation of contractor's construction activities and for an approximate 75 acres landfill closure cap and landfill gas extraction system in accordance with 6 NYCRR Part 360 guidelines for solid waste management facilities. Additional responsibilities included observations for compliance with Site SWPPP and coordination with NYSDEC and New York City Department of Sanitation and their consulting engineers.
- Landfill construction QA/QC oversight of various cell and closure cap constructions projects located in New York, Tennessee and Puerto Rico that include geomembrane liner installation, leachate and landfill gas recovery pipe installations and monitoring and documentation of field and laboratory material testing as outlined in project specific QA/QC plans, construction specifications and Sitespecific permits.
- Completed a Hazardous Waste Material Assessment for a closed Niagara County Landfill that was in operation from 1968 to 1987. Assessment included document review of available files from the landfill and the NYSDEC, preparation of investigation work plans, coordinated test pit excavations and completed visual observations, waste screening, and sample collection for analytical testing and © 2017 GZA GeoEnvironmental, Inc.

- characterization. Prepared final report summarizing the findings of the landfill assessment for submission to the NYSDEC.
- Construction Quality Assurance for various commercial, municipal and industrial facilities to observe and document construction activities and to verify that work was being done in accordance with design specifications and permits. Oversight included field testing, sampling and reporting of subsurface soil, structural stone and concrete materials during construction activities.
- Project manager for quarterly and semi-annual groundwater monitoring programs in accordance with 6 NYCRR Part 360 guidelines for solid waste management facilities for several municipal landfills located in western New York. Work includes management of field staff, coordination with clients, laboratories, third party validation and NYSDEC and data evaluation and report preparation.

#### **ENVIRONMENTAL PROJECTS:**

Preparation and management of Remedial Investigation / Remedial Alternatives Report (RI/RAR) for Environmental Restoration Program (ERP) in accordance with NYSDEC regulations and requirements for a commercial property contaminated with trichloroethylene (TCE) in Endicott, New York. Project included preparation of work plans, scope of work, coordination of field work and subcontractors. Additionally, designed, coordinated and managed remedial activities included an IRM and installation of on-Site and off-Site sub-slab depressurization systems (SSDS) to address properties impacted with soil vapor migration. Prepared and submitted RI/RAR report that evaluated several remedial options for on-Site and off-Site TCE contaminated soil and groundwater. Based on NYSDEC Record of Decision (ROD), designed and implemented chosen remedial options including enhanced anaerobic bioremediation applications and SSDS O&M oversight.

Completed 100+ Phase I/II Environmental Assessments (ESAs) for private, commercial, industrial, public and governmental clients in various states including New York, Ohio, Pennsylvania, Kansas, Missouri, Mississippi, Florida, Michigan and Ontario, Canada. Work done in general accordance with ASTM guidelines. Sites included natural gas and electric transmission lines, vacant land, residential, recreational, commercial and industrial properties.

#### **RESUME**



## Daniel J. Troy, P.E., LEED® AP

Senior Project Manager

- Assisted in the preparation of three remedial investigation/feasibility studies (RI/FS) reports for NYSDEC under a Superfund Standby Contract. Developed and evaluated the feasibility of remedial alternatives to address varying contaminants including chlorinated solvent, metals and petroleum products in soil and groundwater.
- Managed numerous petroleum underground storage tank (UST) investigations, closures and remedial activities for commercial and industrial facilities. Tasks include evaluation and management of potential generated hazardous wastes and the work was done in accordance with specific state requirements, permits and client procedures. Several required projects required coordination and oversight for impacted soil excavation and disposal at permitted waste disposal facilities as well as coordination with respective NYSDEC / NYSDOH / Municipality program managers.

# PROPERTY CONDITION ASSESSMENTS (PCAS) PROJECTS:

Project manager for PCAs completed at commercial properties (primarily distribution and manufacturing facilities) at locations in Texas, Pennsylvania, Wisconsin and Florida. Property portfolios assessed typically included total square footage exceeding 3.5 million and evaluations included assessment of site property, structure, roofing, HVAC, plumbing, interior finishes, electrical, fire and safety and ADA issues. Capital cost estimates for deferred maintenance and costs for deficient components were estimated based on published values (i.e., RS Means), contractor quotes and engineering judgment for the identified components.

Elementary Public Schools, Springfield, Massachusetts (Evaluation for Owner). Project manager for completion of PCAs at two elementary school buildings located in the Springfield MA. School district. The schools ranged in size from about 54,000 sf to 71,400 sf with respective ages of 1898 to 1962. The PCA report included cost estimates for deferred maintenance (immediate needs) and capital costs over a ten-year period in general accordance with ASTM E 2018-08. Cost estimates were typically based on unit rates from RS Means Facilities and Maintenance and Repair Costs Data publication among other resources.

- Property Condition Assessments, Confidential Client (Evaluation for Owner). GZA performed over 100 Property Condition Assessments throughout the northeast, southern, and central United States to assess varying structures typically ranging from 20 to 30 plus years old and assessed at \$5 million or greater. Property uses were widely varied consisting of retail stores, administrative offices, warehouse/delivery facilities, day cares and dining halls. The purpose of the work was to observe and document readily visible material and building system defects, which might significantly affect the value of the property; and evaluate if conditions exist, which could result in possible insurance or risk-based claims. The work conducted was based on an abbreviated version of typical ASTM E 2018-08 standards for PCAs with the primary focus being on roofing, plumbing and electrical systems to develop budgets for identified insurance and risk issues associated with these particular systems. Additionally, our work included an evaluation of the condition of site development features, building structures, building interiors, mechanical systems, and life safety/fire protection systems to provide information associated with the condition of these systems to assist management with longer term capital requirements/planning.
- Multi-Story Office Buildings, Georgia, Minnesota, Texas, Colorado (Acquisition Evaluation). Project manager for completion of PCAs at several multistory class A commercial office buildings for Franklin Street Properties at various locations. Buildings ranged from 13 to 43 stories and typically included adjacent or underground concrete parking garage structures. Assessments included evaluation of roofs, interiors, elevators, mechanical, plumbing and fire and life safety equipment. Additionally, report findings included an interview with current maintenance engineers, review of available maintenance documents, recent repairs equipment testing reports done within the past 5 years. Reports include a cost table for deferred maintenance as well as a 10-year capital cost assessment.

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Case No. 15-F-0122 Wilmore

## STATE OF NEW YORK PUBLIC SERVICE COMMISSION

Application of Baron Winds LLC for a Certificate under Article 10 of the Public Service Law

Case No. 15-F-0122

## PRE-FILED TESTIMONY OF:

SETH WILMORE

ASSOCIATE DIRECTOR, ENVIRONMENTAL AFFAIRS

EVERPOWER WIND HOLDINGS, INC.

1251 WATERFRONT PLACE

PITTSBURGH, PENNSYLVANIA 15222

Case No. 15-F-0122 Wilmore

1	Q:	Please state your name, employer, and business address.	
2	A:	Seth Wilmore, EverPower Wind Holdings, 1251 Waterfront Pl., Pittsburgh, PA 15222	
3	Q:	What is your position at EverPower?	
4	A:	Associate Director of Environmental Affairs.	
5	Q:	How long have you been employed with EverPower?	
6	A:	I have been employed with EverPower since 2011.	
7	Q:	Please describe your educational background and professional experience.	
8	A:	I have a Bachelor of Science in Environmental Science from Allegheny College and a Master of	
9		Science in Environmental Science and Policy from George Mason University. I have over 7 years	
10		experience in the wind energy industry and over 10 years' experience in environmental and	
11		permitting fields. Please see attached for my CV.	
12	Q:	Please describe your current responsibilities with EDR.	
13	A:	I am responsible for management of environmental studies and permitting activities during wind	
14		project development activities. In addition, I am responsible for permit compliance during wind	
15		project construction and operation.	
16	Q:	Have you previously testified before the New York State Public Service Commission of	
17		Siting Board on Electric Generation?	
18	A:	I recently provided written and oral testimony in the matter of Cassadaga Wind LLC Application fo	
19		a Certificate of Environmental Compatibility and Public Need Pursuant to Article 10 to Construct a	
20		126 MW Wind Energy Project; Case No. 14-F-0490.	
21	Q:	Have you previously served as an expert witness before any other court, agency, or other	
22		body on the subject you plan to offer testimony on today?	
23	A:	No.	

Case No. 15-F-0122 Wilmore

24	Q:	What is the purpose and scope of your testimony in this proceeding?	
25	A:	To sponsor certain portions of the Baron Winds Project Application or the Exhibits thereto.	
26	Q:	What portion(s) of the Application is your testimony sponsoring?	
27	A:	Exhibit 1: General Requirements, Exhibit 2: Overview and Public Involvement, Exhibit 6: Wind	
28		Power Facilities, Exhibit 9: Alternatives, Exhibit 10: Consistency with Energy Planning Objectives	
29		Exhibit 12: Construction, Exhibit 13: Real Property, Exhibit 14: Cost of Facilities, Exhibit 15: Public	
30		Health and Safety, Exhibit 18: Safety and Security, Exhibit 26: Effect of Communication, Exhibit 29	
31		Site Restoration and Decommissioning, Exhibit 31: Local Laws and Ordinances, Exhibit 32: State	
32		Laws and Regulations, Exhibit 33: Other Applications and Filings, Exhibit 38: Water	
33		Interconnection, Exhibit 39: Wastewater Interconnection, Exhibit 40: Telecommunications	
34		Interconnection	
35	Q:	Were these Exhibits, Application sections, or studies prepared by you or under you	
36		direction and supervision?	
37	A:	Yes.	
38	Q:	In your testimony, will you refer to, or otherwise rely upon, any studies, publications, data	
39		or documents produced by persons other than yourself/your company? If so, please cite	
40		these sources. [These are independent studies, etc.]	
41	A:	References are provided in the corresponding Exhibits and Reports.	
42	Q:	Does this conclude your testimony?	

Yes.

A:

43

## **SETH B. WILMORE**

299 Commons Drive Oakmont, PA 15139 440-212-2167 seth\_wilmore@yahoo.com

## **EDUCATION**

**George Mason University**, Fairfax, VA M.S. in Environmental Science and Policy, Graduate Certificate in Nonprofit Management

**Allegheny College**, Meadville, PA B.S. in Environmental Science (cum laude),

### PROFESSIONAL EXPERIENCE

**Associate Director, Environmental Affairs**, EverPower Wind Holdings, Inc., Pittsburgh, PA January 2011 – Current

Manages environmental studies and permitting processes for 2,000 MW wind development portfolio focused in the mid-Atlantic region. Successfully obtained and ensures compliance with all permits and environmental management plans during construction and operation for over 750 MW of constructed and operational wind projects in PA, NY, IL and CA. Conducts environmental and permitting due diligence for successful acquisition of over 300 MW of wind energy assets. Organizes and leads meetings and coordination with federal, state and local siting and wildlife agencies including PA, MD, NY, OH. Assisted in management and development of the first Incidental Take Permit obtained for federally endangered Indiana bat. Writes environmental and permitting bid documents in support of RFPs and Bird and Bat Conservation Plans. Implements state of the art best management practices for minimizing wildlife impacts due to wind turbine construction and operation. Represents EverPower and wind business interests in trade and wildlife groups. Project Manager for 100 MW wind development project acquisition and, following successful acquisition, led project management for additional potential acquisition opportunities.

**Project Manager,** Virginia DEQ Water Protection Permits Program, Virginia Beach, VA April 2010 – December 2010

Managed and reviewed submitted development project applications requesting impacts to wetlands and waters of Virginia. Worked with developers to avoid and minimize impacts to wetlands and waters including isolated wetlands. Wrote complex permits for wetlands and waters impacts. Performed site inspections and ensured compliance with all state wetlands and waters regulations. Performed isolated wetland delineation confirmations. Coordinated and communicated with a wide variety of stakeholders including developers, consultants, localities, federal agencies, and public citizens.

**Volunteer Land Protection Assistant and Wildland Fire Fighter,** The Nature Conservancy, Richmond, VA Oct 2009 – March 2010

Assisted land protection manager with annual report data analysis, map-making, and organization, GIS wetland and stream site assessments, easement property analysis, and writing project summaries. Performed fieldwork at wetland and stream mitigation sites including hydrology analysis, preserve monitoring, and macro-invertebrate surveys. Obtained Fire Fighter Type II certification for prescribed burning and participated in fire line preparation and prescribed burns in support of habitat restoration for federally endangered red-cockaded woodpecker.

Manager, Environmental and Permitting, Generation Energy, Inc., Sterling, VA Dec 2007-August 2009

Managed environmental studies and agency relationships for 1,000 MW wind development portfolio. Supervised NEPA Environmental Assessment and all third party contractors for 120-MW wind farm. Gave presentations and worked with landowners and public agency officials to responsibly develop projects. Developed and wrote corporate-level environmental policies, procedures and timelines to guide in the development of wind farms. Experience with managing and/or conducting the following environmental studies:

T&E species analysis, avian point counts, raptor nest surveys, wetlands reconnaissance and delineations, cultural resource surveys and Phase I Environmental Site Assessments. Operated GIS and wind resource assessment software to create turbine layouts and energy yield.

**Geographic Information Systems Analyst, Science Applications International Corporation, Chantilly, VA Mar 2007- May 2008** 

Performed analysis and used advanced ArcGIS 9.x tools to edit LIDAR GIS data in support of DOD contracts. Helped manage and QA/QC all phases of editing process to consistently deliver projects on schedule. Obtained Inactive Department of Defense Secret Clearance

## Engineering and Scientific Intern, Presque Isle State Park, Erie, PA

Summer 2005, 2006

Responsible for conducting and reporting the results of water quality testing on park public beaches. Controlled invasive species including phragmites, purple loosestrife, narrow-leafed cattail, hairy willow, japanese knotweed, and bush honeysuckle. Completed dune habitat restoration. Performed shorebird monitoring and assisted park naturalists with environmental programs.

**Teaching Assistant,** GIS Laboratory, Allegheny College, Meadville, PA Jan 2003-May 2006

Assisted lab manager with planning and grading of student GIS courses. Worked with environmental science professors to perform with GIS aspects of their research such as map creation and data analysis. Maintained, updated, and built GIS data library for student/professor use.

Research Assistant, Environmental Science Dept., Allegheny College, Meadville, PA Nov 2003-Aug 2004

Conducted Lyme disease habitat characterization study. Performed remote sensing analysis of satellite imagery and field work ground-truthing at Hopland, CA

#### Summer 2004

Conducted lead exposure study of low-income children in rural Northwestern PA. Conducted surveys and collected lead samples for lab analysis

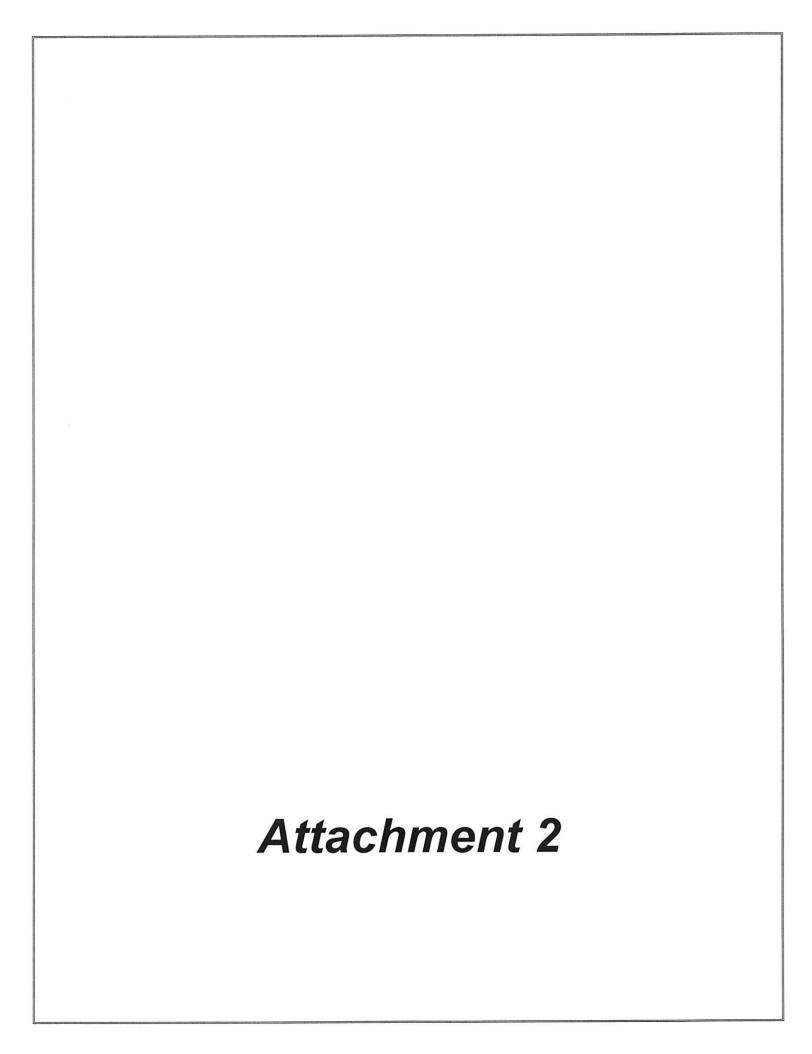
## **SKILLS & PROFESSIONAL CERTIFICATIONS**

#### **Proficiencies:**

Microsoft Office: Word, Excel, Powerpoint, Outlook, Project and Access; ArcGIS 9.x, ArcIMS, ERDAS Remote Sensing Software; Trimble GPS, DeLorme XMap;

#### Certifications:

Fire Fighter Type II – National Wildfire Coordinating Group, Virginia Nature Conservancy Chapter Implementation of National Environmental Policy Act – Duke University Introduction, Intermediate, Advanced ESRI ArcGIS classes – Allegheny College Wetland Delineation and Plant ID – Institute for Wetland & Environmental Education & Research Erosion & Sediment Control Inspector – Virginia DCR Candidate – Pittsburgh Leadership Development Initiative



# STATE OF NEW YORK BOARD ON ELECTRIC GENERATION SITING AND THE ENVIRONMENT

Application of Baron Winds LLC, for a Certificate of Environmental Compatibility and Public Need to Construct a Major Electric Generating Facility in the Towns of Cohocton, Dansville, Fremont, and Wayland, New York

CASE NO. 15-F-0122

AFFIDAVIT OF SERVICE

STATE OF NEW YORK

)ss:

COUNTY OF ONONDAGA)

**BEN BRAZELL**, being duly sworn, deposes and says that on the 29th day of November, 2017, he served a copy Baron Winds LLC's Application for a Certificate of Environmental Compatibility and Public Need to Construct an Approximately 300 Megawatt Wind Electric Generating Facility in the Towns of Cohocton, Dansville, Fremont and Wayland, New York, with exhibits and appendices thereto, by hand delivering and mailing a true hard copy and/or digital copy, or copies, thereof via UPS delivery, upon the recipients identified in the attached list.

Sworn to me before me this 28th day of November, 2017

Notary Public

MARY E. VANELLI
Notary Public - State of New York
No. 01VA6197320
Qualified in Madison County
My Commission Expires November 24, 2020

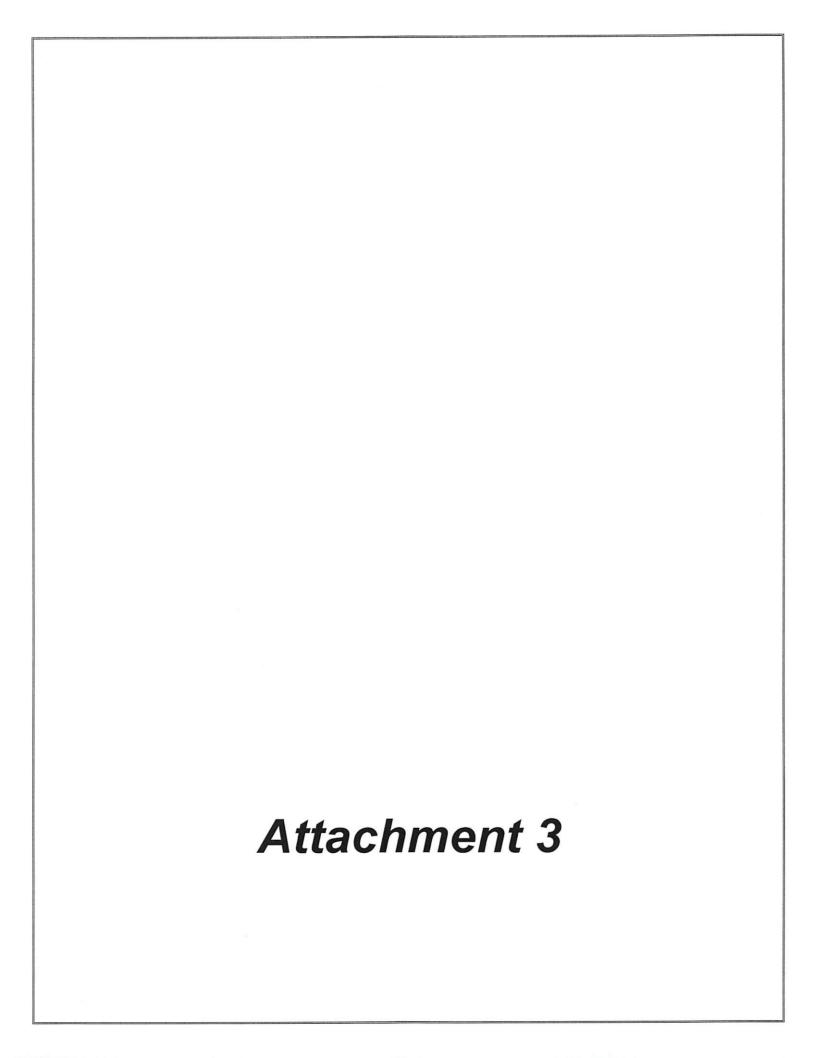
ADDRESSEE	SERVICE COPIES
Secretary to the Commission Hon. Kathleen H. Burgess Secretary to the Commission New York State Public Service Commission Empire State Plaza Agency Building 3 Albany, NY 12223-1350 Email: secretary@dps.ny.gov	10 full paper copies
James Denn Public Information Coordinator NYS Department of Public Service 3 Empire State Plaza Albany, NY 12223	1 CD of entire application
Basil Seggos, Commissioner NYS Department of Environmental Conservation ATTN: Lawrence H. Weintraub, Esq. Office of General Counsel 625 Broadway Albany, NY 12233	1 CD of entire application
Basil Seggos, Commissioner NYS Department of Environmental Conservation ATTN: Michael Higgins Division of Environmental Permits 625 Broadway Albany, NY 12233	1 abridged paper copy with CD of the rest of the application; 4 CDs of entire application; and 1 paper only of Exhibit 22.
Paul D'Amato, Regional Director NYS Department of Environmental Conservation Region 8 ATTN: Scott Jones 6274 Avon-Lima Road Avon, NY 14414-9516	1 abridged paper copy with CD of the rest of the application; 1 CD with the entire application; and 1 paper copy of appendix H, I, J, M, N and Exhibits 21, 22

Maria Villa, Administrative Law Judge Office of Hearings and Mediation Services NYS Department of Environmental Conservation 625 Broadway, First Floor Albany, New York 12233-1550	1 abridged paper copy with CD of the rest of the application
Howard A. Zucker, Commissioner NYS Department of Health ATTN: Henry M. Spliethoff, Research Scientist New York State Department of Health Empire State Plaza - Corning Tower, Rm 1743 Albany, NY 12237	1 full paper copy of all exhibits; 1 CD with entire application; 1 full paper copy of the visual impact assessment appendices; pre-and post-construction noise monitoring (App Z, App AA); preliminary design drawings and figures (App M); and water well data (App DDD).
Richard Kauffman, Chair NYSERDA ATTN: Peter Keane, Deputy General Counsel NYSERDA 17 Columbia Circle Albany, NY 12203	1 abridged paper copy; and 1 CD of entire application
John Williams Director, Energy Analysis at NYSERDA NYSERDA 17 Columbia Circle Albany, NY 12203	1 abridged paper copy; and 1 CD of entire application
Howard Zemsky, Commissioner ATTN: Vincent Ravaschiere Senior Vice President, Energy and Incentives Empire State Development 633 Third Avenue New York, NY 10017	1 CD of entire application

Richard Ball, Commissioner ATTN: Tara Wells NYS Department of Agriculture and Markets	1 CD of entire application
10B Airline Drive	
Albany, NY 12235	
Michael J. Saviola, MPS	1 CD of entire application
New York State Department of Agriculture & Markets	1 CD of entire application
Division of Land & Water Resources	
1530 Jefferson Road	
Rochester, NY 14623	
December December Asting Conventions of Chat-	
Rossana Rosado, Acting Secretary of State NYS Department of State	1 CD of entire application
ATTN: Erin Hogan	
Director, Utility Intervention Unit	
99 Washington Avenue	
Suite 640	
Albany, NY 12231	
Eric T. Schneiderman	1 CD of entire application
Office of the Attorney General	1 cb of chare application
ATTN: Lisa M. Burianek	
The Capitol	
Albany, NY 12224-0341	
Matthew Drices I Commission	1 Fleeb Duite of autimo amplication
Matthew Driscoll, Commissioner NYS Department of Transportation	1 Flash Drive of entire application
ATTN: Scott B. Prividera	
50 Wolf Road, 6th Floor	
Albany, NY 12232	

Rose Harvey, Commissioner NYS Office of Parks, Recreation, and Historic Preservation ATTN: Diana Carter 625 Broadway Albany, NY 12207	1 CD of entire application
Rose Harvey, Commissioner NYS Office of Parks, Recreation, and Historic Preservation ATTN: John Bonafide Director, Technical Preservation Services Bureau Division for Historic Preservation Peebles Island State Park P.O. Box 189 Waterford, NY 12188-0189	1 CD of entire application
Steuben County Manager Jack Wheeler, County Manager 3 East Pulteney Square Bath, NY 14810	1 CD of entire application
Daniel Tom Johnson, Supervisor Town of Cohocton 19 Main Street PO Box 200 Atlanta, NY 14808	1 abridged copy with CD of rest of application
Michael D. Willis, Supervisor Town of Dansville 1487 Day Road Arkport, NY 14807	1 abridged copy with CD of rest of application
Robert Osborn, Supervisor Town of Fremont 8562 County Route 46 Arkport, NY 14807	1 abridged copy with CD of rest of application

George W. Ott, Supervisor Town of Wayland 110 N. Main Street Wayland, NY 14572	1 abridged copy with CD of rest of application
Cohocton Public Library 8 Maple Ave. Cohocton, NY	1 full paper copy
Hornell Public Library 64 Genesee St. Hornell, NY	1 full paper copy
Howard Public Library 3607 County Route 70A Hornell, NY 14843	1 full paper copy



# The Tribune

## **ADVERTISING AFFIDAVIT**

I, Beth Ann Hults, Advertising representative for The The Evening Tribune, a public newspaper, published and printed weekly in Hornell, NY by Gatehouse Media, Inc., attest that advertisements for: Baron Winds Energy Facility was published in said newspaper on the following date:

11/16/2017

Hereby subscribed and sworn to before me on this $\underline{16^{th}}$ day of $\underline{November}$ , 20 $\underline{17}$ .
Sugne Kesel  Notary Public
SUZANNE R. KESEL

My Commission Expires on:

Notary Public, State of New York
Reg. No. 01KE6357409
Qualified in Steuben County
Commission Expires 4/17/2021

#### St. James Mercy Hospital.

Visiting: 11 a.m.-2 p.m. and 4-8 p.m. Admitted: William Laubert, Hornell Discharged: Patricia Burleson, Hornell Norman Pike, Hornell Mary Timmermans, Hornell

#### Ira Davenport Memorial Hospital, Bath Visiting: 1-8:30 p.m.

Noves Memorial Hospital, Dansville Visiting: 11 a.m.-8 p.m.

## Jones Memorial Hospital,

Visiting: 11 a.m.-2 p.m. and 4-8 p.m.

#### Births

A daughter, Adeline Gina Billings, was born Monday, Nov. 13, 2017 to John and Shannon Billings of Alfred at Jones Memorial Hospital in

# Man griping about job drags down girlfriend



DEAR ABBY: I have been dating my boyfriend for three years. We have lived together years. We have lived together for the last two. We have a great life together, but there is a problem I don't know how to solve. "Jeremy" hates his job. We met in the education

department of our college, and after graduation, we both took jobs in the public school system. I enjoy my career, but he loathes his. He complains constantly without seeming to take action on the issue. I know he's miserable, but he hasn't looked for other jobs or enrolled in a new school program.

I have bad days, too, but I've

reached the end of listening to the constant griping. I amusually apositive person, but he is drag-ging my mood down because of this. He says I need to guide him and give him some direction, but and give him some direction, but Idon't know what to say. Idon't think it's my responsibility to tell another adult what he should or shouldn't do with his life. I don't mind helping him talk through his choices, but he wants more

This is the man I want to marry. Is there a way to get past this issue and make it work? — UNCERTAIN AND LOST

DEAR UNCERTAIN: Until your boyfriend has settled this boyfriend has settled this uncertainty about his work life, any discussion about marriage should be put on hold. I agree you are not qualified to give him career advice. However, you might ask him to tell you what exactly it is that he hates about his job, and what he would rather be doing. His answers may give both of you insight into what he may be better suited for emotionally, and stimulate him to do something positive about his future. Once he has more clarity, there may

DEAR ABBY: We bought our first home seven months ago. We love it, except for one major issue. Our neighbor, who's the same age as I am, is the biggest hypochondriac and laziest person I've ever seen. She was training to be a police officer, but she had a headache

every day, so she got let go last year. Ever since then we have been supporting her (food, Wi-Fi, OTC meds, feminine products). I finally cut her off for about a week until she Facebook-messaged me saying she was starving and hadn't eaten for two days, so I gave in. I gave her a job last week, and she didn't show up the first day. What should I do? It's causing

Dear Abby is written by Abigail Van Buren, also known as Jeanne Phillips, and was founded by her mother, Pauline Phillips. Contact Dear Abby at www.DearAbby. com or P.O. Box 69440, Los Angeles, CA 90069.

arguments between my nus-band and me. I hate to think she's hungry. — TROUBLED IN THE SOUTH DEAR TROUBLED: You are a

kindhearted person, but you are being taken advantage of. If your neighbor has family that can be located, they should be notified that she's unable to care for herself. If no relative is willing to take responsibility for her, contact social services or direct the woman to the nearest food bank or soup kitchen. I suspect her problems are more extensive than headaches and procrastination.

# Baron Winds Energy Facility Steuben County, New York

#### NOTICE OF SUBMISSION OF APPLICATION

Baron Winds LLC (Applicant), a wholly-owned subsidiary of EverPower Wind Holdings, Inc. (EverPower), is proposing to construct a major electric generating facility under Article 10 of the New York Public Service Law (Facility). This notice announces that on or about November tine New York Public Service Law (Pacinity). Into notice amountees that on a robust overwine 29, 2017, the Applicant will file an Application pursuant to 16 NYCRR 1000.6 seeking a Certificate of Environmental Compatibility and Public Need from the New York State Board on Electric Generation Siting and the Environment (Siting Board) authorizing the construction and operation of the Facility under Article 10.

and operation of the Facility under Article 10.

The proposed Facility is an up to 300 megawatt (MW) wind-powered electric generating facility (of up to 76 wind turbines) to be located in the Towns of Cohocton, Dansville, Fremon and Wayland, Steuben County, New York. The Facility will include wind turbines together with the associated collection lines (below grade and overhead), access roads, permanent meteorological towers, laydown areas and an operation and maintenance (O&M) building. To deliver electricity to the New York State power grid, the Applicant proposes to construct a collection substation adjacent to an existing interconnection substation, which will be used to interconnect with New York State Electric and Gas Corporation's 230 kV transmission line in the Town of Cohocton The Facility is proposed to be located on leased private and that is generally rural in nature and will enable farmers and landowners to continue with farming operations or other land uses such as recreational land use.

The Facility will result in the generation of electricity from wind, a renewable energy s The Facility will result in the generation of electricity from wind, a renewable energy source, avoiding harmful emissions and the use of water resources that are typically associated with energy generation. In addition, the Facility assists the State in meeting the goals of the 2015 State Energy Plan, which includes a goal of 50% of energy generation from renewable sources by 2030, and other State policy initiatives consistent with the development of the Facility. Other positive impacts to be discussed in the PSS include employment opportunities, specifically by generating temporary construction employment and full-time jobs, and increased revenues to County and local municipality tax bases, payments to the local hospitality industry, purchase of local supplies and goods, and lease revenues to participating landowners. The Facility is a zero-emission wind energy facility and so will not add to local/regional air pollution problems or global climate change. In addition, the Applicant has attempted to minimize impacts to land zero-emission wind energy facility and so will not and no local/regional air polution protects or global climate change. In addition, the Applicant has attempted to minimize impacts to land associated with the Facility by limiting the disturbance to forested lands and wetlands to the maximum extent practicable. However, the construction and operation of the Facility may have minor environmental impacts including but not limited to: impacts on terrestrial ecology and wetlands, including impacts to avian and bat species, impacts to affected lands, including minor impacts to account of the proper including noise impacts, traffic impacts, and visual impacts to people including noise impacts, traffic impacts, and visual impacts to people including noise impacts, traffic impacts, and

The Applicant intends to submit a request for a Water Quality Certification (WQC) under Section 401 of the federal Clean Water Act. The WQC is necessary to obtain a pennit from the U.S. Army Corps of Engineers for the minor disturbance to federally regulated wetlands Section 40 of the rederal Cacian Ware Act. In Way, is necessary to ontain a perim. The U.S. Army Corps of Engineers for the minor disturbance to federally regulated wetlands required to construct the Facility, Pursuant to the Article 10 process, the Applicant filed a Preliminary Scoping Statement (PSS) on August 11, 2016 with the Sting Board. Thereafter, the public had an opportunity to submit comments on the PSS. Following the comment period, the Applicant prepared a summary of the material comments and its reply to comments was submitted on September 30, 2016. On October 5, 2016 a pre-application conference to consider intervenor funding requests was held and the scoping stipulation process was ordered to commence. The Applicant is now ready to file an Application. This notice is to serve as a summary regarding the contents of the Application. This notice is to serve as a summary regarding the contents of the Application of the Facility, including preliminary design drawings and related information; potential environmental and health impacts from construction and operation of the Facility, environmental, economic and other benefits of the Facility, results from studies conducted (including preconstruction studies to assess potential impacts to avian and bat species), proposed measures to minimize environmental impacts, and reasonable alternatives. The Application also addresses impacts to land use; consistency with State energy planning objectives, including almost change and renewable energy goals; public health and safety; terrestrial cology, water resources and aquatic ecology; communications, transportation and utilities; cultural, historical and impacts on the statewide electrical system. The Article 10 regulations outlining the required impacts on the statewide electrical system. The Article 10 regulations outlining the required contents of the Application can be found at 16 NYCRR 1001.1 et seq.

Once an Application is filed and determined by the Siting Board to be compliant with the Once an Application is filed and determined by the Siting Board to be compliant with the regulations, the Siting Board will schedule a public hearing on the Application. The Siting Board will schedule a public hearing on the Application. The Siting Board will also issue a notice of availability of application intervenor funds that are available to be used by parties to participate in formal review of the Application. A pre-hearing conference will be scheduled by the Hearing Examiner to identify parties and intervenors, award intervenor funds, identify issues for the hearing, and establish a case schedule. Additional hearings regarding the Application and Facility impact assessments will be scheduled by the Hearing Examiner as needed. After hearings, the parties may brief their positions and the Hearing Examiner will issue a recommended decision upon which the Siting Board will base its decision. Article 10 requires that all proceedings on the Application, including a final decision by the Siting Board, must be completed within 12 months of when the Application is determined to be complete. determined to be complete.

Upon filing of the Application, Baron Winds will provide funding in the amount of \$300,000 Upon filing of the Application, Baron Winds will provide funding in the amount of \$300,000 to be disbursed by the Stiring Board to municipalities and other local parties to help pay expenses, including attorneys and consultants, associated with participating in the Article 10 process during the application review phase. Fifty percent (1989) of these intervenor funds are reserved for municipalities. Following the filing of an Application, the Hearing Examiner or the Secretary shall issue a notice of availability of application intervenor funds that provides a schedule and related information describing how interested members of the public may apply for application funds. Requests for application funds must be submitted to the Hearing Examiner within thirty (30) days after the issuance of the notice of the availability of application intervenor funds. Following the submittal of any intervenor funding requests, the Hearing Examiner may schedule a pre-hearing conference to consider fund requests

Examiner may schedule a pre-hearing conference to consider fund requests. The record of this proceeding, including the Application, may be examined during normal business hours at the Offices of the New York State Department of Public Service (DPS) at 3 Empire State Plaza, Albany, NY 12223, and may also be viewed at the following public repositories: Cohocton Public Library, 8 Maple Ave., Cohocton, NY 14826; Hornell Public Library, 64 Genesse St, Hornell, NY 14831, Howard Public Library, 3607 County Route '70A, Hornell, NY 14843. The Application will also be available at the DPS website at (http://www.dps.ny.gov/). To access documents, go to 'Search' on the top of the webpage and search using the Case Number 15-F-0122 or the direct link; lthtp://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx/MatterCaseNo=15-f-01228s/ubmit:essarch-by to-Case-Number) or by going to the project-specific webte maintained by the Applicant: (https://everpower.com/baron-winds-wind-project-steuben-county-ny/).

#### Contact Information

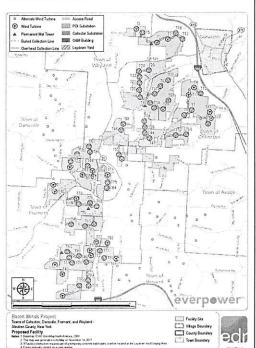
To obtain information regarding the Facility, please contact:

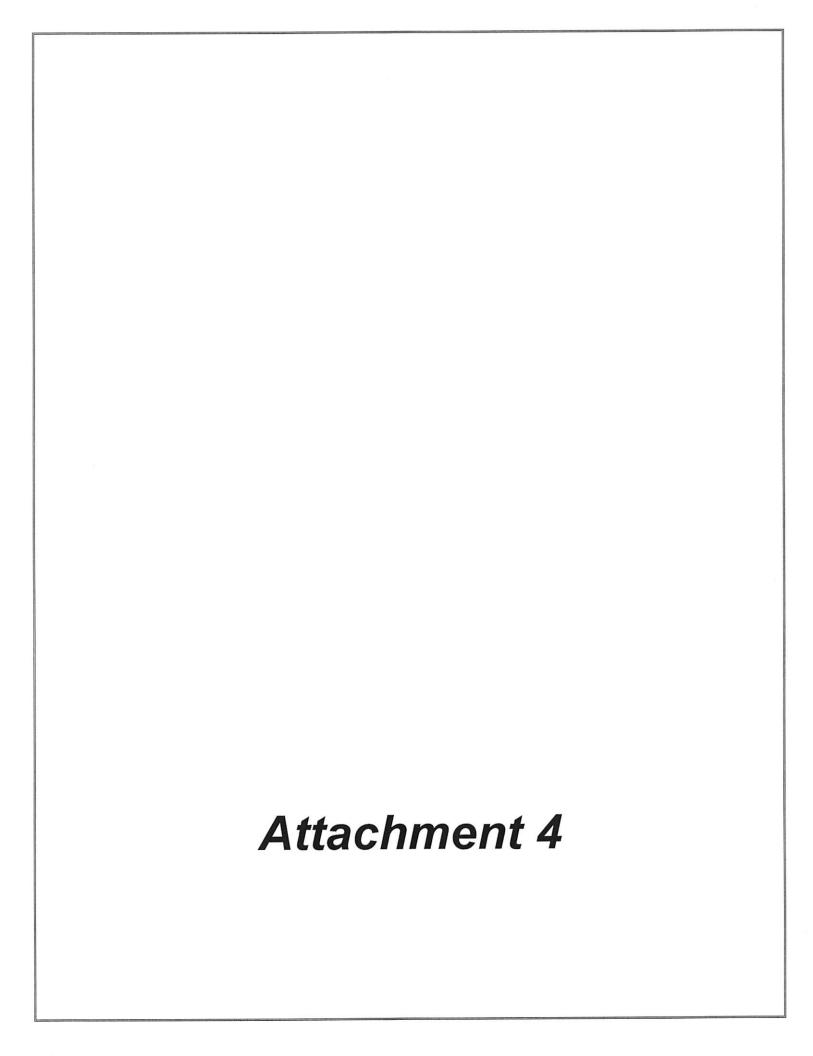
Contact information for Baron Winds:
Seth Willmore
1251 Waterfront Place, 3rd Floor
1251 Waterfront Place, 3rd Floor
Pittsburgh, PA 15222
412-253-9419 (o)
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4 412-578-9757 (f) info@everpower.com james.denn@dps.ny.gov

File a Request for Notices

Any interested member of the public may file a request with the DPS Secretary to receive copies of all notices concerning the Facility. Written requests should be sent to the DPS Secretary at secretary@dps.ny.gov or sent by mail to the following address:

Honorable Kathleen H. Burgess Secretary to the Commission NYS Public Service Commission Empire State Plaza Agency Building 3 Albany, New York 12223-1350





# STATE OF NEW YORK BOARD ON ELECTRIC GENERATION SITING AND THE ENVIRONMENT

Application of Baron Winds LLC, for a Certificate of Environmental Compatibility and Public Need to Construct a Major Electric Generating Facility in the Towns of Cohocton, Dansville, Fremont, and Wayland, New York

CASE NO. 14-F-0122

AFFIDAVIT OF SERVICE

STATE OF NEW YORK )
COUNTY OF ALBANY ) ss.:

**KAYLEIGH J. ROBINSON**, being duly sworn, deposes and says that on the 21<sup>st</sup> day of November, 2017, she served a copy of the Notice of Submission of Application by electronic mail and by mailing a true hard copy via first-class mail, upon the following:

Joseph A. Errigo Assemblymember NYS Assembly District 133 30 Office Park Way Pittsford, NY 14534 errigoj@nysassembly.gov

Thomas F. O'Mara Senator NYS Senate District 58 333 East Water St., Ste. 301

Elmira, NY 14901 omara@nysenate.gov Philip Palmesano
Assemblymember
NYS Assembly District 132
105 East Steuben Street
Bath, NY 14810
palemsanop@nyassembly.gov

A copy of the correspondence and Notice are attached hereto.

KAYLEIGH J. KØBINSON

Sworn to me before me this 21st day of November, 2017

Notary Public

TRACY J. POOLE
Notary Public, State of New York
No. 01PO6036309
Qualified in Albany County
Commission Expires Jan. 24, 2018

#### **Kayleigh Robinson**

From: Kayleigh Robinson

Sent: Monday, November 20, 2017 2:55 PM

To: 'errigoj@nyassembly.gov'; 'omara@nysenate.gov'; 'palmesanop@nyassembly.gov'

**Subject:** Baron Winds LLC (Case No. 15-F-0122)

Attachments: Correspondence.pdf; Notice of Application Filing.pdf

In accordance with the requirements of 16 NYCRR 1000.7(b)(3), please be advised that Baron Wind LLC anticipates filing an application in the above-referenced proceeding on or about November 29, 2017. A copy of the Notice of Application recently run in the Hornell Evening Tribune and the Leader is attached. Thank you.

Kayleigh J. Robinson, Legal Assistant Young / Sommer LLC ATTORNEYS AT LAW office: 518.438.9907 Ext. 222

fax: 518.438.9914

krobinson@youngsommer.com

Executive Woods, Five Palisades Drive, Albany, NY 12205

www.youngsommer.com

This e-mail is sent by a law firm and may contain confidential and privileged information. If you are not the intended recipient please delete the email and any attachments

Please notify us if you have received this communication by mistake.

Thank you.

# Young / Sommer LLC

JEFFREY S. BAKER
DAVID C. BRENNAN
JOSEPH F. CASTIGLIONE
JAMES A. MUSCATO II
J. MICHAEL NAUGHTON
ROBERT A. PANASCI
ALLYSON M. PHILLIPS
DEAN S. SOMMER

KEVIN M. YOUNG

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SCOTT P. OLSON
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KRISTIN CARTER ROWE

PARALEGALS
ALLYSSA T. MOODY
AMY S. YOUNG

Writer's Telephone Extension: 243 jmuscato@youngsommer.com

November 20, 2017

Assemblymember Philip Palmesano NYS Assembly District 132 105 East Steuben Street Bath, NY 14810 palmesanop@nyassembly.gov

VIA EMAIL AND REGULAR MAIL

Assemblymember Joseph A. Errigo NYS Assembly District 133 30 Office Park Way Pittsford, NY 14534 errigoj@nyassembly.gov

Senator Thomas F. O'Mara NYS Senate District 58 333 East Water Street, Suite 301 Elmira, NY 14901 omara@nysenate.gov

Re: Case No. 15-F-0122: Application of Baron Winds LLC, for a Certificate of Environmental Compatibility and Public Need Pursuant to Article 10 to Construct a Major Electric Generating Facility in the Towns of Cohocton, Dansville, Fremont, and Wayland, County of Steuben, New York

Dear Senator O'Mara and Assemblymembers Errigo and Palmesano:

In accordance with the requirements of 16 NYCRR 1000.7, enclosed please find a copy of the Notice that Baron Winds LLC anticipates filing an Article 10 application in the above-referenced proceeding on or about November 29, 2017. Please feel free to contact me if you have any questions regarding the above.

James A. Muscato II

Respectfully submitted

Young/Sommer LLC Attorneys for Baron Winds LLC

Enclosure

# Baron Winds Energy Facility Steuben County, New York

#### NOTICE OF SUBMISSION OF APPLICATION

Baron Winds LLC (Applicant), a wholly-owned subsidiary of EverPower Wind Holdings, Inc. (EverPower), is proposing to construct a major electric generating facility under Article 10 of the New York Public Service Law (Facility). This notice announces that on or about November 29, 2017, the Applicant will file an Application pursuant to 16 NYCRR 1000.6 seeking a Certificate of Environmental Compatibility and Public Need from the New York State Board on Electric Generation Siting and the Environment (Siting Board) authorizing the construction and operation of the Facility under Article 10.

The proposed Facility is an up to 300 megawatt (MW) wind-powered electric generating facility (of up to 76 wind turbines) to be located in the Towns of Cohocton, Dansville, Fremont and Wayland, Steuben County, New York. The Facility will include wind turbines together with the associated collection lines (below grade and overhead), access roads, permanent meteorological towers, laydown areas and an operation and maintenance (O&M) building. To deliver electricity to the New York State power grid, the Applicant proposes to construct a collection substation adjacent to an existing interconnection substation, which will be used to interconnect with New York State Electric and Gas Corporation's 230 kV transmission line in the Town of Cohocton. The Facility is proposed to be located on leased private land that is generally rural in nature and will enable farmers and landowners to continue with farming operations or other land uses such as recreational land use.

The Facility will result in the generation of electricity from wind, a renewable energy source, avoiding harmful emissions and the use of water resources that are typically associated with energy generation. In addition, the Facility assists the State in meeting the goals of the 2015 State Energy Plan, which includes a goal of 50% of energy generation from renewable sources by 2030, and other State policy initiatives consistent with the development of the Facility. Other positive impacts to be discussed in the PSS include employment opportunities, specifically by generating temporary construction employment and full-time jobs, and increased revenues to County and local municipality tax bases, payments to the local hospitality industry, purchase of local supplies and goods, and lease revenues to participating landowners.

The Facility is a zero-emission wind energy facility and so will not add to local/regional air pollution problems or global climate change. In addition, the Applicant has attempted to minimize impacts to land associated with the Facility by limiting the disturbance to forested lands and wetlands to the maximum extent practicable. However, the construction and operation of the Facility may have minor environmental impacts including but not limited to: impacts on terrestrial ecology and wetlands, including impacts to avian and bat species; impacts to affected lands, including minor impacts to agricultural land; and impacts to people including noise impacts, traffic impacts, and visual impacts as fully described in the Application.

The Applicant intends to submit a request for a Water Quality Certification (WQC) under Section 401 of the federal Clean Water Act. The WQC is necessary to obtain a permit from the U.S. Army Corps of Engineers for the minor disturbance to federally regulated wetlands required to construct the Facility.

Pursuant to the Article 10 process, the Applicant filed a Preliminary Scoping Statement (PSS) on August 11, 2016 with the Siting Board. Thereafter, the public had an opportunity to submit comments on the PSS. Following the comment period, the Applicant prepared a summary of the material comments and its reply to comments was submitted on September 30, 2016. On October 5, 2016 a pre-application conference to consider intervenor funding requests was held and the scoping stipulation process was ordered to commence. The Applicant is now ready to file an Application.

This notice is to serve as a summary regarding the contents of the Application. The Application includes, among other things: an analysis of the environmental setting of the Facility, a description of the Facility, including preliminary design drawings and related information; potential environmental and health impacts from construction and operation of the Facility, environmental, economic and other benefits of the Facility, results from studies conducted (including

preconstruction studies to assess potential impacts to avian and bat species), proposed measures to minimize environmental impacts, and reasonable alternatives. The Application also addresses impacts to land use; consistency with State energy planning objectives, including climate change and renewable energy goals; public health and safety; terrestrial ecology, water resources and aquatic ecology; communications, transportation and utilities; cultural, historical and recreational resources; visual, including shadow flicker; sound; electric magnetic fields; and impacts on the statewide electrical system. The Article 10 regulations outlining the required contents of the Application can be found at 16 NYCRR 1001.1 et seq.

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#### **Contact Information**

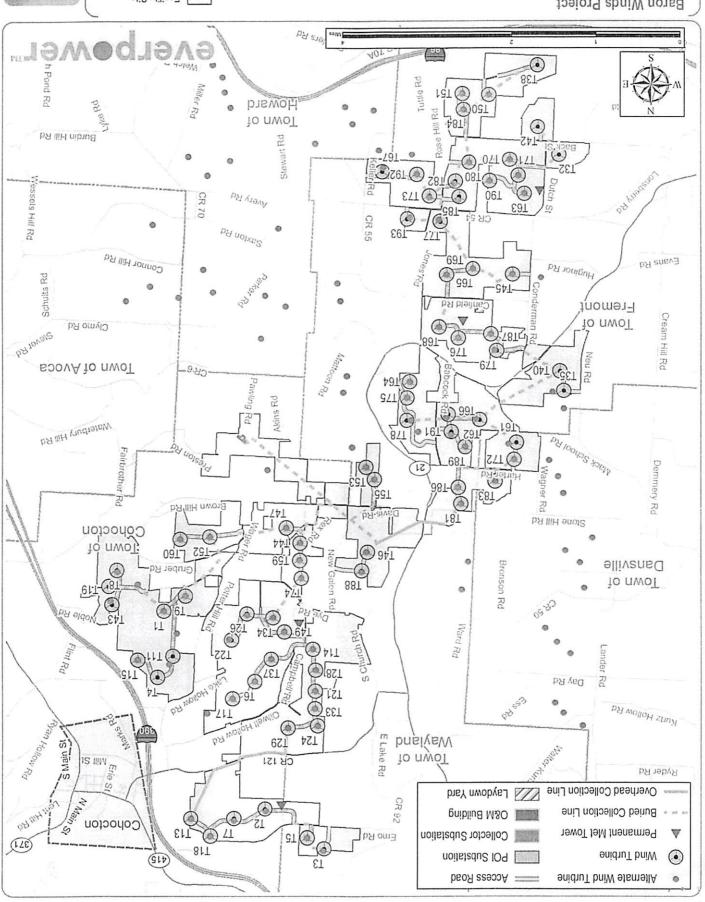
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Contact information for Baron Winds: Seth Wilmore 1251 Waterfront Place, 3rd Floor Pittsburgh, PA 15222 412-253-9419 (o) 412-578-9757 (f) info@everpower.com Contact information for DPS Article 10 Coordinator: James Denn NYS Department of Public Service 3 Empire State Plaza Albany, NY 12223 518-474-7080 james.denn@dps.ny.gov

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Honorable Kathleen H. Burgess Secretary to the Commission NYS Public Service Commission Empire State Plaza Agency Building 3 Albany, New York 12223-1350





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Town Boundary County Boundary 1 Village Boundary J Facility Site

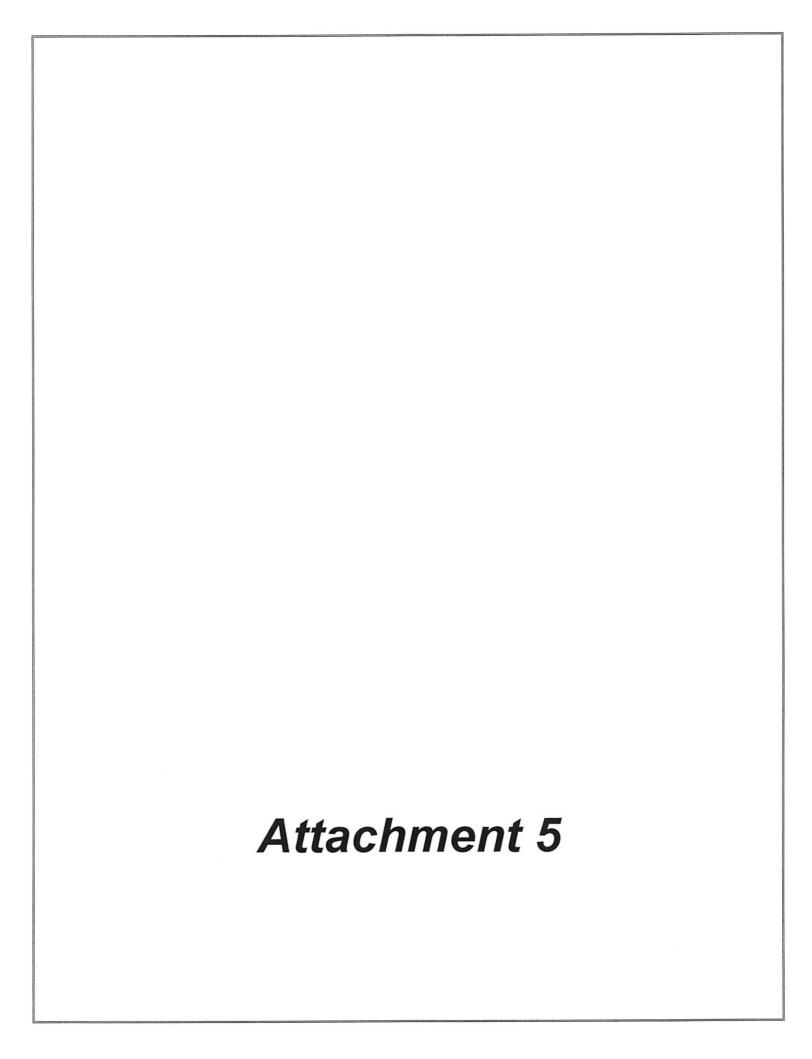
Steuben County, New York Towns of Cohocton, Dansville, Fremont, and Wayland -Baron Winds Project

Proposed Facility

Notes: 1. Basemap: ESRI StreetMap North America, 2008.

3. If Facility construction requires use of a temporary concrete batch plant, it will be located at the Laydown Yard/Staging Area. 2. This map was generated in ArcMap on November 14, 2017.

4. This is a color graphic. Reproduction in grayscale may misrepresent the data.



#### STATE OF NEW YORK BOARD ON ELECTRIC GENERATION SITING AND THE ENVIRONMENT

Application of Baron Winds LLC, for a Certificate of Environmental Compatibility and Public Need to Construct a Major Electric Generating Facility in the Towns of Cohocton, Dansville, Fremont, and Wayland, New York

CASE NO. 14-F-0122

AFFIDAVIT OF SERVICE

STATE OF NEW YORK )
COUNTY OF ALBANY ) ss.:

**KAYLEIGH J. ROBINSON**, being duly sworn, deposes and says that on the 21<sup>st</sup> day of November, 2017, she served a copy of the Notice of Submission of Application by electronic mail upon the party list in this matter. A copy of the email, Notice, and DMM printout of the party list as of November 20, 2017, are attached hereto.

KAYLEIGH J. ROBINSON

Sworn to me before me this 21st day of November, 2017

Notary Public

TRACY J. POOLE
Notary Public, State of New York
No. 01PO6036309
Qualified in Albany County
Commission Expires Jan. 24, 2018

#### Kayleigh Robinson

From: Kayleigh Robinson

Sent: Tuesday, November 21, 2017 10:25 AM

**To:** gabraham44@eznet.net; 'heather.behnke@dps.ny.gov'; 'lagetman@ferrarafirm.com';

Jessica Klami; 'ckress@aacsapps.com'; 'pmcallister@mcallisterlawoffice.net'; 'Aaron Mullen (aaron@snavelyfirm.com)'; James Muscato (jmuscato@youngsommer.com); 'townofwayland@stny.rr.com'; novakm@natfuel.com; Saviola, Michael (AGRICULTURE) (Michael.Saviola@agriculture.ny.gov); Thomas1, Richard (HEALTH) (Richard.Thomas1

@health.ny.gov); 'John W Vogel'; 'Weintraub, Lawrence H (DEC)'; Wells, Tara (AGRICULTURE) (Tara.Wells@agriculture.ny.gov); 'dansclerk@stny.rr.com'

Subject: Baron Winds LLC (Case No. 15-F-0122)

Attachments: Notice of Application Filing.pdf

In accordance with the requirements of 16 NYCRR 1000.7(b)(3), please be advised that Baron Wind LLC anticipates filing an application in the above-referenced proceeding on or about November 29, 2017. A copy of the Notice of Application is attached. For your information, a previous map for the Facility was published in the Hornell Evening Tribune and the Leader that depicted "alternate turbine locations" in the Towns of Avoca and Howard. However, be advised, that those alternate locations are no longer proposed to be included in the Facility. They are referred to in a previous layout and assessed as an alternative in Exhibit 9. A current Facility layout is depicted on the Notice attached hereto. Thank you.

Kayleigh J. Robinson, Legal Assistant

Young / Sommer LLC ATTORNEYS AT LAW

office: 518.438.9907 Ext. 222

fax: 518.438.9914

krobinson@youngsommer.com

Executive Woods, Five Palisades Drive, Albany, NY 12205

www.youngsommer.com

This e-mail is sent by a law firm and may contain confidential and privileged information. If you are not the intended recipient please delete the email and any attachments

Please notify us if you have received this communication by mistake.

Thank you.

# Baron Winds Energy Facility Steuben County, New York

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#### **Contact Information**

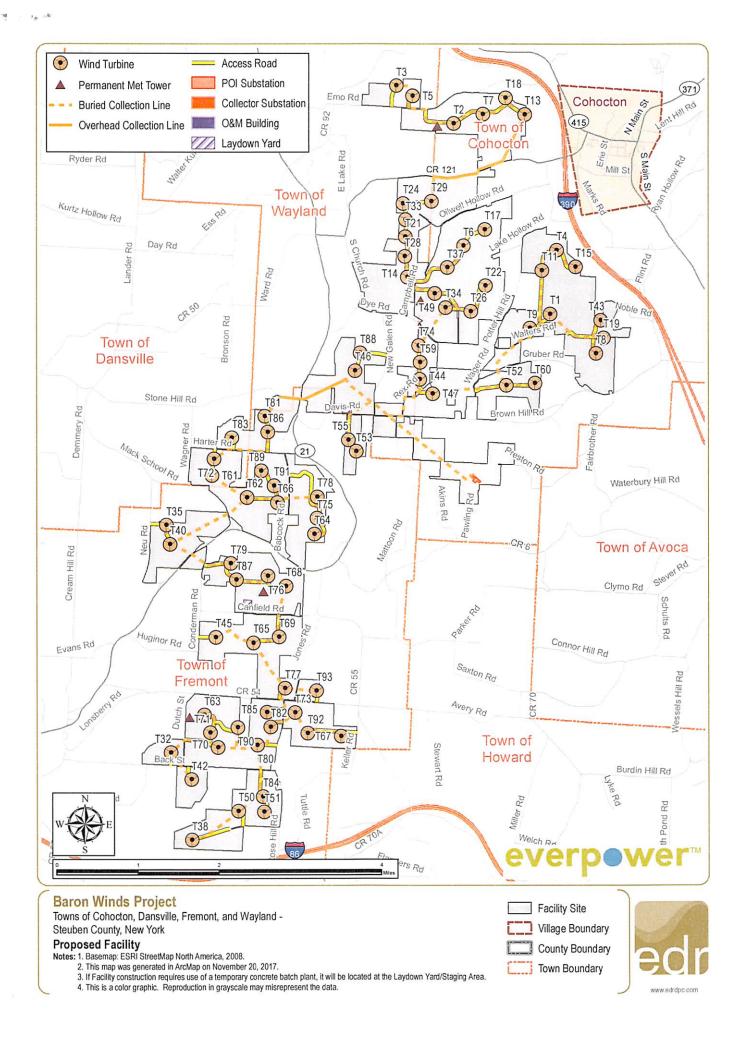
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- Matter Master: 15-00516/	15-F-0122		
Matter Number:	15-00516	Case Number:	15-F-0122
Industry Affected:	Facility Gen.	Company/Organization:	Baron Winds, LLC
Matter Type:	Petition	Matter Subtype:	Certificate of Environmenta Compatibility and Public Need
Title of Matter/Case:	Application of Baron Winds, LLC for a Certificate of Environmental Compatibility and Public Need Expand	Related Matter/Case No:	

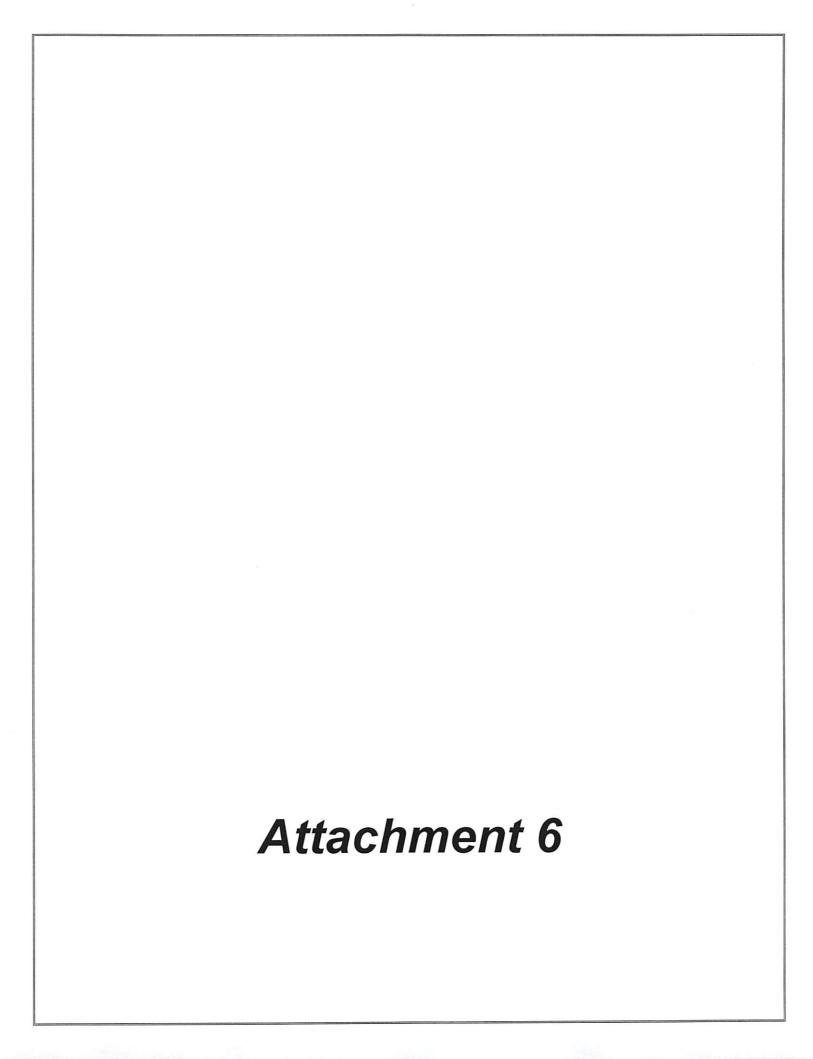
Filed Documents (186) Public Comments (20) Party List (16)

st (16) Calendar (0)

Consent to Party to Name of Person/Title Email/Phone/Fax Party **Mailing Address** Sr.No. **Representing Company** /Company >> Electronic Service >> 4939 Conlan Road gabraham44@eznet.net Yes 1 Abraham, Gary Town of Naples Great Valley, NY 14741 Ph: 716-790-6141 Attorney at Law Concerned Citizens of the Cassadaga Wind Project Three Empire State Plaza Heather.Behnke@dps.ny.gov Yes 2 Behnke, Heather New York State Department of Public Ph: 518-474-5474 Assistant Counsel Service Albany, NY 12223-1350 Fax: 518-486-5710 New York State Department of Public Service Naples Central School District 5010 Campuswood Drive lagetman@ferrarafirm.com Yes 3 Getman, Lindsay East Syracuse, NY 13057 Associate Attorney Ferrara Fiorenza PC Baron Winds, LLC Executive Woods, Five Palisades Drive jklami@youngsommer.com Yes Klami, Jessica Cassadaga Wind LLC Albany, NY 12205 Ph: 518-438-9907 Yes 2281 Walter Kurtz Rd 5 Kress, Cheryl ckress@aacsapps.com Wayland, NY 14572 Ph: 585-728-9031 6 McAllister, Patrick Town of Cohocton 31 Main Street, P.O. Box 338 pmcallister@mcallisterlawoffice.net Yes Ph: 585-728-2110 Wayland, NY 14572 Fax: 585-728-2715 PO Box 551 Yes Mullen, Aaron Town of Avoca, Town of Howard aaron@snavelyfirm.com Snavely, Plaskov & Bath, NY 14810 Ph: 607-776-1000 Mullen, PLLC Fax: 607-776-3122 5 Palisades Drive, Suite 300 jmuscato@youngsommer.com Yes 8 Baron Winds, LLC Muscato, James Ph: 518-438-9907 Partner Albany, NY 12205 Young/Sommer LLC 110 North Main Street townofwayland@stny.rr.com Yes 9 Mykel, Carol Town of Wayland Ph: 585-728-5660 Wayland, NY 14572 Deputy Supervisor/Councilman Town of Wayland National Fuel Gas Distribution 6363 MAIN STREET novakm@natfuel.com Yes 10 NOVAK, MICHAEL Williamsville, NY 14221 Ph: 716-857-7884 Assistant General Corporation Fax: 716-857-7254 Manager NATIONAL FUEL GAS DISTRIBUTION

	CORPORATION				
11	Saviola, Michael Associate Environmental Analyst New York State Department of Agriculture & Markets	New York State Department of Agriculture and Markets	1530 Jefferson Road Rochester, NY 14623	michael.saviola@agriculture.ny.gov Ph: (585) 427-0200	Yes
12	Thomas, Richard Assistant Counsel NYS Department of Health	New York State Department of Health	Corning Tower, Empire State Plaza Albany, NY 12237	richard.thomas1@health.ny.gov	Yes
13	Vogel, John Attorney Vogel Law Office, P.C.	Town of Wayland	125 Main Street Dansville, NY 14437	jwvogel@jwvogellaw.com Ph: 585-335-2238	Yes
14	Weintraub, Lawrence Assistant Counsel, Office of General Counsel New York State Department of Environmental Conservation	New York State Department of Environmental Conservation	625 Broadway Albany, NY 12233-1500	Lawrence.Weintraub@dec.ny.gov Ph: (518) 402-9188 Fax: (518) 402-9018	Yes
15	Wells, Tara Senior Attorney NYS Dept. of Agriculture & Markets	New York State Department of Agriculture and Markets	10B Airline Drive Albany, NY 12235	Tara,Wells@agriculture.ny.gov Ph: 518-487-6084	Yes
16	Willis, Michael	Town of Dansville	1487 Day Road Arkport, NY 14807	dansclerk@stny.rr.com Ph: 607-295-7223	Yes
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# STATE OF NEW YORK BOARD ON ELECTRIC GENERATION SITING AND THE ENVIRONMENT

Application of Baron Winds LLC, for a Certificate of Environmental Compatibility and Public Need to Construct a Major Electric Generating Facility in the Towns of Cohocton, Dansville, Fremont, and Wayland, New York

CASE NO. 14-F-0122

AFFIDAVIT OF SERVICE

STATE OF Pennsylvania )
COUNTY OF Allegheny ) ss.:

day of November, 2017, he/she served a copy of the Notice of Submission of Application attached hereto as *Exhibit A*, by mailing a true hard copy via first-class mail upon the recipients identified in *Exhibit B* attached hereto. The recipients listed below include all landowners within 5,000 feet of Project components.

- But mile

Sworn to me before me this day of November, 2017

ary r done

COMMONWEALTH OF PENNSYLVANIA

NOTARIAL SEAL
Stephanie M. Ottey, Notary Public
City or Pittsburgh, Allegheny County
My Commission Expires Oct. 9, 2019

A COMMISSION EXPIRES OCT. 10, 100 NOTARIES

## Exhibit A

# Baron Winds Energy Facility Steuben County, New York

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The Applicant intends to submit a request for a Water Quality Certification (WQC) under Section 401 of the federal Clean Water Act. The WQC is necessary to obtain a permit from the U.S. Army Corps of Engineers for the minor disturbance to federally regulated wetlands required to construct the Facility.

Pursuant to the Article 10 process, the Applicant filed a Preliminary Scoping Statement (PSS) on August 11, 2016 with the Siting Board. Thereafter, the public had an opportunity to submit comments on the PSS. Following the comment period, the Applicant prepared a summary of the material comments and its reply to comments was submitted on September 30, 2016. On October 5, 2016 a pre-application conference to consider intervenor funding requests was held and the scoping stipulation process was ordered to commence. The Applicant is now ready to file an Application.

This notice is to serve as a summary regarding the contents of the Application. The Application includes, among other things: an analysis of the environmental setting of the Facility, a description of the Facility, including preliminary design drawings and related information; potential environmental and health impacts from construction and operation of the Facility, environmental, economic and other benefits of the Facility, results from studies conducted (including preconstruction studies to assess potential impacts to avian and bat species), proposed measures to minimize

environmental impacts, and reasonable alternatives. The Application also addresses impacts to land use; consistency with State energy planning objectives, including climate change and renewable energy goals; public health and safety; terrestrial ecology, water resources and aquatic ecology; communications, transportation and utilities; cultural, historical and recreational resources; visual, including shadow flicker; sound; electric magnetic fields; and impacts on the statewide electrical system. The Article 10 regulations outlining the required contents of the Application can be found at 16 NYCRR 1001.1 et seq.

Once an Application is filed and determined by the Siting Board to be compliant with the regulations, the Siting Board will schedule a public hearing on the Application. The Siting Board will also issue a notice of availability of application intervenor funds that are available to be used by parties to participate in formal review of the Application. A pre-hearing conference will be scheduled by the Hearing Examiner to identify parties and intervenors, award intervenor funds, identify issues for the hearing, and establish a case schedule. Additional hearings regarding the Application and Facility impact assessments will be scheduled by the Hearing Examiner as needed. After hearings, the parties may brief their positions and the Hearing Examiner will issue a recommended decision upon which the Siting Board will base its decision. Article 10 requires that all proceedings on the Application, including a final decision by the Siting Board, must be completed within 12 months of when the Application is determined to be complete.

Upon filing of the Application, Baron Winds will provide funding in the amount of \$300,000 to be disbursed by the Siting Board to municipalities and other local parties to help pay expenses, including attorneys and consultants, associated with participating in the Article 10 process during the application review phase. Fifty percent (50%) of these intervenor funds are reserved for municipalities. Following the filing of an Application, the Hearing Examiner or the Secretary shall issue a notice of availability of application intervenor funds that provides a schedule and related information describing how interested members of the public may apply for application funds. Requests for application funds must be submitted to the Hearing Examiner within thirty (30) days after the issuance of the notice of the availability of application intervenor funds. Following the submittal of any intervenor funding requests, the Hearing Examiner may schedule a pre-hearing conference to consider fund requests.

The record of this proceeding, including the Application, may be examined during normal business hours at the Offices of the New York State Department of Public Service (DPS) at 3 Empire State Plaza, Albany, NY 12223, and may also be viewed at the following public repositories: Cohocton Public Library, 8 Maple Ave., Cohocton, NY 14826; Hornell Public Library, 64 Genesee St., Hornell, NY 14843; Howard Public Library, 3607 County Route 70A, Hornell, NY 14843.

The Application will also be available at the DPS website at (<a href="http://www.dps.ny.gov/">http://www.dps.ny.gov/</a>). To access documents, go to "Search" on the top of the webpage and search using the Case Number 15-F-0122 or the direct link: (<a href="http://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?MatterCaseNo=15-f-0122&submit=Search+by+Case+Number">http://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?MatterCaseNo=15-f-0122&submit=Search+by+Case+Number</a>) or by going to the project-specific website maintained by the Applicant: (<a href="https://everpower.com/baron-winds-wind-project-steuben-county-ny/">https://everpower.com/baron-winds-wind-project-steuben-county-ny/</a>).

#### **Contact Information**

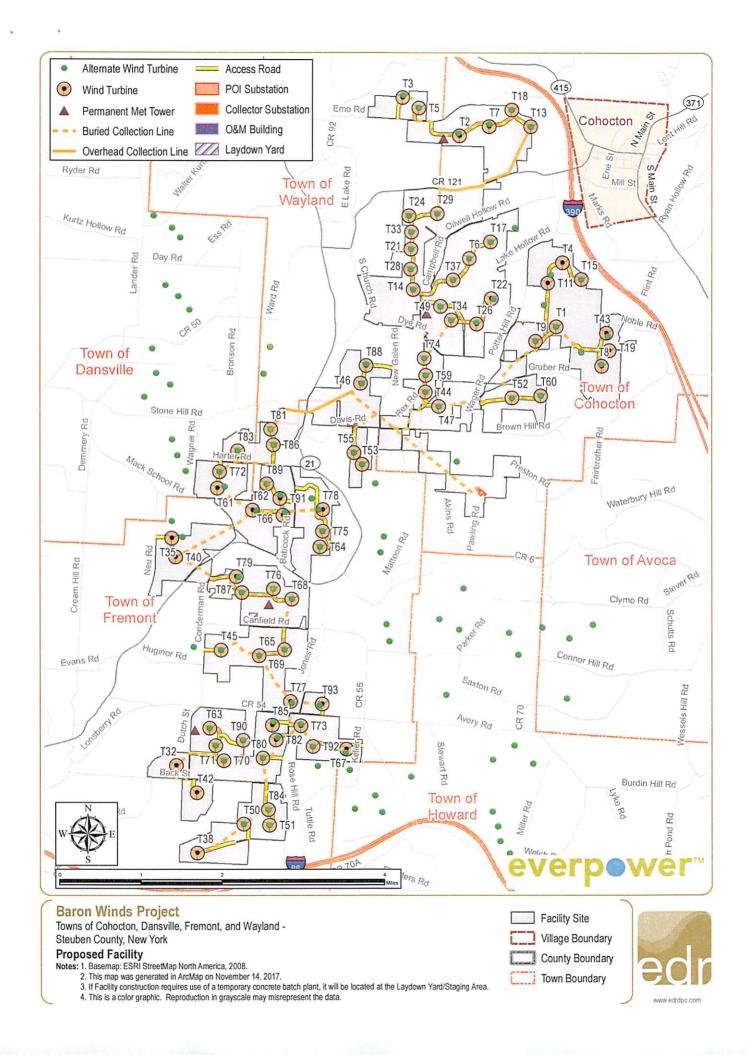
To obtain information regarding the Facility, please contact:

Contact information for Baron Winds: Seth Wilmore 1251 Waterfront Place, 3rd Floor Pittsburgh, PA 15222 412-253-9419 (o) 412-578-9757 (f) info@everpower.com Contact information for DPS Article 10 Coordinator: James Denn NYS Department of Public Service 3 Empire State Plaza Albany, NY 12223 518-474-7080 james.denn@dps.ny.gov

#### File a Request for Notices

Any interested member of the public may file a request with the DPS Secretary to receive copies of all notices concerning the Facility. Written requests should be sent to the DPS Secretary at <a href="mailto:secretary@dps.ny.gov">secretary@dps.ny.gov</a> or sent by mail to the following address:

Honorable Kathleen H. Burgess Secretary to the Commission NYS Public Service Commission Empire State Plaza Agency Building 3 Albany, New York 12223-1350



# Exhibit B

DeedBkPg	First Name	Last Name	Local Address	OwnerAdd 2	OwnerAdd_3
042.16-01-021.000	Current Resident		37 Jefferson St	Dansville NY	14437
096.00-01-008.111	John	Adams, Jr.	8929 St Rt 21	Cohocton NY	14826
096.02-01-002.100	Bette	Akins	9006 St Rt 21	Cohocton NY	14826
096.02-01-017.000	John	Akins	144 Franklin St	Dansville NY	14437
042.00-01-002.221	Kenneth	Allen	63363 State Route 415	Cohocton NY	14826
055.00-01-001.200	Michael	Allen	8 Wheeler St	Cohocton NY	14826
096.00-01-031.211	Michelle	Ames	3180 Mattoon Rd	Cohocton NY	14826
068.00-01-024.100	Christopher	Amico	1 Edgewood Dr	Cohocton NY	14826
096.00-01-046.000	Jerry	Anderson	8572 County Route 55	Cohocton NY	14826
054.11-01-026.000	Norman	Annis	22 East Lake Rd	Cohocton NY	14826
068.00-01-012.300	Apex Acres Inc.		11845 Schrader Rd	Wayland NY	14572
124.00-01-008.400	Stephen	Archer	7812 Tuttle Rd	Hornell NY	14843
055.00-01-014.120	Sally	Armstrong	216 Timrod Dr	Rochester NY	14617
042.16-01-015.000	Cheryl	Austin-Mehlenbacher	19 N Dansville St	Cohocton NY	14826
042.16-01-030.000	B & B Enterprises		35 N Dansville St	Cohocton NY	14826
043.17-01-072.000	David	Bailey	65 Maple Ave	Cohocton NY	14826
083.00-01-025.000	Douglas	Bailey	3361 Brown Hill Rd	Cohocton NY	14826
096.00-01-010.100	Douglas	Baker	8741 Haskinville Rd	Cohocton NY	14826
096.00-01-010.200	Kay	Baker	8741 Haskinville Rd	Cohocton NY	14826
067.00-01-021.000	Gabor	Balazs	55 Navajo Cir	Henrietta NY	14467
067.00-01-037.000	Baldwins Forest Products Inc		PO Box 503	Wellsville NY	14895
070.00-01-038.000	Edwin	Barnhart	348 North Ave	Hilton NY	14468
095.00-01-018.120	Daniel	Baschmann	8659 Conderman Rd	Cohocton NY	14826
096.00-01-036.000	Harold	Bates	8421 Jones Rd	Hornell NY	14843
110.00-01-007.211	Richard	Bates	8334 Jones Rd	Hornell NY	14843
110.00-01-007.220	Richard	Bates, Jr.	8384 Jones Rd	Hornell NY	14843
096.02-01-022.000	Ryan	Batte	8086 State Route 21	Arkport NY	14807
042.16-01-011.000	Scott	Beckens	4614 S Holley Rd	Holley NY	14470
054.15-01-008.100	Mark	Belanger	4186 S Frost Holw	Livonia NY	14487
096.00-01-013.000	Mary Lou	Belles	79 Gorton St Apt 101	Corning NY	14830
055.00-01-013.000	Guy	Brooks Bennett	7962 Schwab Hollow Rd	Wayland NY	14572
110.00-01-014.000	Jay	Bennett	7291 Co Rd 27	Hornell NY	14843
042.00-01-004.115	John	Bennett	16 Rosencrans St	Cohocton NY	14826
124.00-03-027.000	Phillip	Bennett	7291 County Route 27	Hornell NY	14843
110.00-01-016.120	Ravi	Bhagavatula	21 Crowne Pond Ln	Wilton CT	06897
055.00-01-010.300	Maura	Bianco	360 N Long Beach Rd	Rockville Centre NY	11570
124.00-01-024.000	Stephen	Bigger	2639 County Route 70A	Hornell NY	14843
054.07-01-013.000	William	Bishop	7326 N Main St Ext	Hornell NY	14843
109.00-01-055.200	John	Bishopp	445 Trabold Rd	Rochester NY	14624
054.10-01-047.000	Cynthia	Blanchard	116 N Church St	Hornell NY	14843
042.00-01-026.113	Wayne	Blattner	35 Farmingdale DR.	Hamlin NY	14464
041.00-02-004.111	Timothy	Bolton	3120 Henry Drum Rd	Cohocton NY	14826
124.00-01-003.200	Bruno	Bolusi	5 Berkley Street	Staten Island NY	10309
124.00-01-001.120	Dominick	Bolusi, et al.	320 Bayview Ave	Staten Island NY	10309
054.15-01-020.000	William	Bonnell	9141 Bryant Ave	Laurel MD	20723
041.00-02-034.000	Rodney	Booth	10504 County Route 92	Wayland NY	14572
042.20-01-028.000	Konstance	Boss	8493 Hudson Road	Wayland NY	14572
069.00-01-025.000	Kim	Bowen	3540 Potter Hill Rd	Cohocton NY	14826
070.00-01-015.000	Marjorie Thomas	Bradford	3900 Brown Hill Rd 1677 Latta Road	Avoca NY	14809 14612
069.00-01-016.000		Brickler		Rochester NY Cohocton NY	
069.00-01-026.200	Thomas	Brickler	3460 Potter Hill Rd		14826 14807
095.00-01-013.000		Briggs	9677 County Route 46 8998 Cream Hill Road	Arkport NY Arkport NY	14807
081.00-01-021.110 096.00-01-006.000	Briggs, Henry M Matt	Briggs	9612 Pond Dr	Arkport NY Arkport NY	14807
041.00-02-035.000	Brandy	Briggs Brodman	2705 Emo Rd	Wayland NY	14572
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042.00-01-024.100 054.07-01-018.000	Keith and Vyrna Bradley	Brown	110 West Naples St	Wayland NY	14572
041.00-02-013.000	John	Brown	352 Downs Rd	Monticello NY	12701
109.00-01-066.210	John	Brundu	2352 County Route 54	Hornell NY	14843
082.00-01-005.200	James	Brunswick	3288 State Street	Caledonia NY	14423
054.07-01-025.100		Bucci	250 Exchange Blvd.	Rochester NY	14608
041.00-02-031.000	Mervin	Buchanan	2882 Henry Drum Rd	Wayland NY	14572
095.00-01-020.100		Buckhardt	26 Osborn Ave	Lake Ronkonkoma NY	11779
081.00-01-025.000		Buell	4792 San Carlo Ct	Naples FL	34109
124.00-01-011.100	Burdett Trust	55611	411 Gifford St	Hornell NY	14843
124.00-01-011.100	Burns Family Farm		7731 Rose Hill Rd	Hornell NY	14843
054.11-01-032.000		Burns	15 East Lake Rd	Cohocton NY	14826
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055.00-01-036.100 Bernard and Betsy	Burns	3430 County Route 121	Cohocton NY	14826
123.00-01-008.000 Carol	Burns	7731 Rose Hill Rd	Hornell NY	14843
110.00-01-028.100 David	Burns	8911 State Route 21	Cohocton NY	14826
109.00-01-028.100 Jonathan	Burns	7731 Rosehill Rd		14843
			Hornell NY	
096.02-01-001.000 Vickie	Burns	8991 St Rt 21	Cohocton NY	14826
042.20-01-035.000 Janet	Burritt	6 Shults Ave	Cohocton NY	14826
124.00-01-018.000 Jeffrey	Button	7851 Hamilton Rd	Avoca NY	14809
068.00-01-027.120 Ronald	Button	9447 State Route 21S	Wayland NY	14572
041.00-02-038.100 Samuel	Cali	10522 County Route 92	Wayland NY	14572
041.00-02-038.200 Samuel	Cali	5093 Lakeview County Rd. 11	Rushville NY	14544
042.00-01-017.113 Canandaigua Power Pa		85 Wells Avenue, Suite 305	Newton MA	02459
082.00-03-034.000 Charles	Canfield	9103 State Route 21	Cohocton NY	14826
109.00-01-061.200 Daniel	Canfield	2194 County Route 54	Hornell NY	00008
067.00-01-025.110 Donald	Cappuzzo	9467 Bronson Rd	Wayland NY	14572
054.11-01-009.000 Michael	Careri	5014 Lower Mountain Rd	Lockport NY	14094
041.00-02-021.000 Thomas	Carney	10364 County Route 92	Wayland NY	14572
055.00-01-028.120 Jeffrey	Carroll	10061 Lake Hollow Rd	Cohocton NY	14826
096.00-01-008.200 Joshua	Carroll	8789 Babcock Rd	Cohocton NY	14826
054.11-01-008.000 Mary Ann	Caruso	68 Crosby Street	Hornell NY	14843
081.00-01-007.200 Philip	Catlin	1828 Friend Rd	Penn Yan NY	14527
083.00-01-031.120 Jim	Cave	5335 Fosdick Rd	Ontario NY	14519
095.00-01-011.200 Tak-Hay	Chan	8939 Mack School Rd	Arkport NY	14807
055.00-01-037.000 Edith	Chance	3669 Jones Rd Ext	Cohocton NY	14826
082.00-01-005.120 George	Chapman	9383 New Galen Rd	Cohocton NY	14826
110.00-01-038.000 Charles	Childs	21 Wright Ter	Rochester NY	14605
	Cilius	10184 State Route 21S		
054.15-01-009.000 Circle Drive Park LLC			Wayland NY	14572
054.07-01-021.000 Eugene	Clancy	61 East Lake Rd	Cohocton NY	14826
056.00-01-021.000 Dennis	Clarcq	3878 Jones Rd	Cohocton NY	14826
042.00-01-011.112 Everett	Clark	10875 Didas Rd	Cohocton NY	14826
110.00-01-011.100 Candyse	Clarke	9016 State Route 21	Cohocton NY	14826
096.00-01-020.000 Michael	Clarke	9016 State Route 21	Cohocton NY	14826
110.00-01-009.100 Michael	Clarke	3041 Co Rd 54	Hornell NY	14843
	2. http://doi.org/10.		Avoca NY	14809
096.00-01-028.200 Zachary	Clarkson	3121 Co Rd 6		
054.11-01-042.000 Steven	Class	407 20th Pl	Bradenton Beach FL	34217
069.00-01-022.112 Todd	Clay	201 Hickory Street	Cary NC	27411
096.00-01-021.111 Mark	Cleveland	82 Main Street	Hornell NY	14843
054.11-01-040.000 John	Clifford	8 East Lake Rd	Cohocton NY	14826
096.00-01-041.112 Karl	Clymo	8499 Jones Rd	Cohocton NY	14826
054.11-01-045.000 David Kirk	Coddington	7 Emmett Street	Hornell NY	14843
042.16-01-004.000 Cohocton Assembly of		31 N Dansville Street	Cohocton NY	14826
042.20-01-030.000 Cohocton Creamery, LL		4 Centre Dr	Orchard Park NY	14127
043.17-01-073.000 Cohocton Developmen	t Corp	PO Box 209	Cohocton NY	14826
042.20-01-025.000 Village of Cohocton		PO Box 330	Cohocton NY	14826
109.00-01-024.000 Aldo	Colayori	2839 Chili Ave	Rochester NY	14624
096.00-01-044.100 James	Colbert, Jr.	2751 Canfield Rd	Cohocton NY	14826
082.00-01-003.000 Cold Spring Construction		3 Jackson St	Akron NY	14001
042.00-01-016.200 David	Cole	10620 Davis Hollow Rd	Cohocton NY	14826
				14572
054.07-01-009.000 Sharon	Congelli	76 Antlers Inn Rd	Wayland NY	
042.16-01-017.200 Ralph	Conklin	22 N Dansville St	Cohocton NY	14826
096.00-01-035.000 William	Cook	7053 Hughes Road	Bath NY	14810
096.00-01-009.000 Cheyne	C 1	377 Tildon Hill Rd	Canaseraga NY	14822
	Coombs			14467
082.00-03-009.000 Chester	Coomps	46 Benis Way	Henrietta NY	14407
082.00-03-009.000 Chester	Cooper	46 Benis Way 35 Syndenham Road	FULL YOU OF THE WAY AND THE STATE OF THE STA	14609
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082.00-03-009.000 Chester 070.00-01-025.000 Cordaro 096.00-01-024.300 Cornerstone Homes Ind 110.00-01-023.222 Bertha Freeman 082.00-01-018.200 Serge	Cooper Cordaro C. Coughlin Couture	35 Syndenham Road 11801 Harrington Dr 232 Hardy Hill Road 3961 Middle Rd	Rochester NY Corning NY Andover NY Canandaigua NY	14609 14830 14806 14424
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082.00-03-009.000 Chester  070.00-01-025.000 Cordaro  096.00-01-024.300 Cornerstone Homes Inc  110.00-01-023.222 Bertha Freeman  082.00-01-018.200 Serge  055.08-01-011.000 Crop Production Service  055.08-01-016.200 Crop Production Service  042.20-01-017.000 Kimberly  067.00-01-025.120 Mark  042.00-01-004.120 Krissy  054.00-01-017.220 Daniel  123.00-01-004.000 Stephen G.	Cooper Cordaro Coughlin Couture es, Inc. Crosby Cudney Culbertson Curtin Curtis	35 Syndenham Road 11801 Harrington Dr 232 Hardy Hill Road 3961 Middle Rd 7251 W 4th Street PO Box 93 83 Maple Ave 9468 Bronson Rd 63299 State Route 415 347 1/2 Seneca St. 8064 Ricks Rd	Rochester NY Corning NY Andover NY Canandaigua NY Greeley CO Cohocton NY Cohocton NY Wayland NY Cohocton NY Hornell NY	14609 14830 14806 14424 80634 14826 14826 14572 14826 14843
082.00-03-009.000 Chester  070.00-01-025.000 Cordaro  096.00-01-024.300 Cornerstone Homes Inc  110.00-01-023.222 Bertha Freeman  082.00-01-018.200 Serge  055.08-01-011.000 Crop Production Service  055.08-01-016.200 Crop Production Service  042.20-01-017.000 Kimberly  067.00-01-025.120 Mark  042.00-01-004.120 Krissy  054.00-01-017.220 Daniel  123.00-01-004.000 Stephen G.	Cooper Cordaro Coughlin Couture es, Inc.  Crosby Cudney Culbertson Curtin Curtis Dagon	35 Syndenham Road 11801 Harrington Dr 232 Hardy Hill Road 3961 Middle Rd 7251 W 4th Street PO Box 93 83 Maple Ave 9468 Bronson Rd 63299 State Route 415 347 1/2 Seneca St. 8064 Ricks Rd 11 Adsit Street	Rochester NY Corning NY Andover NY Canandaigua NY Greeley CO Cohocton NY Cohocton NY Wayland NY Cohocton NY Hornell NY Hornell NY	14609 14830 14806 14424 80634 14826 14826 14572 14826 14843 14843
082.00-03-009.000 Chester 070.00-01-025.000 Cordaro 096.00-01-024.300 Cornerstone Homes Inc 110.00-01-023.222 Bertha Freeman 082.00-01-018.200 Serge 055.08-01-011.000 Crop Production Servic 055.08-01-016.200 Crop Production Servic 042.20-01-017.000 Kimberly 067.00-01-025.120 Mark 042.00-01-004.120 Krissy 054.00-01-017.220 Daniel 123.00-01-004.000 Stephen G. 054.11-01-041.000 James 070.00-01-041.100 Gregory 054.07-01-022.110 Daniel	Cooper Cordaro Coughlin Couture es, Inc.  Crosby Cudney Culbertson Curtin Curtis Dagon Dale	35 Syndenham Road 11801 Harrington Dr 232 Hardy Hill Road 3961 Middle Rd 7251 W 4th Street PO Box 93 83 Maple Ave 9468 Bronson Rd 63299 State Route 415 347 1/2 Seneca St. 8064 Ricks Rd 11 Adsit Street 17 Rolling Meadows Dr 2329 Charleston Way	Rochester NY Corning NY Andover NY Canandaigua NY Greeley CO Cohocton NY Cohocton NY Wayland NY Cohocton NY Hornell NY Hornell NY Hilton NY Beavercreek OH	14609 14830 14806 14424 80634 14826 14826 14572 14826 14843 14843 14843
082.00-03-009.000 Chester  070.00-01-025.000 Cordaro  096.00-01-024.300 Cornerstone Homes Ind  110.00-01-023.222 Bertha Freeman  082.00-01-018.200 Serge  055.08-01-011.000 Crop Production Service  042.20-01-017.000 Kimberly  067.00-01-025.120 Mark  042.00-01-004.120 Krissy  054.00-01-017.220 Daniel  123.00-01-004.000 Stephen G.  054.11-01-041.000 Gregory	Cooper Cordaro Coughlin Couture es, Inc.  Crosby Cudney Culbertson Curtin Curtis Dagon Dale Daley	35 Syndenham Road 11801 Harrington Dr 232 Hardy Hill Road 3961 Middle Rd 7251 W 4th Street PO Box 93 83 Maple Ave 9468 Bronson Rd 63299 State Route 415 347 1/2 Seneca St. 8064 Ricks Rd 11 Adsit Street 17 Rolling Meadows Dr	Rochester NY Corning NY Andover NY Canandaigua NY Greeley CO Cohocton NY Cohocton NY Wayland NY Cohocton NY Hornell NY Hornell NY Hilton NY	14609 14830 14806 14424 80634 14826 14826 14572 14826 14843 14843 14843 14468

109.00-01-070.000 Edna	Darria	2481 County Bouts 54	H	4 40 42
	Darrin	2481 County Route 54	Hornell NY	14843
054.07-01-030.000 Mark	Davidson	4605 Montview Blvd	Denver CO	80207
054.07-01-020.000 Michael	Davidson	212 Main St	Hornell NY	14843
123.00-01-019.100 Kevin	Davis	2183 County Route 70A	Hornell NY	14843
137.00-02-004.000 Mary Louise	Davis	96 Seneca St	Hornell NY	14843
055.08-01-002.000 Susan	Davis	14 1/2 S Dansville Street	Cohocton NY	14826
054.15-01-023.000 Chad	Dean	2871 County Route 121	Cohocton NY	14826
096.02-01-015.000 Deborah	Dean	8682 County Route 55	Cohocton NY	14826
095.00-01-011.100 James	Dean	40 Webster Street	Hornell NY	14843
042.16-01-001.110 Domonick	DeGuarde	10761 Black Creek Hollow Rd	Cohocton NY	14826
055.00-01-005.100 Kathryn	Deitsch	226 Main Street	Dansville NY	14437
	Deleo	34 N Dansville St	Cohocton NY	14826
042.16-01-012.000 John	Deleo	13 N Dansville Street	Cohocton NY	14826
070.00-01-029.000 Dept. of Env. Cons., State of NY		625 Broadway	Albany NY	12233
096.00-01-008.300 Eugene	DiCaprio	8933 State Route 21	Cohocton NY	14826
123.00-01-015.200 Dwight	Dieter	2311 Co Rte 70A	Hornell NY	14843
054.15-01-004.000 Noreen	DiFonzo, et al.	164 Chapel Road	Wayland NY	14572
083.00-01-003.100 Debra	Dodds	3279 Brown Hill Rd	Cohocton NY	14826
042.00-01-036.000 Donald	Dollinger	63019 State Route 415	Cohocton NY	14826
068.00-01-017.000 Donald	Dollinger	9583 State Route 21S	Wayland NY	14572
069.00-01-014.100 Dan	Donals	3980 Woodruff Rd	Livonia NY	14487
	Dollais			
	Deve	1315 Black Mountain Rd	Hillsborough CA	94010
042.00-01-011.120 Gene	Drum	11219 Dutch Hill Rd	Cohocton NY	14826
042.20-01-049.000 Gerard	Drum	3 S Dansville St	Cohocton NY	14826
095.00-01-016.000 Thomas	Dubois	8797 St Rt 21	Cohocton NY	14826
096.00-01-024.120 Tammra	Duby	3087 Co Rd 6 Rd	Arkport NY	14807
124.00-01-008.111 Michael	Duffy	9 Maxwell Ave	Hornell NY	14843
095.00-01-015.000 Cynthia	Dunham	8881 Mack School Rd	Arkport NY	14807
096.00-01-022.000 Karl	Dunn	12 Speer Drive	Corning NY	14830
082.00-03-018.100 Thomas	Dunn	6466 Canadice Hill Rd	Springwater NY	14560
056.00-01-020.000 Austin W.	110000000000000000000000000000000000000	PO Box 245	Cohocton NY	14826
	Dyckman, Inc.			
056.00-01-026.100 Austin W.	Dyckman, Inc.	11 Wheeler Street	Cohocton NY	14826
042.00-01-022.200 Donald	Eck	4 Maple Street	Dansville NY	14437
054.07-01-011.000 Jack	Edmond	3234 Latta Road	Rochester NY	14612
069.00-01-022.120 Rita	Edmond	206 W Jules Verne Way	Cary NC	27511
068.00-01-010.400 Matthew	Eiffert	PO Box 55	Cohocton NY	14826
054.11-01-004.000 Diane	Ellis	45 East Lake Rd	Cohocton NY	14826
137.00-02-003.200 Griffin	Ellis	7489 Hungry Hollow Rd	Hornell NY	14843
137.00-02-003.100 Norman	Ellis	7489 Hungry Hollow Rd	Hornell NY	14843
096.00-01-005.200 Robert	Ellis	8869 Babcock Rd	Cohocton NY	14826
070.00-01-042.000 William	Ellithorpe	640 Bennington Dr	Rochester NY	14616
		2673 Holmes Rd	01.200-04.7000 (1.1000) (1.1000)	
	Elsenheimer		Cohocton NY	14826
068.00-01-018.100 Ronald	Englert	PO Box 45	Dansville NY	14437
055.00-01-022.100 Equity Trust Co. Custodian		103 Shore Dr	Branford CT	06405
096.00-01-021.300 David	Evans	2970 Co Rd 6	Cohocton NY	14826
082.00-03-031.110 Eugene	Evans	2337 Hudson Ter	Fort Lee NJ	07024
096.00-01-021.200 John	Evans	2968 County Roue 6	Cohocton NY	14826
096.00-01-053.110 Robert	Evans, Jr.	5405 Broadmoor St	Alexandria VA	22315
096.00-01-021.112 William	Evans	2974 County Route 6	Cohocton NY	14826
054.11-01-033.000 Steven	Faes	4 Fourth St	Canisteo NY	14823
069.00-01-017.100 James	Fahy	11845 Schrader Rd	Wayland NY	14572
070.00-01-027.200 Fairbrother Family Trust II	,	7852 Running Brook Ln	Cicero NY	13039
	Enirhrathan			
083.00-01-022.000 Clair	Fairbrother	8 North Dansville Street	Cohocton NY	14826
083.00-01-033.100 Connie Rae	Fairbrother	7852 Running Brook Ln	Cicero NY	13039
070.00-01-026.200 Jeremy	Fairbrother	4079 Wentworth Rd	Cohocton NY	14826
083.00-01-033.200 Russell	Fairbrother	4082 Wentworth Road	Cohocton NY	14826
042.20-01-004.000 Scott	Fairbrother	8 North Dansville Street	Cohocton NY	14826
054.00-01-016.200 Terry	Fairbrother	2871 County Route 121	Cohocton NY	14826
110.00-01-027.200 Michael	Feck	7663 Boughton Hill Rd	Victor NY	14564
054.11-01-002.200 Christopher	Feenaughty	381 Cleveland Ave	Hornell NY	14843
054.11-01-001.000 Christopher	Feenaughty	32 Stephens St	Canisteo NY	14823
082.00-03-011.000 Paul	Feidner	8211 Clarence Ln N	East Amherst NY	14051
068.00-01-019.000 Dale	Feor	43 Lowden Point Rd	Rochester NY	14612
		624 Klem Rd	Webster NY	14580
068.00-01-032.120 Elizabeth	Feor			
068.00-01-018.200 Kevin	Feor	624 Klem Rd	Webster NY	14580
083.00-01-024.115 Julie	C. C			
	Ferguson	854 Glen Rock Drive	Brunswick OH	44133
028.00-01-044.121 Robert	Ferris	10844 Cold Springs Rd	Wayland NY	14572
028.00-01-044.121 Robert 042.20-01-033.000 Charles				

124.00-01-011.213 George	Flaitz	2947 County Route 70A	Hornell NY	14843
124.00-03-020.000 Thomas	Flaitz	2947 County Route 70A	Hornell NY	14843
095.00-01-018.112 Thomas	Flansburg	8613 Conderman Rd	Cohocton NY	14826
124.00-03-005.100 Marian	Forma	12410 Chelton Ln	Bowie MD	20715
069.00-01-012.000 Edward	Frey	3596 County Route 70A	Hornell NY	14843
096.00-01-014.000 Michael and Ginny	Fullam	8821 Haskinsville Rd	Cohocton NY	14826
067.00-01-038.000 Robert	Fuller			
	U-0.1101.200.700.	11 Brush Street	Arkport NY	14807
095.00-01-033.120 Marie	Galenas	4412 W South Pinebrook Ln	Columbia MO	65203
042.16-01-014.200 Monty	Gaudet	17 N Dansville St	Cohocton NY	14826
124.00-01-005.000 Genrich Farms LLC		367 Cooper Rd	Rochester NY	14617
124.00-03-001.000 Jonathan	Genrich	18 Rockingham St	Rochester NY	14620
055.00-01-014.310 Douglas	George	9881 Lake Hollow Rd	Cohocton NY	14826
054.11-01-029.000 Gregory	Gerogek	468 Seneca Rd	Hornell NY	14843
109.00-01-059.000 Jeffrey	Gesner	8131 Lonsberry Rd	Hornell NY	14843
054.07-01-028.000 Michael		VIVIEW WE IN THE PERSON NAMED IN THE PERSON NA		
	Giagios	23 Adeane Dr W	Rochester NY	14624
081.00-01-012.120 David	Gibson	8998 Mack School Rd	Arkport NY	14807
067.00-01-024.100 Charles	Giehl	2489 Stone Hill Road	Wayland NY	14572
070.00-01-013.000 Giess Christianson & Co Inc.		PO Box 2327	Rochester NY	14692
055.00-01-028.130 Jeffrey	Goldthwait	10141 Lake Hollow Rd	Cohocton NY	14826
054.15-01-027.000 Otto	Goodwin	14 Meadowbrook Dr	Arkport NY	14807
110.00-01-036.000 Richard	Goodyear	150 Harwick Road	Rochester NY	14600
111.00-01-022.000 Kevin	0.00000000	The American Manager Control of the		
	Grapensteter	90 Sheridan Road	Bergen NY	14416
054.11-01-011.100 R. O'Donnell	Gray	1018 Main St	Locke NY	13092
124.00-01-008.700 Green Newland LLC		PO Box 486	Falls PA	18615
082.00-03-008.110 William	Green	2148 Hornbrook Rd	Towanda PA	18848
082.00-03-014.000 Carol	Greene	204 Overland Trl	West Henrietta NY	14586
042.20-01-041.000 David	Griffin	86 Maple Ave	Cohocton NY	14826
096.00-01-042.000 Arthur	Groff	1043 Mountain Rd	Manheim PA	17545
042.20-01-053.000 Heidi		30 Alexander Street	Avoca NY	
	Gross			14809
042.00-01-008.120 George	Guida	14 Leach St	Lynbrook NY	11563
070.00-01-031.000 Orval	Gump	782 Wiler Rd	Hilton NY	14468
054.10-01-048.000 John	Hackett	153 Loon Lake Road	Wayland NY	14572
054.07-01-006.000 Brian	Hamilton	73 Antlers Inn Rd	Wayland NY	14572
042.20-01-020.000 James	Hamilton	77 Maple Ave	Cohocton NY	14826
042.20-01-042.100 Terrance	Hamilton	88 Maple Ave	Cohocton NY	14826
096.00-01-039.000 Daniel	Hammond		Bath NY	14810
	11.11.50.50.11.00.011.07.00.00	105 Haverlings Street		
083.00-01-024.112 Joyce	Hammond	12691 Walnut Hill N	Royalton OH	44133
096.00-01-016.000 Larry	Hammond	9017 St Rt 21	Cohocton NY	14826
041.00-02-008.200 Patrice	Hancock	138 Legion Circle	Rochester NY	14614
110.00-01-007.111 Louie	Hanft	2005 Louis Dr	Stroudsburg PA	18360
124.00-01-010.000 Stanley	Harrison	2880 County Route 70A	Hornell NY	14843
054.07-01-004.214 Tim	Harrison	44 Colby St	Rochester NY	14610
070.00-01-019.110 Bradley	Harter	3889 Brown Hill Rd	Avoca NY	14809
	Harter			
096.00-01-043.200 Haskinville Wesleyan Church		8725 Haskinville Road	Cohocton NY	14826
054.11-01-027.000 John	Hayden	532 Anneslie Rd	Baltimore MD	21212
054.00-01-031.000 Shirley	Hayes	2768 County Route 121	Cohocton NY	14826
109.00-01-018.100 Brooke	Hendee	2131 Huginor Rd	Arkport NY	14807
109.00-01-030.000 Samuel	Hendee	8071 State Route 21	Hornell NY	14843
096.02-01-021.000 Jeanne	Henderson	9000 St Rt 21	Cohocton NY	14826
055.00-01-004.100 James	Hendley	56 Maple Avenue	Cohocton NY	14826
054.11-01-035.000 Sally	Herrick, et al.	9695 Highland Avenue	Dansville NY	14437
054.00-01-015.200 Peggy	Hill	7 Allen St	Cohocton NY	14826
109.00-01-036.000 Douglas	Hilsdorf	8836 State Route 53	Bath NY	14810
124.00-01-008.120 Seth	Hilton	7784 Tuttle Rd	Hornell NY	14843
081.00-01-006.000 Charlene	Hineline	31 Edenfield Road	Penfield NY	14526
042.00-01-056.000 Darrell	Hoad	5568 Wolf Run Rd	Campbell NY	14821
042.20-01-059.000 Robert	Hodges	9 S Dansville St	Cohocton NY	14826
			MENSIONE/PLEATING/MINE	
095.00-01-005.000 Stephen	Hoeffner	264 Main St	Hornell NY	14843
054.15-01-015.000 Michael	Hoey	PO Box 417	Geneseo NY	14454
042.20-01-008.200 Casey	Hoffman	6722 State Route 415	Bath NY	14810
082.00-03-004.000 Mark	Hoffman	9251 State Route 21 South	Cohocton NY	14826
082.00-03-012.000 Deborah	Holbrook	2960 David Road	Cohocton NY	14826
110.00-01-001.000 Rodney	Holden	2589 Co Rd 54	Hornell NY	14843
110.00-01-032.000 Rodney	Holden	7358 State Route 15	Springwater NY	14560
095.00-01-019.200 Rodney	Holmwood	8628 Conderman Road	Cohocton NY	14826
110.00-01-030.000 Stanley	Hooker	7555 Moss Rd	Hornell NY	14843
042.00-01-002.210 David	Hopkins	10904 State Route 415	Cohocton NY	14826
109.00-01-010.000 Hornell Water Co		PO Box 627	Hornell NY	14843

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110.00-01-017.100 Lewis	Horst	1704 Turkey Hill Rd	East Earl PA	17519
123.00-01-017.200 James	Houghtaling	2209 County Route 70A	Hornell NY	14843
123.00-01-017.120 James	Houghtaling	2241 County Route 70A	Hornell NY	14843
096.02-01-051.000 Joyce	Hovey	4520 Rt 70A	Bath NY	14810
041.00-02-016.211 Stephanie	Howes	63207 State Route 415	Cohocton NY	14826
042.16-01-002.200 Shane	Hubble	41 N Dansville St	Cohocton NY	14826
042.00-01-011.200 Michael	Huber	10634 Davis Hollow Rd	Cohocton NY	14826
124.00-03-007.120 Jeffrey	Hughes	7987 Stewart Rd	Hornell NY	14843
042.16-01-013.000 Robert	Hughes	15 N Dansville St	Cohocton NY	14826
082.00-01-008.200 Robert	Hunt	9342 New Galen Rd	Cohocton NY	14826
070.00-01-001.200 Hunter's Hunting Land LLC	Tiune	374 Guilford Road	New Paltz NY	
042.20-01-036.000 Eric	Illerbrun	4 First St	Cohocton NY	12525
028.00-01-041.000 Edward	Inscho		DELEVANDA PROPERTY OF THE PROP	14826
083.00-01-041.000 Edward		10706 State Route 415 N	Cohocton NY	14826
The state of the s	Jakus	55 New Gate Dr	Henrietta NY	14467
068.00-01-010.112 Kathleen	Janicki-Cooper	3116 Dye Rd	Cohocton NY	14826
137.00-02-009.200 Carolyn	Jennings	2258 Co Rd 70A	Hornell NY	14843
041.00-02-036.110 Kevin	Johnson	2744 Emo Rd	Wayland NY	14572
054.11-01-031.000 Shirley	Johnson	18 Fraser Dr	Hilton NY	14468
041.00-02-029.120 Wayne	Johnson	3020 College Avenue	Corning NY	14830
081.00-01-016.120 Calvin	Jones	10 Mt Vernon Cir	Fairport NY	14450
095.00-01-033.200 Philip and Christine	Jones	8787 Isaman Rd	Arkport NY	14807
054.15-01-007.000 Cheryl	Jordan	6 Lincolnshire Rd	Webster NY	14580
028.00-01-042.100 Arthur	Kahn	63540 State Route 415	Cohocton NY	14826
041.00-02-036.200 Edwin	Kanaval	10569 County Route 92	Wayland NY	14572
056.00-01-024.111 Jeffery and Reuben	Kanaval	3997 Jones Rd	Cohocton NY	14826
056.00-01-024.220 Jeffery, Jacqueline and Reuben	Kanaval	4029 Jones Road	Cohocton NY	14826
138.00-01-001.100 Donald	Karns	2458 County Route 70A	Hornell NY	14843
109.00-01-021.000 Karr Dairy Farms LLC	Karris	1451 Dennis Rd	Hornell NY	14843
054.11-01-021.000 Edward	Kauffman	8 Crow Hill Dr	Fairport NY	14450
054.11-01-043.000 Kays Family Trust	Kadiiiiaii	1233 Laurel Oak Ln	York PA	17403
· Company of the second	Vannadu			14610
055.00-01-002.200 Spencer	Kennedy	91 Astor Drive	Rochester NY	
055.00-01-002.100 Spencer	Kennedy	3397 County Route 121	Cohocton NY	14826
082.00-03-030.000 Brian	Kiefer	9123 St Rt 21	Cohocton NY	14826
054.11-01-028.000 Kevin	Kilbourne	20 East Lake Rd	Cohocton NY	14826
082.00-03-019.100 Kevin	Kilbourne	6 Morey Avenue	Dansville NY	14437
095.00-01-026.000 Jeffrey	Kilbury	8484 State Route 21	Arkport NY	14807
095.00-01-010.120 Matthew	Kilbury	53 West Ave	Arkport NY	14807
095.00-01-010.110 Robert	Kilbury	9150 Mack School Rd	Arkport NY	14807
081.00-01-007.400 Gary	Kincade	2348 Stone Hill Rd	Wayland NY	14572
054.11-01-006.000 Audrey	King	627 Starboard	Edgewater FL	32141
124.00-01-011.212 Rodney	King	3975 Curtis Coopers Rd	Campbell NY	14821
054.07-01-004.211 Ford	Kinney	1139 North Rd	Scottsville NY	14546
054.07-01-029.000 Thomas	Kinney	124 Thacher St	Hornell NY	14843
068.00-01-023.000 Mahlon	Kintz	9529 State Route 21S	Wayland NY	14572
095.00-01-034.410 Daniel	Klapprodt	8655 Rider Road	Arkport NY	14807
109.00-01-063.000 John	Kline	419 Seneca Road	Hornell NY	14843
	Kline	4 Hessler Ct	Dansville NY	14437
070.00-01-043.120 Steven				14555
081.00-01-015.100 Virginia	Klun	PO Box 286	Sodus Point NY	
068.00-01-027.200 Nora	Knox-Hopkins	4 Washington Street	Wayland NY	14572
069.00-01-009.000 William	Kollmer	22 North Creek Rd	Northport NY	11768
123.00-01-014.000 William	Koskie	2497 State Route 70A	Hornell NY	14843
109.00-01-062.000 Michael	Kramer	7122 N Main St Ext	Hornell NY	14843
082.00-01-010.000 Donald	Krause	3189 Brown Hill Rd	Cohocton NY	14826
068.00-01-020.000 Michael	Kuhlmann	9538 State Route 21S	Wayland NY	14572
042.00-01-052.000 Gerald	Kuhn	30 N Dansville St	Cohocton NY	14826
096.00-01-047.000 Gerald	Kull	8989 State Route 21	Cohocton NY	14826
069.00-01-014.200 William	Kurtz	18 Summers St	Livonia NY	14487
109.00-01-061.100 Robert, Willis, and Kara	LeBarron	2194 County Route 54	Hornell NY	14843
096.00-01-008.120 Theodore	LaFrance	7896 Loon Lake Rd	Hornell NY	14843
054.00-01-025.000 Lake Hollow Conservation Club	A CAST MAN CONTRACT	4810 Kirkwood Rd	Cohocton NY	14826
124.00-01-007.000 James	Lambert	7790 Tuttle Rd	Hornell NY	14843
055.00-01-014.210 Adam	Landis	9929 Lake Hollow Rd	Cohocton NY	14826
096.00-01-037.000 Benjamin and Cheryl	Landis	587 Strasburg Rd	Paradise PA	17562
068.00-01-037.000 Benjamin and Cheryi	Landie	187 S Church Road	Cohocton NY	14826
	Lande	9161 Ricketts Rd	Dansville NY	14437
				14826
055.00-01-027.000 William	Lavrance	10005 Lake Hollow Rd	Cohocton NY	
109.00-01-067.000 Debra	Lawrence	2294 Co Rd 54	Hornell NY	14843
070.00-01-007.000 Lent Hill Dairy Farm LLC		10799 Edmond Rd	Cohocton NY	14826

069.00-01-013.000 Timothy	Letson	285 Genesee Street	Avon NY	14414
081.00-01-008.000 William	Levesque	2315 Stone Hill Rd	Wayland NY	14572
068.00-01-030.000 Mason	Lewis	373 Columbia Ave	Rochester NY	14611
042.00-01-029.121 Stephanie	Lewis	63207 State Route 415	Cohocton NY	14826
082.00-03-015.200 Linda	Lindsay	134 Pontiac Drive	Rochester NY	14600
042.00-01-031.000 Roderic	Lindsey	10685 State Route 415	Cohocton NY	14826
041.00-02-025.000 Loon Lake North Cemetery		9115 Strong Hill Rd	Naples NY	14512
081.00-01-017.000 Lorow, Harry Jr	Lorow	121 B Mack School Road	Arkport NY	14807
054.11-01-024.000 Lowe, Edmund G	Lowe	24 East Lake Rd	Cohocton ny NY	14572
054.11-01-044.000 Mack, Peggy J & Kevin	Mack	1857 Rush-Scottsville Rd	Rush NY	14543
124.00-03-003.110 MacNaughton, Earl and Shad	IVIACK	3021 Davis Rd	Hornell NY	14843
			20,000,000,000	15.0-20.0///2007/
042.16-01-031.000 Madison & Paul Realty Inc.		PO Box 308	Prattsburgh NY	14873
054.11-01-014.000 Ruth	Maise	2317 Sagamore Hills Dr	Decatur GA	30033
081.00-01-007.500 David	Maker	8444 Green Rd	Dansville NY	14437
081.00-01-003.000 Douglas	Manhire	9 Ryan Rd	Hackettstown NJ	07840
096.00-01-045.000 Marie	Margeson	8528 County Route 55	Cohocton NY	14826
041.00-02-015.000 Steven	Marinilli	2970 Emo Rd	Wayland NY	14572
137.00-02-005.100 Theresa	Marino	2027 Co Rd 56	Hornell NY	14843
054.11-01-023.000 Mark Valley Farms		25 East Lake Road	Cohocton NY	14826
042.20-01-054.000 Nathan	Martin	6 N Dansville St	Cohocton NY	14826
042.00-01-007.120 Christopher	Martz	63180 State Route 415	Cohocton NY	14826
055.00-01-015.110 Shannon	Materson	9817 Lake Hollow Rd	Cohocton NY	14826
081.00-01-015.220 Alan	Matthews	47 West Ham Circle	North Chili NY	14514
042.00-01-027.000 Michael	Matthews	63064 State Route 415	Cohocton NY	14826
082.00-01-013.100 Thomas	Mauro	9189 Akins Rd	Cohocton NY	14826
055.00-01-033.000 John	McCanna	PO Box 193	Cohocton NY	14826
	1700,000,170,000,000	111500000000000000000000000000000000000		
070.00-01-020.110 James and Zachary	McCart	3959 Noble Road	Cohocton NY	14826
070.00-01-020.120 Linda	McCart	26 N Main Street	Cohocton NY	14826
054.07-01-016.000 Barbara	McCarthy	21 Marick Park	Hornell NY	14843
042.20-01-056.000 Carri	McCarthy	10 N Dansville St	Cohocton NY	14826
124.00-01-001.200 Paul	McCarthy	PO Box 324	Hornell NY	14843
042.16-01-022.000 Daniel	McCaslin	28 N Dansville St	Cohocton NY	14826
067.00-01-030.000 David	McGowan	6163 Rush Lima Road	Rush NY	14543
097.00-01-021.000 Craig	McGrain	5 Coddington Grove	Pittsford NY	14534
082.00-03-017.200 Keri and Elizabeth	McGunnigle	22 Charlesworth Ave	Avoca NY	14809
082.00-01-014.100 Stephen	McGunnigle	PO Box 72	Avoca NY	14809
054.11-01-020.000 Patrick	McHale	270 Main Street	Hornell NY	14843
068.00-01-014.000 Robert	McInnis	9783 State Route 21S	Wayland NY	14572
055.00-01-018.000 William	McInnis	13 Larrow Street	Cohocton NY	14826
042.20-01-013.000 Mary	Meese	91 Maple Ave	Cohocton NY	14826
054.15-01-028.000 Mehlenbacher Family		2849 County Route 121	Cohocton NY	14826
055.00-01-010.500 Mehlenbacher Family Farms LLC		10920 Beals Rd	Cohocton NY	14826
043.17-01-075.000 Donald	Mehlenbacher	9785 State Route 21	Wayland NY	14572
054.00-01-023.000 Billy	Mehlenbacher	3100 County Route 121	Cohocton NY	14826
042.20-01-039.000 Burl	Mehlenbacher	4 Shults Ave	Cohocton NY	14826
042.20-01-050.000 Chad	Mehlenbacher	7 S Dansville St	Cohocton NY	14826
054.00-01-015.120 Douglas	Mehlenbacher	2849 County Route 121	Cohocton NY	14826
055.08-01-010.100 Gregory	Mehlenbacher	156 Mill St	Cohocton NY	14826
043.17-01-069.000 Hazel	Mehlenbacher	3 Allen St	Cohocton NY	14826
055.08-01-021.000 Lawrence	Mehlenbacher	39 S Main Street	Cohocton NY	14826
042.16-01-027.000 Shannon	Mehlenbacher	36 N Dansville St	Cohocton NY	14826
054.00-01-017.300 Wayne	Mehlenbacher	10631 Sick Rd	Cohocton NY	14826
042.00-01-028.100 William	Mehlenbacher	10807 State Route 415 N	Cohocton NY	14826
054.00-01-011.100 Joseph	Meyer	9260 State Route 21S	Cohocton NY	14826
109.00-01-035.000 Kathy	Meyer	9823 North Hill Rd	Arkport NY	14807
054.07-01-005.000 Melissa	Meyer	78 Antlers Inn Rd	Wayland NY	14572
054.00-01-007.112 Joseph	Meyers	10014 State Route 21S	Wayland NY	14572
124.00-03-006.100 Jerry	Miller	7619 Miller Rd	Avoca NY	14809
124.00-03-006.200 Jerry	Miller	7949 County Route 55	Hornell NY	14843
	Miller	3 N Dansville St	Cohocton NY	14826
068.00-01-024.210 Jacob	Mitchell	9485 State Route 21S	Wayland NY	14572
068.00-01-025.200 Timothy	Mitchell	9479 State Route 21 South	Wayland NY	14572
068.00-01-025.100 Timothy	Mitchell	9485 State Route 21S	Wayland NY	14572
054.15-01-013.000 Donna	Moffat	162 Burbank Dr	Amherst NY	14226
070.00-01-023.000 Charles	Mohr	9603 Flint Road	Cohocton NY	14826
054.11-01-030.000 Karen	Monroe	18 E Lake Rd	Cohocton NY	14826
082.00-03-010.000 Patricia	Moon	2980 Davis Rd	Cohocton NY	14826
082.00-01-014.200 Thomas	Moon	40 South Avenue	Hilton NY	14468

082.00-03-016.210	Thomas	Moon	2980 Davis Rd	Cohocton NY	148
096.02-01-020.000	Eugene	Moore	8995 County Route 55	Cohocton NY	148
096.02-01-019.000		Moore	8684 County Route 55	Cohocton NY	148
054.11-01-016.000	1000 pt - 1000 p	Morsch	30 East Lake Rd	Cohocton NY	148
067.00-01-034.000		Mosko	2033 County Route 50	Arkport NY	148
069.00-01-023.000	Carl	Murano	8 Sutton Pt	Pittsford NY	145
138.00-01-001.200	Kelly	Murphy	2510 County Route 70A	Hornell NY	148
083.00-01-028.115	James	Murray	633 Pennsylvania Avenue	Apalachin NY	137
096.02-01-011.000	Mathew	Myers	10222 County Route 92	Wayland NY	145
110.00-01-012.000	100 C	Myers	8367 County Route 55	Cohocton NY	148
041.00-02-024.000			9115 Strong Hill Rd	Naples NY	145
041.00-02-029.200	Leon	Neu	10315 County Route 92	Wayland NY	145
041.00-02-037.000	Linda	Neu	47 S Main St	Cohocton NY	148
054.11-01-002.100		Neufang	202 Benjamin Blvd	Bear DE	197
054.10-01-049.000		Neva	153 1/2 Loon Lake Road	Wayland NY	145
	New York Land Development Co.		360 N Long Beach Rd	Rockville Centre NY	115
070.00-01-041.200		Newbauer	6161 Grimble Rd	Canandaigua NY	144
110.00-01-028.200	CONTRACTOR	Nisbet	7997 Rose Hill Rd	Hornell NY	148
096.00-01-023.000		Niver	8879 Mattoon Rd	Cohocton NY	148
082.00-03-031.122		Noble	4778 Covington Rd	Leicester NY	144
123.00-01-018.100	200000000000000000000000000000000000000	Northrup	2241 Co Rd 70A	Hornell NY	148
109.00-01-029.000		Norton	49 Catherine St	Hornell NY	148
042.20-01-057.000	Chad	Notebaert	12 N Dansville Street	Cohocton NY	148
068.00-01-012.120		Nowak	9649 Campbell Rd	Cohocton NY	148
T	NYS Dept. of Environmental Conserv	ation	625 Broadway	Albany NY	122
	NYS Electric & Gas Corp	01	PO Box 3287	Ithaca NY	148
056.00-01-024.114		Obrochta	9901 Jones Rd	Cohocton NY	148
081.00-01-014.000		Odea	142 Terry Street	Hornell NY	148
095.00-01-009.000		Odea	9000 Mack School Rd	Arkport NY	148
083.00-01-024.113	13.73,441.14(0.5)	Oehlbeck	3360 Brown Hill Rd	Cohocton NY	148
096.00-01-002.000		O'Grady	8920 St Rt 21	Cohocton NY	148
123.00-01-019.220		Olin	6250 Cunningham Creek Road	Canisteo NY	148
042.20-01-032.000	Kevin	O'Neal	3 Shults Ave	Cohocton NY	148
054.15-01-002.000		O'Neil	255 Winstead Road	Rochester NY	146
109.00-01-025.000		Organ	2481 Co Rd 54	Hornell NY	148
067.00-01-031.000 054.15-01-018.000		Osswasso Owens	5 Gladys Street 112 N Lackawanna St	Rochester NY	145
137.00-02-008.000				Wayland NY	148
081.00-01-020.210		Oyer Pacula	2256 Co Rd 70A 9119 Mack School Rd	Hornell NY Arkport NY	148
041.00-01-020.210		Paige	2877 Emo Road	Wayland NY	145
042.20-01-014.000		Paige	89 Maple Ave	Cohocton NY	148
041.00-02-030.000	Donald	Paige	2877 Emo Rd	Wayland NY	145
042.20-01-048.000	Quinton	Palme	5 S Main St	Cohocton NY	
042.20-01-048.000		Parkinson			
082.00-01-007.200			10609 Davis Hollow Rd		_
	(m. m. c.		10609 Davis Hollow Rd	Cohocton NY	148
	Gregory	Pastucha	9 Hendrick Ln	Cohocton NY Tarrytown NY	148
082.00-03-017.112	Gregory Kathleen	Pastucha Payne	9 Hendrick Ln 22 Charlesworth Ave	Cohocton NY Tarrytown NY Avoca NY	148 105 148
082.00-03-017.112 124.00-01-003.120	Gregory Kathleen James	Pastucha Payne Pearce	9 Hendrick Ln 22 Charlesworth Ave PO Box 335	Cohocton NY Tarrytown NY Avoca NY Arkport NY	148 109 148 148
082.00-03-017.112 124.00-01-003.120 055.00-01-004.200	Gregory Kathleen James Phillip	Pastucha Payne Pearce Pearsall	9 Hendrick Ln 22 Charlesworth Ave PO Box 335 3530 Loon Lake Road	Cohocton NY Tarrytown NY Avoca NY Arkport NY Cohocton NY	148 109 148 148 148
082.00-03-017.112 124.00-01-003.120 055.00-01-004.200 054.07-01-019.000	Gregory Kathleen James Phillip William	Pastucha Payne Pearce Pearsall Pearson	9 Hendrick Ln 22 Charlesworth Ave PO Box 335 3530 Loon Lake Road 63 East Lake Rd	Cohocton NY Tarrytown NY Avoca NY Arkport NY Cohocton NY Cohocton NY	148 109 148 148 148 148
082.00-03-017.112 124.00-01-003.120 055.00-01-004.200 054.07-01-019.000 042.20-01-051.000	Gregory Kathleen James Phillip William Menzo	Pastucha Payne Pearce Pearsall Pearson Peck	9 Hendrick Ln 22 Charlesworth Ave PO Box 335 3530 Loon Lake Road 63 East Lake Rd 2 S Dansville St	Cohocton NY Tarrytown NY Avoca NY Arkport NY Cohocton NY Cohocton NY Cohocton NY	148 109 148 148 148 148
082.00-03-017.112 124.00-01-003.120 055.00-01-004.200 054.07-01-019.000 042.20-01-051.000 138.00-01-002.000	Gregory Kathleen James Phillip William Menzo Michael	Pastucha Payne Pearce Pearsall Pearson Peck Peer	9 Hendrick Ln 22 Charlesworth Ave PO Box 335 3530 Loon Lake Road 63 East Lake Rd 2 S Dansville St 2500 Co Rd 70A	Cohocton NY Tarrytown NY Avoca NY Arkport NY Cohocton NY Cohocton NY Cohocton NY Hornell NY	148 109 148 148 148 148 148 148
082.00-03-017.112 124.00-01-003.120 055.00-01-004.200 054.07-01-019.000 042.20-01-051.000 138.00-01-002.000 054.11-01-025.000	Gregory Kathleen James Phillip William Menzo Michael Richard	Pastucha Payne Pearce Pearsall Pearson Peck Peer Perkins	9 Hendrick Ln 22 Charlesworth Ave PO Box 335 3530 Loon Lake Road 63 East Lake Rd 2 S Dansville St 2500 Co Rd 70A 31 E Main Street	Cohocton NY Tarrytown NY Avoca NY Arkport NY Cohocton NY Cohocton NY Cohocton NY Hornell NY Rochester NY	148 109 148 148 148 148 148 148
082.00-03-017.112 124.00-01-003.120 055.00-01-004.200 054.07-01-019.000 042.20-01-051.000 138.00-01-002.000 054.11-01-025.000 095.00-01-007.000	Gregory Kathleen James Phillip William Menzo Michael Richard Leonard	Pastucha Payne Pearce Pearsall Pearson Peck Peer Perkins Perry	9 Hendrick Ln 22 Charlesworth Ave PO Box 335 3530 Loon Lake Road 63 East Lake Rd 2 S Dansville St 2500 Co Rd 70A 31 E Main Street 130 Old Flower Drive	Cohocton NY Tarrytown NY Avoca NY Arkport NY Cohocton NY Cohocton NY Cohocton NY Hornell NY Rochester NY	14: 10: 14: 14: 14: 14: 14: 14: 14: 14: 14:
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082.00-03-017.112 124.00-01-003.120 055.00-01-004.200 054.07-01-019.000 042.20-01-051.000 138.00-01-002.000 054.11-01-025.000 095.00-01-007.000 055.00-01-014.110 042.00-01-002.222 082.00-03-016.112	Gregory Kathleen James Phillip William Menzo Michael Richard Leonard Richard Gregory Brian, Eric, and Kristen	Pastucha Payne Pearce Pearsall Pearson Peck Peer Perkins Perry Person Peters Peters	9 Hendrick Ln 22 Charlesworth Ave PO Box 335 3530 Loon Lake Road 63 East Lake Rd 2 S Dansville St 2500 Co Rd 70A 31 E Main Street 130 Old Flower Drive 120 Mill Road 7274 County Line Rd 22 Charlesworth Ave	Cohocton NY Tarrytown NY Avoca NY Arkport NY Cohocton NY Cohocton NY Cohocton NY Hornell NY Rochester NY Rochester NY Rochester NY Naples NY Avoca NY	144 100 144 144 144 144 144 144 144 144
082.00-03-017.112 124.00-01-003.120 055.00-01-004.200 054.07-01-019.000 042.20-01-051.000 138.00-01-002.000 054.11-01-025.000 095.00-01-007.000 055.00-01-014.110 042.00-01-002.222 082.00-03-016.112 095.00-01-025.120	Gregory Kathleen James Phillip William Menzo Michael Richard Leonard Richard Gregory Brian, Eric, and Kristen Patrick	Pastucha Payne Pearce Pearsall Pearson Peck Peer Perkins Perry Person Peters Peterson Piedici	9 Hendrick Ln 22 Charlesworth Ave PO Box 335 3530 Loon Lake Road 63 East Lake Rd 2 S Dansville St 2500 Co Rd 70A 31 E Main Street 130 Old Flower Drive 120 Mill Road 7274 County Line Rd 22 Charlesworth Ave 123 Grangerford Hts	Cohocton NY Tarrytown NY Avoca NY Arkport NY Cohocton NY Cohocton NY Cohocton NY Hornell NY Rochester NY Rochester NY Rochester NY Naples NY Avoca NY W Henrietta NY	144 100 144 144 144 144 144 144 144 144
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082.00-03-017.112 124.00-01-003.120 055.00-01-004.200 054.07-01-019.000 042.20-01-051.000 138.00-01-002.000 055.11-01-025.000 095.00-01-001-014.110 042.00-01-002.222 082.00-03-016.112 095.00-01-0025.120 068.00-01-009.100 068.00-01-009.200 042.20-01-038.000 042.20-01-038.000 042.20-01-035.000 054.15-01-017.000 082.00-01-000.000	Gregory Kathleen James Phillip William Menzo Michael Richard Leonard Richard Gregory Brian, Eric, and Kristen Patrick Daniel Daniel Gloria David Laurie John John David	Pastucha Payne Pearce Pearsall Pearson Peck Peer Perkins Perry Person Peters Peters Peters Pierce Pierce Pierce Pierce Pierce Pierucha Placa Polland Powers Pragle	9 Hendrick Ln  22 Charlesworth Ave PO Box 335 3530 Loon Lake Road 63 East Lake Rd 2 S Dansville St 2500 Co Rd 70A 31 E Main Street 130 Old Flower Drive 120 Mill Road 7274 County Line Rd 22 Charlesworth Ave 123 Grangerford Hts 356 Mill Road 63-129 Alderton Street 3184 Kenyon Rd 8 First St 10579 Davis Hollow Rd PO Box 96 85 Maple Ave 2599 Derevees Rd	Cohocton NY Tarrytown NY Avoca NY Arkport NY Cohocton NY Cohocton NY Cohocton NY Hornell NY Rochester NY Rochester NY Rochester NY Valley Stream NY Rego Park NY Williamson NY Cohocton NY Cohocton NY Atlanta NY Cohocton NY Wayland NY	148 148 148 148 148 148 148 148 148 149 149 149 149 149 149 149 149 149 149
082.00-03-017.112 124.00-01-003.120 055.00-01-004.200 054.07-01-019.000 042.20-01-051.000 138.00-01-002.000 055.00-01-007.000 055.00-01-014.110 042.00-01-002.222 082.00-03-016.112 095.00-01-005.120 068.00-01-009.100 068.00-01-009.200 069.00-01-095.000 042.20-01-038.000 042.20-01-035.000 054.15-01-017.000 044.20-01-000.000	Gregory Kathleen James Phillip William Menzo Michael Richard Leonard Richard Gregory Brian, Eric, and Kristen Patrick Daniel Gloria David Laurie John John David Joseph	Pastucha Payne Pearce Pearsall Pearson Peck Peer Perkins Perry Person Peters Peters Peters Piedici Pierce Pierce Pierce Pierucha Placa Polland Powers	9 Hendrick Ln  22 Charlesworth Ave PO Box 335  3530 Loon Lake Road  63 East Lake Rd  2 S Dansville St  2500 Co Rd 70A  31 E Main Street  130 Old Flower Drive  120 Mill Road  7274 County Line Rd  22 Charlesworth Ave 123 Grangerford Hts 356 Mill Road  63-129 Alderton Street  3184 Kenyon Rd  8 First St  10579 Davis Hollow Rd PO Box 96  85 Maple Ave	Cohocton NY Tarrytown NY Avoca NY Arkport NY Cohocton NY Cohocton NY Cohocton NY Hornell NY Rochester NY Rochester NY Naples NY Avoca NY W Henrietta NY Valley Stream NY Rego Park NY Williamson NY Cohocton NY Cohocton NY Atlanta NY Cohocton NY	1488 1488 1488 1488 1488 1488 1488 1488

054.15-01-001.000 R. Scott	Prior, et al.	4 Weston Ln	Painted Post NY	14870
042.00-01-029.200 Gary	Proud	123 Countess Dr	West Henrietta NY	14586
054.07-01-031.000 John	Pryor	1495 Laurel Ln	Hornell NY	14843
081.00-01-004.000 William	Pryor	PO Box 55	Arkport NY	14807
124.00-01-012.000 Monroe	Puffer	2716 County Route 70A	Hornell NY	14843
028.00-01-040.000 Thomas	Quanz	2850 Quanz Rd	Wayland NY	14572
068.00-01-010.300 David	Quick	22 Blaine Street	Hornell NY	14843
054.15-01-014.000 Paul	Randall	2905 County Route 121	Cohocton NY	14826
042.20-01-044.000 Bertha	Rath	9 First Street	Cohocton NY	14826
069.00-01-017.200 Sylvester	Rauber	3191 Dye Rd	Cohocton NY	14826
042.00-01-003.000 Dana	Rawleigh	63311 State Route 415	Cohocton NY	14826
055.00-01-001.120 Richard	Rawleigh	25 N Dansville Street	Cohocton NY	14826
070.00-01-021.000 Anthony	Razzi	9641 Flint Rd	Cohocton NY	14826
055.00-01-021.000 Antitiony 055.00-01-008.000 Regional Gravel Products LLC	Nazzi	PO Box 65	West Bloomfield NY	14585
041.00-02-017.120 Robert	Paulhach	CONTRACTOR OF THE PARTY OF THE		
	Reulbach	96 Delmar Street	Rochester NY	14606
054.11-01-037.000 Beth	Reynolds	112 Brickyard Rd	Lansing NY	14882
054.15-01-003.000 Marcia and Gary	Reynolds	405 Cleveland Ave	Hornell NY	14843
054.11-01-007.000 Robert	Reynolds	1193 Severn Ridge	Webster NY	14580
054.15-01-006.000 Mark	Richardson	475 Reeves Road	Pittsford NY	14534
109.00-01-022.000 Joe	Rider	25 Highview Rd	Wappingers Falls NY	12590
095.00-01-034.111 Myron	Rider	8690 State Route 21	Arkport NY	14807
110.00-01-013.000 Myron	Rider	PO Box 113A	Arkport NY	14807
069.00-01-026.100 Eileen	Riedman	710 Rock Beach Rd	Rochester NY	14617
069.00-01-020.000 Eileen	Riedman	1125 W Side Dr.	Chili NY	14626
042.00-01-023.000 David	Riley	3333 Henkle Hollow Rd	Cohocton NY	14826
096.00-01-008.112 Jack	Ritter	239 Pointe Vintage Dr	Rochester NY	14626
096.00-01-054.110 Nicholas	Rivaldo	665 Regina Dr	Webster NY	14580
083.00-01-024.120 Douglas	Rivers	9345 Wager Road	Cohocton NY	14826
042.00-01-006.112 Christopher	Rizzieri	10619 Beals Rd	Cohocton NY	14826
095.00-01-037.000 Beverly	Roberts	8994 Mack School Rd	Arkport NY	14807
109.00-01-058.000 Paul	Robinson	8169 Lonsberry Rd	Hornell NY	14843
054.11-01-003.000 Roy	Robinson	115 South Main St	Wayland NY	14572
137.00-02-011.000 Susan	Robshaw	2362 County Route 70A	Hornell NY	14843
054.15-01-012.000 Filipe	Rocha	2 East Lake Rd	Cohocton NY	14826
042.00-01-008.112 Benjamin	Roper	10690 Sick Rd	Cohocton NY	14826
137.00-02-006.000 Joseph	Rose	2244 County Route 70A	Hornell NY	14843
110.00-01-033.000 Mike and Maria	Rosello	7426 E Main St	Lima NY	14485
				14826
096.00-01-058.200 Jeffrey	Ross	8464 County Route 55	Cohocton NY	14572
068.00-01-032.200 Jeremy	Ruscitto	9745 Ward Rd	Wayland NY	
054.15-01-005.000 Bernard	Ryan	5290 Groveland Road	Geneseo NY	14454
042.00-01-042.000 John	Sabins	3549 Henkle Hollow Rd	Cohocton NY	14826
042.20-01-018.000 Janice	Sahrle	81 Maple Ave	Cohocton NY	14826
054.00-01-020.100 Frederick	Sahrle	1773 State Route 63	Wayland NY	14572
041.00-02-033.000 James	Sahrle	10502 County Route 92	Wayland NY	14572
070.00-01-027.110 Louise	Salerno	28 East Hill Drive	Smithtown NY	11787
083.00-01-008.111 Louise	Salerno	3925 Brown Hill Rd	Avoca NY	14809
083.00-02-002.000 Louise	Salerno	27 East Hill Drive	Smithtown NY	11787
070.00-01-027.120 Mark	Salerno	77 Ross Ave	Hackensack NJ	07601
070.00-01-017.200 Michael	Salerno	9339 Fairbrother Rd	Avoca NY	14809
042.20-01-002.000 Loraine	Sanderson	16 N Dansville St	Cohocton NY	14826
083.00-01-008.112 Don	Sandford	3668 Brown Hill Rd	Cohocton NY	14826
110.00-01-011.200 Robert	Sanford	34 Franklin St	Hornell NY	14843
124.00-03-002.000 Sara A Prior Estate		1247 Maple Ct	Hornell NY	14843
054.00-01-021.000 Neil	Sauerbier	3111 County Route 121	Cohocton NY	14826
110.00-01-007.120 James	Saunders	8351 Jones Rd	Hornell NY	14843
042.16-01-008.200 Austim	Saxton	9598 S Church Rd	Cohocton NY	14826
055.00-01-019.200 Charles	Saxton	3230 County Route 121	Cohocton NY	14826
055.00-01-028.110 Dustin	Saxton	10019 Lake Hollow Rd	Cohocton NY	14826
082.00-03-036.000 James	Saxton	48 Dumont Street	Rochester NY	14617
068.00-01-024.220 Keith		13 Rosencrans St	Cohocton NY	14826
	Saxton			
042 16-01-008 100 Keith	Saxton			
042.16-01-008.100 Keith	Saxton	23 N Dansville Street	Cohocton NY	14826
082.00-01-009.000 Kevin	Saxton Saxton	23 N Dansville Street 9908 State Route 21S	Cohocton NY Wayland NY	14826 14572
082.00-01-009.000 Kevin 042.20-01-024.000 Richard	Saxton Saxton Saxton	23 N Dansville Street 9908 State Route 21S 21 Rochester Street	Cohocton NY Wayland NY Warsaw NY	14826 14572 14569
082.00-01-009.000 Kevin 042.20-01-024.000 Richard 083.00-01-028.111 Anthony	Saxton Saxton Saxton Schepis	23 N Dansville Street 9908 State Route 21S 21 Rochester Street 281 Cottage St	Cohocton NY Wayland NY Warsaw NY Lockport NY	14826 14572 14569 14094
082.00-01-009.000 Kevin 042.20-01-024.000 Richard 083.00-01-028.111 Anthony 069.00-01-007.000 Lisa	Saxton Saxton Saxton Schepis Schichler	23 N Dansville Street 9908 State Route 21S 21 Rochester Street 281 Cottage St 9 Water Street	Cohocton NY Wayland NY Warsaw NY Lockport NY Oakfield NY	14826 14572 14569 14094 14125
082.00-01-009.000 Kevin 042.20-01-024.000 Richard 083.00-01-028.111 Anthony 069.00-01-007.000 Lisa 041.00-02-007.110 Patricia	Saxton Saxton Saxton Schepis Schichler Schirmer	23 N Dansville Street 9908 State Route 21S 21 Rochester Street 281 Cottage St 9 Water Street 3225 Henry Drum Rd	Cohocton NY Wayland NY Warsaw NY Lockport NY Oakfield NY Wayland NY	14826 14572 14569 14094 14125 14572
082.00-01-009.000 Kevin 042.20-01-024.000 Richard 083.00-01-028.111 Anthony 069.00-01-007.000 Lisa	Saxton Saxton Saxton Schepis Schichler	23 N Dansville Street 9908 State Route 21S 21 Rochester Street 281 Cottage St 9 Water Street	Cohocton NY Wayland NY Warsaw NY Lockport NY Oakfield NY	14826 14572 14569 14094 14125

054.11-01-011.200 Werth Scura	Schultheiss	2940 County Route 121	Cohocton NY	14826
096.00-01-053.120 Randy	Schultz	2575 County Route 1	Addison NY	14801
042.00-01-017.111 Edward	Schumacher	10493 State Route 415	Cohocton NY	14826
042.16-01-028.000 Edward	Schumacher	62914 State Route 415	Cohocton NY	14826
042.00-01-017.122 Francis	Schumacher	62921 State Route 415	Cohocton NY	14826
042.00-01-017.121 Nicholas	Schumacher	62915 State Route 415	Cohocton NY	14826
042.00-01-017.200 Victor	Schumacher	62965 State Route 415	Cohocton NY	14826
041.00-02-002.100 Victor	Schumacher	3039 Henry Drum Rd	Cohocton NY	14826
042.00-01-037.000 William	Schumacher	62987 State Route 415	Cohocton NY	14826
042.20-01-043.000 Marva	Schutz-Roffe			
	V. 11 1 A. W. IV. IV. IV. IV. IV. IV. IV. IV. IV. IV	90 Maple Ave	Cohocton NY	14826
081.00-01-018.200 Donald	Schwartz	9092 Mack School Rd	Arkport NY	14807
137.00-02-013.000 Jeffrey	Schwartz	2404 County Route 70A	Hornell NY	14843
096.00-01-060.000 Leo	Seamon	9260 Strobel Rd	Arkport NY	14807
055.00-01-010.400 Jacqueline	Sebesta-Johnson	3682 Jones Rd Ext	Cohocton NY	14826
081.00-01-013.000 Frans	Seigers	7496 Alvord Rd	Stittville NY	13469
054.11-01-010.000 Hester	Shepard	13 Northridge Dr	Arkport NY	14807
124.00-01-025.000 Richard	Sherman	2520 Van Keuren Rd	Hornell NY	14843
110.00-01-039.000 Nicholas	Shirley	2896 Jobs Corners Rd	Hornell NY	14843
028.00-01-044.122 Timothy	Short	63527 State Route 415	Cohocton NY	14826
054.07-01-014.000 David	Shults	66 Maple St	Hornell NY	14843
054.07-01-015.000 Eric	Shults	427 Seneca Rd	Hornell NY	14843
068.00-01-013.200 John	Siciliano	9518 New Galen Rd	Cohocton NY	14826
042.00-01-001.100 David	Sick	3240 Warren Hill Rd	Cohocton NY	14826
042.00-01-006.200 Lawrence	Sick	63230 State Route 415	Cohocton NY	14826
041.00-02-004.200 Lynn	Sick	3012 Drum Rd	Cohocton NY	14826
041.00-02-007.121 Michael	Sick	3240 Warren Hill Rd	Cohocton NY	14826
056.00-01-019.000 Neil	Sick	9879 Flint Rd Ext	Cohocton NY	14826
042.00-01-004.112 Steven	Sick	3234 Warren Hill Rd	Cohocton NY	14826
				14826
041.00-02-007.210 Thomas	Sick	3279 Henry Drum Rd	Cohocton NY	
041.00-02-016.112 Thomas	Sick	2996 Valley View Lane	Strykersville NY	14145
041.00-02-016.320 Thomas	Sick	5828 Pierson Rd	Fayetteville NY	13066
041.00-02-016.111 William	Sick	2898 Emo Rd	Wayland NY	14572
083.00-01-028.112 Berta	Simmons	Box 843 Careteret Avenue	Trenton NJ	08618
083.00-01-028.116 Berta	Simmons	3614 Brown Hill Rd	Cohocton NY	14826
082.00-01-011.000 Thomas	Simons	10997 Beals Rd	Cohocton NY	14826
068.00-01-022.000 Michael	Singer	2062 Deiter Road	Wayland NY	14572
041.00-02-014.000 Daniel	Sinnott	3026 Emo Rd	Wayland NY	14572
042.00-01-033.000 David Michael	Sisson	PO Box 966	Bath NY	14810
055.08-01-013.000 Conway	Slayton	9273 State Route 21	Cohocton NY	14826
081.00-01-007.111 Conway	Slayton	8273 State Route 21	Cohocton NY	14826
054.00-01-028.000 Conway	Slayton	9808 South Church Rd	Cohocton NY	14826
082.00-01-018.120 Conway	Slayton	2112 Michigan Road	Wayland NY	14572
083.00-01-004.000 Forrest	Slayton	3713 Stayton Road	Cohocton NY	14826
083.00-01-009.120 Forrest	Slayton	3722 Slayton Rd	Cohocton NY	14826
082.00-01-002.000 Harry	Smalt	2679 Derevees Rd	Wayland NY	14572
096.02-01-012.000 Hope	Smith	3164 County Route 6	Cohocton NY	14826
				14544
082.00-01-001.000 Kevin	Smith	5227 Valley View Rd	Rushville NY	
138.00-01-004.000 Raymond	Smith	2544 County Route 70A	Hornell NY	14843
124.00-01-021.000 Robert	Smith	2679 County Route 70A	Hornell NY	14843
095.00-01-032.000 Robert	Smith	368 Ridge Road W	Milford NJ	07480
081.00-01-011.000 Ronald Lee	Smith	8230 Cream Hill Rd	Arkport NY	14807
041.00-02-029.110 Samuel	Smith	10378 County Road 92	Wayland NY	14572
124.00-01-020.000 Scott	Smith	2683 County Route 70A	Hornell NY	14843
054.11-01-018.000 Sean	Smith	8234 Cream Hill Rd	Arkport NY	14807
083.00-01-034.100 Stephen	Smith	3200 Brown Hill Rd	Cohocton NY	14826
138.00-01-016.000 Smiths Stock Farm Inc		7052 Smith Rd	Hornell NY	14843
096.00-01-040.000 James	Snook	1 Little York Mt Pleasant Rd	Milford NJ	08848
042.20-01-052.000 Thomas	Snowman	8 Sunnyside Drive	Dansville NY	14437
055.00-01-026.000 Donald	Snyder	10011 Lake Hollow Rd	Cohocton NY	14826
042.20-01-001.000 Edward	Snyder	14 N Dansville St	Cohocton NY	14826
042.20-01-006.000 Gary	Snyder	5 N Dansville St	Cohocton NY	14826
096.00-01-041.111 James	Soukup	8521 County Route 55	Cohocton NY	14826
068.00-01-041.111 James  068.00-01-021.000 South Loon Lake Church	550up	State Route 21S	Wayland NY	14572
124.00-01-017.000 Sovereign Grace Baptist Ch		PO Box 55	Hornell NY	14843
124.00-01-017.000 Sovereign Grace Baptist Cit	Spanganberg	2873 County Route 70A	Hornell NY	14843
			Avoca NY	14809
028.00-01-044.112 Delton	Speers	21 N Maple Avenue		14221
054.07-01-012.000 Nichole	Sperrazzo	26 Pfohl Pl	Williamsville NY	
081.00-01-020.100 Jerry	Sprague	9094 Mack School Rd	Arkport NY	14807

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007.00.04.035.300.0				
067.00-01-025.200 Bernard	Springer	323 Aurora Ave	West Seneca NY	14224
054.11-01-022.000 Charles	St. George	109 W Naples Street	Wayland NY	14572
042.20-01-009.000 St Paul Lutheran Church		PO Box 316	Cohocton NY	14826
068.00-01-008.200 Stamper Family		9645 State Route 21S	Wayland NY	14572
082.00-03-008.200 Kenneth	Stauffer	10259 Rout 21 S	Wayland NY	14572
081.00-01-002.100 Todd	Stauring	9233 Mack School Rd	Arkport NY	14807
124.00-01-004.000 Paul	Steffen	7841 Tuttle Rd	Hornell NY	14843
042.16-01-007.000 Michael	Stephens	25 N Dansville St	Cohocton NY	14826
070.00-01-028.000 Steuben County IDA	эсерненэ	112 1/2 E Market St	Corning NY	14830
042.20-01-060.000 Steuben County IDA		PO Box 395	Bath NY	14810
055.08-01-015.000 Steuben County IDA		PO Box 393		
			Bath NY	14810
056.00-01-024.120 Steuben County 055.08-01-003.000 Clifton and Sandra	<u> </u>	3 E Pulteney Sq	Bath NY	14810
	Stevens	10 S Dansville St	Cohocton NY	14826
069.00-01-005.000 Douglas	Stewart	1618 N Winton Rd	Rochester NY	14609
096.00-01-054.200 Jerald	Stewart	8515 County Route 55	Cohocton NY	14826
054.07-01-008.000 Gary	Stith	7289 Centerville Rd	Houghton NY	14744
124.00-03-005.200 Randy	Stockweather	20 E Genesee St	Skaneateles NY	13152
123.00-01-019.210 Matthew	Stoddard	35 Preston Avenue	Hornell NY	14843
083.00-01-008.220 Daniel	Stone	6 Church Street	Cohocton NY	14826
083.00-01-008.212 Karen	Stone	3658 Fred Rd	Cohocton NY	14826
096.00-01-041.120 James	Story	2762 Canfield Rd	Cohocton NY	14826
109.00-01-011.100 Mark	Stover	8294 St Rt 21	Arkport NY	14807
054.00-01-022.000 Strasburg Living Trust		60 Maple Ave	Cohocton NY	14826
054.11-01-015.000 Todd	Strong	258 Charles Street	Painted Post NY	14870
138.00-01-003.000 Brittany	Studley	2540 Co Rd 70A	Hornell NY	14843
070.00-01-043.110 Richard	Sullivan	171 Candlewood Rd	Rochester NY	14609
042.20-01-037.000 Aaron	Swain	6 First St	Cohocton NY	14826
054.11-01-036.000 Sandra	Swan	1 E Lake Road	Wayland NY	14572
054.11-01-013.000 Sonja	Sweeney	282 Canisteo St	Hornell NY	14843
124.00-01-013.000 Cathy	Swift	114 Upper Bennett	Hornell NY	14843
	1000 (00000)			14845
042.16-01-016.000 Cesare	Taccone	9920 Cohocton Wallace Road	Cohocton NY	
028.00-01-044.300 Laurie	Taft	63461 State Route 415	Cohocton NY	14826
110.00-01-007.212 James	Taylor	8358 Jones Rd	Hornell NY	14843
055.00-01-010.600 Michael	Taylor	10050 Lake Hollow Rd	Cohocton NY	14826
095.00-01-017.200 Donald	Thompson	8789 Isaman Road	Arkport NY	14807
083.00-01-007.000 Mildred and Wilson	Thorp	26 Mattison Ln	Horseheads NY	14845
082.00-03-018.200 James	Tingley	PO Box 4	Swain NY	14884
070.00-01-040.000 Gerald	Tobias	8 Emila Circle	Rochester NY	14606
054.15-01-008.200 Town Of Wayland		17 Main St	Wayland NY	14572
042.20-01-003.000 Marion	Towner	11 N Dansville St	Cohocton NY	14826
096.00-01-021.120 William	Towner	355 S State Rd 415	New Smryna Beach FL	32168
082.00-01-013.200 Angela	Trautman	9249 Akins Rd		
096.00-01-058.100 Jesse		di anno 2000 del propieto de monto de m	Conocton INY	14826
	Travis	PO Box 495	Cohocton NY Avoca NY	14826 14809
	Travis	PO Box 495	Avoca NY	14809
110.00-01-023.221 Thomas	Tychi	195 Lincoln Street	Avoca NY Hornell NY	14809 14843
110.00-01-023.221 Thomas 097.00-03-001.200 Scott		195 Lincoln Street 8873 Akins Rd	Avoca NY Hornell NY Cohocton NY	14809 14843 14826
110.00-01-023.221 Thomas 097.00-03-001.200 Scott 068.00-01-010.121 US Dept Of Ag. And Markets	Tychi Unterborn	195 Lincoln Street 8873 Akins Rd 263 Woodsmoke Ln	Avoca NY Hornell NY Cohocton NY Rochester NY	14809 14843 14826 14612
110.00-01-023.221 Thomas 097.00-03-001.200 Scott 068.00-01-010.121 US Dept Of Ag. And Markets 082.00-03-015.100 John	Tychi Unterborn Van Niel	195 Lincoln Street 8873 Akins Rd 263 Woodsmoke Ln 311 Rogers Pkwy	Avoca NY Hornell NY Cohocton NY Rochester NY Rochester NY	14809 14843 14826 14612 14617
110.00-01-023.221 Thomas 097.00-03-001.200 Scott 068.00-01-010.121 US Dept Of Ag. And Markets 082.00-03-015.100 John 054.07-01-010.000 Douglas	Tychi Unterborn Van Niel Vanacker	195 Lincoln Street 8873 Akins Rd 263 Woodsmoke Ln 311 Rogers Pkwy 6734 Rotterdam Rd	Avoca NY Hornell NY Cohocton NY Rochester NY Rochester NY Sodus NY	14809 14843 14826 14612 14617 14551
110.00-01-023.221 Thomas 097.00-03-001.200 Scott 068.00-01-010.121 US Dept Of Ag. And Markets 082.00-03-015.100 John 054.07-01-010.000 Douglas 054.11-01-017.000 Raymond	Tychi Unterborn Van Niel Vanacker VanBuren	195 Lincoln Street 8873 Akins Rd 263 Woodsmoke Ln 311 Rogers Pkwy 6734 Rotterdam Rd 301 W Naples St	Avoca NY Hornell NY Cohocton NY Rochester NY Rochester NY Sodus NY Wayland NY	14809 14843 14826 14612 14617 14551 14572
110.00-01-023.221 Thomas  097.00-03-001.200 Scott  068.00-01-010.121 US Dept Of Ag. And Markets  082.00-03-015.100 John  054.07-01-010.000 Douglas  054.11-01-017.000 Raymond  067.00-01-020.000 Richard	Tychi Unterborn  Van Niel Vanacker VanBuren Vancuren	195 Lincoln Street 8873 Akins Rd 263 Woodsmoke Ln 311 Rogers Pkwy 6734 Rotterdam Rd 301 W Naples St 2579 Derevees Rd	Avoca NY Hornell NY Cohocton NY Rochester NY Rochester NY Sodus NY Wayland NY Wayland NY	14809 14843 14826 14612 14617 14551 14572 14572
110.00-01-023.221 Thomas  097.00-03-001.200 Scott  068.00-01-010.121 US Dept Of Ag. And Markets  082.00-03-015.100 John  054.07-01-010.000 Douglas  054.11-01-017.000 Raymond  067.00-01-020.000 Richard  083.00-01-028.120 Roy	Tychi Unterborn  Van Niel Vanacker VanBuren Vancuren Vandenburg	195 Lincoln Street 8873 Akins Rd 263 Woodsmoke Ln 311 Rogers Pkwy 6734 Rotterdam Rd 301 W Naples St 2579 Derevees Rd 1148 Rush West Rush Rd	Avoca NY Hornell NY Cohocton NY Rochester NY Rochester NY Sodus NY Wayland NY Wayland NY Rush NY	14809 14843 14826 14612 14617 14551 14572 14572 14543
110.00-01-023.221 Thomas  097.00-03-001.200 Scott  068.00-01-010.121 US Dept Of Ag. And Markets  082.00-03-015.100 John  054.07-01-010.000 Douglas  054.11-01-017.000 Raymond  067.00-01-020.000 Richard  083.00-01-028.120 Roy  042.00-01-011.111 Dorothy	Tychi Unterborn  Van Niel Vanacker VanBuren Vancuren Vandenburg Vanderhoff	195 Lincoln Street 8873 Akins Rd 263 Woodsmoke Ln 311 Rogers Pkwy 6734 Rotterdam Rd 301 W Naples St 2579 Derevees Rd 1148 Rush West Rush Rd 2999 Satin Leaf Ct	Avoca NY Hornell NY Cohocton NY Rochester NY Rochester NY Sodus NY Wayland NY Wayland NY Rush NY Port St Lucie FL	14809 14843 14826 14612 14617 14551 14572 14572 14543 34952
110.00-01-023.221 Thomas  097.00-03-001.200 Scott  068.00-01-010.121 US Dept Of Ag. And Markets  082.00-03-015.100 John  054.07-01-010.000 Douglas  054.11-01-017.000 Raymond  067.00-01-020.000 Richard  083.00-01-028.120 Roy	Tychi Unterborn  Van Niel Vanacker VanBuren Vancuren Vandenburg	195 Lincoln Street 8873 Akins Rd 263 Woodsmoke Ln 311 Rogers Pkwy 6734 Rotterdam Rd 301 W Naples St 2579 Derevees Rd 1148 Rush West Rush Rd	Avoca NY Hornell NY Cohocton NY Rochester NY Rochester NY Sodus NY Wayland NY Wayland NY Rush NY	14809 14843 14826 14612 14617 14551 14572 14572 14543 34952 14809
110.00-01-023.221 Thomas  097.00-03-001.200 Scott  068.00-01-010.121 US Dept Of Ag. And Markets  082.00-03-015.100 John  054.07-01-010.000 Douglas  054.11-01-017.000 Raymond  067.00-01-020.000 Richard  083.00-01-028.120 Roy  042.00-01-011.111 Dorothy	Tychi Unterborn  Van Niel Vanacker VanBuren Vancuren Vandenburg Vanderhoff	195 Lincoln Street 8873 Akins Rd 263 Woodsmoke Ln 311 Rogers Pkwy 6734 Rotterdam Rd 301 W Naples St 2579 Derevees Rd 1148 Rush West Rush Rd 2999 Satin Leaf Ct PO Box 102 10308 County Route 92	Avoca NY Hornell NY Cohocton NY Rochester NY Rochester NY Sodus NY Wayland NY Wayland NY Rush NY Port St Lucie FL	14809 14843 14826 14612 14617 14551 14572 14572 14543 34952 14809 14572
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110.00-01-023.221 Thomas  097.00-03-001.200 Scott  068.00-01-010.121 US Dept Of Ag. And Markets  082.00-03-015.100 John  054.07-01-010.000 Douglas  054.11-01-017.000 Raymond  067.00-01-020.000 Richard  083.00-01-028.120 Roy  042.00-01-011.111 Dorothy  069.00-01-022.111 Ann Marie  041.00-02-017.111 Gary	Tychi Unterborn  Van Niel Vanacker VanBuren Vancuren Vandenburg Vanderhoff VanGorder Vargason	195 Lincoln Street 8873 Akins Rd 263 Woodsmoke Ln 311 Rogers Pkwy 6734 Rotterdam Rd 301 W Naples St 2579 Derevees Rd 1148 Rush West Rush Rd 2999 Satin Leaf Ct PO Box 102 10308 County Route 92	Avoca NY Hornell NY Cohocton NY Rochester NY Rochester NY Sodus NY Wayland NY Wayland NY Rush NY Port St Lucie FL Avoca NY Wayland NY	14809 14843 14826 14612 14617 14551 14572 14572 14543 34952 14809 14572
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110.00-01-023.221 Thomas 097.00-03-001.200 Scott 068.00-01-010.121 US Dept Of Ag. And Markets 082.00-03-015.100 John 054.07-01-010.000 Douglas 054.11-01-017.000 Raymond 067.00-01-020.000 Richard 083.00-01-028.120 Roy 042.00-01-011.111 Dorothy 069.00-01-022.111 Ann Marie 041.00-02-017.111 Gary 110.00-01-037.000 David 110.00-01-035.000 Pat 109.00-01-066.220 Ricky 055.08-01-005.000 Victor 042.00-01-038.200 Todd	Tychi Unterborn  Van Niel Vanacker VanBuren Vancuren Vandenburg Vanderhoff VanGorder Vargason Venditti Venditti Vincent Vodicka Voorhees	195 Lincoln Street 8873 Akins Rd 263 Woodsmoke Ln 311 Rogers Pkwy 6734 Rotterdam Rd 301 W Naples St 2579 Derevees Rd 1148 Rush West Rush Rd 2999 Satin Leaf Ct PO Box 102 10308 County Route 92 635 33rd St 471 25th St 2354 Co Rd 54 12 S Dansville St 63114 State Route 415	Avoca NY Hornell NY Cohocton NY Rochester NY Rochester NY Sodus NY Wayland NY Wayland NY Port St Lucie FL Avoca NY Wayland NY Niagara Falls NY Niagara Falls NY Hornell NY Cohocton NY	14809 14843 14826 14612 14617 14551 14572 14572 14543 34952 14809 14572 14301 14303 14843 14826 14826
110.00-01-023.221 Thomas 097.00-03-001.200 Scott 068.00-01-010.121 US Dept Of Ag. And Markets 082.00-03-015.100 John 054.07-01-010.000 Douglas 054.11-01-017.000 Raymond 067.00-01-020.000 Richard 083.00-01-028.120 Roy 042.00-01-011.111 Dorothy 069.00-01-022.111 Ann Marie 041.00-02-017.111 Gary 110.00-01-035.000 Pat 109.00-01-066.220 Ricky 055.08-01-005.000 Victor 042.00-01-038.200 Todd 042.00-01-038.300 Todd	Tychi Unterborn  Van Niel Vanacker VanBuren Vancuren Vandenburg Vanderhoff VanGorder Vargason Venditti Venditti Vincent Vodicka	195 Lincoln Street 8873 Akins Rd 263 Woodsmoke Ln 311 Rogers Pkwy 6734 Rotterdam Rd 301 W Naples St 2579 Derevees Rd 1148 Rush West Rush Rd 2999 Satin Leaf Ct PO Box 102 10308 County Route 92 635 33rd St 471 25th St 2354 Co Rd 54 12 S Dansville St 63114 State Route 415	Avoca NY Hornell NY Cohocton NY Rochester NY Rochester NY Sodus NY Wayland NY Wayland NY Rush NY Port St Lucie FL Avoca NY Wayland NY Niagara Falls NY Niagara Falls NY Hornell NY Cohocton NY Cohocton NY	14809 14843 14826 14612 14617 14551 14572 14572 14543 34952 14809 14572 14301 14303 14843 14826 14826
110.00-01-023.221 Thomas  097.00-03-001.200 Scott  068.00-01-010.121 US Dept Of Ag. And Markets  082.00-03-015.100 John  054.07-01-010.000 Douglas  054.11-01-017.000 Raymond  067.00-01-020.000 Richard  083.00-01-028.120 Roy  042.00-01-011.111 Dorothy  069.00-01-022.111 Ann Marie  041.00-02-017.111 Gary  110.00-01-035.000 Pat  109.00-01-066.220 Ricky  055.08-01-005.000 Victor  042.00-01-038.200 Todd  042.00-01-038.300 Todd  056.00-01-046.000 W R & L Associates Inc	Tychi Unterborn  Van Niel Vanacker VanBuren Vancuren Vandenburg Vanderhoff VanGorder Vargason Venditti Venditti Vincent Vodicka Voorhees	195 Lincoln Street 8873 Akins Rd 263 Woodsmoke Ln 311 Rogers Pkwy 6734 Rotterdam Rd 301 W Naples St 2579 Derevees Rd 1148 Rush West Rush Rd 2999 Satin Leaf Ct PO Box 102 10308 County Route 92 635 33rd St 471 25th St 2354 Co Rd 54 12 S Dansville St 63114 State Route 415 10664 Route 415 332 Jefferson Road	Avoca NY Hornell NY Cohocton NY Rochester NY Rochester NY Sodus NY Wayland NY Wayland NY Rush NY Port St Lucie FL Avoca NY Wayland NY Niagara Falls NY Niagara Falls NY Hornell NY Cohocton NY Cohocton NY Rochester NY	14809 14843 14826 14612 14617 14551 14572 14572 14543 34952 14809 14572 14301 14303 14843 14826 14826 14826 14623
110.00-01-023.221 Thomas  097.00-03-001.200 Scott  068.00-01-010.121 US Dept Of Ag. And Markets  082.00-03-015.100 John  054.07-01-010.000 Douglas  054.11-01-017.000 Raymond  067.00-01-020.000 Richard  083.00-01-028.120 Roy  042.00-01-011.111 Dorothy  069.00-01-022.111 Ann Marie  041.00-02-017.111 Gary  110.00-01-035.000 Pat  109.00-01-066.220 Ricky  055.08-01-005.000 Victor  042.00-01-038.200 Todd  042.00-01-038.300 Todd  056.00-01-046.000 W R & L Associates Inc	Tychi Unterborn  Van Niel Vanacker VanBuren Vancuren Vandenburg Vanderhoff VanGorder Vargason Venditti Venditti Vincent Vodicka Voorhees	195 Lincoln Street 8873 Akins Rd 263 Woodsmoke Ln 311 Rogers Pkwy 6734 Rotterdam Rd 301 W Naples St 2579 Derevees Rd 1148 Rush West Rush Rd 2999 Satin Leaf Ct PO Box 102 10308 County Route 92 635 33rd St 471 25th St 2354 Co Rd 54 12 S Dansville St 63114 State Route 415 10664 Route 415 332 Jefferson Road 850 University Avenue	Avoca NY Hornell NY Cohocton NY Rochester NY Rochester NY Sodus NY Wayland NY Wayland NY Rush NY Port St Lucie FL Avoca NY Wayland NY Niagara Falls NY Niagara Falls NY Cohocton NY Cohocton NY Rochester NY	14809 14843 14826 14612 14617 14551 14572 14572 14543 34952 14809 14572 14301 14303 14843 14826 14826 14826 14623 14607
110.00-01-023.221 Thomas  097.00-03-001.200 Scott  068.00-01-010.121 US Dept Of Ag. And Markets  082.00-03-015.100 John  054.07-01-010.000 Douglas  054.11-01-017.000 Raymond  067.00-01-020.000 Richard  083.00-01-028.120 Roy  042.00-01-011.111 Dorothy  069.00-01-022.111 Ann Marie  041.00-02-017.111 Gary  110.00-01-035.000 Pat  109.00-01-066.220 Ricky  055.08-01-005.000 Victor  042.00-01-038.200 Todd  042.00-01-038.300 Todd  056.00-01-046.000 W R & L Associates Inc  056.09-01-018.000 W R & L Associates Inc	Tychi Unterborn  Van Niel Vanacker VanBuren Vancuren Vandenburg Vanderhoff VanGorder Vargason Venditti Venditti Vincent Vodicka Voorhees  Wager	195 Lincoln Street 8873 Akins Rd 263 Woodsmoke Ln 311 Rogers Pkwy 6734 Rotterdam Rd 301 W Naples St 2579 Derevees Rd 1148 Rush West Rush Rd 2999 Satin Leaf Ct PO Box 102 10308 County Route 92 635 33rd St 471 25th St 2354 Co Rd 54 12 S Dansville St 63114 State Route 415 10664 Route 415 332 Jefferson Road 850 University Avenue 2509 Laburnam Ave	Avoca NY Hornell NY Cohocton NY Rochester NY Rochester NY Sodus NY Wayland NY Wayland NY Rush NY Port St Lucie FL Avoca NY Wayland NY Niagara Falls NY Niagara Falls NY Cohocton NY Cohocton NY Cohocton NY Rochester NY Rochester NY Charlotte NC	14809 14843 14826 14612 14617 14551 14572 14572 14543 34952 14809 14572 14301 14303 14843 14826 14826 14826 14623 14607 28205
110.00-01-023.221 Thomas  097.00-03-001.200 Scott  068.00-01-010.121 US Dept Of Ag. And Markets  082.00-03-015.100 John  054.07-01-010.000 Douglas  054.11-01-017.000 Raymond  067.00-01-020.000 Richard  083.00-01-028.120 Roy  042.00-01-011.111 Dorothy  069.00-01-022.111 Ann Marie  041.00-02-017.111 Gary  110.00-01-037.000 David  110.00-01-035.000 Pat  109.00-01-066.220 Ricky  055.08-01-005.000 Victor  042.00-01-038.200 Todd  042.00-01-038.300 Todd  056.00-01-046.000 W R & L Associates Inc  056.09-01-018.000 William	Tychi Unterborn  Van Niel Vanacker VanBuren Vancuren Vandenburg Vanderhoff VanGorder Vargason Venditti Venditti Vincent Vodicka Voorhees  Wager Waggoner	195 Lincoln Street 8873 Akins Rd 263 Woodsmoke Ln 311 Rogers Pkwy 6734 Rotterdam Rd 301 W Naples St 2579 Derevees Rd 1148 Rush West Rush Rd 2999 Satin Leaf Ct PO Box 102 10308 County Route 92 635 33rd St 471 25th St 2354 Co Rd 54 12 S Dansville St 63114 State Route 415 10664 Route 415 332 Jefferson Road 850 University Avenue 2509 Laburnam Ave PO Box 201	Avoca NY Hornell NY Cohocton NY Rochester NY Rochester NY Sodus NY Wayland NY Wayland NY Port St Lucie FL Avoca NY Wayland NY Niagara Falls NY Niagara Falls NY Cohocton NY Cohocton NY Cohocton NY Rochester NY Rochester NY Rochester NY Cohocton NY Cohocton NY Cohocton NY Cohocton NY Cohocton NY	14809 14843 14826 14612 14617 14551 14572 14572 14543 34952 14809 14572 14301 14303 14843 14826 14826 14623 14607 28205
110.00-01-023.221 Thomas  097.00-03-001.200 Scott  068.00-01-010.121 US Dept Of Ag. And Markets  082.00-03-015.100 John  054.07-01-010.000 Douglas  054.11-01-017.000 Raymond  067.00-01-020.000 Richard  083.00-01-028.120 Roy  042.00-01-011.111 Dorothy  069.00-01-022.111 Ann Marie  041.00-02-017.111 Gary  110.00-01-035.000 Pat  109.00-01-066.220 Ricky  055.08-01-005.000 Victor  042.00-01-038.200 Todd  042.00-01-038.300 Todd  056.00-01-046.000 W R & L Associates Inc  055.00-01-040.000 Jason  055.00-01-040.000 Jason  055.00-01-007.200 William	Tychi Unterborn  Van Niel Vanacker VanBuren Vancuren Vandenburg Vanderhoff VanGorder Vargason Venditti Venditti Vincent Vodicka Voorhees  Wager Waggoner	195 Lincoln Street 8873 Akins Rd 263 Woodsmoke Ln 311 Rogers Pkwy 6734 Rotterdam Rd 301 W Naples St 2579 Derevees Rd 1148 Rush West Rush Rd 2999 Satin Leaf Ct PO Box 102 10308 County Route 92 635 33rd St 471 25th St 2354 Co Rd 54 12 S Dansville St 63114 State Route 415 10664 Route 415 332 Jefferson Road 850 University Avenue 2509 Laburnam Ave PO Box 201 8 N Dansville St	Avoca NY Hornell NY Cohocton NY Rochester NY Rochester NY Sodus NY Wayland NY Wayland NY Port St Lucie FL Avoca NY Wayland NY Niagara Falls NY Niagara Falls NY Hornell NY Cohocton NY Cohocton NY Rochester NY Rochester NY Rochester NY Cohocton NY	14809 14843 14826 14612 14617 14551 14572 14572 14543 34952 14809 14572 14301 14303 14843 14826 14826 14623 14607 28205 14826
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110.00-01-023.221 Thomas  097.00-03-001.200 Scott  068.00-01-010.121 US Dept Of Ag. And Markets  082.00-03-015.100 John  054.07-01-010.000 Douglas  054.11-01-017.000 Raymond  067.00-01-020.000 Richard  083.00-01-028.120 Roy  042.00-01-011.111 Dorothy  069.00-01-022.111 Ann Marie  041.00-02-017.111 Gary  110.00-01-035.000 Pat  109.00-01-066.220 Ricky  055.08-01-005.000 Victor  042.00-01-038.200 Todd  042.00-01-038.300 Todd  056.00-01-046.000 W R & L Associates Inc  055.00-01-040.000 Jason  055.00-01-040.000 Jason  055.00-01-007.200 William	Tychi Unterborn  Van Niel Vanacker VanBuren Vancuren Vandenburg Vanderhoff VanGorder Vargason Venditti Venditti Vincent Vodicka Voorhees  Wager Waggoner	195 Lincoln Street 8873 Akins Rd 263 Woodsmoke Ln 311 Rogers Pkwy 6734 Rotterdam Rd 301 W Naples St 2579 Derevees Rd 1148 Rush West Rush Rd 2999 Satin Leaf Ct PO Box 102 10308 County Route 92 635 33rd St 471 25th St 2354 Co Rd 54 12 S Dansville St 63114 State Route 415 10664 Route 415 332 Jefferson Road 850 University Avenue 2509 Laburnam Ave PO Box 201 8 N Dansville St	Avoca NY Hornell NY Cohocton NY Rochester NY Rochester NY Sodus NY Wayland NY Wayland NY Port St Lucie FL Avoca NY Wayland NY Niagara Falls NY Niagara Falls NY Hornell NY Cohocton NY Cohocton NY Rochester NY Rochester NY Rochester NY Cohocton NY	14809 14843 14826 14612 14617 14551 14572 14572 14543 34952 14809 14572 14301 14303 14843 14826 14826 14623 14607 28205 14826

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095.00-01-019.120	Robert	Wagner	577 Manitou Rd	Hilton NY	14468
042.20-01-012.000	George	Waite	93 Maple Ave	Cohocton NY	14826
095.00-01-006.100	Randall	Waldron	1590 Edgewood Ave	Rochester NY	14618
041.00-02-039.000	Donald	Walker	7600 Walker Rd	Wayland NY	14572
041.00-02-016.220		Walker	2914 Drum Road	Wayland NY	14572
042.20-01-047.000	Gratton	Wallace	7 S Dansville St	Cohocton NY	14826
083.00-01-027.000	Ronald and Thomas	Walter	3520 Van Aucker Rd	Avoca NY	14809
081.00-01-016.200	Daniel	Warczok	9065 Mack School Rd	Arkport NY	14807
123.00-01-017.110	Daneen	Wassink	3589 Route 70A	Hornell NY	14843
123.00-01-040.100	Daneed	Wassink	PO Box 65	Hornell NY	14843
096.00-01-001.100	Susan	Weber	PO Box 673	Hornell NY	14843
137.00-02-005.200	Keith	Weir	2027 Co Rd 56	Hornell NY	14843
042.00-01-041.000	David	Welch	3511 Henkle Road	Cohocton	14826
096.02-01-004.000			8727 Haskinville Rd	Cohocton NY	14826
096.02-01-006.000			8725 Haskinsville Rd	Cohocton NY	14826
095.00-01-034.300		West	610 Lynhurst Avenue	Horseheads NY	14845
095.00-01-033.110		West	652 County Route 46	Hornell NY	14843
069.00-01-022.113		Westfall	103 Hazelwood Avenue	Elmira NY	14905
083.00-01-031.200		Wetherbee	3420 Brown Hill Rd	Cohocton NY	14826
054.07-01-023.200		Weyand	436 Canisteo St	Hornell NY	14843
083.00-01-024.114	O DOLLO CONT.	Wheaton	3518 County Route 121	Cohocton NY	14826
096.00-01-024.200		White	8781 Mattoon Rd	Cohocton NY	14826
083.00-01-015.117	Edward	White	813 Burritt Road	Hilton NY	14460
095.00-01-018.200	Michael	White	8723 Conderman Rd	Cohocton NY	14826
054.07-01-024.000		Whitford	57 East Lake Rd	Cohocton NY	14826
054.07-01-033.000		Whitford	51 East Lake Road	Wayland NY	14572
042.00-01-010.100		Wiedrich	10662 Sick Rd	Cohocton NY	14826
042.00-01-026.200	Chad	Wilcox	3244 Henry Drum Rd	Cohocton NY	14826
028.00-01-044.111	Timothy	Wilcox	6744 Wrights Rd	Wayland NY	14572
042.00-01-026.121		Wilkison	8774 Atlanta-Garlinghouse Rd	Naples NY	14512
054.07-01-017.000		Willey	65 East Lake Rd	Cohocton NY	14826
070.00-01-019.200	\$2580 A 30 BO - CA 99 CO.	Williams	3771 Gruber Rd	Cohocton NY	14826
042.16-01-006.000		Williams	29 N Dansville St	Cohocton NY	14826
123.00-01-036.100		Williams	7960 Ricks Rd	Hornell NY	14843
	1909/00/00/00	Wilson	155 Lantern Ln	Rochester NY	14623
096.00-01-017.000		Wing	9026 St Rt 21	Cohocton NY	14826
042.20-01-011.000		Wise	95 Maple Ave	Cohocton NY	14826
083.00-01-005.000		Wise	3682 Fred Rd	Cohocton NY	14826
042.20-01-019.000		Wise	79 Maple Ave	Cohocton NY	14826
042.20-01-005.000		Wolcott	7 N Dansville St	Cohocton NY	14826
054.11-01-005.000		Wolcott	10799 Edmond Rd	Cohocton NY	14826
054.00-01-026.000	Bruce	Wolfanger	145 D'Angelo Pkwy	Avon NY	14414
123.00-01-013.000		Woodworth	2511 County Route 70A	Hornell NY	14843
109.00-01-038.000		Workman	614 Schenectady Ave	Brooklyn NY	11203
137.00-02-009.100		Wright	2260 County Route 70A	Hornell NY	14843
109.00-01-066.112		Wulforst	2306 Co Rd 54	Hornell NY	14843
095.00-01-018.111	Henry	Wulforst	PO Box 7	Arkport NY	14807
054.07-01-027.000	Mark	Young	72 Cedar Street	Hornell NY	14843
070.00-01-039.000	100001110000000000000000000000000000000	Zaccaglino	44 Turtle Creek Ln	Hilton NY	14468
042.00-01-045.000	Eric	Zastawrny	3525 Henkle Hollow Rd	Cohocton NY	14826
096.00-01-057.000		Zeh	45 Rosscommon Cres	Fairport NY	14450
082.00-01-015.000	THE RESERVE AND ADDRESS OF THE PERSON OF THE	Zeh	3130 Brown Hill Rd	Cohocton NY	14826
069.00-01-011.200		Zigenfus	301 North Main St	Wayland NY	14572
055.00-01-042.000	·		3619 Loon Lake Road	Cohocton NY	14826
055.08-01-007.000			20 S Dansville Street	Cohocton NY	14826
055.08-01-006.000			4660 State Route 21	Atlanta NY	14808
-	Russell	Ferrell	5960 County Route 11	Bath NY	14810
	Peter	Shambo	1498 Crittenden Road	Rochester NY	14623
	Arthur	Allard	9021 Pawling Road	Cohocton NY	14826

# STATE OF NEW YORK BOARD ON ELECTRIC GENERATION SITING AND THE ENVIRONMENT

Application of Baron Winds LLC, for a Certificate of Environmental Compatibility and Public Need to Construct a Major Electric Generating Facility in the Towns of Cohocton, Dansville, Fremont, and Wayland, New York

CASE NO. 14-F-0122

AFFIDAVIT OF SERVICE

STATE OF NEW YORK )
COUNTY OF ALBANY ) ss.:

**KAYLEIGH J. ROBINSON**, being duly sworn, deposes and says that on the 21<sup>st</sup> day of November, 2017, she served a copy of the Notice of Submission of Application by electronic mail and by mailing a true hard copy via first-class mail, upon the Towns of Cohocton, Dansville, Fremont, Wayland, Howard, and Avoca. A copy of the correspondence and Notice are attached hereto.

KAYLEIGH J. ROBINSON

Sworn to me before me this 21st day of November, 2017

Notary Public

TRACY J. POOLE
Notary Public, State of New York
No. 01PO6036309
Qualified in Albany County
Commission Expires Jan. 24, 2018

#### Kayleigh Robinson

From:

Kayleigh Robinson

Sent:

Tuesday, November 21, 2017 10:35 AM

To:

'cmykel@stny.rr.com'

Subject:

FW: Baron Winds LLC

Attachments:

171121 Ltr to Host Towns with Notice of Application Filing.pdf

Good Morning, Ms. Mykel. Attached is correspondence recently sent to the other host towns regarding Baron Winds LLC, but I did not have an email address for Supervisor Ott if you could please see that this gets to him. Thank you.

Kayleigh J. Robinson, Legal Assistant Young / Sommer LLC

From: Kayleigh Robinson

Sent: Tuesday, November 21, 2017 10:32 AM

**To:** 'townofcohocton@aol.com' <townofcohocton@aol.com>; 'dansvillesteuben@hotmail.com' <dansvillesteuben@hotmail.com>; 'townsupervisor@stny.rr.com' <townsupervisor@stny.rr.com>

Subject: Baron Winds LLC

Please see the attached correspondence and Notice regarding the intent of Baron Winds LLC to file an Article 10 application on or about November 29, 2017. Hard copies will follow by regular mail. Thank you.

Kayleigh J. Robinson, Legal Assistant

Young / Sommer LLC
ATTORNEYS AT LAW
officer 528 428 2007 Ext. 20

office: 518.438.9907 Ext. 222

fax: 518.438.9914

krobinson@youngsommer.com

Executive Woods, Five Palisades Drive, Albany, NY 12205

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This e-mail is sent by a law firm and may contain confidential and privileged information. If you are not the intended recipient please delete the email and any attachments

Please notify us if you have received this communication by mistake.

Thank you.

## Young / Sommer LLC

JEFFREY S. BAKER
DAVID C. BRENNAN
JOSEPH F. CASTIGLIONE
JAMES A. MUSCATO II
J. MICHAEL NAUGHTON
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PARALEGALS
ALLYSSA T. MOODY
AMY S. YOUNG

Writer's Telephone Extension: 243 imuscato@youngsommer.com

November 21, 2017

#### VIA REGULAR MAIL

Kenneth Parsels, Town Supervisor Town of Avoca P.O. Box 468 Avoca, NY 14809 Donald Evia, Town Supervisor Town of Howard 3725 Mill Road Avoca, NY 14809

Re: Case No. 15-F-0122: Application of Baron Winds LLC, for a Certificate of Environmental Compatibility and Public Need Pursuant to Article 10 to Construct a Major Electric Generating Facility in the Towns of Cohocton, Dansville, Fremont, and Wayland, County of Steuben, New York

Dear Sirs:

Enclosed please find a copy of the Notice that Baron Winds LLC anticipates filing an Article 10 application in the above-referenced proceeding on or about November 29, 2017.

For your information, a previous the map for the Facility was published in the newspaper and depicted "alternate turbine locations" in the Towns of Avoca and Howard. However, be advised, that those alternate locations are no longer proposed to be included in the Facility. They are referred to in a previous layout and assessed as an alternative in Exhibit 9. A current Facility layout is depicted on the map attached to this letter.

Please feel free to contact me if you have any questions regarding the above.

Respectfully submitted,

James A. Muscato II
Young/Sommer LLC

Attorneys for Baron Winds LLC

Enclosure

## Young / Sommer LLC

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. . . . . .

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Writer's Telephone Extension: 243 imuscato@youngsommer.com

November 21, 2017

#### VIA REGULAR MAIL

Daniel Johnson, Town Supervisor Town of Cohocton 19 Main Street Atlanta, NY 14808

Robert Osborn, Town Supervisor Town of Fremont 8217 Cream Hill Road Arkport, NY 14807 Michael D. Willis, Town Supervisor Town of Dansville 1487 Day Road Arkport, NY 14807

George Ott, Town Supervisor Town of Wayland 110 N. Main Street Wayland, NY 14572

Re: Case No. 15-F-0122: Application of Baron Winds LLC, for a Certificate of Environmental Compatibility and Public Need Pursuant to Article 10 to Construct a Major Electric Generating Facility in the Towns of Cohocton, Dansville, Fremont, and Wayland, County of Steuben, New York

Dear Sirs:

Enclosed please find a copy of the Notice that Baron Winds LLC anticipates filing an Article 10 application in the above-referenced proceeding on or about November 29, 2017.

For your information, a previous version of the map for the Facility was published in the newspaper and depicted "alternate turbine locations" in the Towns of Avoca and Howard. However, be advised, that those alternate locations are no longer proposed to be included in the Facility. They are referred to in a previous layout and assessed as an alternative in Exhibit 9. A current Facility layout is depicted on the map attached to this letter.

Please feel free to contact me if you have any questions regarding the above.

Respectfully submitted,

James A. Muscato II/Ki James A. Muscato II Young/Sommer LLC

Attorneys for Baron Winds LLC

Enclosure

### Baron Winds Energy Facility Steuben County, New York

#### NOTICE OF SUBMISSION OF APPLICATION

Baron Winds LLC (Applicant), a wholly-owned subsidiary of EverPower Wind Holdings, Inc. (EverPower), is proposing to construct a major electric generating facility under Article 10 of the New York Public Service Law (Facility). This notice announces that on or about November 29, 2017, the Applicant will file an Application pursuant to 16 NYCRR 1000.6 seeking a Certificate of Environmental Compatibility and Public Need from the New York State Board on Electric Generation Siting and the Environment (Siting Board) authorizing the construction and operation of the Facility under Article 10.

The proposed Facility is an up to 300 megawatt (MW) wind-powered electric generating facility (of up to 76 wind turbines) to be located in the Towns of Cohocton, Dansville, Fremont and Wayland, Steuben County, New York. The Facility will include wind turbines together with the associated collection lines (below grade and overhead), access roads, permanent meteorological towers, laydown areas and an operation and maintenance (O&M) building. To deliver electricity to the New York State power grid, the Applicant proposes to construct a collection substation adjacent to an existing interconnection substation, which will be used to interconnect with New York State Electric and Gas Corporation's 230 kV transmission line in the Town of Cohocton. The Facility is proposed to be located on leased private land that is generally rural in nature and will enable farmers and landowners to continue with farming operations or other land uses such as recreational land use.

The Facility will result in the generation of electricity from wind, a renewable energy source, avoiding harmful emissions and the use of water resources that are typically associated with energy generation. In addition, the Facility assists the State in meeting the goals of the 2015 State Energy Plan, which includes a goal of 50% of energy generation from renewable sources by 2030, and other State policy initiatives consistent with the development of the Facility. Other positive impacts to be discussed in the PSS include employment opportunities, specifically by generating temporary construction employment and full-time jobs, and increased revenues to County and local municipality tax bases, payments to the local hospitality industry, purchase of local supplies and goods, and lease revenues to participating landowners.

The Facility is a zero-emission wind energy facility and so will not add to local/regional air pollution problems or global climate change. In addition, the Applicant has attempted to minimize impacts to land associated with the Facility by limiting the disturbance to forested lands and wetlands to the maximum extent practicable. However, the construction and operation of the Facility may have minor environmental impacts including but not limited to: impacts on terrestrial ecology and wetlands, including impacts to avian and bat species; impacts to affected lands, including minor impacts to agricultural land; and impacts to people including noise impacts, traffic impacts, and visual impacts as fully described in the Application.

The Applicant intends to submit a request for a Water Quality Certification (WQC) under Section 401 of the federal Clean Water Act. The WQC is necessary to obtain a permit from the U.S. Army Corps of Engineers for the minor disturbance to federally regulated wetlands required to construct the Facility.

Pursuant to the Article 10 process, the Applicant filed a Preliminary Scoping Statement (PSS) on August 11, 2016 with the Siting Board. Thereafter, the public had an opportunity to submit comments on the PSS. Following the comment period, the Applicant prepared a summary of the material comments and its reply to comments was submitted on September 30, 2016. On October 5, 2016 a pre-application conference to consider intervenor funding requests was held and the scoping stipulation process was ordered to commence. The Applicant is now ready to file an Application.

This notice is to serve as a summary regarding the contents of the Application. The Application includes, among other things: an analysis of the environmental setting of the Facility, a description of the Facility, including preliminary design drawings and related information; potential environmental and health impacts from construction and operation of the Facility, environmental, economic and other benefits of the Facility, results from studies conducted (including

preconstruction studies to assess potential impacts to avian and bat species), proposed measures to minimize environmental impacts, and reasonable alternatives. The Application also addresses impacts to land use; consistency with State energy planning objectives, including climate change and renewable energy goals; public health and safety; terrestrial ecology, water resources and aquatic ecology; communications, transportation and utilities; cultural, historical and recreational resources; visual, including shadow flicker; sound; electric magnetic fields; and impacts on the statewide electrical system. The Article 10 regulations outlining the required contents of the Application can be found at 16 NYCRR 1001.1 *et seq.* 

Once an Application is filed and determined by the Siting Board to be compliant with the regulations, the Siting Board will schedule a public hearing on the Application. The Siting Board will also issue a notice of availability of application intervenor funds that are available to be used by parties to participate in formal review of the Application. A pre-hearing conference will be scheduled by the Hearing Examiner to identify parties and intervenors, award intervenor funds, identify issues for the hearing, and establish a case schedule. Additional hearings regarding the Application and Facility impact assessments will be scheduled by the Hearing Examiner as needed. After hearings, the parties may brief their positions and the Hearing Examiner will issue a recommended decision upon which the Siting Board will base its decision. Article 10 requires that all proceedings on the Application, including a final decision by the Siting Board, must be completed within 12 months of when the Application is determined to be complete.

Upon filing of the Application, Baron Winds will provide funding in the amount of \$300,000 to be disbursed by the Siting Board to municipalities and other local parties to help pay expenses, including attorneys and consultants, associated with participating in the Article 10 process during the application review phase. Fifty percent (50%) of these intervenor funds are reserved for municipalities. Following the filing of an Application, the Hearing Examiner or the Secretary shall issue a notice of availability of application intervenor funds that provides a schedule and related information describing how interested members of the public may apply for application funds. Requests for application funds must be submitted to the Hearing Examiner within thirty (30) days after the issuance of the notice of the availability of application intervenor funds. Following the submittal of any intervenor funding requests, the Hearing Examiner may schedule a pre-hearing conference to consider fund requests.

The record of this proceeding, including the Application, may be examined during normal business hours at the Offices of the New York State Department of Public Service (DPS) at 3 Empire State Plaza, Albany, NY 12223, and may also be viewed at the following public repositories: Cohocton Public Library, 8 Maple Ave., Cohocton, NY 14826; Hornell Public Library, 64 Genesee St., Hornell, NY 14843; Howard Public Library, 3607 County Route 70A, Hornell, NY 14843.

The Application will also be available at the DPS website at (<a href="http://www.dps.ny.gov/">http://www.dps.ny.gov/</a>). To access documents, go to "Search" on the top of the webpage and search using the Case Number 15-F-0122 or the direct link: (<a href="http://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?MatterCaseNo=15-f-0122&submit=Search+by+Case+Number">http://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?MatterCaseNo=15-f-0122&submit=Search+by+Case+Number</a>) or by going to the project-specific website maintained by the Applicant: (<a href="https://everpower.com/baron-winds-wind-project-steuben-county-ny/">https://everpower.com/baron-winds-wind-project-steuben-county-ny/</a>).

#### **Contact Information**

To obtain information regarding the Facility, please contact:

Contact information for Baron Winds: Seth Wilmore 1251 Waterfront Place, 3rd Floor Pittsburgh, PA 15222 412-253-9419 (o) 412-578-9757 (f) info@everpower.com Contact information for DPS Article 10 Coordinator: James Denn NYS Department of Public Service 3 Empire State Plaza Albany, NY 12223 518-474-7080 james.denn@dps.ny.gov

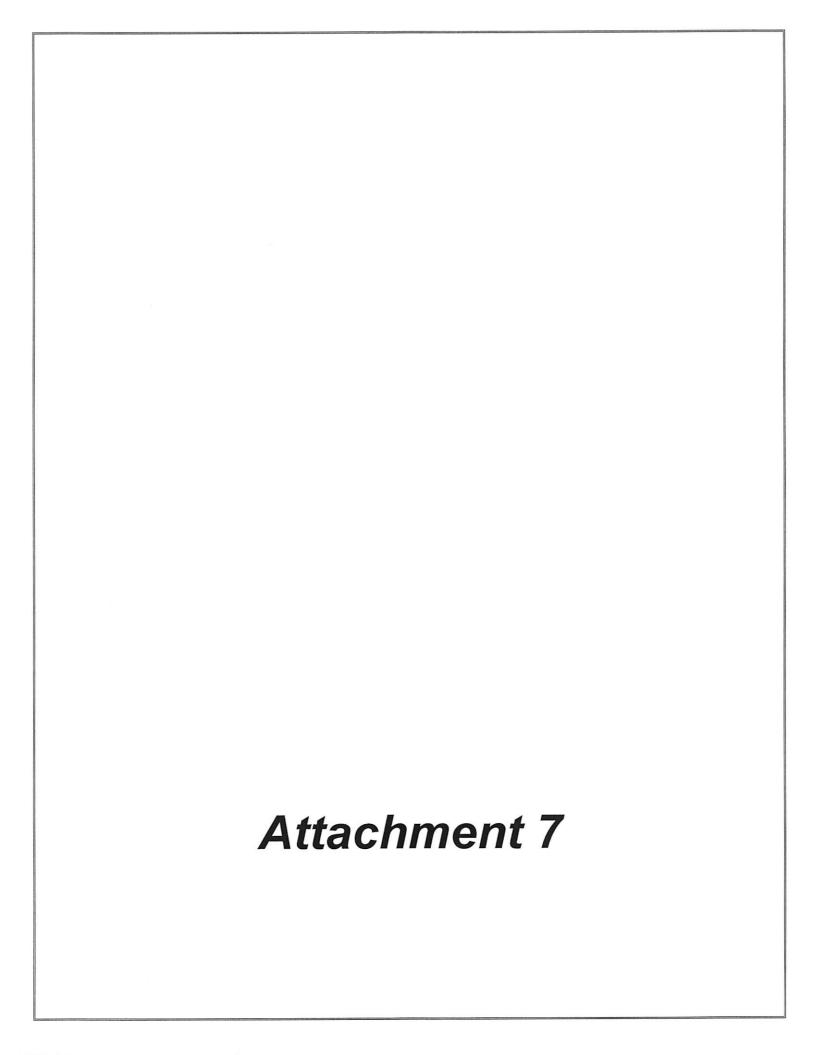
### File a Request for Notices

Any interested member of the public may file a request with the DPS Secretary to receive copies of all notices concerning the Facility. Written requests should be sent to the DPS Secretary at <a href="mailto:secretary@dps.ny.gov">secretary@dps.ny.gov</a> or sent by mail to the following address:

Honorable Kathleen H. Burgess Secretary to the Commission NYS Public Service Commission Empire State Plaza Agency Building 3 Albany, New York 12223-1350

Wind Turbine Access Road **T3** POI Substation Permanent Met Tower T18 (371) **●** T5 Emo Rd T7 (P) Cohocton nt Hill Rd Collector Substation **Buried Collection Line** T2 CR 92 415 O&M Building Overhead Collection Line Town of Laydown Yard Cohocton Mill St Lake Rd Ryder Rd CR 121 T29 П T24 NRd Town of Kurtz Hollow Rd **T**33 Wayland T17 T6: Day Rd Ward Rd CR 50 Noble Ro Bronson Rd T88 Town of Gruber R Dansville LT60 T52 Stone Hill Rd T81 vis-Rd Demmery Rd **T86** T55 Mack School Rd T72) T61J Waterbury Hill Rd Akins Rd T35 ₹T40 Rd CR'6 Town of Avoca **€**T87 Cream Hill ▲T762 Clymo Rd Rd Schults Rd T69 T65 Huginor Rd Connor Hill Rd Evans Rd Townlot Saxton Rd 55 sssels Hill Rd Fremont CR Avery Rd T85 T82 T92 ●T67 ( ) T9'0 Town of Back Stewart Rd Howard T80/ Burdin Hill Rd T84 Miller Rd T50 (151 Tuttle Rd T38 Welch Ra ( **Baron Winds Project** Facility Site Towns of Cohocton, Dansville, Fremont, and Wayland -Village Boundary Steuben County, New York **Proposed Facility** County Boundary Notes: 1. Basemap: ESRI StreetMap North America, 2008. 2. This map was generated in ArcMap on November 20, 2017. Town Boundary 3. If Facility construction requires use of a temporary concrete batch plant, it will be located at the Laydown Yard/Staging Area.

4. This is a color graphic. Reproduction in grayscale may misrepresent the data. www.edrdpc.com



## Young / Sommer LLC

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November 29, 2017

Hon. James Costello Administrative Law Judge NYS Department of Public Service Empire State Plaza Agency Building 3 Albany, NY 12223-1350

Hon. Maria E. Villa Administrative Law Judge NYS Department of Environmental Conservation Office of Hearings and Mediation Services 625 Broadway, First Floor Albany, New York

Case No. 15-F-0122: Application of Baron Winds LLC, for a Certificate of Environmental Compatibility and Public Need Pursuant to Article 10 to Construct a Major Electric Generating Facility in the Towns of Cohocton, Dansville, Fremont, and Wayland, County of Steuben, New York

Dear Judges Costello and Villa:

We represent Baron Winds LLC in the above-referenced proceeding. On November 29, 2017 Baron Winds filed an Application under PSL Article 10 for the Baron Winds Wind Project. The Application contained certain information which the Applicant asserts is confidential and should be protected from disclosure pursuant to the Siting Board's regulations. As such, please find enclosed the Comprehensive Brief required by 16 NYCRR 6-1.4 providing the basis for the Applicant's assertion of confidentiality.

If you have any questions, please feel free to let us know.

Respeatfully submitted,

James A. Muscato

Jessica Ansert Klami

Attorneys for Baron Winds LLC

cc: Service List (w/out enclosure)

Testimony of John M. Sharkey – June 19, 2019, Fremont, NY SCIDA Public Statement Hearings

Good Afternoon. Thank you, for the opportunity to speak at this Public Hearing regarding proposed financial assistance by the Steuben County IDA to Barron Winds LLC.

My name is John Sharkey. I'm a landowner and taxpayer in Steuben County.

I speak today because I'm concerned about the impact of large-scale industrial wind projects such as Barron Winds on the health, environment, wildlife and beauty of rural Steuben County and to provide my perspective on Barron Winds request for proposed assistance by the County Industrial Development Agency.

I believe that Barron Wind and the two other large industrial wind projects currently under Article 10 review represent a significant net economic risks and downsides to our county and do not merit award of a sales and use tax exemption for purchases and rentals related to construction of the facility, a partial real property tax abatement within a PILOT Agreement, and a mortgage recording tax exemption.

Let me take a moment to establish some context for my remarks. The New York Independent Systems Operators (NYISO), the organization responsible for managing New York's electric grid and its competitive wholesale power marketplace, recently published *Power Trends 2018* 

where they stated the characteristics of upstate New York's energy sector is largely supplied by clean energy resources, yet carried relatively little energy demand in comparison to the downstate load zones which encompass New York City, Long Island, and the Hudson Valley. In fact, zero-emitting resources accounted for approximately 88 percent of the energy produced in our upstate load zones. The report goes on to state that energy use in New York State will decrease in the next 10 years at a rate of approximately ¼ of a percent annually.

So... nearly 90 percent of our local energy already comes from clean resources; and overall energy demand is forecast to decrease over the next decade. What precisely, is the public interest in expanding clean energy in a region where the energy is already clean, and additional energy isn't needed?

Given this fact pattern, it's unclear why New York State is encouraging, advocating and incentivizing construction of heavily subsidized industrial wind-turbine projects in a region of the state whose local economy relies so heavily upon tourism and farming.

Unfortunately, like other wind-developers in New York, Innogy has adopted a greedy business model of agreeing to pay relatively-small amounts in lease and host-community agreements, PILOT and fire-district payments in exchange for avoiding payment of normal town and county taxes while exploiting massive federal and state incentives, grants and subsidies. Let's be clear, developers like Innogy, NextEra Energy, and Invenergy argue and claim that wind energy in NY

is cost competitive and as economical as other energy options. If this is true, there shouldn't be any need to subsidize them. Yet here we are...

As the SCIDA board evaluates Barron Wind's request for financial assistance, you need to avoid falling into the trap that wind developers have deployed in making a case for their projects.

The models and supporting arguments that Innogy and other developers endlessly reference and rely upon to claim justification are built on a fatal flaw... they would rather be precisely wrong than vaguely correct.

Let me repeat that... Innogy would rather be precisely wrong than vaguely correct. Their models show endless benefits and ignore the actual costs and downsides to our communities.

Let me give you three examples:

Steuben County and the broader Finger Lakes region is like no other part of the state. It is famous for its sweeping expanses of farmland, picturesque hills and iconic scenic vistas.

Referencing the SCIDA website, Tourists spend over \$120 million each year. We are a nationally known travel destination. The direct and indirect benefits associated with Steuben County tourism and visitor spending in a single year dwarf the cumulative 20-year benefit stream that Innogy presents in support of their application. Studies show that visitors will not return to rural areas when faced with Wind Turbine facilities. Yet, Innogy makes no reference to this negative impact in terms of tourism dollars and employment.

Referencing SCIDA's website, Steuben County is home to more than 6600 farms and is ranked first in the state in terms of acreage devoted to hay, grass sileage & green chop, oats and grain!

Data shows that Industrial Wind Turbine Facilities cause massive bat, and avian losses. In fact, bats account for almost \$75/acre in pesticide suppression. Where are the cost estimates for the agricultural impact of constructing Barron Wind on our community? Are these costs being factored into SCIDA's evaluation of Barron Wind's application?

Innogy and other developers claim that Wind Turbines have no impact on property valuations and reference research reports to back up their claim. A couple of observations... Many of these reports were commissioned and paid for by Wind Energy Industry and Trade Associations that want to push a "no property valuation" impact narrative. More unbiased and neutral bodies present research that shows strong evidence that wind turbines negatively impact surrounding property valves. As yourself a simple, common sense question... Is there a scenario where you would be willing to pay the same amount of money to buy or rent property with 500 to 600 ft turbine towers generating noise and light pollution 24 hours a day, 365 days a year for 20 years in close proximity to the property as compared to a baseline view with no wind towers in the viewshed? Of course, you wouldn't. Developers like Innogy simply ignore common sense and fall back on their self-serving research to claim there is no cost and impact on property values.

These three examples demonstrate what I meant by a bias towards being precisely wrong versus vaguely correct. These cost impacts are real and will negatively impact the economic well-being of Steuben county, yet because they may be difficult to quantify and are not supported by wind-industry research, Innogy wants SCIDA and other government and regulatory bodies to simply ignore them in the calculus of calculating a cost/benefit analysis.

Barron Wind and other proposed wind turbine projects for Steuben County have negative county-wide environmental and tourism impact, yet offer little in revenue or compensation to impacted communities, residents and tax-payers. The 6 to 7 full-time equivalent jobs (note: this number will include a number of part-time workers) created by this project beyond the initial construction phase do little to justify the destruction of our landscape, rural environment, bird and bat populations and off-set the long-term devaluation of real property due to harmful turbine noise, shadow flickers, blinking aviation lights and other health challenges.

SCIDA is chartered with responsibility for advancing the general prosperity and economic welfare of the people of Steuben County. Projects like Barron Wind represent net losers for our county. Once these projects are put in place, there is no going back. If Barron Wind decides to build this project in our area, we are stuck with the costs that didn't fit into their "precisely wrong" model. Here it seems, like Innogy, the state and local government are in lock step, and all support the wonderful benefits that will surely accompany the industrialization of our rural landscape. Given this consensus, is not clear who is advocating for the broad subset of

disenfranchised residents who will bear a disproportionate environmental burden of the Barron Wind project. What's even sadder is that many of the people who stand to be impacted most by these projects have no clue about how their lives will change. The cost to our communities will never be offset by discounted payouts under PILOT, land-lease, and other agreements.

If Barron Wind represents such a compelling value proposition, they should not require the additional financial assistance being requested of SCIDA. Innogy's claim that without SCIDA providing financial assistance this project will not be constructed rings hollow when we examine the millions of dollars of federal and state incentives, and power purchase contracts that are in play. Let them pay their full tax obligations and the school districts, county and towns will all reap significantly more benefit in exchange for the economic damage that Innogy brings with them. The long-lasting impacts and implications of SCIDA granting a Financial Assistance to Barron Wind demand a fulsome, thorough and unbiased investigation of this application. Better to be vaguely correct than precisely wrong when dealing with western Steuben County's future.

Thank you for your time.

Post Office Box 193 Hornell, N.Y. 14843 June 19, 2019

Dear Industrial Development Agency Board Member:

We appear before you today to voice our grave concerns about the development of wind energy in our county. The negatives associated with the development of wind farms are numerous, and far outweigh their benefits. Briefly stated, they include, but are not limited to visual impacts, noise, numerous health concerns, impacts on the environment, including birds, wildlife, and plant life, reliability, engineering soundness, and economic impacts.

As your role in this process is primarily an economic one, I will address this area specifically. It is common knowledge that without government subsidies and support, wind energy would not exist. It has been well established that as a stand alone entity, wind will never be profitable, and as such, must be permanently dependent on subsidies including the Production Tax Credit, NYSERDA support, and, of course, PILOT payments. SCIDA has in the past, made some highly successful investments in local enterprises such as Corning, Inc., and Alsthom; businesses which have returned to their communities countless times over, the Agency's original investment. Wind energy and its developers do NOT, and WILL NOT EVER meet these criteria as a wise investment of tax payer- provided monies, and will never generate a return commensurate with their public investment.

In hearing the developers' cries of job creation, you must consider that the much- touted construction jobs will be temporary, and then, by organized labor's own admission, only a small number of those positions will be held by local residents. As to permanent positions, they will be minimal: In the case of Invenergy's Canisteo project the developer states "between five to seven *full time equivalent* positions." When considering the payments promised to local municipalities and school districts, consider: What is the source of these funds? Again, substantially from the taxpayers, funneled through the developers' pockets, minus their profit. As to a reliable, affordable source of green energy, it doesn't take an engineering degree to see it is not reliable, it is not green, and it is in fact more expensive to produce than other forms of electricity.

A major question only marginally addressed by developers arises regarding the hidden costs of a wind installation, both during development, operation, and dismantling. Are there really adequate funds to cover damage done during construction; restoration of infrastructure and environment after construction, and finally costs and impact of removal of these installations after use, and return of the environment to its original state. In the case of the Canisteo project, including funds promised by the developer for dismantling, it is estimated that an additional several million dollars will be needed; supplied by whom? Who then, will cover any unforeseen costs? Ultimately the taxpayers.

Far more importantly, consider the other economic impacts of wind development on the county. The negatives noted above all lead to one end: the decline in quality of life in our county. Contrary to the developers' arguments, it is well established that nearby wind turbines ultimately force the decline in in property values and hence the local tax base, a decline they will never offset financially. Think about this: I challenge each of you to seriously reflect if you would ever want to live in close proximity to a 600 foot tall piece of rotating machinery for the rest of your life. Even more so, would you as an

outsider, consider moving here for challenging career at Corning, Inc., or as a retiree in search of pristine beauty, and consider a property offered you if surrounded by 120 or more towers, is as proposed in the Canisteo project? This underscores a more ominous concern: We are among many county residents approaching our retirement years, having worked hard to create a comfortable retirement nest to remain in and enjoy. Thanks to these projects we will be trapped; spending our remaining years enduring the misery of wind farms as neighbors, and having great difficulty selling our property at anything near fair market value when the time ultimately arrives.

Because of such considerations, you must remember that the negative effects of wind development will not just be immediate, but will create a downward spiral for years to come.

We have prepared a compilation of supporting materials for review, including statements placed on the record with the New York Department of Public Service on this matter. Major areas addressed include the relationship of public funding and wind development, the status of other regional projects, and the impacts of other undisclosed costs of wind development. The information presented herein is by no means the final word on this topic, rather it should only be considered an introduction. Before making any decision on your involvement, we respectfully ask that you review these documents, and research this topic further to develop your own independent, informed opinions on the viability of wind as a wise economic investment.

Summarized, we strongly discourage the Industrial Development Agency's financial support of these developments, and implore you to seek other means of investment in the future of our county.

Sincerely,

Sharon E. Brewer

Attachments

For further information:

- -www.WiseEnergy.org
- -www.windwatch.org
- -www.CFACT.org
- -www.WindTurbineSyndrome.org

Janus D. Koegel

Sharon E. Brewer

-Mr. Greg Hubner; Realtor, Appraiser, Author, Avon, South Dakota

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Run	+209	4.3	-170 AMB
Rw	+285	49	-172 A
P.o	•125	4,6	-174 AME
elect Con	-24	42	-172 A 18 18
Rvn	-90	42	-170 A M
Rvn	-49	3.5	-176 A B
Ron	-104	5.0	-164 A M
Run	-177	3.8	-167
Run	+85	3.1	-176
	-00	2.4	. 171 1

STUART PERKS.

### **CATTARAGUS COUNTY MAY LOSE \$4± MILLION PER YEAR**

### ON THE INVENERGY WIND PROJECT

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INVENERGY IS PROPOSING TO PAY THIS TO CATTARAGUS COUNTY

AND IMPACTED TOWNS, AS PAYMENTS IN LIEU OF TAXES (PILOT) PAYMENTS\* +\$

+\$1,500,000±

**LANDOWNER + MISC INCOME** 

INVENERGY ESTIMATES OF AMOUNTS GOING TO CATTARAGUS COUNTY LEASEHOLDERS (60± TURBINES), O&M INCOME, ETC\*

+\$1,500,000±

**AGRICULTURAL LOSS** 

CROP YIELD REDUCTION DUE TO BATS BEING KILLED BY WIND TURBINES (ESTIMATING ONLY 25%± OF THE MID-RANGE COUNTY NUMBER)

-\$1,300,000±

**PROPERTY VALUE LOSS** 

\$212± MILLION IN AFFECTED PROPERTY VALUE (2017 ASSESSMENT), AT A ONE-TIME LOSS OF 15%± AVERAGED OVER THE PROJECT LIFE (20± YEARS)

-\$1,550,000±

**TOURISM LOSS** 

TOURISM LOSS (25%± OF COUNTY x LOW ESTIMATE OF 6%±)

-\$3,250,000±

**MISCELLANEOUS LOSSES** 

A LOW ESTIMATE OF MULTIPLE OTHER POSSIBLE LIABILITIES\*\*

-\$900,000±

#### **CATTARAGUS COUNTY**

### ANNUAL NET ECONOMIC IMPACT DUE TO

## THE ALLE-CATT INDUSTRIAL WIND PROJECT: $-\$4,000,000\pm$

- \* See Invenergy's document: "Economic Benefits of the Alle-Cat Wind Farm".
- \*\* Some additional possible turbine related economic losses, that independent experts have identified:
  - a) increased health costs to nearby citizens,
  - b) crop yield losses due to adverse metrological conditions,
  - c) loss of employment, equipment and seed, etc, procurement due to reduced farming operations,
  - d) health effects and loss of life to livestock and wildlife,
  - e) hydro-geological complications,
  - f) additional eco-system impacts,
  - g) reduction in hunting-related income,
  - h) property tax loss due to reduced valuations, and
  - i) losses to turbine leaseholders.

Note: Sample studies to support all of these concerns are found at <a href="http://tinyurl.com/y8d27jhl">http://tinyurl.com/y8d27jhl</a>>.

### CATTARAGUS COUNTY MAY LOSE \$4± MILLION PER YEAR

### **ON THE INVENERGY WIND PROJECT**

PIL	TO.	IN	CO	M	E
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<sup>\*</sup> See Invenergy's document: "Economic Benefits of the Alle-Cat Wind Farm".

White Construction "was engaged to furnish labor and materials for earthwork, excavation and backfill of soil, and soil stabilization and modification, for the improvement of the Premises."

Although the work has been completed, the mechanic's lien says that White Construction has not been paid in full. "The total agreed price and value of labor and materials furnished under contract with White Construction, Inc., 3900 East White Avenue, Clinton, IN 47842 was \$6,109,037.28 of which \$3,548,568.30 remains unpaid and the total amount allocable to the Premises and which this lien filed is \$68,995.75."

According to the lien, labor and materials were first furnished to the premises on or after Oct. 15, 2017 and they were last furnished to the premises on or about July 25, 2018.

On Wednesday morning, the OBSERVER reached out to Arkwright Town Supervisor Fred "Nick" Norton for comment. "No, I haven't heard anything about this," Norton told the OBSERVER, when asked if he was aware of the lien notices. "That wouldn't be something I would receive notice about."

Norton went on to explain that neither his property nor the municipality's is under lease agreement with EDPR, and he had not been contacted by any Arkwright property owners regarding these liens. He said he would contact EDPR to learn more about the situation.

After speaking with the wind company, Norton contacted the OBSERVER by phone later on Wednesday. "I spoke to one of the vice presidents of EDPR. It's a dispute between contractors, but beyond that they couldn't talk about it. They are aware of the situation. It's a legal matter," Norton said.

In recent years, mechanic's liens have been filed against other property owners with wind company lease agreements. In a similar 2016 case, AUI Construction Group v. Louis J. Vaessen, a subcontractor on the wind project, AUI, was responsible for the construction of the foundation and the tower on Vaessen's property. In AUI's subcontractor's agreement, wind

between the wind farm's contractor and subcontractor and is not due to any non-payment from EDPR NA and the Arkwright Summit Wind Farm. EDPR NA and Arkwright Summit have directed the contractor to resolve the issue with the subcontractor and obtain a release of the mechanic's liens. It is EDPR NA's and Arkwright Summit Wind Farm's priority to protect its landowners and make sure this matter is resolved quickly."

By signing this petition you agree the Innogy/Baron Winds LLC. should pay FULL property tax.

NO PILOT.

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Page 3

June 19, 2019

Steuben County Industrial Development Agency

In Regard to Economic Impact of the Baron Winds Project

#### To Whom It May Concern:

I, Ronald Towner, am a 50+ year resident of the Township of Cohocton, N.Y. I am a member of the Cohocton Town Board, and a retired Rural Letter Carrier for the Town of Cohocton. My mail route included the Township of Cohocton, parts of Wayland (Loon Lake area), Haskinsville and Fremont.

I know, from the existing Canandaigua Power Partners I and II project in my town, the great financial benefit that project made in our town. Our town budget would be stretched to its limits without the existing project. The PILOT & Host Agreement provided us the opportunity to upgrade our highway equipment without raising the funds through taxes. The Wayland Cohocton School district has been able to purchase electronic devices for the use of its students in their education that would not have been possible without CPP. The CPP project brought jobs to our area, and therefore, a boost in economy to businesses in all of the area. The trickle down effect of this project was experienced by all the towns around us during the construction period and since, during operation. Many locals were and are employed by CPP.

The Cohocton Town Board and Supervisor look forward to the Baron Winds project. With the experience of one project behind us, we know the benefits this project will bring. We know what to expect with the economic growth to our community. The project will benefit not only the leaseholders, but the townships and their residents as a whole. We welcome Innogy and the Baron Winds Project to our community and look forward to a long, working relationship.

Respectfully,

**Ronald Towner** 

Town of Cohocton Councilman

62196 St Rt 415

Cohocton, N.Y. 14826

Donald & Anita Eck 3521 County Route 121 Cohocton NY 14826 June 19, 2019

My name is Donald Eck. I am a resident in the Town of Cohocton and have been for the last 26 years. I am also the bookkeeper to the Supervisor of the town of Cohocton.

In May of 2015 my wife and I became leaseholders in the Baron Winds Project. By signing the lease, we publically demonstrated our support of the project. We continue to be in favor of this project moving forward to completion.

While my family will benefit because of the lease, that is not the only reason we support this project.

The Town of Cohocton has little business outside of some large farms and little hope of enticing new business into the town. The Town is also the beneficiary of another Wind Farm which has paid the town over \$8 million in the last 10 years. Without that money either our taxes would be much higher than they are and town roads and services would be in worse shape. As it is we have aging buildings, a community pool and highway equipment that would benefit from an infusion of cash which a project like this would supply.

You see, it's not just the leaseholders who benefit from the revenue generated by these wind farms. All residents of the town also benefit through lower or minimally rising taxes and continued maintenance on our facilities, roads and services.

Secondly, we are in a man-made period of climate change. Record heat, ferocious storms, unusual flooding and weather patterns, out-brakes of red tide causing enormous amount of sea life to perish thus creating health hazards, loss of shoreline from rising oceans, tremendous destruction of property and loss of human life.

Anything we can do to reduce our dependence on coal, oil and wood products that power human activity, no matter how small, should be done.

This project is just one small part of the solution. It should move forward.

There are many who will rail against this project. They will say that this project will kill wild life, create eyesores and do more damage than good. I do not doubt their sincerity.

However, we cannot allow any reasonable opportunity to stem our progress toward reversing global warming to pass us by. Even if there is not direct cause and effect relationship between the project and global warming.

We urge the Steuben County Industrial Development Agency to acquire the leasehold described in the Notice of Public Hearing.

Thank you for this opportunity to voice our opinion.

Respectfully,

Donald E Eck

Carol S. Burns **Burns Family Farm** 7731 Rose Hill RD Hornell, NY 14843

June 19, 2019

**Steuben County IDA PO Box 393** Bath, NY 14810

Attention: James Johnson, Executive Director

Burns Family Farm was established in February 1966 as my husband and I purchased 420 acres with buildings, cattle and fodder. Since then we have been able to add acres to expand the business to support several families, both family and employees. We have paid taxes for the last 53 plus years. This business has been passed on to the next generation with the grandchildren ready to take part in the responsibilities. The business has been supported by a dairy herd producing raw milk with no opportunity for income from sales of gravel or other commodity to supplement the income. The economic picture for agriculture is bleak, to say the least. Fortunately, because of the location of our acreage, we have been able to lease wind turbines which will be added income for costs verses low milk prices. Thus we will be able to continue supporting families in our employ as well as businesses that depend on the agricultural community for their existence.

We are urging you to grant the application to Baron Winds for the Wind project which includes Cohocton, Fremont, S Dansville and Wayland. This project will benefit the lease owners as well as all the residents and taxpayers in this Wind Farm.

Thank you for the opportunity to give opinions for this project.

Sincerely,

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Burns Family Farm
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### William Phelps Fremont Town Councilman P.O. Box 56 Arkport NY 14807

June 19, 2019

Steuben County IDA 7234 Route 54N PO Box 393 Bath NY 14810

**Attention: James Johnson Executive Director** 

As a two term councilman and taxpayer in the Town of Fremont, and supporter of the Baron Winds project and realize the economic need in this community, this is a plea to expedite the application for the construction of wind turbines in the four towns, Fremont, Cohocton, S Dansville and Wayland.

We live in a suppressed area with little industrial development and the Baron Wind project will boost the quality of life for the lease owners and all the residents and taxpayers. The school systems will benefit from revenues to the districts from the Wind Company

I see the immense benefit the Town of Cohocton has received from the First Wind project totaling so far \$6,178,288.32 compounded by 2% each year. Three towns in the project have signed with the Baron Wind Company and are waiting for the project to proceed.

Officials elected to office take an oath at the beginning of their terms to do what is best for the Town. The delays that have been blocking the Town of Fremont and Wind Company agreement have already cost the Town revenues.

As a true representative of the people of the Town of Fremont, I would appeal to SCIDA to approve the application for the Wind Farm project.

Sincerely,

William R Phelps, Councilman and Taxpayer

W. Bud Pholps