

# Energy Deliverability Study Stony Creek Wind Farm



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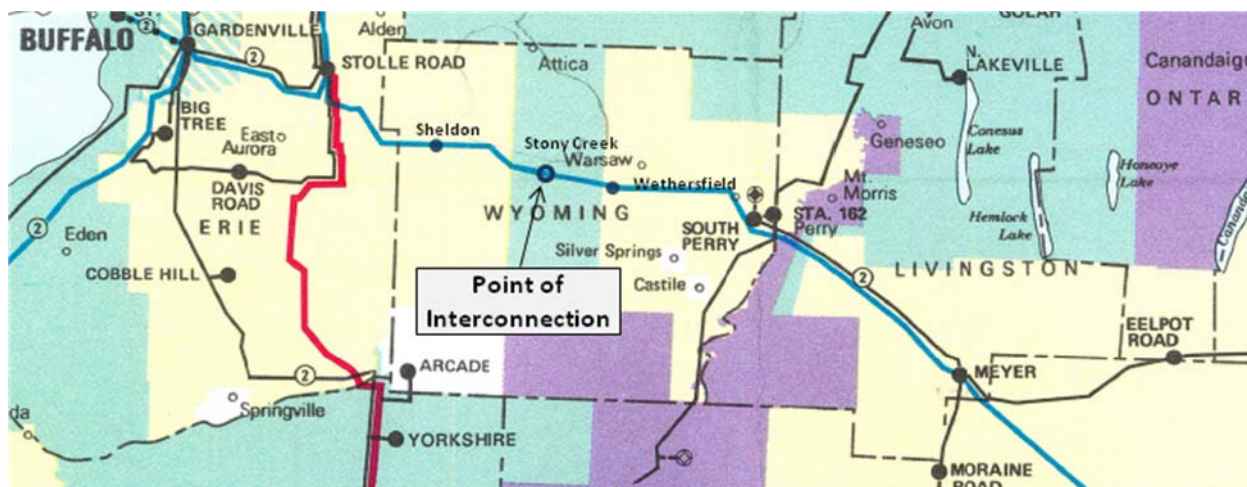
## 1. Purpose

This study evaluates the ability of the proposed Stony Creek Wind Farm to deliver energy to the New York State bulk power system via its proposed interconnection point on the NYSEG 230-kV Meyer-Stolle Road transmission line. Part of the evaluation is to determine what resources might be backed down in order for Stony Creek to deliver its energy for certain scenarios.

## 2. Background

The Stony Creek Wind Farm is a wind energy project planned to include installation of up to 59 wind turbines in a 14,500 acre project area located in the Town of Orangeville in Wyoming County, New York (the "Project"). The Project is undergoing state and local environmental reviews based on use of GE 1.5xle or 1.6-100 wind turbines, which would give the project a maximum generating capability of either 88.5 MW or 94.4 MW depending on the model of wind turbine used.

In October 2007, Invenergy submitted to the NYISO an interconnection request (assigned NYISO queue #263) for a wind project of up to 142.5 MW to be connected at the point in NYSEG's 230-kV Stolle-Meyer line shown in Figure 1, the "Point of Interconnection" or "POI." Physically, the POI is planned to be a new three-breaker ring bus to be built by Stony Creek, in accordance with NYSEG design criteria, at a point between the Sheldon and Wethersfield substations.



**Figure 1. Stony Creek Point of Interconnection**

As part of the review of interconnection request #263, the NYISO issued a feasibility study and a system reliability impact study (SRIS), both based on the assumption of a 142.5 MW project. After issuance of the SRIS, Stony Creek reduced the size of the interconnection request from 142.5 MW to 88.5 MW to match the size of the Project being considered for local zoning permits. This change was approved by the NYISO as a non-material change, and the Project is being evaluated in NYISO Class Year 2010 as an 88.5 MW interconnection.<sup>1</sup>

<sup>1</sup> Under the interconnection agreement contemplated by the NYISO studies currently underway, the project will be limited to a maximum output of 88.5 MW, even if it is built with 59 GE 1.6-100 turbines that would have a maximum generating capability of 94.4 MW.

### 3. Approach

Any method used to predict detail hour-to-hour operating conditions of the wholesale electric market for the next decade or more involves considerable uncertainty. The list of factors that affect such predictions includes fuel prices, weather, economic growth, new plant additions, plant retirements, new transmission additions, transmission system interruptions, minute-to-minute changes in electric demand, and government policies. Nonetheless, it is possible to perform analyses to estimate what generators would most likely be running under certain conditions.

This study uses several approaches to evaluate the likelihood that the Stony Creek Wind Farm and other renewable generators in the local area and region will be able to deliver 88.5 MW to the electric grid at full, or near full, capacity under different scenarios. The approaches used to evaluate energy deliverability are:

- Local Transmission Evaluation;
- Available Transmission Capacity (ATC) analysis; and
- SRIS Energy Flows.

## 4. Results

### 4.1 Local Transmission Evaluation

As shown in Figure 1, the Project is located in a region of Western New York where there is one relatively long transmission circuit (the NYSEG circuit between the Stolle Road and Meyer Substations) running through an area (Wyoming County) with no direct connections from the line to serve load, but there are direct connections where generators interconnect with the line.

The Project will be the third wind energy project connected to the Meyer-Stolle Road line.<sup>2</sup> A first level check of the Project’s energy deliverability is to verify whether the local transmission line can carry the combined load of all the generators connected to it. In this case, the local line is the Meyer-Stolle Road line. Table 1 shows the capacity of this line and the maximum generating capabilities of the projects directly connected to it.

**Table 1. Stolle-Meyer Transmission Limits and Wind Generation**

	Summer Conditions (MW and MVA)	Winter Conditions (MW and MVA)
Transmission Limit (Stolle-Meyer 230 kV), <i>normal</i> conditions	430	512
Maximum Generating Capability of Wind Projects, Connected and Proposed		
High Sheldon Wind Farm	112.5	112.5
Wethersfield Wind Park	126.0	126.0
Stony Creek Wind Farm	88.5	88.5
Dairy Hills Wind Farm	79.8	79.8
Total Connected Wind Projects	409.8	409.8
Transmission Line Unused Capability	23.2	105.2

Notes:

1. Transmission limits shown are the thermal operating limits for subject transmission line for “Normal Conditions”. Higher limits are allowed for “Emergency Conditions.” Compared to the normal condition ratings in the table, emergency conditions limits for the subject line are 52 MW higher in the winter and 64 MW higher in the summer (i.e., 564 MVA winter and 494 MV summer).
2. Transmission limits are given in units of “MVA”, which for estimating purposes is roughly the same as a MW.
3. Maximum generating capability of wind projects is the nameplate rating of the projects actual built or proposed. This represents the maximum power these projects could add to the transmission line. Note that the NYISO assigns a significantly lower value to these projects in its Capacity evaluations.
4. The High Sheldon Wind Farm and the Wethersfield Wind Park are operating wind projects. Stony Creek and Dairy Hills are proposed projects.
5. As of May 18, 2010, the NYISO queue still shows Dairy Hills as an active request for 120 MW, but under current New York law, this capacity cannot be built without a zoning permit from the local towns. Dairy Hills generating capability is based on the SDEIS submitted in May 2009, which proposed 38 wind turbines of 2.1 MW generating capability each. Note that in October 2009, the lead agency suspended review of this project indefinitely and in June 2010 it declared its zoning application withdrawn and voted 4-1 to enact a 1-year moratorium on issuance of wind energy projects.

<sup>2</sup> Noble Wethersfield and High Sheldon were connected to the Stolle-Meyer line in 2009. The Inel Wetherfield project is connected to a lower voltage line that connects to a different part of the transmission system.

Table 1 lists Dairy Hills as a possible project to connect to the line, but this project appears unlikely to be approved by the local town that reviewed and then rejected its application. As of February 7, 2011, however, the project remains in the NYISO queue.

As shown in Table 1, the local transmission line has the capability to carry all of the power that could be generated by wind projects connected to this line, even under the unlikely scenario that the four wind projects were connected and operating at maximum allowed output during summer conditions.

## 4.2 Available Transmission Capacity Analysis

As a second level estimate of the ability of the transmission system to carry power from a wind project at the Stony Creek POI, in 2007 Stony Creek performed an Available Transmission Capacity (“ATC”) analysis. This type of analysis looks at the local transmission system in the Stony Creek area and determines potential transmission constraints based on a N-1 contingency analysis. It uses transmission network analysis software and power flow cases (winter/summer) which include the transmission topology and transmission facilities ratings. It also includes planned generation projects to evaluate their impact on the transmission system. In running the ATC analyses, Stony Creek evaluated six cases<sup>3</sup>:

- Case 1. Only Stony Creek is built.
- Case 2. Stony Creek and Sheldon are built.
- Case 3. Stony Creek, Sheldon, and Wethersfield are built.
- Case 4. Stony Creek, Sheldon, Wethersfield and Dairy Hills are built.
- Case 5. Stony Creek, Sheldon, Wethersfield, Dairy Hills and Cohocton are built.
- Case 6. Stony Creek, Sheldon, Wethersfield, Dairy Hills, Cohocton, and Paragon<sup>4</sup> are built.

Results of the ATC Analysis are shown in Table 2.

**Table 2. ATC Analysis for Injection of Power at Stony Creek POI**

Case	Other Area Projects Assumed to be Operating at Full Power	Assumed Output Level of Added Project (MW)	Cumulative Level of Assumed New Projects (MW)	ATC at Stony Creek POI (MW)
<b>Winter ATC Analysis</b>				
1	None	--	--	>500
2	Case 1 +Sheldon	112.5	112.5	421
3	Case 2 +Wethersfield	127.5	240	301
4	Case 3 +Dairy Hills	120	360	190
5	Case 4 + Cohocton	125	485	129
6	Case 5 +Paragon II	150	635	0
<b>Summer ATC Analysis</b>				
1	None	--	--	443
2	Case 1 +Sheldon	112.5	112.5	369
3	Case 2 +Wethersfield	127.5	240	242
4	Case 3 +Dairy Hills	120	360	121
5	Case 4 + Cohocton	125	485	20
6	Case 5 +Paragon II	150	635	0

Notes:

1. This table shows results of ATC analyses runs for several cases, each assuming different new wind projects in the vicinity of Stony Creek were built and running at assumed full output. Note that Cohocton and Paragon II are not connecting to the segment of transmission line from Stolle Road to Meyer, but because they were proposed in locations electrically near to the Meyer Substation, ATC cases were run with and without the projects.
2. Assumes Stolle-Meyer transmission line normal rating of 512 MVA for winter, 430 MVA for summer. Also assumes emergency rating of 564 MVA for winter, 494 MVA for summer.

<sup>3</sup> At the time that the ATC analysis was run, no wind projects connected to the Stolle-Meyer 230-kv line had been built.

<sup>4</sup> Paragon was a wind project proposed in Stueben County that would have fed into the Stolle-Meyer 230kv circuit. The project has since been removed from the NYISO queue.

3. Assumes transmission system is operated with single failure contingencies in place.

At the time this analysis was run, Dairy Hills was proposed as a 120 MW facility, and Wethersfield was proposed for 127.5 MW. Dairy Hills was subsequently proposed locally to be 79.8 MW. Wethersfield was subsequently built to 126 MW. Based on the progress of the different wind projects as of February 2011, the Case 5 ATC scenario is the most useful to evaluate. Two of the projects in this case have been built at the maximum generating capacities assumed in the ATC analysis: Sheldon and Cohocton. Wethersfield, however, was built slightly smaller, at 126 MW instead of the 127.5 MW that was assumed in the ATC analysis. And Dairy Hills was assumed to be 120 MW in the ATC analysis, but now appears to be unlikely to be built. Thus, Case 5 is a conservative assessment of the available transmission capability. The ATC results indicate that for Case 5, if an hour occurred where Sheldon, Wethersfield, Dairy Hills, and Cohocton were operating at their maximum assumed outputs, then the maximum power level that Stony Creek could inject into the system without an overload would be:

- 129 MW if all projects were running at full power during an hour in the winter peak, and
- 20 MW if all projects were running at full power during an hour in the summer peak.

The results above however, assume that Dairy Hills is injecting 120 MW into the system – more than even Stony Creek is proposed to generate at maximum output. Thus, this analysis implies that without Dairy Hills built, the ATC at the Stony Creek would be 120 MW more than listed above. That is, on an hour with Sheldon, Wethersfield, and Cohocton, operating at maximum output, then the maximum power level that Stony Creek could inject into the system without an overload would be:

- 249 MW if all projects were running at full power during an hour in the winter peak, and
- 140 MW if all projects were running at full power during an hour in the summer peak.

Based on the results of the ATC analysis, the Stony Creek Wind Farm should be able to deliver a full 88.5 MWh of renewable energy to the transmission system for a winter or summer hour when the other regional renewable energy projects, specifically the Sheldon, Wethersfield, and Cohocton wind farms, are all generating at their maximum output levels and load levels are those typically analyzed for summer and winter peak conditions.

### 4.3 SRIS Energy Flow Analyses

#### Approach

As part of NYISO SRIS analyses, the NYISO evaluates the impact of a proposed generation project on the reliability of the New York State Transmission System, performs multiple studies, including energy flow studies that models the New York transmission network in detail. The energy flow studies simulate the flow of electric energy for different operating conditions, i.e., “load cases”, established by the NYISO as the most demanding from an electric reliability standpoint. For each load case, the energy flow study is run assume that Stony Creek is operating at 100% of its requested interconnection limit. Results of these energy flow studies can be used to assess the potential for local and regional transmission “bottlenecking” because for each load case it is possible to see what generators were assumed to be operating when Stony Creek was at maximum output.

#### Load Cases

The NYISO evaluates several load cases, including those listed in Table 3. As can be seen in the table, the case often seen as most challenging is the summer peak case where energy consumption is usually highest.

**Table 3. Load Cases for Energy Flow Studies**

Load Case	Total Assumed NYISO Electric Generation	Assumed NYISO Generation as a percent of 2009 Peak NYISO Demand (30,844 MW)
1. Summer Peak	29,404 MW	95%
2. Winter Peak	24,189 MW	78%
3. Low Load	16,124 MW	52%

To analyze a load case, the engineer performing the analysis starts with a “base case” that is provided by the NYISO. Each base case represents NYISO’s best prediction of likely future operating levels, and to develop the base case the NYISO must make several assumptions including:

- (i) Which proposed, but un-built projects, should be assumed to be operating? Sometimes the base cases will assume generation from a proposed project, even though the proposed project may be cancelled and no longer in development.
- (ii) How much generation should be assumed from proposed projects? Because proposed projects often start as large projects but are reduced for a variety of reasons (including land negotiations and local zoning), sometimes the base cases will assume a proposed project is generating more electricity than the maximum level allowed under the most recent development plans.
- (iii) How much electricity should be generated by each generation project? The NYISO system includes over 700 generating units.<sup>5</sup> The maximum output of these generators exceeds the

<sup>5</sup> Many of these units are relatively small units with low maximum generating capability. About 400 are 10 MW or less, about 110 are 10-50 MW, about 90 are 50-100 MW, and about 100 are 100 MW to 867 MW. In addition, many of the units are located at the same “site” or “plant. Thus, the total number of major generating sites, or plants, is much less than 700. For

maximum load in all cases. Thus, in developing the base cases, the NYISO must make assumptions on what levels generators should be operating at. In general, selects output levels to match the most likely operating scenario for the scenario the load case is modeling.

- (iv) How much energy should be drawn from the transmission grid, and from what locations? The NYISO develops this information based on load forecast studies.

To perform the SRIS energy flow analysis, the model is modified to add the Stony Creek output at its maximum level. Because the total load is unchanged in the case, the addition of Stony Creek generation must be accompanied by a reduction in generation from another generator. The engineer performing the analysis selects which generating units to “back down.” Generally, the analyst attempts to reduce output at stations that are furthest from the point where the new generation is being proposed. This maximizes the ability of the study to test transmission limits in the region where the project is proposed and to test the deliverability of the project to areas outside of the region.

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instance, three of the 700+ units in the base cases, are units of less than 200 MW that model the three generators at the coal-fired NRG Huntley plant in Erie County.

## **Energy Flow Results**

Generator outputs for the Stony Creek SRIS Energy Flow analysis for the summer peak load case is summarized in Table 4. Rather than show output levels for each of the approximately 700 generators in the load flow case, in Table 4 the generators are grouped categories to assist in interpretation of the results. Deliverability of projects in each category is discussed below.

**Table 4. Summary of Energy Flow Cases for Stony Creek Wind Farm SRIS, Summer Peak Case**

Type of Generating Plant		Expected Capacity, (MW)	Assumed Generation Level (MW)	Percent of Capacity
<b>AA</b>	Stony Creek Wind Farm	89	143	161%
<b>A</b>	Local Renewable Generators	364	352	97%
<b>B</b>	Regional Renewable Generators			
	B.1 Operating	2,800	1,926	69%
	B.2 Foreseeable	447	124	28%
	B.3 Not Foreseeable	-	350	N/A
<b>C</b>	Regional Non-Renewable Generators	1,920	884	46%
<b>D</b>	Non-Regional Renewable Generators			
	D.1 Operating	1,544	781	51%
	D.2 Foreseeable	862	387	45%
	D.3 Not Foreseeable	-	82	N/A
<b>E</b>	Major Non-Regional Non-Renewable Generators	21,976	12,818	58%
<b>F</b>	Other		11,701	N/A
	<b>TOTAL</b>	<b>30,018</b>	<b>29,404</b>	<b>95%</b>

Note: “Expected Capacity” is the expected maximum generating capacity for 2012 for all projects in the category. For projects in development, the expected capacity is the most likely capacity to be built, based on publically available information about development progress of various projects. (For instance, if a project is withdrawn from the NYISO queue, it is given an expected capacity of 0 MW). For operating thermal projects, the expected capacity is typically the summer rated capacity. For operating wind projects, the expected capacity is the total megawatt generating capacity of all installed wind turbines.

### **Category AA. Stony Creek Wind Farm**

This category has only one project – the Stony Creek Wind Farm. For all cases, the Stony Creek Wind Farm was conservatively assumed to produce 142.5 MW, which is 61% more than the project is currently planned for in the NYISO queue.<sup>6</sup>

<sup>6</sup> 142.5 MW was the size of the original interconnection request for the Stony Creek Wind Farm, and thus it was the level used in the SRIS analyses. Subsequent to the SRIS being completed, Stony Creek revised its interconnection request to be for a maximum output of 88.5 MW.

## **Category A. Local Renewable Generators**

Category A includes operating or foreseeable renewable energy generators in the immediate vicinity of the Stony Creek Wind Farm, which for purposes of this report is defined to mean projects connecting to the same transmission line as Stony Creek, or to one of the substations at the end of this transmission line. Table 5 lists the generators in this category.

**Table 5. Local Renewable Energy Generators**

Queue No.	Developer / Owner	Project Name	County	Fuel	Expected 2012 Capacity (MW)	Status
<b>144</b>	Invenergy	High Sheldon Wind Farm	Wyoming	Wind	112.5	Operating
<b>135, 199</b>	First Wind	Cohocton Wind	Steuben	Wind	125.0	Operating
<b>177</b>	Noble	Wethersfield Wind Park	Wyoming	Wind	126.0	Operating
TOTAL					363.5	

For the summer peak case, the local renewable projects were assumed to be operating at 97% of capacity, with no issues delivering energy to end users, even with Stony Creek generating 142.5 MW - 54 MW (61%) more than its current interconnection request limit.

## Category B. Regional Renewable Generators

Category B includes proposed or operating wind farms and hydroelectric plants that are located in Western New York, defined as NYISO zones A, B, and C for purposes of this analysis. Table 6 lists the projects included in Category B, grouped by their current status. The operating plants in this category are dominated by the 2,430 MW Robert Moses Niagara hydroelectric facility.

**Table 6. Regional Renewable Generators**

Queue No.	Developer / Owner	Project Name	County	Fuel	Expected 2012 Capacity (MW)	Status
<b>B1. Operating</b>						
173, 212	Noble	Bliss Windpark	Wyoming	Wind	100.5	Operating
Na	Inel	Wethersfield	Wyoming	Wind	6.6	Operating
Na	First Wind	Steel Winds I	Erie	Wind	22.5	Operating
Na	NYPA	Robert Moses Niagara	Niagara	Hydro	2,430.0	Operating
NA	NYPA	Lewiston Niagara	Niagara	Storage	240.0	Operating
<b>B2. Foreseeable</b>						
169	Horizon	Alabama Ledge	Genesee	Wind	85.8	Stalled
182	Everpower	Howard Wind	Steuben	Wind	62.5	Permitted
234	First Wind	Steel Winds II	Erie	Wind	15.0	Development
237	Everpower	Allegheny Wind	Allegheny	Wind	79.0	SEQRA
198	Horizon	Arkwright	Chautauqua	Wind	79.9	SEQRA
254	Pattern	Ripley-Westfield Wind	Chautauqua	Wind	124.8	SEQRA
<b>B3. Not Foreseeable</b>						
113	First Wind	Windfarm Prattsburgh	Steuben	Wind	-	Withdrawn
119	Ecogen	Prattsburgh Wind Farm	Steuben	Wind	-	Hold
142	E-on	Hartsville Wind	Steuben	Wind	-	Withdrawn
155	Invenergy	Canisteo Hills Wind	Steuben	Wind	-	Hold
168	Horizon	Dairy Hills Wind Farm	Wyoming	Wind	0	Hold
178	Noble	Allegheny Windpark / Centerville	Allegheny	Wind	-	Withdrawn
203	First Wind	GenWy Wind	Genesee	Wind	-	Withdrawn
222	Noble	Ball Hill Windpark	Chautauqua	Wind	-	Hold
227	Iberdrola	Orleans Wind	Orleans	Wind	-	Withdrawn
238	Horizon	Tonawanda Creek Wind	Genesee	Wind	-	Withdrawn
240	Noble	Farmersville Wind	Cattaraugus	Wind	-	Withdrawn
256	Acciona	Niagara Shore Wind	Niagara	Wind	-	Withdrawn
TOTAL					3,247.0	

## ***Impacts on Operating Regional Renewable Generators***

The SRIS energy flow analyses indicate that deliverability of operating renewable generators in the Western New York region should not be affected by the addition of Stony Creek.

For the summer peak case, operating renewable generators in the Western New York region were able to run at 69% of maximum generating capability with Stony Creek operating at 161%. For this load case, the generators at the Robert Moses Niagara Hydro plant were assumed to be generating at a total output level of 1,771.9 MW, 73% of maximum output. The output for all operating renewable generators in the WNY region, with and without Stony Creek, was the same. The reduction in load required to balance this load case was made primarily by reducing assumed output from two large gas and oil-fired plants located in Orange and Rockland Counties. Thus, this load case indicates that addition of Stony Creek will not affect deliverability of operating regional generators for summer peak conditions.

## ***Impacts on Foreseeable Regional Renewable Generators***

Six potential and foreseeable new renewable generators in the Western New York region were included in the SRIS energy flow analyses. These generators are listed as category B2 in Table 6. The SRIS energy flow analyses indicate that deliverability of these foreseeable renewable generators in the Western New York region should not be affected by the addition of Stony Creek.

For the summer peak case, foreseeable renewable generators in the Western New York region were able to run at 28% of their expected generating capability with Stony Creek operating at 161%. The output for all of these generators, with and without Stony Creek, was the same. Thus, this load case indicates that addition of Stony Creek will not affect deliverability of foreseeable regional generators for summer peak conditions.

## ***Inclusion of Not-Foreseeable Regional Renewable Generators in the SRIS Analysis***

The SRIS energy flow analysis modeled output from 14 proposed renewable generators in Western New York that are not foreseeable. These generators are listed as category B3 in Table 6. The fact that the system was able to be balanced with Stony Creek at 161% of its maximum output, with no changes to output from local or regional generators, and assumptions that these generators would be adding generation to the regional transmission system, further supports the conclusion that the addition of Stony Creek will not affect deliverability of local and regional renewable energy generators.

For the summer peak case, 474 MW was assumed to be added to the system by proposed WNY renewable generators that are not foreseeable.

## **Category C. Regional Non-Renewable Generators**

This category includes major fossil-fueled generating stations located in western and central New York. This category includes the NRG Huntly, NRG Dunkirk, and AES Somerset facilities with rated capacities of 720, 520, and 680 MW, respectively. In the SRIS energy flow analyses, these three projects were assumed to operate at the same levels with and without the addition of Stony Creek at 161% of its maximum proposed capacity.

## **Category D. Non-Regional Renewable Generators**

This category includes major operating and proposed renewable energy facilities central and northern New York, primarily NYISO zone E. This category includes the 800 MW Robert Moses Power Dam in St. Lawrence County. It also includes operating and proposed wind projects such as the 321 MW Maple Ridge Wind Farm; the 381 MW of Noble projects in the North Country; the 30 MW Fenner Wind Farm, 11.6 MW Madison Wind Farm, and the 40 MW Munnsville Wind Farm in Madison County; and approximately 20 other proposed wind energy facilities – many of which are not foreseeable.

Assumed operating levels varied by plant. The largest plant, the Robert Moses Power Dam, an 800 MW hydroelectric facility, was assumed to generate 61%, 92%, and 100% of its rated capacity in the summer peak, winter peak, and low load cases respectively. The output of this project was assumed to be the same, regardless of whether or not Stony Creek was generating at 161% of its maximum proposed capacity.

## **Category E. Major Non-Regional Non-Renewable Generators**

This category includes large fossil fuel and nuclear projects located in New York east of Steuben County. This category includes over 5,000 MW of nuclear capacity, over 1,000 MW of capacity from the Gilboa-Blenheim pumped storage facility, and 10-15 large gas-fired power projects.

For the cases run with and without Stony Creek, the output from the major non-renewable projects was unchanged with the exception of two large gas and oil-fired generators in Orange and Rockland Counties which were backed down by approximately 140 MW in total to balance the system with Stony Creek operating at 142.5 MW. The Gilboa Blenheim pumped storage facility was assumed to be operating at high output levels for all load cases, with no changes in the cases with and without Stony Creek.

The fact that the engineer performing the load cases was able to balance the system by backing down these fossil plants relatively far from the Stony Creek local area and WNY region Stony Creek, indicates that the addition of the Stony Creek project does not impact the flexibility to serve load and deliver energy from WNY renewable resources for the load cases analyzed.

## 5. Conclusions

Several studies have been done by Stony Creek and the NYISO to evaluate the ability of the Stony Creek Wind Farm to deliver energy to the NYISO transmission system for a range of likely operating conditions. These include basic evaluations of the capacity of the local line to which Stony Creek will interconnect, available transmission capacity analyses, and detailed energy flow analyses conducted by the NYISO. All studies indicate that Stony Creek should be able to deliver its maximum expected output of 88.5 MW without affecting the ability of local and regional renewable generators to deliver energy to the NYISO transmission system.

The analyses conducted by Stony Creek and the NYISO do not predict every possible condition or scenario that could occur in the future, but they do evaluate the state-wide situations that the NYISO judges to be the most likely to constrain transmission system. Based on these analyses SRIS, it can be concluded that the probability of congestion should be low and the Stony Creek Project will not displace other renewable energy resources in the area.