

**STATE OF NEW YORK  
PUBLIC SERVICE COMMISSION**

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In the Matter of :  
:  
WEST POINT PARTNERS, LLC : Case 13-T-0292  
:  
Application of West Point Partners, LLC for a :  
Certificate of Environmental Compatibility and Public :  
Need Pursuant to Article VII of the Public Service Law :  
:  
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**WEST POINT PARTNERS, LLC RESPONSE TO DPS-71  
INTERROGATORY/DOCUMENT REQUEST**

**DPS-71: Energy Market Analysis using AURORAxmp (Follow-up to DPS-43) (Wheat)**

**RESPONSE:**

See Responses to DPS 107(1) for responses to DPS71(1) through (15).

16. *For the production cost impacts presented in your Application (page 8):*

(a) *Are these generation cost impacts for New York as estimated by the AURORAxmp model?*

**RESPONSE:**

In addition to the generation costs for resources within the NYISO footprint, as estimated by the AURORAxmp model, the production cost impacts include adjustments to reflect the value of the change in net imports between the Base Case and the West Point scenarios.

(b) *Did you estimate production costs for New York by adjusting the AURORAxmp generation cost impact estimates to reflect costs associated with net imports?*

**RESPONSE:**

Yes, the generation costs per the AURORAxmp model were adjusted for the value of the change in imports and exports to and from NYISO. The cost of imports was estimated by the LMPs at the relevant import nodes.

(c) *If the answer to 16(b) is no, explain why not and please provide this calculation.*

**RESPONSE:**

Not applicable.

- (d) *Please calculate and provide generation cost impacts for New York's neighboring regions (PJM, New England, Ontario and Quebec).*

**RESPONSE:**

See Response to DPS-107(2)(e).

Name of Person(s) Preparing Response: Scott Niemann and Oliver Kleinbub

Dated: September 8, 2014

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**WEST POINT PARTNERS, LLC RESPONSE TO DPS-107  
INTERROGATORY/DOCUMENT REQUEST**

**DPS-107: Energy Market Analysis using AURORAxmp (Wheat)**

1. Staff requests responses to previously submitted Interrogatories, but with respect to the updated 2014 Study that the Applicant submitted on August 15, 2014. As background, the Applicant filed its initial impact study in April 2013, as Appendix E-4A (“An Assessment of the Impacts of the West Point DC Transmission project on the New York State Electrical System”, Energy Security Analysis, Inc. (ESAI) Power LLC, April 2013) to Exhibit E-4-Engineering Justification (2013 Study). Subsequently, DPS Staff submitted interrogatory DPS-43 in May and interrogatory DPS-71 in August, 2014. The Applicant responded to DPS-43 on June 12, 2014, and has not responded to DPS-71 yet. The Applicant filed an updated impact study in August 2014 (2014 Study). For the 2014 Study:

a. Please provide responses to DPS-43 with regard to the 2014 Study for the following questions: DPS-43-5, DPS-43-11, DPS-43-12, and DPS-43-18.

**DPS-43(5):**

Please describe how the West Point Transmission Project is represented in AURORAxmp. Does the modeling include a modification of a power flow representation for the West Point facility? On page 4 (Appendix E4-A) of the West Point application, the West Point scenario is described as involving: “the 1,000 MW transfer capability of the line was modeled to increase flows across both the Leeds-Pleasant Valley corridor as well as the UPNY-ConEd interface between Zones G & H.” Please describe exactly what this statement means with respect to how West Point is modeled.

**RESPONSE:**

The West Point line is represented as a 1,000-MW DC line with terminals at the Leeds 345 kV and Buchanan North 345 kV buses. The DC line model was added to the underlying load flow representation, and the DC line was economically dispatched as part of the production cost simulation.

**DPS 43(11):**

*Please identify the change in the energy mix (MWH or GWH) which is forecast to result from the West Point Transmission project, by region (e.g., upstate New York versus downstate New York, net imports from neighboring regions (PJM, New England, Ontario, Quebec, etc), at least for a few select years (please include the year 2022).*

**RESPONSE:**

Please see the attached spreadsheet, Attachment DPS-107(1)(a)-43(11).

**DPS-43(12):**

*Please provide a generator-by-generator list of annual impacts (including CO2 emissions impacts, generation, and generation costs with fuel type identified, and bus prices) forecast to result from the West Point transmission facility, at least for a few select years (please include the year 2022).*

**RESPONSE:**

Please see the attached spreadsheet, Attachment DPS-107(1)(a)-43(12).

**DPS-43(18):**

*Please describe assumptions regarding retirements and capacity additions in neighboring regions. Specifically, identify what coal facilities are assumed to retire, and how much of the retired coal capacity is attributable to each neighboring region.*

**RESPONSE:**

Please see the attached spreadsheet, Attachment DPS-107(1)(a)-43(18).

*b. Please respond to DPS-71 with regard to the 2014 Study for the following questions: DPS-71-5, DPS-71-6, DPS-71-7, DPS-43-9, DPS-71-10, DPS-71-11, DPS-71-13, DPS-71-14, and DPS-71-15. We are retracting our requests for additional modeling at this time. Also, please do not provide responses to DPS-71 at all with regard to the 2013 Study, as these are unnecessary in light of the updated 2014 Study.*

**DPS-71(5):**

*Please provide:*

- (a) The zonal interface capabilities assumed in the zonal approach modeling, and provide justification for these assumptions.*
- (b) For each year and each scenario (Base Case, West Point scenario), provide the annual flows on each interface, and identify how often (e.g., number and/or percentage of annual hours) each interface is limiting (in terms of flows being at maximum flow capability).*

**RESPONSE:**

a. The following table provides the interface capabilities that were assumed for the 2014 Study.

<b>NYISO Interface Assumptions</b>	
<b>Interface</b>	<b>Flow Limit (MW)</b>
NY_DysingerEast	2,775
NY_WestCentral	1,450
NY_CentralEast	2,875
NY_TotalEast	5,050
NY_MosesSouth	2,225
NY_UPNY-ConEd	3,750
NY_DunwoodieSo	3,200
NY_ConEd-LIPA	875

Except for the Dunwoodie-South interface, the assumed capabilities for NYISO interfaces reflect values provided in the NYISO Operating Study – Summer 2012. The limit for the Dunwoodie-South interface was reduced by 650 MW to more adequately reflect congestion in NY Zone J.

- b. Please see the attached spreadsheet, Attachment DPS-107(1)(b)-71(5).

**DPS-72(6):**

*On page 23 of Appendix E-4A to Exhibit E-4 (Engineering Justification) of the Application, environmental assumptions regarding emissions modeling are described, including emissions allowance prices for: sulfur dioxide (SO<sub>2</sub>), nitrogen oxide (NO<sub>x</sub>), and carbon dioxide (CO<sub>2</sub>); the Regional Greenhouse Gas Initiative (RGGI); the Cross State Air Pollution Rule (CSAPR); and the Mercury and Air Toxics rule (MATS).*

- (a) *For the ESAI analysis, please identify the states that RGGI is assumed to be applicable to (New York, states in PJM, states in New England).*
- (b) *Why did WPP choose to perform its analysis using RGGI (as opposed to a national CO<sub>2</sub> program, in which CO<sub>2</sub> allowance prices would be applicable to all states and Canadian provinces)?*
- (c) *Did the Applicant do a sensitivity analysis to measure the impact on its results from the West Point facility by assuming a national/provincial CO<sub>2</sub> program?*
- (d) *If the answer to 6(c) above is no, explain why not, and explain your expectation on how the results of your analysis would be impacted by national/provincial CO<sub>2</sub> program modeling.*
- (e) *Regarding MATS, please explain specifically how this is represented in the ESAI modeling (including via allowance prices and emissions rates).*
- (f) *Regarding CSAPR, does the ESAI modeling comply with CSAPR emissions targets?*

**RESPONSE:**

- a. RGGI was assumed to be applicable to the states of New York, Delaware, Maryland, Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.
- b. There are significant uncertainties with regard to the exact format and implementation details of the EPA's Clean Power Plan or any other potential future national greenhouse gas regulations. Moreover, the Clean Power Plan had not been released at the time the 2014 Study was conducted. Any assumptions about a future federal CO2 program would therefore be speculative.
- c. No sensitivity analysis was conducted to analyze the impact of a national/provincial CO2 program.
- d. The impacts of a national carbon scheme could vary greatly depending on the exact format and implementation details of any potential future national greenhouse gas regulations. Therefore, ESAI had not conducted a comprehensive review of the potential impacts.
- e. The retirements and retrofits expected to achieve MATS compliance are reflected in ESAI's input assumptions.
- f. The CSAPR targets and timing for a reinstatement of the rule were not known at the time the 2014 Study was conducted. ESAI accounted for the expectation of the implementation of CSAPR or similar policy through assumed NOx and SO2 allowance prices.

***DPS-71(7):***

*For the ESAI Base Case and West Point scenario, please provide:*

- (a) *Annual emissions forecasts (SO2, NOx, CO2) for New York.*

**RESPONSE:**

- a. Please see the attached spreadsheet, Attachment DPS-107(1)(b)-71(7).

***DPS-71(9):***

*In the response to DPS-43-10, the Applicant explains that: "The interchange with Ontario was not changed between the cases with and without the West Point project."*

- (a) *Please explain why WPP chose to perform its analysis assuming net imports from Ontario as a fixed resource (as opposed to modeling the load, generation facilities, and transmission system in Ontario).*
- (b) *Did the Applicant do a sensitivity analysis to measure the impact on its results from the West Point facility by assuming Ontario as a variable resource in its analysis (as opposed to being a fixed resource)?*
- (c) *If the answer to 9(b) is no, explain why not and explain your expectation on how the results of your analysis would be impacted by modeling Ontario as a variable resource.*

- (d) *Additionally, explain your expectation on how the results of your analysis would be impacted by modeling the load, generation facilities and transmission system in Ontario.*

**RESPONSE:**

- a. Given uncertainty about the Ontario resources that would be available to support additional exports to New York, ESAI applied a conservative approach of maintaining a fixed level of exports in the cases with and without the West Point project.
- b. No sensitivity analysis was conducted to assess the impact of modeling the Ontario interchange as a variable resource.
- c. Modeling the Ontario interchange as a variable resource should result in increased utilization of the West Point line and the resulting benefits.
- d. No sensitivity analysis of alternative representation of Ontario has been conducted.

***DPS-71(10):*** *In the responses to DPS-43-9 and DPS-43-10, the Applicant describes its modeling of New York's neighboring regions.*

- (a) *Please identify the geographic scope of the modeling of PJM in the ESAI modeling.*
- (b) *Describe how High Voltage Direct Current (HVDC) ties are represented between Long Island and PJM, Long Island and New England, and New York City and PJM.*
- (c) *For the ESAI Base Case, please provide the forecast amounts of imports, exports, and net imports from each of New York's neighbors (PJM, New England, Ontario and Quebec). Additionally, if there is more than one interconnection/interface to a specific region, provide this information for each interface.*
- (d) *Explain how ESAI benchmarked net imports with each of New York's neighboring regions to determine if the modeling could be considered reasonable and provide supporting work papers.*

**RESPONSE:**

- a. All PJM zones except the ComEd zone were included in ESAI's production cost simulation.
- b. The Neptune HVDC line between PJM and Long Island is modeled as an HVDC line with terminals at the Raritan River 230 kV bus in PJM's JCPL zone and the Newbridge 345 kV bus on Long Island. The flow across the Neptune line is held to a constant 660 MW towards Long Island. The Cross Sound Cable HVDC line between ISO New England and Long Island is modeled as a constant 330 MW power injection at the Shoreham 138 kV bus on Long Island. The Hudson Partners HVDC line between PJM and New York City is modeled as a constant 660 MW power injection at the West 49<sup>th</sup> Street 345 kV bus in New York City.

- c. Please see the attached spreadsheet, Attachment DPS-107(1)(b)-71(10).
- d. The 2014 Study relied on ESAI’s Northeast model representation. The import levels in this model have been compared against historical actual imports to verify that they are reasonable.

**DPS-71(11):**

*For each interface between New York and our neighbors:*

- (a) *Provide the import/export capabilities assumed in the ESAI modeling, and provide justification for these assumptions.*
- (b) *For each year and each scenario (Base Case, West Point scenario), provide the annual flows on each interface, and identify how often (e.g., number and/or percentage of annual hours) each interface is limiting.*

**RESPONSE:**

- a. The following table provides the external interface capabilities that were assumed for the 2014 Study.

<b>NYISO Interface Limit Assumptions</b>		
<b>Interface</b>	<b>Flow Limit (MW)</b>	<b>Counterflow Limit (MW)</b>
NY_NYISO-ISONE	1,400	1,400
NY_PJM-NYISO	2,250	1,875

The import/export capabilities for the NYISO-ISONE tie reflect values provided as part of ISONE’s 2012 Regional System Plan assumptions. The import/export capabilities for the PJM-NYISO tie reflect values provided in the NYISO Operating Study – Summer 2012. Note that NYISO’s tie with Ontario was not modeled as a free-flowing interface.

- b. Please see the attached MS Excel spreadsheet file, DPS-107-1(a)-71-11 Exhibit.

**DPS-71(13):**

*Please identify:*

- (a) *Major coal/nuclear generation retirements that have occurred/been announced since the ESAI analysis was performed (for the New York, PJM, New England, Ontario and Quebec geographic regions).*

**RESPONSE:**

The only retirement announcements for coal/nuclear facilities that have occurred since ESAI conducted the 2014 Study include the Dale units 1-4 in EKPC (PJM) and Will County 4 in ComEd (PJM).



**DPS-71(14):**

*What is your understanding of the status of the:*

- (a) *Vermont Yankee nuclear plant and Brayton Point coal facility in New England;*
- (b) *Nanticoke coal plant and Lambton coal plant in Ontario; and*
- (c) *Hatfield Ferry Point coal plant and Hatfield Mitchell coal facility in PJM.*

**RESPONSE:**

- a. Entergy announced that it plans to close the Vermont Yankee nuclear facility at the end of 2014 once the current fuel rods have been spent. Brayton Point LLC has announced the planned retirement of the Brayton Point power plant in 2017.
- b. The Nanticoke generating station has burned its last piece of coal on December 31, 2013. The Lambton generating station ceased operation in late September 2013.
- c. The Hatfield Ferry coal plant and Mitchell coal/oil facility were retired in October 2013.

**DPS-71(15):**

*In the AURORAxmp model for the geographic regions being modeled (New York, PJM, New England, Ontario and Quebec), please describe the modeling in terms of:*

- (a) *Unit Commitment logic;*
- (b) *Security Constrained Dispatch logic;*
- (c) *How import/exports/net imports are determined;*
- (d) *Use of hurdle rates for transactions between New York and its neighbors;*
- (e) *Minimum oil burn requirements/assumptions in New York City and on Long Island;*
- (f) *New York Central East interface variability based on Oswego generation availability;*
- (g) *Generation location requirements in New York City and Long Island; and*
- (h) *Contingencies affecting transmission capability at zonal transmission interfaces.*

**RESPONSE:**

- a. The objective of the commitment algorithm is to find a coordinated commitment schedule across all generating units which will satisfy reliability and spinning reserve requirements at the lowest estimated system cost. Generator commitment parameters include minimum up time, minimum down time, minimum segment size, heat rate at minimum, and startup costs. The commitment algorithm uses nodal generator shadow prices to inform the hourly commitment decisions. The linear program which finds the optimal nodal solution each hour returns shadow prices for each generator, giving information about the impact of running that generator on the total system cost. The shadow prices will be influenced by what is happening in the nodal system, including

congestion, binding transmission elements, contingencies, and each generator's location.

b. The security-constrained dispatch is an optimization solution for each hour of the study period, and is based on linear programming logic. The linear programming objective function is production-cost minimization. The dispatch solution honors generator constraints, e.g. unit capabilities and dispatch costs, transmission constraints, including contingency events, and pool constraints, e.g. operating reserves.

c. The interchanges between NYISO and PJM, and NYISO and New England are determined dynamically as part of the overall dispatch solution. The (external) PJM and New England systems are represented by composite generator and composite demand buses, representing individual load zones. Transmission elements between the NYISO system and external load zones or between external load zones are represented. Weighted average shift factors distribute the flows to and from the composite generators and composite demand across the inter-zone transmission elements.

d. No hurdle rates were assumed for transactions between New York and its neighbors.

e. Dual fuel units in New York City and Long Island were dispatched based on the price of the lowest-cost fuel option. Minimum oil burn requirements were not explicitly modeled. Modeling the minimum oil burn should not materially change any of the results of the 2014 Study.

f. ESAI did not model the Central East interface limit as a function of generation.

g. All ICAP market Locational Capacity Requirements were modeled and accounted for in capacity prices and long-term capacity additions.

h. ESAI did not model any interface limits as a function of transmission contingencies.

2. *With regard to the 2014 Study:*

a. *DPS-71-7 asks the Applicant to provide air emissions impacts. If these were not estimated, please explain why they were not estimated.*

**RESPONSE:**

Air emissions impacts were estimated. Please see response provided to item 1 (b) regarding DPS-71-7.

b. *Regarding the Indian Point retirement assumption in the 2014 study, please explain how replacement capacity amounts and locations were determined. If no replacement capacity was included in the lower Hudson Valley, please explain why not.*

**RESPONSE:**

ESAI modeled capacity additions as needed to meet all NYISO Locational Capacity Requirements, accounting for the estimated impact of transmission additions.

c. *Please identify the MW capability assumed for the Bowline facility.*

**RESPONSE:**

The Bowline power plant was modeled in AURORAXmp with a capacity of 1,059 MW during the summer and 1,139 MW during the winter. In ESAI's ICAP market analysis, Bowline was modeled with a summer capacity of 758 MW and a winter capacity of 764 MW, reflecting the current derate of unit 2.

d. *Regarding the Transmission Owner Transmission Solutions (TOTS) assumption in the 2014 study, explain whether this modeling is consistent with the Indian Point Contingency Plan PSC Order (Order Accepting IPEC Reliability Contingency Plans, Establishing Cost Allocation and Recovery, and Denying Requests for Rehearing, NYPSC Case 12-E-0503, November 4, 2013), and briefly explain how this modeling was developed.*

**RESPONSE:**

Consistent with NYPSC's November 4, 2013 order in case 12-E-0503 that the three TOTS projects shall be accepted for implementation under the IPEC Reliability Contingency Plan, ESAI included the following transmission upgrades in the 2014 Study:

- ConEd's second Ramapo to Rock Tavern transmission line
- ConEd's Staten Island Unbottling project
- NYPA and NYSEG's Marcy South Series Compensation and Fraser to Coopers Corners Reconductoring project

The modeling of the TOTS projects was developed based on publically available information provided by the New York Transmission Owners, including project descriptions filed in case 12-E-0503, and the Response to the New York State Energy Highway Request for Information.

e. *Can you provide emission and cost impacts in neighboring regions (PJM, New England, etc)? For the 2013 Study, DPS-43 asks for forecast impacts (generation, emissions, and costs) in neighboring regions (PJM, New England, etc), and the Applicant's response to DPS-43-13 stated that "emissions and cost impacts were not calculated for the other regions." Is this the case for the 2014 Study? If yes, please explain how difficult or easy it is to obtain these forecasts.*

**RESPONSE:**

ESAI limited the nodal representation to the NYISO system only. External regions were modeled as described in response to item 1 (b). This approach limits the transmission constraints that are reflected in the LMP calculation to only internal NYISO constraints and is consistent with the way NYISO dispatches the New York power system. Unfortunately, modeling the external regions in this simplified way does not allow for the reporting of emissions and cost impacts in neighboring regions.

Name of Person(s) Preparing Response: Scott Niemann and Oliver Kleinbub

Dated: September 8, 2014

<b>Changes in New York Energy Mix (MWh)</b>									
<u>Year</u>	<u>ROS</u>	<u>LHV</u>	<u>NYC</u>	<u>LI</u>	<u>NYCA</u>	<u>HQ</u>	<u>IESO</u>	<u>ISONE</u>	<u>PJM</u>
2018	264,850	-167,252	-306,050	-21,561	-230,013	-	-	-207,349	429,722
2019	299,069	-148,585	-254,950	-96,759	-201,226	-	-	-216,797	407,473
2020	646,548	-199,055	-641,324	-125,677	-319,507	-	-	-476,488	810,370
2021	654,155	-163,171	-606,710	-174,544	-290,271	-	-	-457,153	760,508
2022	454,304	-145,424	-421,334	-119,022	-231,475	-	-	-285,525	541,553
2023	403,852	-146,742	-420,634	-97,984	-261,507	-	-	-313,342	579,789
2024	287,116	-161,445	-381,622	-67,930	-323,881	-	-	-205,645	530,488
2025	425,252	-149,653	-406,665	-101,423	-232,490	-	-	-269,498	506,144
2026	220,865	-109,405	-229,458	-38,263	-156,261	-	-	-142,438	284,507
2027	182,734	-97,122	-192,367	16,558	-90,197	-	-	-175,762	239,884

\* - ROS: A-F; LHV: G-I

Atttm DPS-107(1)(a)-43-12 - Unit Level Impacts

Table with columns for Unit ID, Unit Name, and Change in SQF (2015-2020). The table lists numerous units with their respective square foot changes over a six-year period.









Unit ID	Unit Name	Capacity (kW)	Fuel	Resource Begin Date	Resource End Date
	6 59th Street #GT1	19,700	Oil	6/1/1969	12/31/2054
	7 74th Street #GT1	18,594	Oil	10/1/1968	12/31/2054
	8 74th Street #GT2	18,594	Oil	10/1/1968	12/31/2054
	21 ADG Fuel Cell #1	190	Other	1/1/1980	12/31/2054
	22 Removed Adir HY - Area19	0	Hydro	12/31/2053	12/31/2054
	23 Wheelabrator Hudson Falls #1 (AdirResrceRecovery)	11,500	Other	11/1/1991	12/31/2054
	27 Village of Saranac Lake #1	175	Hydro	1/1/1980	12/31/2054
	38 Removed Albany #1	0	Nat Gas	10/1/1952	7/1/2005
	40 Removed Albany #2	0	Nat Gas	11/1/1952	7/1/2005
	42 Removed Albany #3	0	Nat Gas	9/1/1953	7/1/2005
	43 Removed Albany #4	0	Nat Gas	8/1/1954	7/1/2005
	44 Removed Albany #IC1	0	Oil	10/1/1952	7/1/2005
	47 Removed Albany Hydro Assoc #1	0	Hydro	12/31/2053	12/31/2054
	59 Hailesboro 4 Plant	1,300	Hydro	1/1/1922	12/31/2054
62_1	Allegany Cogen #1	36,916	Nat Gas	6/1/1994	12/31/2054
62_2	Allegany Cogen #2	20,304	Nat Gas	6/1/1994	12/31/2054
	69 Allens Falls #1	4,000	Hydro	1/1/1927	12/31/2054
	79 American Ref-Fuel #1	14,647	Other	8/1/1980	12/31/2054
	80 American Ref-Fuel #2	14,647	Other	8/1/1980	12/31/2054
	145 CHR-Syracuse #1	101,400	Nat Gas	1/1/1994	12/31/2054
	148 Arthur Kill #2	350,000	Nat Gas	9/1/1959	12/31/2054
	149 Arthur Kill #3	501,000	Nat Gas	6/1/1969	12/31/2054
	150 Arthur Kill #GT1	18,000	Oil	1/1/1970	12/31/2054
	164 Ashokan #1-2	2,600	Hydro	11/1/1982	12/31/2054
168_10	Astoria Gas Turbines #10	23,000	Oil	1/1/1971	5/1/2012
168_11	Astoria Gas Turbines #11	23,000	Oil	1/1/1971	7/1/2012
168_12	Astoria Gas Turbines #12	23,000	Oil	1/1/1971	12/31/2053
168_13	Astoria Gas Turbines #13	23,000	Oil	1/1/1971	12/31/2053
169_2-1	Astoria Gas Turbines #2-1	41,000	Oil	1/1/1970	12/31/2054
169_2-2	Astoria Gas Turbines #2-2	41,000	Oil	1/1/1970	12/31/2054
169_2-3	Astoria Gas Turbines #2-3	41,000	Oil	1/1/1970	12/31/2054
169_2-4	Astoria Gas Turbines #2-4	41,000	Oil	1/1/1970	12/31/2054
170	Astoria Generating Station #3 EIA8906	376,600	Nat Gas	12/1/1958	12/31/2054
171_3-1	Astoria Gas Turbines #3-1	41,000	Oil	1/1/1970	12/31/2054
171_3-2	Astoria Gas Turbines #3-2	41,000	Oil	1/1/1970	12/31/2054
171_3-3	Astoria Gas Turbines #3-3	41,000	Oil	1/1/1970	12/31/2054
171_3-4	Astoria Gas Turbines #3-4	41,000	Oil	1/1/1970	12/31/2054
172	Astoria Generating Station #4 EIA8906	378,300	Nat Gas	12/1/1961	6/1/2012
173_4-1	Astoria Gas Turbines #4-1	41,000	Oil	1/1/1970	12/31/2054
173_4-2	Astoria Gas Turbines #4-2	41,000	Oil	1/1/1970	12/31/2054
173_4-3	Astoria Gas Turbines #4-3	41,000	Oil	1/1/1970	12/31/2054
173_4-4	Astoria Gas Turbines #4-4	41,000	Oil	1/1/1970	12/31/2054
174	Astoria Generating Station #5 EIA8906	376,300	Nat Gas	12/1/1962	12/31/2054
204	Azure Mnt Pwr Co #1	657	Hydro	1/1/1980	12/31/2054
213	Babylon (RR) #1	14,850	Other	1/1/1989	12/31/2054
229	Baldwinsville #1-2	500	Hydro	1/1/1980	12/31/2054
230	Removed Mechanicville #1-7 EIA2584	0	Hydro	1/1/1898	7/1/2003
231	Removed Mitchel Gardens #1-#2	0	Other	12/31/2053	12/31/2054
236	BannertownPow&Light #1	2	Wind	1/1/1980	12/31/2054
243	Barrett #10	48,800	Nat Gas	6/1/1971	12/31/2054
244	Barrett #11	47,200	Nat Gas	6/1/1971	12/31/2054
245	Barrett #12	50,300	Nat Gas	6/1/1971	12/31/2054
246_3	E F Barrett #3	19,400	Nat Gas	6/1/1970	12/31/2054
246_4	E F Barrett #4	19,500	Nat Gas	7/1/1970	12/31/2054
246_5	E F Barrett #5	19,700	Nat Gas	7/1/1970	12/31/2054
246_6	E F Barrett #6	19,100	Nat Gas	7/1/1970	12/31/2054
246_7	Removed - E F Barrett #7	0	Nat Gas	7/1/1970	10/13/2011
246_8	E F Barrett #8	15,200	Nat Gas	7/1/1970	12/31/2054
247	Barrett #9	50,100	Nat Gas	6/1/1971	12/31/2054
248	Barrett #GT1	21,000	Nat Gas	6/1/1970	12/31/2054
249	Barrett #GT2	19,000	Nat Gas	6/1/1970	12/31/2054
250	Barrett #ST1	196,500	Nat Gas	11/1/1956	12/31/2054
251	Barrett #ST2	195,700	Nat Gas	10/1/1963	12/31/2054
289	Stillwater Assoc #1	1,600	Hydro	1/1/1992	12/31/2054
296	Beardslee #1-2	16,200	Hydro	1/1/1924	12/31/2054
305	Removed Beaver Falls #1 (11)	0	Hydro	9/1/1932	12/1/2005
306	Stuyvesant Falls #1	2,800	Hydro	1/1/1980	12/31/2054
315	Beebee Island #1-2	8,441	Hydro	1/1/1931	12/31/2054
317	Begent HA #1	1	Wind	1/1/1980	12/31/2054
321	Belfort #1-3	1,998	Hydro	1/1/1903	12/31/2054
332	Bellows Towers #1	70	Hydro	1/1/1980	12/31/2054
338	Bennetts Bridge #1-4	30,000	Hydro	1/1/1932	12/31/2054

342 CHR-Beaver Falls #1	92,055	Nat Gas	4/1/1995	12/31/2054
345 Bergan WC #1	10	Wind	1/1/1980	12/31/2054
348 Remove - South Glens Falls Energy #1	0	Nat Gas	1/1/1999	1/1/2006
358 Bethlehem Steel #1	4,816	Other	1/1/1980	12/31/2054
393 Black River #1-3 EIA2546	7,098	Hydro	1/1/1920	12/31/2054
401 Black River Hyd #1-3 EIA10687	6,760	Hydro	1/1/1984	12/31/2054
405 Blake #1	15,000	Hydro	1/1/1957	12/31/2054
408 Blenheim Wind Power #1	10	Wind	1/1/1980	12/31/2054
409 Blenheim-Gilboa #1- #4	1,157,000	Hydro	7/1/1973	12/31/2054
416 WPS Power Niagara GEN1	52,500	Other	8/1/1991	12/31/2054
483 Bowline #1	572,000	Nat Gas	9/1/1972	12/31/2054
484 Bowline #2	567,000	Nat Gas	5/1/1974	12/31/2054
540 Bronx Zoo #1	484	Nat Gas	1/1/1991	12/31/2054
551 Browns Falls #1& #2	14,000	Hydro	1/1/1923	12/31/2054
619 Removed Burrows-Little Falls #1-3	0	Nat Gas	12/31/2053	12/31/2054
653 Remove CR Huntley #63	0	Coal	8/1/1942	4/1/2006
654 Remove CR Huntley #64	0	Coal	10/1/1948	4/1/2006
655 Remove CR Huntley #65	0	Coal	11/1/1953	6/1/2007
656 Remove CR Huntley #66	0	Coal	1/1/1954	6/1/2007
657 CR Huntley #67	218,000	Coal	10/1/1957	12/31/2054
658 CR Huntley #C1	700	Oil	1/1/1954	12/31/2054
659 CR Huntley #S68	218,000	Coal	11/1/1958	12/31/2054
674 Cadyville #1-3	5,500	Hydro	8/1/1921	12/31/2054
675 Cal Ban Power Corp #1	27	Nat Gas	1/1/1980	12/31/2054
806 Champlain Spinner #1	800	Hydro	1/1/1980	12/31/2054
815 Chapman Jerry #1	10	Wind	1/1/1980	12/31/2054
826 Chasm #1- #3	3,750	Hydro	1/1/1913	12/31/2054
856 CHI Energy Plants - AURORA19	7,720	Hydro	1/1/1980	12/31/2054
859 Lower Saranac #1-3	6,100	Hydro	10/1/1990	12/31/2054
864 Chittenden Falls #1	420	Hydro	1/1/1980	12/31/2054
887 City of Utica-Sand Road	176	Hydro	1/1/1980	12/31/2054
888 City of Watertown #1 EIA10075	6,300	Hydro	8/1/1924	12/31/2054
889 City of Watervliet #1 (Normanskill Hydro)	778	Hydro	4/1/1983	12/31/2054
939 Linden Cogen #CTG1-CTG6+STG1-STG3 EIA 50006	740,099	Nat Gas	1/1/2002	12/31/2054
979 Colton #1-3	28,500	Hydro	1/1/1918	12/31/2054
1026 Cons HY-Victory #1	1,450	Hydro	12/1/1986	12/31/2054
1037 Copenhagen Assoc #1-3 EIA10076	2,941	Hydro	6/1/1984	12/31/2054
1051 Cottrell Paper Co #1	176	Hydro	1/1/1980	12/31/2054
1071 Crescent #1-4 EIA2685	12,529	Hydro	7/1/1924	12/31/2054
1148 Daniel Green #1	10	Hydro	1/1/1980	12/31/2054
1149 Danskammer #1	66,200	Nat Gas	12/1/1951	1/1/2013
1150 Danskammer #2	66,800	Nat Gas	9/1/1954	1/1/2013
1151 Danskammer #3	131,900	Coal	10/1/1959	1/1/2013
1152 Danskammer #4	235,600	Coal	9/1/1967	1/1/2013
1153 Danskammer #5	2,500	Oil	1/1/1967	1/1/2013
1154 Danskammer #6	2,500	Oil	1/1/1967	1/1/2013
1172 Dashville #1-2	4,700	Hydro	1/1/1920	12/31/2054
1177 Union Falls--Synergics	3,120	Hydro	1/1/1987	12/31/2054
1184 Removed DCRRA #1	0	Other	12/31/2053	12/31/2054
1185 DD Corp-Diana #1&Dolgeville #1 EIA10122	6,700	Hydro	1/1/1980	12/31/2054
1204_10 Charles P Keller #10	3,200	Nat Gas	1/1/1954	12/31/2054
1204_11 Charles P Keller #11	5,200	Nat Gas	1/1/1962	12/31/2054
1204_12 Charles P Keller #12	5,500	Nat Gas	1/1/1967	12/31/2054
1204_13 Charles P Keller #13	5,500	Nat Gas	1/1/1974	12/31/2054
1204_14 Charles P Keller #14	6,200	Nat Gas	9/1/1994	12/31/2054
1204_7 Charles P Keller #7	2,000	Nat Gas	1/1/1942	12/31/2054
1204_8 Charles P Keller #8	2,700	Nat Gas	1/1/1950	12/31/2054
1204_9 Charles P Keller #9	3,200	Nat Gas	1/1/1954	12/31/2054
1212 Deferiet #1-3	10,600	Hydro	1/1/1925	12/31/2054
1228 Dunkirk #4	197,000	Coal	8/1/1960	9/1/2012
1234 Devine WT #1	18	Wind	1/1/1980	12/31/2054
1248 Dibble C #1	4	Wind	1/1/1980	12/31/2054
1306 Dunkirk #1	94,000	Coal	11/1/1950	5/31/2015
1307 Dunkirk #2	92,000	Coal	12/1/1950	5/31/2015
1308 Dunkirk #3	200,000	Coal	9/1/1959	9/1/2012
1309 Dunkirk #IC2	500	Oil	11/1/1950	12/31/2054
1310 Removed - Dunkirk #ST4	0	Coal	12/31/2053	12/31/2054
1327 EJ West #1& #2	18,000	Hydro	1/1/1930	12/31/2054
1328 E Northport (LF) #1	900	Other	1/1/1980	12/31/2054
1336 Eagle #1-4	5,700	Hydro	1/1/1914	12/31/2054
1346 East Hampton #1	26,000	Oil	12/1/1970	12/31/2054
1347_2 East Hampton #2	2,000	Oil	12/1/1962	12/31/2054
1347_3 East Hampton #3	2,000	Oil	12/1/1962	12/31/2054

1347_4	East Hampton #4	2,000	Oil	12/1/1962	12/31/2054
1349	East Norfolk #1	3,500	Hydro	1/1/1928	12/31/2054
1350	East River #6	83,502	Nat Gas	11/1/1951	12/31/2054
1351	East River #7	106,817	Nat Gas	6/1/1955	12/31/2054
1407	Eel Weir #1-3	1,998	Hydro	1/1/1928	12/31/2054
1408	Effley #1-4	2,591	Hydro	1/1/1902	12/31/2054
1418	Removed Ellicottville Energy #1	0	Nat Gas	12/31/2053	12/31/2054
1426	Elmer #1-2	1,900	Hydro	1/1/1916	12/31/2054
1449	Port Leyden/Empire HY Partners #1	779	Hydro	12/1/1985	12/31/2054
1452	Onondaga Energy Partners #1-2	1,200	Other	1/1/1980	12/31/2054
1457	Ephratah #1- #4	4,000	Hydro	1/1/1911	12/31/2054
1527	Removed - Far Rockaway #4	100,000	Nat Gas	12/1/1953	6/1/2012
1534	Feeder Dam #1-5	4,400	Hydro	1/1/1924	12/31/2054
1550	Fitzpatrick Randy #1	2	Wind	1/1/1980	12/31/2054
1552	Five Falls #1	24,100	Hydro	1/1/1955	12/31/2054
1555	Flat Rock #1-2	6,000	Hydro	1/1/1924	12/31/2054
1578	Fort Miller Assoc #1 EIA10090	5,000	Hydro	12/1/1984	12/31/2054
1601	Franklin #1 NiMo	1,100	Hydro	1/1/1911	12/31/2054
1604	Franklin #2 NiMo	1,100	Hydro	1/1/1926	12/31/2054
1609	Franklin Hydro #1	256	Hydro	1/1/1980	12/31/2054
1618	Stillwater HY Part #1 & #2	3,270	Hydro	4/1/1993	12/31/2054
1623	Fulton #1-2	1,100	Hydro	1/1/1924	12/31/2054
1625	Removed Fulton Cogen Assoc #1	0	Nat Gas	2/1/1991	9/1/2008
1668	General Mills Buffalo #1	3,793	Nat Gas	12/1/1988	12/31/2054
1697	GINNA #1	580,500	Nuclear	7/1/1970	12/31/2054
1712	Glen Park Assoc #1 EIA10096	32,600	Hydro	10/1/1999	12/31/2054
1722	Glenwood Landing #GT1	19,000	Oil	4/1/1967	12/31/2054
1723	Glenwood #1- #3 NIMO	1,500	Hydro	1/1/1950	12/31/2054
1724	Removed - Glenwood #4	0	Nat Gas	12/1/1952	6/1/2012
1725	Removed - Glenwood #5	0	Nat Gas	11/1/1954	6/1/2012
1726	Removed Glenwood #GT2	0	Oil	6/1/1972	7/31/2009
1727	Removed Glenwood #GT3	0	Oil	6/1/1972	7/31/2009
1728	Batavia Power Plant #1-2	63,850	Nat Gas	9/1/1992	12/31/2054
1730	Removed GloversMillEnergyC #1	0	Hydro	12/31/2053	12/31/2054
1751	Removed - Westover #7	0	Coal	9/1/1943	12/31/2009
1752	Westover #8	77,971	Coal	11/1/1951	3/1/2011
1754	Gowanus Barge #1	164,700	Oil	6/1/1971	12/31/2054
1757	Remove GPUI-Onondaga Cogen #1-3 EIA10086 (retire 4/30/2008)	0	Nat Gas	12/1/1993	4/30/2008
1759	Removed Filtration Sciences #1	0	Hydro	12/31/2053	12/31/2054
1763	Grahamsville #1	15,500	Hydro	1/1/1956	12/31/2054
1764	Granby #1	5,250	Hydro	1/1/1983	12/31/2054
1765	Granby #2	5,250	Hydro	1/1/1983	12/31/2054
1804	Green Island #1-4	5,420	Hydro	1/1/1980	12/31/2054
1823	Removed - Greenidge #3	0	Coal	4/1/1950	5/31/2008
1824	Greenidge #4	105,200	Coal	12/1/1953	3/1/2011
1882	Hamond E #1	2	Wind	1/1/1980	12/31/2054
1883	Hampshire Paper #1 EIA10099	3,270	Hydro	5/1/1987	12/31/2054
1886	Hannawa #1	3,650	Hydro	1/1/1914	12/31/2054
1887	Hannawa #2	3,650	Hydro	1/1/1920	12/31/2054
1896	Removed Harden Furniture Co #1	0	Other	12/31/2053	12/31/2054
1921	Harris Lake #1	1,750	Oil	9/1/1967	12/31/2054
1935_4	Fishers Island #4	300	Oil	1/1/1965	12/31/2054
1935_5	Fishers Island #5	700	Oil	1/1/1957	12/31/2054
1946	Moose River #1	12,400	Hydro	11/1/1987	12/31/2054
1947	Philadelphia #1	2,620	Hydro	10/1/1986	12/31/2054
1971	Hedrick Robert C #1	10	Wind	1/1/1980	12/31/2054
1975	Helmer Paul #1	4	Wind	1/1/1980	12/31/2054
1978	Hempstead (RR) #1 EIA10011	72,000	Other	4/1/1989	12/31/2054
2001	Herrings #1-3	5,400	Hydro	1/1/1924	12/31/2054
2005	Hess Jos & Kath #1	10	Wind	1/1/1980	12/31/2054
2006	Heuvelton #1	450	Hydro	1/1/1924	12/31/2054
2007	Heuvelton #2	450	Hydro	1/1/1924	12/31/2054
2011	Removed Hickling #1	0	Coal	10/1/1948	5/1/2008
2012	Removed Hickling #2	0	Coal	6/1/1952	5/1/2008
2014	Higgins WJ #1	4	Wind	1/1/1980	12/31/2054
2021	High Dam (City of Oswego) #1-4	8,000	Hydro	8/1/1928	12/31/2054
2022	High Falls #1 CHGE	3,000	Hydro	12/1/1986	12/31/2054
2023	High Falls #1-3 NiMo	5,898	Hydro	1/1/1925	12/31/2054
2024	High Falls #1-3 NYSEG	15,000	Hydro	8/1/1948	12/31/2054
2040	Removed Higley #1-#3	0	Hydro	1/1/1913	9/1/2003
2043	Hillburn #GT1	46,300	Nat Gas	7/1/1972	12/31/2054
2062	Hogansburg #1	400	Hydro	1/1/1980	12/31/2054
2080	Holtsville #1-10	648,100	Oil	7/1/1974	12/31/2054

2082	Removed Skaneateles #1	0	Oil	12/31/2053	12/31/2054
2092	Hoosick Falls #1	550	Hydro	1/1/1980	12/31/2054
2120	Hudson Avenue #4	15,700	Oil	7/1/1970	12/31/2054
2121	Hudson Avenue #GT3	16,800	Oil	7/1/1970	12/31/2054
2122	Hudson Avenue #GT5	17,500	Oil	7/1/1970	12/31/2054
2129	Huntington #1 EIA50656	22,844	Other	12/1/1991	12/31/2054
2132	Hurd DR DW #1	10	Wind	1/1/1980	12/31/2054
2147	Hydraulic Race #1	2,400	Hydro	1/1/1942	12/31/2054
2149	Hydrocarbon-Allegany #1	409	Nat Gas	1/1/1980	12/31/2054
2155	Indeck - Oswego #1-2	53,263	Nat Gas	6/1/1990	12/31/2054
2157	Indeck - Yerkes #1-2	55,821	Nat Gas	12/1/1989	12/31/2054
2158	Indeck-Corinth #1	85,623	Nat Gas	2/1/1995	12/31/2054
2159	Indeck-Corinth #2	53,513	Nat Gas	2/1/1995	12/31/2054
2163	Indian Falls HY #1	340	Hydro	1/1/1980	12/31/2054
2166	Indian Point #2	1,030,000	Nuclear	8/1/1973	12/31/2054
2167	Removed Indian Point #GT1	0	Oil	12/31/2053	12/31/2054
2168	Indian Point 3 #3	990,000	Nuclear	8/1/1976	12/31/2054
2183	Inghams #1	3,350	Hydro	1/1/1912	12/31/2054
2184	Inghams #2	3,350	Hydro	1/1/1912	12/31/2054
2193	International Paper - Curtis	29,000	Hydro	1/1/1980	12/31/2054
2194	International Paper - Palmer	29,000	Hydro	1/1/1980	12/31/2054
2207	Removed - Islip(RR) #1 EIA10015	0	Other	12/31/2053	12/31/2054
2254	James A FitzPatrick #1	856,000	Nuclear	8/1/1976	12/31/2054
2262	Removed James River Corp #1	0	Hydro	12/31/2053	12/31/2054
2274	Jarvis (Hinckley) #1	2,000	Hydro	7/1/1991	12/31/2054
2275	Jarvis (Hinckley) #2	2,000	Hydro	7/1/1991	12/31/2054
2290	Removed Jennison #1	0	Coal	9/1/1945	1/1/2008
2291	Removed Jennison #2	0	Coal	4/1/1950	1/1/2008
2324	Johnsonville #1 NiMo	1,159	Hydro	1/1/1909	12/31/2054
2327	Johnsonville #2 NiMo	1,159	Hydro	1/1/1909	12/31/2054
2365	Kamargo #1-3	5,000	Hydro	1/1/1921	12/31/2054
2401	Kensico #1-3	1,800	Hydro	7/1/1983	12/31/2054
2403	Kent Falls #1- #3	12,400	Hydro	7/1/1985	12/31/2054
2426	Removed - KIAC (JFK) #1-2-3	0	Nat Gas	12/31/2053	12/31/2054
2437	Kings Falls #1	730	Hydro	10/1/1988	12/31/2054
2452	Removed Kintigh #1	0	Coal	12/31/2053	12/31/2054
2582	Laquidara-Long Falls #1	2,290	Hydro	1/1/1980	12/31/2054
2610	Lederle Laboratories	0	Nat Gas	1/1/1991	12/31/2054
2636	Lewandowski Paul #1	5	Wind	1/1/1980	12/31/2054
2644	Lewiston #1-12	240,000	Hydro	1/1/1962	12/31/2054
2655	Lighthouse Hill #1-2	7,500	Hydro	1/1/1930	12/31/2054
2696	Little Falls Hyd #1 EIA10121	13,000	Hydro	1/1/1987	12/31/2054
2725	Remove Lovett #3	0	Nat Gas	3/1/1955	5/8/2007
2726	Remove Lovett #4	0	Coal	3/1/1955	5/9/2007
2727	Remove Lovett #5	0	Coal	3/1/1955	4/19/2008
2755	Lyonsdale Assoc #1-2	3,600	Hydro	7/1/1984	12/31/2054
2756	Lyons Falls Pulp&Paper #1	7,205	Hydro	12/1/1923	12/31/2054
2765	Macomb #1	900	Hydro	1/1/1940	12/31/2054
2779	Burrows-Lyonsdale #1	17,762	Other	8/1/1992	12/31/2054
2829	Marsden Russel #1	2	Wind	1/1/1980	12/31/2054
2947	Mechanicville #1 NYSEG EIA625	7,350	Hydro	9/1/1983	12/31/2054
2948	Mechanicville #2 NYSEG EIA625	7,350	Hydro	9/1/1983	12/31/2054
3047	Mill C #1-3	6,050	Hydro	11/1/1984	12/31/2054
3055	Carr Street Gen Station #1-3 (East Syracuse)	103,500	Nat Gas	7/1/1993	12/31/2054
3056	Carthage Paper #1	20,550	Nat Gas	11/1/1991	4/1/2013
3058	Removed - Milliken #1	0	Coal	12/31/2053	12/31/2054
3059	Removed - Milliken #2	0	Coal	12/31/2053	12/31/2054
3060	Removed Milliken #IC1	0	Oil	12/31/2053	12/31/2054
3061	Removed Milliken #IC2	0	Oil	12/31/2053	12/31/2054
3076	Minetto #HY1-HY5	7,350	Hydro	1/1/1915	12/31/2054
3124	Removed Modular HY-Mill Crk #1	0	Hydro	12/31/2053	12/31/2054
3125	Mohawk Paper #1	2,270	Hydro	1/1/1980	12/31/2054
3131	Mongaup #1-4	3,000	Hydro	7/1/1923	12/31/2054
3153	Montauk #2	2,000	Oil	12/1/1962	5/3/2013
3154	Montauk #3	2,000	Oil	11/1/1965	5/3/2013
3155	Montauk #4	2,000	Oil	11/1/1965	5/3/2013
3175	Saranac Energy #1-3	236,833	Nat Gas	6/1/1994	12/31/2054
3184	Removed Moreau Mfg #1	0	Hydro	12/31/2053	12/31/2054
3206	Moses Niagara #13	2,253,200	Hydro	1/1/1961	12/31/2054
3207	Moses Power Dam #17- #32	800,000	Hydro	1/1/1959	12/31/2054
3208	Moshier #1	4,000	Hydro	1/1/1929	12/31/2054
3209	Moshier #2	4,000	Hydro	1/1/1929	12/31/2054
3219	Mt Ida Assoc #1 EIA10134	2,340	Hydro	1/1/1992	12/31/2054

3220 High Acres #1-4	3,200 Other	3/1/2008	12/31/2054
3246 Selkirk-I	109,977 Nat Gas	4/1/1992	12/31/2054
3284_NT1: Narrows Gas Turbines Generating #NT11	24,000 Nat Gas	5/1/1972	12/31/2054
3284_NT1: Narrows Gas Turbines Generating #NT12	25,700 Nat Gas	5/1/1972	12/31/2054
3284_NT1: Narrows Gas Turbines Generating #NT13	24,800 Nat Gas	5/1/1972	12/31/2054
3284_NT1: Narrows Gas Turbines Generating #NT14	25,300 Nat Gas	5/1/1972	12/31/2054
3284_NT1: Narrows Gas Turbines Generating #NT15	25,300 Nat Gas	5/1/1972	12/31/2054
3284_NT1: Narrows Gas Turbines Generating #NT16	25,400 Nat Gas	5/1/1972	12/31/2054
3284_NT1: Narrows Gas Turbines Generating #NT17	23,900 Nat Gas	5/1/1972	12/31/2054
3284_NT1: Narrows Gas Turbines Generating #NT18	23,000 Nat Gas	5/1/1972	12/31/2054
3286_NT2: Narrows Gas Turbines Generating #NT21	19,500 Nat Gas	6/1/1972	12/31/2054
3286_NT2: Narrows Gas Turbines Generating #NT22	18,800 Nat Gas	6/1/1972	12/31/2054
3286_NT2: Narrows Gas Turbines Generating #NT23	18,500 Nat Gas	6/1/1972	12/31/2054
3286_NT2: Narrows Gas Turbines Generating #NT24	18,600 Nat Gas	6/1/1972	12/31/2054
3286_NT2: Narrows Gas Turbines Generating #NT25	20,000 Nat Gas	6/1/1972	12/31/2054
3286_NT2: Narrows Gas Turbines Generating #NT26	18,300 Nat Gas	6/1/1972	12/31/2054
3286_NT2: Narrows Gas Turbines Generating #NT27	20,800 Nat Gas	6/1/1972	12/31/2054
3286_NT2: Narrows Gas Turbines Generating #NT28	17,200 Nat Gas	6/1/1972	12/31/2054
3292 Removed - Navy Yard #1-2	0 Nat Gas	12/31/2053	12/31/2054
3315 Neversink #H1	22,300 Hydro	12/1/1953	12/31/2054
3344 Newport HY Assoc #1 EIA10137	1,220 Hydro	12/1/1987	12/31/2054
3360 Nine Mile Point #1	620,000 Nuclear	12/1/1969	12/31/2054
3361 Nine Mile Point #2	1,158,810 Nuclear	12/1/1969	12/31/2054
3375 Norfolk #1	4,400 Hydro	1/1/1928	12/31/2054
3397 Fort Orange #GEN1 (Castleton)	47,000 Nat Gas	2/1/1992	12/31/2054
3398 Fort Orange #GEN2 (Castleton)	25,000 Nat Gas	2/1/1992	12/31/2054
3428 Northport #2	367,000 Nat Gas	6/1/1968	12/31/2054
3429 Northport #3	357,800 Nat Gas	7/1/1972	12/31/2054
3430 Northport #4	377,300 Nat Gas	12/1/1977	12/31/2054
3431 Northport #GT1	18,700 Oil	3/1/1967	12/31/2054
3432 Northport #ST1	364,800 Nat Gas	7/1/1967	12/31/2054
3446 Norwood #1	2,200 Hydro	1/1/1928	12/31/2054
3449 Nottingham High School	34 Nat Gas	1/1/1980	12/31/2054
3461 Oak Orchard #1	300 Hydro	1/1/1980	12/31/2054
3490 Oceanside (LF) #1 EIA10017	1,800 Other	1/1/1991	12/31/2054
3495 Removed Keuka #1	0 Hydro	1/1/1928	11/1/2006
3512 Onondaga County OCRRA #1	30,000 Other	11/1/1994	12/31/2054
3531 Batavia Power Plant #3	999 Oil	9/1/1992	12/31/2054
3532 Sithe-Massena #1	91,000 Nat Gas	7/1/1992	12/31/2054
3533 Sithe-Ogdensburg #GEN3 (GEN1&2 retired 10/1/2007)	24,826 Nat Gas	10/1/1993	12/31/2054
3534 Sithe-Sterling #1	64,586 Nat Gas	6/1/1991	12/31/2054
3537 Removed Oswego #IC1	0 Oil	12/31/2053	12/31/2054
3538 Removed Oswego #IC2	0 Oil	12/31/2053	12/31/2054
3539 Removed Oswego #IC3	0 Oil	12/31/2053	12/31/2054
3540 Oswego #ST5	852,800 Oil	6/1/1975	12/31/2054
3541 Oswego #ST6	836,000 Oil	12/1/1979	12/31/2054
3542 Oswego County #1-2	1,583 Other	2/1/1986	12/31/2054
3543 Oswego Falls (East and West)	6,600 Hydro	1/1/1980	12/31/2054
3544 Phoenix Hydro/Oswego HY Partners LP	2,000 Hydro	1/1/1991	12/31/2054
3545 Oswegatchie #1	560 Hydro	1/1/1980	12/31/2054
3560 OxbowPwr-NTonawanda #1	56,266 Nat Gas	7/1/1993	12/31/2054
3564 Removed Oyster Bay OB1-2	0 Other	7/1/1986	10/1/2001
3606 Parishville #1	2,500 Hydro	1/1/1925	12/31/2054
3695 Piercefield #1- #3	2,527 Hydro	1/1/1924	12/31/2054
3744 Removed - Charles Poletti #6 (retired) (Astoria)	0 Nat Gas	3/1/1977	1/31/2010
3760 Removed Port Jefferson #2	0 Oil	10/1/1950	9/1/1997
3761 Port Jefferson #3	184,000 Nat Gas	11/1/1958	12/31/2054
3762 Port Jefferson #4	194,300 Nat Gas	11/1/1960	12/31/2054
3763 Removed Port Jefferson #ST1	0 Oil	12/1/1948	9/1/1997
3829 Prospect #1	19,350 Hydro	1/1/1959	12/31/2054
3831 Prossner DM #1	1 Wind	1/1/1980	12/31/2054
3847 Pyrites Assoc #1 EIA10150	8,000 Hydro	1/1/1949	12/31/2054
3891 Rainbow Falls #1 NiMo	24,300 Hydro	1/1/1956	12/31/2054
3892 Rainbow Falls #1& #2 NYSEG	2,640 Hydro	8/1/1926	12/31/2054
3901 Ravenswood #1 EIA2500	385,000 Nat Gas	2/1/1963	12/31/2054
3902 Ravenswood #2 EIA2500	390,000 Nat Gas	5/1/1963	12/31/2054
3903_GT2: Ravenswood #GT21	47,200 Nat Gas	6/1/1969	12/31/2054
3903_GT2: Ravenswood #GT22	47,500 Nat Gas	6/1/1969	12/31/2054
3903_GT2: Ravenswood #GT23	41,900 Nat Gas	6/1/1969	12/31/2054
3903_GT2: Ravenswood #GT24	45,900 Nat Gas	6/1/1969	12/31/2054
3904 Ravenswood #3 EIA2500	968,700 Nat Gas	6/1/1965	12/31/2054
3905_GT3: Ravenswood #GT31	46,700 Nat Gas	6/1/1969	12/31/2054
3905_GT3: Ravenswood #GT32	45,200 Nat Gas	6/1/1969	12/31/2054

3905_GT3	Ravenswood #GT33	45,200 Nat Gas	6/1/1969	12/31/2054
3905_GT34	Ravenswood #GT34	42,400 Nat Gas	6/1/1969	12/31/2054
3906_GT1	Ravenswood #GT1	6,000 Nat Gas	7/1/1967	12/31/2054
3906_GT11	Ravenswood #GT10	25,800 Oil	7/1/1969	12/31/2054
3906_GT11	Ravenswood #GT11	24,700 Oil	6/1/1969	12/31/2054
3906_GT4	Ravenswood #GT4	18,600 Oil	6/1/1969	12/31/2054
3906_GT5	Ravenswood #GT5	16,000 Oil	6/1/1969	12/31/2054
3906_GT6	Ravenswood #GT6	18,400 Oil	6/1/1969	12/31/2054
3906_GT7	Ravenswood #GT7	21,100 Oil	6/1/1969	12/31/2054
3906_GT8	Ravenswood #GT8	24,000 Nat Gas	6/1/1969	12/31/2054
3906_GT9	Ravenswood #GT9	23,700 Oil	6/1/1969	12/31/2054
3907	Raymondville #1	2,000 Hydro	1/1/1928	12/31/2054
3926	Rensselaer Cogen #GEN1	16,500 Nat Gas	4/1/1994	12/31/2054
3927	Rensselaer Cogen #GEN2	7,140 Nat Gas	4/1/1994	12/31/2054
3940	Richard M Flynn #NA1-NA2	164,500 Nat Gas	5/1/1994	12/31/2054
3952	Oswegatchie #N1	240 Hydro	1/1/1980	12/31/2054
3954_4	Greenport #4	1,000 Oil	1/1/1957	12/31/2054
3954_5	Greenport #5	1,500 Oil	1/1/1965	12/31/2054
3954_6	Greenport #6	3,000 Oil	1/1/1971	12/31/2054
3955	Rio #1& #2	10,200 Hydro	12/1/1927	12/31/2054
3976	Riverrat Glass & Electric #1	420 Hydro	1/1/1980	12/31/2054
4017	Rochester 2 #1	7,250 Hydro	8/1/1960	12/31/2054
4018	Rochester 26 #1	2,000 Hydro	8/1/1952	12/31/2054
4019	Rochester 3 #13	18,000 Oil	6/1/1969	12/31/2054
4020	Rochester 5 #2+HY1+HY3	43,000 Hydro	1/1/1927	12/31/2054
4021	Removed Rochester 7 #1 (retired, Russell)	0 Coal	11/1/1948	2/1/2008
4022	Removed Rochester 7 #2 (retired, Russell)	0 Coal	11/1/1950	3/1/2008
4023	Removed Rochester 7 #3 (retired, Russell)	0 Coal	9/1/1953	4/1/2008
4024	Removed Rochester 7 #4 (retired, Russell)	0 Coal	2/1/1957	3/1/2008
4025	Rochester 9 #2	18,000 Nat Gas	11/1/1969	12/31/2054
4056	Roseton #1	611,300 Nat Gas	12/1/1974	12/31/2054
4057	Roseton #2	610,500 Nat Gas	9/1/1974	12/31/2054
4080	Ryan Robert #1	10 Wind	1/1/1980	12/31/2054
4112_1	Plant No 1 #1	2,000 Oil	1/1/1941	12/31/2054
4112_2	Plant No 1 #2	2,700 Oil	1/1/1949	12/31/2054
4112_3	Plant No 1 #3	2,900 Oil	1/1/1954	12/31/2054
4112_4	Plant No 1 #4	5,000 Oil	10/1/1964	12/31/2054
4117	Sandy Hollow HY Assoc #1	486 Hydro	1/1/1980	12/31/2054
4134	Schaghticoke #1- #4	14,400 Hydro	1/1/1908	12/31/2054
4145	School Street #1- #5	36,200 Hydro	1/1/1915	12/31/2054
4147	Schuylerville #1	2,000 Hydro	1/1/1919	12/31/2054
4168	Selkirk-II	320,371 Nat Gas	4/1/1992	12/31/2054
4178	Seneca Falls #1& #2& #4	3,100 Hydro	1/1/1980	12/31/2054
4179	Seneca Limited #1	2,000 Hydro	1/1/1980	12/31/2054
4185	Sewalls #1& #2	2,200 Hydro	1/1/1925	12/31/2054
4232	Sherman Island #2-#5	28,000 Hydro	1/1/1923	12/31/2054
4236	Shoemaker #1	42,000 Nat Gas	7/1/1972	12/31/2054
4237_GT1	Shoreham #GT1	62,600 Oil	7/1/1971	12/31/2054
4237_GT2	Shoreham #GT2	22,300 Oil	4/1/1966	12/31/2054
4253_1	Removed Plant No 2 #1	0 Oil	3/1/1969	2/1/2004
4253_2	Removed Plant No 2 #2	0 Oil	4/1/1969	2/1/2004
4253_3	Plant No 2 #3	18,000 Oil	5/1/1973	12/31/2054
4261	Removed Sithe #1-2-3-4	0 Nat Gas	12/31/2053	12/31/2054
4284	Smithtown (LF) #1	1,100 Other	8/1/1988	12/31/2054
4286	Hollow Dam Power #1-2 (SNC) EIA10103	770 Hydro	12/1/1987	12/31/2054
4287	Algon-Burt Dam Assoc #1	290 Hydro	1/1/1980	12/31/2054
4289	Soft Maple #1& #2	10,000 Hydro	1/1/1925	12/31/2054
4298	South Cairo #GT1	21,600 Oil	6/1/1970	12/31/2054
4299	South Colton #1	20,600 Hydro	1/1/1954	12/31/2054
4300	South Edwards #1- #4	3,715 Hydro	1/1/1912	12/31/2054
4305	South Glens Falls Hydroelectric #1-2	8,600 Hydro	8/1/1994	12/31/2054
4306	South Hampton #1	12,800 Oil	3/1/1963	12/31/2054
4316	South Oaks Hospital #1-2	167 Nat Gas	4/1/2008	12/31/2054
4319	Southold #1	14,700 Oil	8/1/1964	12/31/2054
4335	Spier Falls #8-9	54,000 Hydro	1/1/1924	12/31/2054
4368	Ilion #1-2	16,557 Nat Gas	3/1/1993	12/31/2054
4387	Staples Gary D #1	10 Wind	1/1/1980	12/31/2054
4388	Stark #1	23,000 Hydro	1/1/1957	12/31/2054
4401	Stellone Gerald #1	4 Wind	1/1/1980	12/31/2054
4409	Stevens&ThompsonPap #1	8,400 Hydro	1/1/1980	12/31/2054
4412	Stewarts Bridge #1	28,908 Hydro	1/1/1952	12/31/2054
4441	Sturgeon #H1- H3	16,200 Hydro	1/1/1924	12/31/2054
4444	Sugar Island #1- #2	3,970 Hydro	1/1/1924	12/31/2054

4478	Swinging Bridge 1 #1	4,500	Hydro	2/1/1930	12/31/2054
4479	Swinging Bridge 2 #1	8,000	Hydro	8/1/1939	12/31/2054
4489	Syracuse Power Co #1	648	Nat Gas	1/1/1980	12/31/2054
4494	Talcville #1& #2	1,100	Hydro	1/1/1986	12/31/2054
4496	Tallmon Larry #1	12	Wind	1/1/1980	12/31/2054
4507	Tannery Island #1-5	1,130	Hydro	6/1/1986	12/31/2054
4511	Taylorville #1- #4	3,844	Hydro	1/1/1913	12/31/2054
4512	Removed TBG-Grumman #1	0	Nat Gas	12/31/2053	12/31/2054
4575	Town of Wells #1	420	Hydro	1/1/1980	12/31/2054
4594	Trenton Falls #5- #7	21,200	Hydro	1/1/1919	12/31/2054
4596	Trigen-NDEC #1 (Nassau Energy)	52,464	Nat Gas	3/1/1991	12/31/2054
4656	Valatie Falls #1	80	Hydro	1/1/1980	12/31/2054
4661	Valley Falls Assoc #1	2,080	Hydro	1/1/1992	12/31/2054
4663	Van Strander JM #1	1	Wind	1/1/1980	12/31/2054
4665	Varick #2- #5	5,400	Hydro	1/1/1926	12/31/2054
4700	Vill Gouverneur #1	30	Hydro	1/1/1980	12/31/2054
4701	Vill Of Potsdam #1	690	Hydro	1/1/1980	12/31/2054
4710	Vischer Ferry #1- #4	12,210	Hydro	7/1/1924	12/31/2054
4746_02	Wading River #02	103,700	Oil	8/1/1989	12/31/2054
4746_03	Wading River #03	101,000	Oil	8/1/1989	12/31/2054
4746_1	Wading River #1	101,800	Oil	8/1/1989	12/31/2054
4770	Wappingers Falls #1 EIA10002	2,100	Hydro	12/1/1988	12/31/2054
4785	WasteMgmt of NY Inc #1	341	Other	1/1/1980	12/31/2054
4796	Waterloo #2- #4 NYSEG	1,500	Hydro	1/1/1980	12/31/2054
4797	Waterport #1& #2	4,000	Hydro	1/1/1921	12/31/2054
4800	Removed Waterside #6	0	Oil	7/1/1941	4/1/2005
4802	Removed Waterside #8 ConEd	0	Oil	6/1/1949	4/1/2005
4804	Removed Waterside #9	0	Oil	10/1/1949	4/1/2005
4831	Weber Richard #1	4	Wind	1/1/1980	12/31/2054
4854	West Babylon #4	63,500	Oil	8/1/1971	12/31/2054
4859	West Coxsackie #GT1	23,700	Oil	12/1/1969	12/31/2054
4861	West Delaware #1	7,200	Hydro	12/1/1988	12/31/2054
4862	West End Dam Assoc #1	4,253	Hydro	10/1/1985	12/31/2054
4972	Wind Development #1	75	Wind	1/1/1980	12/31/2054
4984	Wiscony 170 #1& #2	1,080	Hydro	7/1/1922	12/31/2054
4997	Woodin D #1	1	Wind	1/1/1980	12/31/2054
5020	Indeck - Olean #1 EIA10107	84,499	Nat Gas	1/1/1994	12/31/2054
5022	Yaleville #1& #2	650	Hydro	1/1/1940	12/31/2054
5028	Yaphank (LF) #1	3,200	Other	1/1/1980	12/31/2054
5048	Zingler Rudy #1	5	Wind	1/1/1980	12/31/2054
5322	Removed Adir HY - Area20	0	Hydro	12/31/2053	12/31/2054
5324	Walden #1-3	2,400	Hydro	4/1/1986	12/31/2054
5325	Removed Generator Reactivation	0	Nat Gas	1/1/2001	12/31/2054
5326	Removed Generating Barges	0	Nat Gas	1/1/2001	12/31/2054
5327	Athens Generation	1,243,500	Nat Gas	10/1/2003	12/31/2054
5328	removed - Bethlehem Energy Center #1-4	0	Nat Gas	12/31/2053	12/31/2054
5329	Removed Bowline #3	0	Nat Gas	12/31/2053	12/31/2054
5330	Removed Torne Valley Station	0	Nat Gas	12/31/2053	12/31/2054
9107	American Brass #1	17,443	Nat Gas	1/1/1980	12/31/2054
9108	Binghamton Cogen #1	14,209	Nat Gas	6/1/1992	2/1/2012
9109	Removed Boralex Athens Energy #1	0	Other	12/31/2053	12/31/2054
9126	Removed Buchanan #GT1-GT2	0	Oil	12/31/2053	12/31/2054
9211_1	Joseph J. Seymour Power Project #1	39,900	Nat Gas	6/1/2001	12/31/2054
9211_2	Joseph J. Seymour Power Project #2	40,000	Nat Gas	6/1/2001	12/31/2054
9214	Astoria Energy Project CC1 EIA55375	608,000	Nat Gas	4/1/2006	12/31/2054
9217	Brentwood	46,000	Nat Gas	7/1/2001	12/31/2054
9219	Brookhaven Facility BH1-4	4,800	Other	1/1/1995	12/31/2054
9220	Astoria Energy Project CC2 EIA55375	630,000	Nat Gas	5/31/2011	12/31/2054
9227_HR0:	Harlem River Yard #HR01	39,900	Nat Gas	7/1/2001	12/31/2054
9227_HR0:	Harlem River Yard #HR02	40,000	Nat Gas	7/1/2001	12/31/2054
9228_HG0:	Hell Gate #HG01	39,900	Nat Gas	6/1/2001	12/31/2054
9228_HG0:	Hell Gate #HG02	40,000	Nat Gas	6/1/2001	12/31/2054
9233	Glenwood Landing #GT4	46,700	Nat Gas	6/1/2002	12/31/2054
9234	Glenwood Landing #GT5	46,300	Nat Gas	6/1/2002	12/31/2054
9241	North 1st	40,000	Nat Gas	8/1/2001	12/31/2054
9245	Removed Ravenswood	0	Nat Gas	12/31/2053	12/31/2054
9246_VG0:	Vernon Boulevard #VG02	39,900	Nat Gas	7/1/2001	12/31/2054
9246_VG0:	Vernon Boulevard #VG03	40,000	Nat Gas	7/1/2001	12/31/2054
9713	AES Cayuga #1-2 (Milliken)	306,000	Coal	9/1/1955	1/1/2014
9714	Brooklyn Navy Yard Cogeneration Partners	288,077	Nat Gas	3/1/1996	12/31/2054
9715	Kennedy International Airport Cogen	116,717	Nat Gas	1/1/1995	12/31/2054
9716	Remove - South Glens Falls Energy #2	0	Nat Gas	1/1/1999	1/1/2006
9717	Curtis Palmer Hydroelectric #C1-C5 P1-P2	58,000	Hydro	6/1/1986	12/31/2054



9718	Indeck Silver Springs Energy#GEN1-2	59,033	Nat Gas	5/1/1991	12/31/2054
9720	Lachute Hydro Lower #GEN1	3,500	Hydro	12/1/1987	12/31/2054
9721	Lachute Hydro Upper #GEN1	4,800	Hydro	12/1/1987	12/31/2054
9722	Removed Cogent Little Falls GP #1-2	0	Nat Gas	2/1/1987	12/1/2003
9723	Lockport Energy Assoc LP Lockport Cogen	126,787	Nat Gas	7/1/1992	12/31/2054
9724	Monroe Livingston Gas Recovery #GEN1-3	2,400	Other	12/1/1988	12/31/2054
9771	Bayswater Peaking (Far Rockaway GT1)	57,000	Nat Gas	6/1/2002	12/31/2054
9772_CT01	Edgewood #CT01	49,000	Nat Gas	7/1/2002	12/31/2054
9772_CT02	Edgewood #CT02	49,000	Nat Gas	7/1/2002	12/31/2054
9773_CT01	PPL Shoreham Energy LLC #CT01	49,000	Oil	7/1/2002	12/31/2054
9773_CT02	PPL Shoreham Energy LLC #CT02	49,000	Oil	7/1/2002	12/31/2054
9774	Removed TBG Cogen Gen5	0	Nat Gas	12/31/2053	12/31/2054
9779	Removed Linden Cogen #9 (Combined with ID 939)	0	Nat Gas	12/31/2053	12/31/2054
9843	Albany Landfill #UNT1+UNT2	1,780	Other	4/1/1998	12/31/2054
9844	Alice Falls Hydro #1-2	2,100	Hydro	1/1/1991	12/31/2050
9860_5	Astoria Gas Turbines #5	15,000	Oil	1/1/1970	12/31/2053
9860_7	Astoria Gas Turbines #7	15,000	Oil	1/1/1970	12/31/2053
9860_8	Astoria Gas Turbines #8	15,000	Oil	1/1/1970	12/31/2053
9861	Astoria Generating Station Gas Turbine #1 EIA8906	18,100	Nat Gas	1/1/1967	10/1/2003
9862	Astoria Generating Station #2 EIA8906	175,300	Nat Gas	3/1/1954	4/1/2012
9864	State Street (Auburn State Street) #1	7,000	Nat Gas	1/1/2001	12/31/2054
9876_0001	Bassett Healthcare #0001	800	Oil	7/1/1992	12/31/2054
9876_0002	Bassett Healthcare #0002	800	Oil	7/1/1992	12/31/2054
9876_0003	Bassett Healthcare #0003	800	Oil	7/1/1992	12/31/2054
9876_0005	Bassett Healthcare #0005	2,000	Oil	7/1/1992	12/31/2054
9879	Beaver Falls #2 (021+022) EIA54691	800	Hydro	1/1/1986	12/31/2054
9886	Bethpage #1-4	56,430	Nat Gas	8/1/1989	12/31/2054
9898	Bethpage #5 (Peaker)	49,600	Nat Gas	7/1/2002	12/31/2054
9899	Chateaugay #GEN1	18,300	Other	2/1/1993	12/31/2054
9901	Cornell Hydro #1-2	1,840	Hydro	12/1/1981	12/31/2054
9902	Cornell Univ Central Heating #TG1,TG2	0	Coal	10/1/1988	12/31/2054
9909	Removed Deferiet New York #WEST	0	Coal	2/1/1946	2/1/2007
9910	Dutchess County Resource Recov #GEN1	7,400	Other	11/1/1987	12/31/2054
9913_1	Entenmanns Energy Center #1	0	Nat Gas	5/1/1994	12/31/2054
9913_2	Entenmanns Energy Center #2	0	Nat Gas	5/1/1994	12/31/2054
9913_3	Entenmanns Energy Center #3	0	Nat Gas	5/1/1994	12/31/2054
9913_4	Entenmanns Energy Center #4	0	Nat Gas	5/1/1994	12/31/2054
9916	Finch Pruyn #GEN6	0	Nat Gas	6/1/1987	12/31/2054
9927	Removed Hudson River Mill #GEN1	0	Nat Gas	12/1/1969	10/1/2002
9933	Kodak Park #TGs+KPR1	12,231	Coal	10/1/1956	12/31/2054
9934	Laidlaw Energy & Environmental	1,283	Nat Gas	7/1/1991	12/31/2054
9935	Removed LFG Energy Inc #GE53-55+GE58	0	Other	10/1/1999	7/1/2003
9938	Mac Arthur Waste to Energy #GEN1	11,750	Other	1/1/1986	12/31/2054
9939	Madison Windpower LLC #MADW	10,800	Wind	10/1/2000	12/31/2054
9945	New York University Central #PI	0	Oil	1/1/1984	12/31/2054
9946	North Shore Towers #GEN1-6	0	Nat Gas	11/1/1974	12/31/2054
9950	Port Jefferson #GT1	18,900	Oil	12/1/1966	12/31/2054
9956	Removed Retired Riverbay Corp #GEN1	0	Oil	1/1/1969	10/1/2006
9958	S A Carlson #7	47,000	Nat Gas	11/1/2001	12/31/2054
9963	Seneca Energy #G1-14	11,200	Other	8/1/1998	12/31/2054
9964_1	Sithe Independence Station #1	176,520	Nat Gas	10/1/1994	12/31/2054
9964_2	Sithe Independence Station #2	176,520	Nat Gas	10/1/1994	12/31/2054
9964_3	Sithe Independence Station #3	176,520	Nat Gas	10/1/1994	12/31/2054
9964_4	Sithe Independence Station #4	176,520	Nat Gas	10/1/1994	12/31/2054
9964_5	Sithe Independence Station #5	200,396	Nat Gas	10/1/1994	12/31/2054
9964_6	Sithe Independence Station #6	200,396	Nat Gas	10/1/1994	12/31/2054
9966_GEN:	Starrett City Cogen Facility #GEN1	0	Nat Gas	10/1/1974	12/31/2054
9966_GEN:	Starrett City Cogen Facility #GEN2	0	Nat Gas	10/1/1974	12/31/2054
9966_GEN:	Starrett City Cogen Facility #GEN3	0	Nat Gas	10/1/1974	12/31/2054
9966_GEN:	Starrett City Cogen Facility #GEN4	0	Nat Gas	10/1/1974	12/31/2054
9966_GEN:	Starrett City Cogen Facility #GEN5	0	Nat Gas	10/1/1974	12/31/2054
9967	Stony Brook Cogen #GEN1	3,128	Nat Gas	4/1/1995	12/31/2054
9970	Ticonderoga Mill #GEN1	18	Oil	1/1/1970	12/31/2054
9973	U S Gypsum Oakfield #GEN1	0	Nat Gas	4/1/1986	12/31/2054
9979	Warbasse Cogen #D1+D2	2,614	Nat Gas	1/1/1992	12/31/2054
9980	Removed - Warbasse Cogen #GT1-GT5+ST1+ST2	0	Nat Gas	10/1/1994	12/31/2005
9982	Westchester Resco #GEN1	53,000	Other	10/1/1984	12/31/2054
9983	Wethersfield #V47	6,600	Wind	8/1/2000	12/31/2054
10009	Jamaica Bay Peaking (Far Rockaway GT2)	54,000	Nat Gas	7/3/2003	12/31/2054
10174	Pouch #N01	48,000	Nat Gas	8/1/2001	12/31/2054
10258	Fenner Wind 1	30,000	Wind	10/1/2001	12/31/2054
10260	Model City Energy #1-7	5,600	Other	6/1/2001	12/31/2054
10262	Port Jefferson #GT2	45,100	Nat Gas	7/1/2002	12/31/2054

10263	Port Jefferson #GT3	49,800	Nat Gas	7/1/2002	12/31/2054
10311	Ravenswood CC	263,000	Nat Gas	4/1/2004	12/31/2054
10347	Bethpage Energy Center 3	84,000	Nat Gas	6/1/2005	12/31/2054
10498	Adirondack Hydro-Fourth Branch LLC	3,100	Hydro	12/1/1987	12/31/2054
10507	Middle Falls Limited Partnership	2,300	Hydro	9/1/1989	12/31/2054
10508	Hudson Falls Hydro #1-2	44,000	Hydro	11/1/1995	12/31/2054
10509	New York State Dam Power Station #1-2	11,400	Hydro	11/1/1990	12/31/2054
10513	Sissonville Limited Partnership	3,000	Hydro	7/1/1990	12/31/2054
10515	AES Somerset LLC #1	683,000	Coal	1/1/1984	12/31/2054
10518	Warrensburg Hydro Power Limited Partnership	2,900	Hydro	12/1/1988	12/31/2054
10936	Bassett Healthcare #4	1,600	Oil	5/1/2004	12/31/2054
10946	Equus Freeport Power 1	49,700	Nat Gas	6/1/2004	12/31/2054
10947	Finch Pruyn GEN1-5	11,800	Hydro	6/1/1987	12/31/2054
10948	Hawkeye Energy Greenport U-01	48,500	Oil	7/1/2003	12/31/2054
10949	Higley #1N-4N	6,000	Hydro	9/1/2003	12/31/2054
10952	Maple Ridge Wind Farm (formerly Flat Rock Wind Farm)	198,000	Wind	5/1/2006	12/31/2054
10960	Pinelawn Power Project	79,900	Nat Gas	7/1/2005	12/31/2054
10963	Plant No 2 #5	59,300	Nat Gas	4/1/2004	12/31/2054
10964_GT1	Removed Project Orange Associates LP #GT1	0	Nat Gas	6/1/1992	11/30/2010
10964_GT2	Removed Project Orange Associates LP #GT2	0	Nat Gas	6/1/1992	11/30/2010
10969	Trigen Syracuse Energy GEN1-2	88,800	Coal	7/1/2002	12/31/2054
11035	Ontario LFGTE #GEN1-GEN7	5,600	Other	5/1/2005	12/31/2054
11217	Steel Winds wind farm	20,000	Wind	6/1/2007	12/31/2054
11316	Astoria CC (500MW CC) #CT01+CT02+CA01	496,300	Nat Gas	12/1/2005	12/31/2054
11317	Caithness Long Island Energy Center	350,000	Nat Gas	6/1/2009	12/31/2054
11466	East River #1	182,500	Nat Gas	4/1/2005	12/31/2054
11467	East River #2	181,500	Nat Gas	4/1/2005	12/31/2054
11473	Empire Generating Company #1-3 (Besicorp-Empire Power Generating Facility)	586,036	Nat Gas	12/31/2009	12/31/2054
11483	Riverbay #GEN2-GEN4	41,800	Nat Gas	12/1/2007	12/31/2054
11485	Airtricity MUnnsville Wind Farm LLC #MU1	34,500	Wind	10/1/2007	12/31/2054
11487	Noble Clinton Windpark LLC #1	105,000	Wind	12/1/2007	12/31/2054
11488	Noble Ellenburg Windpark LLC #1	81,000	Wind	12/1/2007	12/31/2054
11507	Cayuga IC 1-2 (Milliken)	5,600	Oil	8/1/1967	12/31/2054
11510	Chaffee Gas Recovery #GEN1-GEN6	4,800	Other	8/9/2007	12/31/2054
11511	Maple Ridge Wind 2 (formerly Flat Rock Wind Farm)	33,000	Wind	6/1/2006	12/31/2054
11512	Maple Ridge Wind 3 (formerly Flat Rock Wind Farm)	91,000	Wind	12/1/2006	12/31/2054
11513	Colonie LFGTE Facility #GEN1-GEN3	4,800	Other	3/1/2006	12/31/2054
11514	Mill Seat (landfill)	4,700	Other	7/20/2007	12/31/2054
11515	Modern Innovative Energy LLC landfill #GEN1-GEN4	6,400	Other	2/1/2006	12/31/2054
11516	Broome landfill LFGE	2,100	Other	9/1/2007	12/31/2054
11561	Noble Bliss Windpark LLC	100,500	Wind	5/1/2008	12/31/2050
11562	High Acres #5-8	6,400	Other	5/1/2008	12/31/2054
11563	Seneca Energy #15-18	8,000	Other	1/1/2007	12/31/2054
11564	Noble Altona windpark	97,500	Wind	3/1/2009	12/31/2054
11587	High Sheldon wind farm	112,500	Wind	2/1/2009	12/31/2054
11851	Canandaiuga Power Partners LLC #1 (Cohocton)	82,500	Wind	1/1/2009	12/31/2054
11902	Noble Chateaugay Windpark LLC #1	106,500	Wind	3/1/2009	12/31/2054
11903	Noble Wethersfield Windpark LLC #1	126,000	Wind	3/1/2009	12/31/2054
11956	Bethlehem Energy Center CCCT #5+6+7+8	800,200	Nat Gas	7/1/2005	12/31/2054
12198	Canandaiuga Power Partners II LLC #1	37,500	Wind	7/1/2008	12/31/2054
12201	Noble Belmont Windpark LLC #1	21,000	Wind	12/1/2008	12/31/2054
999001	Mechanicville Hydro	4,500	Hydro	12/1/2011	12/31/2054
999002	Stuyvesant Falls Hydro	6,000	Hydro	12/1/2011	12/31/2054
999003	Rapp Road Landfill	5,000	Other	5/1/2012	12/31/2054
999004	Nine Mile Point 2 Uprate	168,000	Nuclear	6/1/2012	12/31/2054
999005	Marble River Wind Farm	218,000	Wind	11/1/2012	12/31/2054
999006	Howard Wind Expansion	4,100	Wind	12/1/2012	12/31/2054
12424_1	Bayonne Energy Center (BEC) #GT1	62,700	Nat Gas	4/1/2012	12/31/2054
12425	Steel Winds II	15,000	Wind	1/1/2012	12/31/2054
12424_2	Bayonne Energy Center (BEC) #GT2	62,700	Nat Gas	4/1/2012	12/31/2054
12424_3	Bayonne Energy Center (BEC) #GT3	62,700	Nat Gas	4/1/2012	12/31/2054
12424_4	Bayonne Energy Center (BEC) #GT4	62,700	Nat Gas	4/1/2012	12/31/2054
12424_5	Bayonne Energy Center (BEC) #GT5	62,700	Nat Gas	4/1/2012	12/31/2054
12424_6	Bayonne Energy Center (BEC) #GT6	62,700	Nat Gas	4/1/2012	12/31/2054
12424_7	Bayonne Energy Center (BEC) #GT7	62,700	Nat Gas	4/1/2012	12/31/2054
12424_8	Bayonne Energy Center (BEC) #GT8	62,700	Nat Gas	4/1/2012	12/31/2054
12602	Hardscrabble Wind Power	74,000	Wind	1/1/2011	12/31/2054
12608	Fulton LFGTE Facility	3,200	Other	6/1/2010	12/31/2054
12609	Mt Ida Hydroelectric	3,000	Hydro	1/1/1992	12/31/2054
12610	Howard Wind Project	55,350	Wind	1/1/2011	12/31/2054
12612	Long Island Solar Farm	31,500	Solar	11/1/2011	12/31/2054
999102	Black River	56,000	Other	12/31/2013	12/31/2054
999103	NYPA HTP Proxy Gen	0	Nat Gas	6/1/2013	12/31/2054

999104 Taylor Biomass	21,000 Other	12/31/2013	12/31/2054
999105 CPV Valley	0 Nat Gas	12/31/2016	12/31/2054
999106 J Power	0 Nat Gas	5/1/2017	12/31/2054
999107 Cohoes Falls Project Upgrade	10,000 Hydro	12/31/2017	12/31/2054
999108 ESAI CC	550,000 Nat Gas	6/1/2018	12/31/2054
999109 ESAI CC	550,000 Nat Gas	6/1/2021	12/31/2054
999110 ESAI CC	550,000 Nat Gas	6/1/2022	12/31/2054
999111 ESAI CC	550,000 Nat Gas	6/1/2026	12/31/2054
999112 ESAI CC	550,000 Nat Gas	6/1/2027	12/31/2054
999113 ESAI CC	550,000 Nat Gas	6/1/2028	12/31/2054
999114 ESAI CC	550,000 Nat Gas	6/1/2029	12/31/2054
999115 ESAI CC	550,000 Nat Gas	6/1/2030	12/31/2054
99999 Proxy Gen HQ-NY MASS765	1,000,000 Nat Gas	1/1/1980	12/31/2054
99995 Proxy Gen HQ-NY MASS765	500,000 Nat Gas	1/1/1980	12/31/2054
99994 Proxy Gen HQ-NY MASS765	0 Nat Gas	1/1/1980	12/31/2054
99993 Proxy Gen ONT-NY 1	700,000 Nat Gas	1/1/1980	12/31/2054
99992 Proxy Gen ONT-NY 2	700,000 Nat Gas	1/1/1980	12/31/2054
99991 Proxy Gen ONT-NY 3	700,000 Nat Gas	1/1/1980	12/31/2054
99988 Gowanus Barge #4	165,900 Oil	6/1/1971	12/31/2054
99990 Gowanus Barge #2	181,600 Nat Gas	6/1/1971	12/31/2054
99989 Gowanus Barge #3	174,100 Nat Gas	6/1/1971	12/31/2054
999124 Proxy Gen CSC	0 Nat Gas	1/1/2010	12/31/2054

<b>New England Generation Additions</b>						
<b>Unit</b>	<b>Capacity, MW</b>	<b>Unit Type</b>	<b>Start/Ret. Date</b>		<b>Location</b>	
Comerford Repower (Unit 3)	8.2	Hydro	Mar	2011	NH	
Brodie Mountain (Berkshire Wind)	15	Wind	May	2011	WMA	
Middletown Peakers	200	Nat gas	Jun	2011	CT	
Rollins Mountain Wind Farm	60	Wind	Jul	2011	ME	
Kleen Energy	620	Nat gas	Jul	2011	CT	
Northfield Mountain Uprate (Unit 3)	22	Hydro	Jul	2011	WMA	
Sheffield Wind	40	Wind	Oct	2011	VT	
RISEC Uprate	33	Nat gas	Dec	2011	RI	
Spruce Mountain	20	Wind	Dec	2011	ME	
Record Hill Wind	55	Wind	Dec	2011	ME	
Brayton Point Uprate	26	Coal	Dec	2011	SEMA	
Granite Reliable Power Windpark	99	Wind	Jan	2012	NH	
Comerford Repower (Unit 2)	8.2	Hydro	Feb	2012	NH	
New Haven Peaker	130	Nat gas	May	2012	CT	
Northfield Mountain Uprate (Unit 2)	22	Hydro	Jun	2012	WMA	
Kingdom Community Wind	63	Wind	Nov	2012	VT	
Bucksport Renewable Energy	25	Biomass	Nov	2012	ME	
Hoosac Wind	30	Wind	Dec	2012	WMA	
Groton Wind	48	Wind	Dec	2012	NH	
Bull Hill Wind	34	Wind	Dec	2012	ME	
Georgia Mountain Community Wind	11	Wind	Dec	2012	VT	
Comerford Repower (Unit 4)	8.2	Hydro	Jan	2013	NH	
Central Landfill Gas Project	40	Landfill Gas	Mar	2013	RI	
Berlin Station	75	Biomass	Dec	2013	NH	
Plainfield Renewable	37.5	Biomass	Jan	2014	CT	
Northfield Mountain Uprate (Unit 1)	22	Hydro	Jun	2014	WMA	
Cape Wind	468	Wind	Jun	2015	SEMA	
Northfield Mountain Uprate (Unit 4)	22	Hydro	Jun	2016	WMA	
Footprint Power	630	Nat gas	Jun	2016	NEMA	

***New England Retirement Assumptions***

<b>Unit</b>	<b>Capacity, MW</b>	<b>Unit Type</b>	<b>Ret. Date</b>		<b>Location</b>
AES Thames	181	Coal	Dec	2011	CT
Salem Harbor Units 1 & 2	160	Coal	Dec	2011	NEMA
Norwalk Harbor Units 1 & 2	326	Oil	May	2013	CT
Salem Harbor Units 3 & 4	587	Gas/Oil	Jun	2014	NEMA
Vermont Yankee	529	Nuclear	Dec	2014	VT
Holyoke Units 6 & 8	19	Nat Gas	Jun	2015	WMA
Potter Station Unit 1	2	Oil	Jun	2015	SEMA
Kendall Steam	27	Nat Gas	Jun	2017	NEMA
Brayton Point	1636	Coal / Oil	May	2017	SEMA
Wyman	213.6	Oil	Dec	2017	ME

**PJM Generation Additions**

Unit	Capacity, MW	Unit Type	Start/Ret. Date	Location
Big Sky Wind	240	Wind	Feb 2011	COMED
York Energy Center	545	Nat gas	Mar 2011	PECO
Bear Gardens Power Station	580	Nat Gas	May 2011	DOM
Chesterfield Uprate Units 5 and 6	8	Coal	Jun 2011	DOM
Susquehanna Uprate Unit 2	159	Nuclear	Jun 2011	PPL
Hunlock Repower	125	Nat gas	Jul 2011	PPL
AES Laurel Mountain	125	Wind	Jul 2011	APS
Mt. Storm Uprate (Unit 2)	31	Coal	Aug 2011	APS
Pilesgrove Solar	20	Solar	Aug 2011	AECO
Chestnut Flats Wind	38	Wind	Sep 2011	PENELEC
Timber Road II	99	Wind	Oct 2011	AEP
Longview	695	Coal	Dec 2011	APS
South Chestnut Ridge	46	Wind	Dec 2011	APS
Pinnacle Wind Farm	55	Wind	Dec 2011	APS
Sandy Ridge Wind Farm	50	Wind	Jan 2012	APS
Fremont Energy Center	770	Nat gas	Jan 2012	ATSI
Dresden	580	Nat Gas	Feb 2012	AEP
Highland North Wind Farm	62	Wind	Feb 2012	PENELEC
Blue Creek Wind	304	Wind	Mar 2012	AEP
Martins Creek Unit 4 Uprate	30	Nas Gas	Mar 2012	PPL
Howard M Down Unit 11	63	Nat Gas	May 2012	AECO
Kearny Units 13 and 14	267	Nat Gas	Jun 2012	PSEG
Shady Oaks Wind Farm	110	Wind	Jun 2012	COMED
Beasley Power Station, Unit 2	50	Nat gas	Jun 2012	DPL
Virginia City Hybrid Energy Center	585	Coal/Waste Coal	Jul 2012	AEP
Bishop Hill Wind	200	Wind	Jul 2012	COMED
Laurel Hill Wind	69	Wind	Oct 2012	PENELEC
Bishop Hill Wind II	81	Wind	Dec 2012	COMED
Patton Wind Farm	30	Wind	Dec 2012	PENELEC
Twin Ridges Wind Farm	140	Wind	Dec 2012	PENELEC
California Ridge	200	Wind	Dec 2012	AEP
Mehoopany Wind	141	Wind	Dec 2012	PENELEC
Wildcat Wind Farm	200	Wind	Dec 2012	AEP
Minonk Wind	200	Wind	Dec 2012	COMED
Holtwood Expansion	125	Hydro	Apr 2013	PPL
South Boston Biomass	50	Biomass	May 2013	DOM
Covington Facility	75	Biomass	Aug 2013	DOM
Mt. Storm Uprate (Unit 1)	30	Coal	Aug 2013	APS
Hopewell #1 Repower	71	Biomass	Dec 2013	DOM
Altavista #1 Repower	71	Biomass	Dec 2013	DOM
Meldahl (Captain Anthony Meldahl)	105	Hydro	Jun 2014	DEOK
Bremo Bluff #4 (CONV CC)	156	Gas	Jun 2014	DOM
Bremo Bluff #3 (CONV CC)	71	Gas	Jun 2014	DOM
Willow Island Hydro	35	Hydro	Oct 2014	APS
West Deptford	738	Nat gas	Dec 2014	PSEG
Warren County Power Station	1,329	Nat gas	Dec 2014	DOM
Nelson	600	Nat gas	Jun 2015	COMED
Clayville (Vinland)	63	Nat gas	Jun 2015	AECO
Garrison (Phase 1)	309	Nat gas	Jun 2015	DPL
Newark Energy Center	625	Nat gas	Jun 2015	PSEG
CPV Saint Charles	661	Nat gas	Jun 2016	PEPCO
Perryman #GT6	230	Nat gas	Jun 2016	BGE
Newark Energy Center	80	Nat gas	Mar 2016	PSEG
Woodbridge	700	Nat gas	Jun 2016	PSEG
Brunswick-Dom	1300	Nat gas	Jun 2016	DOM
Liberty	760	Nat gas	Jun 2016	PENELEC
BL England #3 (CONV CC)	160	Nat gas	Jun 2016	AECO
Clinch River #2 (CONV CC)	230	Nat gas	Jun 2016	AEP
Clinch River #1 (CONV CC)	230	Nat gas	Jun 2016	AEP
Big Sandy #1 (GAS CONV)	280	Nat gas	Jun 2016	AEP
New Castle #5 (CONV CC)	137	Nat gas	Jun 2016	ATSI
New Castle #4 (CONV CC)	98	Nat gas	Jun 2016	ATSI
New Castle #3 (CONV CC)	98	Nat gas	Jun 2016	ATSI
Avon Lake #9 (CONV CC)	625	Nat gas	Jun 2016	ATSI
Avon Lake #7 (CONV CC)	96	Nat gas	Jun 2016	ATSI
Keys	600	Nat gas	Jun 2017	PEPCO

PJM Retirement Assumptions					
Unit	Capacity, MW	Unit Type	Ret. Date	Status	Location
Chesapeake 6, 9 and 10	51	Oil	Apr 2011	Deactivated	DOM
Kitty Hawk 1 and 2	34	Oil	Apr 2011	Deactivated	DOM
Chesapeake 7	16	Oil	Apr 2011	Deactivated	DOM
Cromby Generating Station Unit 1	144	Coal	May 2011	Deactivated	PECO
Eddystone Generating Station Unit 1	279	Coal	May 2011	Deactivated	PECO
Indian River 1	90	Coal	May 2011	Deactivated	DPL
Brunot Island 1B & 1C	30	Oil	Jun 2011	Deactivated	DUQ
R E Burger (Unit 3)	94	Coal	Sep 2011	Deactivated	ATSI
Hudson 1	383	Nat gas	Dec 2011	Deactivated	PSEG
Cromby Generating Station Unit 2	201	Nat gas/Oil	Dec 2011	Deactivated	PECO
Phillip Sporn (Unit 5)	440	Coal	Feb 2012	Deactivated	AEP
State Line Energy (Units 3 and 4)	515	Coal	Mar 2012	Deactivated	COMED
Viking Energy NUG IPP	16	Biomass	Mar 2012	Deactivated	PPL
Walter C Beckjord (Unit 1)	94	Coal	May 2012	Deactivated	DEOK
Buzzard Point East Banks (Units 1, 2, 4-8)	112	Oil	May 2012	Deactivated	PEPCO
Buzzard Point West Banks (Units 1-8)	128	Oil	May 2012	Deactivated	PEPCO
Eddystone Generating Station (Unit 2)	309	Coal	May 2012	Deactivated	PECO
Kearny (Units 10 and 11)	250	Gas	Jun 2012	Deactivated	PSEG
Etrams (Units 1-3)	289	Coal	Jun 2012	Deactivated	DUQ
Niles (Unit 2)	108	Coal	Jun 2012	Deactivated	ATSI
Benning (Units 15 and 16)	550	Oil	Jul 2012	Deactivated	PEPCO
Crawford (Units 7 and 8)	532	Coal	Aug 2012	Deactivated	COMED
Fisk Street (Unit 19)	326	Coal	Sep 2012	Deactivated	COMED
SMART Papers	25	Coal	Aug 2012	Deactivated	DEOK
Howard M Down (Unit 10)	23	Oil	Sep 2012	Deactivated	AECO
Bay Shore (Units 2-4)	495	Coal	Sep 2012	Deactivated	ATSI
Eastlake (Units 4 and 5)	837	Coal	Sep 2012	Deactivated	ATSI
Armstrong (Units 1 and 2)	343	Coal	Sep 2012	Deactivated	APS
R. Paul Smith (Units 3 and 4)	115	Coal	Sep 2012	Deactivated	APS
Albright (Units 1-3)	283	Coal	Sep 2012	Deactivated	APS
Rivesville (Units 5 and 6)	121	Coal	Sep 2012	Deactivated	APS
Willow Island (Units 1 and 2)	189	Coal	Sep 2012	Deactivated	APS
Potomac River Generating Station (1-5)	482	Coal	Oct 2012	Deactivated	PEPCO
Etrams (Unit 4)	171	Coal	Oct 2012	Deactivated	DUQ
Niles (Unit 1)	109	Coal	Oct 2012	Deactivated	ATSI
Conesville Plant (Unit 3)	165	Coal	Dec 2012	Deactivated	AEP
Warren County Landfill	1.9	Landfill Gas	Jan 2013	Deactivated	JCPL
Schuykill 1	166	Oil	Jan 2013	Deactivated	PECO
Schuykill Diesel	3	Oil	Jan 2013	Deactivated	PECO
Kearny (Unit 9)	21	Gas	Jun 2013	Deactivated	PSEG
O H Hutchings (Unit 4)	62	Coal	Jun 2013	Deactivated	DAY
Koppers Chicago Plant #GEN1	7.5	Wood Waste	Sep 2013	Deactivated	COMED
Titus (Units 1-3)	225	Coal	Sep 2013	Deactivated	METED
Hatfields Ferry (Units 1-3)	1728	Coal	Oct 2013	Deactivated	APS
Mitchel (Units 2 and 3)	374	Coal and Oil	Oct 2013	Deactivated	APS
Walter C Beckjord (Units 2 and 3)	238	Coal	Oct 2013	Deactivated	DEOK
B.L. England (Unit 1)	136	Coal	Oct 2013	Announced	AECO
Indian River (Unit 3)	170	Coal	Dec 2013	Deactivated	DPL
Deepwater (Units 1 and 6)	158	Nat Gas	May 2014	Deactivated	AECO
Bromo Bluff (Units 3 and 4)	227	Coal	May 2014	Deactivated	AECO
Portland (Units 1 and 2)	401	Coal	May 2014	Slated	METED
Burlington 9 GT	184	Oil	Jun 2014	Deactivated	PSEG
Riverside (Unit 6)	118	Nat Gas	Jun 2014	Deactivated	BGE
Yorktown (Unit 1)	159	Coal	Dec 2014	Slated	DOM
Yorktown (Unit 2)	165	Coal	Dec 2014	Slated	DOM
Chesapeake Units (Units 1 and 2)	222	Coal	Dec 2014	Slated	DOM
Chesapeake (Units 3 and 4)	354	Coal	Dec 2014	Slated	DOM
Waukegan (Units 7 and 8)	681.7	Coal	Dec 2014	Probable	BGE
Shawville (Units 1-4)	597	Coal	Apr 2015	Slated	PENELEC
Walter C Beckjord (Units 4-6)	809	Coal	Apr 2015	Slated	DEOK
Sunbury Power Plant (Units 1-4)	395	Coal	May 2015	Slated	PPL
Gilbert (CT 1-4)	98	Nat gas	May 2015	Slated	JCPL
Glenn Gardner (Units 1-8)	160	Nat gas	May 2015	Slated	JCPL
Cedar (Units 1 and 2)	66	Kerosene	May 2015	Slated	AECO
Missouri Ave CT (Units B, C, D)	60	Kerosene	May 2015	Slated	AECO
B.L. England (Unit 2)	163	Coal	May 2015	Announced	AECO
Midds Station	75	Kerosene	May 2015	Slated	AECO
Possum Point	72	Oil	May 2015	Probable	DOM
O H Hutchings (Units 1 and 2)	103	Coal	Jun 2015	Slated	DAY
O H Hutchings (Units 3, 5 and 6)	174	Coal	Jun 2015	Slated	DAY
Lake Shore (Unit 18)	244	Coal	Jun 2015	Slated	ATSI
Eastlake (Units 1-3)	396	Coal	Jun 2015	Slated	ATSI
Ashtabula (Unit 5)	244	Coal	Jun 2015	Slated	ATSI
Kammer (Units 1-3)	600	Coal	Jun 2015	Slated	AEP
Kanawha River (Units 1 and 2)	400	Coal	Jun 2015	Slated	AEP
Phillip Sporn (Units 1-4)	580	Coal	Jun 2015	Slated	AEP
Picway (Unit 5)	95	Coal	Jun 2015	Slated	AEP
Clinch River (Unit 3)	230	Coal	Jun 2015	Slated	AEP
Muskingum River (Units 1-4)	790	Coal	Jun 2015	Slated	AEP
Tanners Creek (Units 1-3)	488	Coal	Jun 2015	Slated	AEP
Bergen (Unit 3)	21	Nat gas	Jun 2015	Slated	PSEG
National Park (Unit 1)	21	Oil	Jun 2015	Slated	PSEG
Mercer (Unit 3)	115	Oil	Jun 2015	Slated	PSEG
Sewaren (Unit 6)	111	Oil	Jun 2015	Slated	PSEG
Sewaren (Units 1-4)	453	Nat Gas	Jun 2015	Slated	PSEG
Glen Lyn (Units 5 and 6)	325	Coal	Jun 2015	Slated	AEP
Essex 10 (Units 101-104)	168	Nat Gas	Jun 2015	Slated	PSEG
Essex 11 (Units 111-114)	184	Nat Gas	Jun 2015	Slated	PSEG
Essex 12 (Units 121-124)	184	Nat Gas	Jun 2015	Slated	PSEG
Werner (GT 1-4)	212	Oil	Jun 2015	Slated	JCPL
Burlington (Unit 8)	21	Oil	Jun 2015	Slated	PSEG
Burlington 11 (Units 111-114)	184	Oil	Jun 2015	Slated	PSEG
Salem (Unit 3)	42	Kerosene	Jun 2015	Probable	PSEG
Sherman Avenue	113	Nat Gas	Jun 2015	Probable	AECO
Cumberland	99	Nat Gas	Jun 2015	Probable	AECO
Sayreville (GT 1-4)	212	N Gas / Oil	Jun 2015	Probable	JCPL
Edison 1, 2 and 3 (Units 11-34)	504	Gas	Jun 2015	Slated	PSEG
Tanners Creek (Unit 4)	579.7	Coal	Jun 2015	Announced	AEP
Muskingum River (Unit 5)	615.2	Coal	Jun 2015	Announced	AEP
Big Sandy (Unit 2)	816.3	Coal	Jun 2015	Announced	AEP
B.L. England Diesels (IC1, IC2, IC3, IC4)	8	Oil	Oct 2015	Slated	AECO
Clinch River (Units 1 and 2)	460	Coal	May 2016	Slated	AEP
Big Sandy (Unit 1)	280	Coal	May 2016	Slated	AEP
B.L. England (Unit 3)	176.4	Oil	2016	Probable	AECO
Riverside (Unit 4)	79	Nat Gas	2016	Slated	BGE
Herbert A Wagner (Unit 1)	132.8	Gas	2016	Probable	BGE
Herbert A Wagner (Unit 4)	414.7	Oil	2016	Probable	BGE
Avon Lake (Units 7 and 9)	735	Coal	Apr 2016	Slated	ATSI
New Castle (Units 3-5)	326	Coal	2016	Slated	ATSI
Low Moor 1-4	48	Oil	2016	Slated	DOM
Mt Storm #JF1	12	Oil	2016	Slated	DOM
AES Beaver Valley	138	Coal	2017	Slated	DUQ
Northern Neck	47	Oil	2017	Slated	DOM
Dickerson	546	Coal	2017	Slated	PEPCO
Chalk Point	684	Coal	2017	Slated	PEPCO
Oyster Creek	640	Nuclear	2019	Announced	JCPL

Attmt DPS-107(1)(b)-71-5- Internal Interfaces

Case	Interface	Annual Interface Flow (MWh)									
		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Base Case	NY_CentralEast	18,918,157	18,943,947	18,666,957	18,475,147	18,662,322	18,793,100	18,645,876	18,679,544	18,808,044	18,602,946
Base Case	NY_DunwoodieSo	15,685,595	15,118,192	12,522,506	12,849,729	11,581,815	10,590,498	10,471,907	10,603,218	9,010,483	8,783,407
Base Case	NY_DysingerEast	16,727,351	16,708,754	16,998,481	16,898,627	16,791,475	17,016,046	16,965,751	16,784,353	16,947,604	16,792,272
Base Case	NY_MosesSouth	10,959,846	10,965,190	11,022,172	10,969,657	10,956,885	10,958,725	10,981,555	10,957,788	10,968,457	10,958,208
Base Case	NY_TotalEast	37,726,333	37,842,105	38,309,765	37,826,197	37,753,279	37,877,907	37,683,826	37,712,632	37,751,658	37,028,748
Base Case	NY_WestCentral	10,749,676	11,103,256	10,993,817	10,925,034	11,200,378	11,047,245	10,993,624	11,208,586	10,994,282	10,841,726
West Point Case	NY_CentralEast	19,128,905	19,152,470	19,046,479	18,814,132	18,929,607	19,089,678	18,911,355	18,925,411	18,956,377	18,733,645
West Point Case	NY_DunwoodieSo	15,990,776	15,372,766	13,161,577	13,453,512	12,001,156	11,009,069	10,851,920	11,008,315	9,239,312	8,975,478
West Point Case	NY_DysingerEast	16,880,800	16,859,697	17,275,642	17,157,651	16,989,424	17,235,808	17,160,510	16,968,190	17,051,874	16,881,387
West Point Case	NY_MosesSouth	10,980,222	10,984,970	11,058,257	11,005,573	10,989,718	10,988,824	11,008,258	10,990,830	10,991,768	10,978,286
West Point Case	NY_TotalEast	38,216,113	38,323,467	39,179,038	38,641,779	38,367,311	38,537,631	38,268,049	38,299,167	38,098,703	37,323,898
West Point Case	NY_WestCentral	10,913,506	11,267,147	11,288,336	11,200,501	11,410,329	11,281,969	11,201,005	11,404,022	11,107,277	10,938,954

Case	Interface	Binding Hours per year									
		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Base Case	NY_CentralEast	85	74	16	16	25	48	33	36	48	36
Base Case	NY_DunwoodieSo	377	276	90	81	2	0	0	1	0	0
Base Case	NY_DysingerEast	0	0	0	0	0	0	0	0	0	0
Base Case	NY_MosesSouth	0	0	0	0	0	0	0	0	0	0
Base Case	NY_TotalEast	2,900	3,036	2,922	2,624	2,877	2,797	2,537	2,808	2,778	2,364
Base Case	NY_WestCentral	4,567	4,899	4,705	4,892	5,254	5,047	5,082	5,246	5,085	5,074
West Point Case	NY_CentralEast	80	81	23	14	28	53	35	36	50	32
West Point Case	NY_DunwoodieSo	695	547	205	231	35	22	29	30	0	0
West Point Case	NY_DysingerEast	0	0	0	0	0	0	0	0	0	0
West Point Case	NY_MosesSouth	0	0	0	0	0	0	0	0	0	0
West Point Case	NY_TotalEast	3,207	3,390	3,557	3,201	3,312	3,179	2,916	3,192	3,042	2,525
West Point Case	NY_WestCentral	4,541	4,900	4,770	4,924	5,323	5,113	5,115	5,270	5,077	5,082



# Attmt DPS-107(1)(b)-71-7 - NYCA Annual Emissions

Case	Aggregate	CO2 (tons)										NOX (tons)										SO2 (tons)									
		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Base Case	NYCA	33,929,319	33,729,719	36,579,926	35,692,448	34,537,167	34,224,674	34,718,792	34,942,412	34,613,006	34,207,492	20,273	20,377	21,691	21,073	20,752	20,656	20,948	21,324	21,252	21,277	23,556	23,871	24,291	23,748	23,791	23,725	23,654	23,892	23,760	23,559
Base Case	Upstate (Zones A-F)	17,781,972	17,808,393	18,465,012	18,258,055	18,060,553	17,811,470	17,833,978	17,849,054	17,732,447	17,555,903	12,108	12,194	12,352	12,143	12,206	12,106	12,038	12,079	12,048	11,951	22,096	22,335	22,319	21,957	22,154	22,072	21,852	21,928	21,874	21,692
Base Case	Downstate (Zones G-K)	16,147,346	15,921,327	18,114,914	17,434,392	16,476,614	16,413,203	16,884,814	17,093,358	16,880,559	16,651,589	8,165	8,183	9,339	8,930	8,546	8,549	8,910	9,245	9,204	9,325	1,460	1,536	1,972	1,791	1,637	1,653	1,801	1,964	1,887	1,867
West Point Case	NYCA	33,772,289	33,558,333	36,328,526	35,442,539	34,351,651	34,073,613	34,459,753	34,730,887	34,540,253	34,131,973	20,045	20,150	21,456	20,810	20,517	20,512	20,769	21,093	21,185	21,165	23,509	23,845	24,175	23,630	23,763	23,685	23,597	23,838	23,743	23,539
West Point Case	Upstate (Zones A-F)	17,888,116	17,930,816	18,736,960	18,504,479	18,258,639	18,007,178	17,947,312	18,007,205	17,826,859	17,618,764	12,154	12,244	12,420	12,211	12,275	12,177	12,080	12,145	12,093	11,983	22,075	22,345	22,257	21,908	22,158	22,063	21,791	21,907	21,857	21,679
West Point Case	Downstate (Zones G-K)	15,884,173	15,627,516	17,591,567	16,938,060	16,093,012	16,066,435	16,512,441	16,723,682	16,713,394	16,513,208	7,891	7,906	9,035	8,599	8,242	8,334	8,689	8,948	9,092	9,182	1,434	1,500	1,918	1,722	1,606	1,622	1,806	1,931	1,886	1,859
West Point impact	NYCA	-157,030	-171,387	-251,400	-249,908	-185,515	-151,060	-259,039	-211,525	-72,753	-75,519	-228	-227	-235	-263	-235	-144	-178	-231	-66	-112	-47	-26	-116	-118	-28	-40	-57	-53	-18	-20
West Point impact	Upstate (Zones A-F)	106,144	122,424	271,947	246,424	198,086	195,708	113,334	158,151	94,412	62,861	46	50	68	68	69	71	42	66	46	31	-21	9	-62	-49	4	-10	-61	-20	-17	-12
West Point impact	Downstate (Zones G-K)	-263,174	-293,810	-523,347	-496,332	-383,602	-346,768	-372,373	-369,675	-167,165	-138,381	-275	-277	-303	-331	-304	-215	-221	-297	-112	-143	-26	-36	-54	-70	-31	-31	5	-33	-1	-8

Attmt DPS-107(1)(b)-71-10 Base Case Imports

NYISO Interchange	Annual Flow (MWh)										
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	
<b>AC Imports from ISONE</b>	-1,279,881	-1,355,679	-2,292,523	-2,215,200	-1,900,625	-1,791,300	-1,913,544	-2,014,672	-1,624,878	-1,477,955	
<b>AC Exports to ISONE</b>	7,277,360	7,005,002	5,935,440	6,235,130	6,631,150	6,826,750	6,741,149	6,524,774	6,983,927	7,368,407	
<b>Net AC Exports to ISONE</b>	5,997,480	5,649,323	3,642,917	4,019,930	4,730,525	5,035,450	4,827,605	4,510,102	5,359,049	5,890,452	
<b>Imports via CSC</b>	2,890,800	2,890,800	2,898,720	2,890,800	2,890,800	2,890,800	2,898,720	2,890,800	2,890,800	2,890,800	
<b>Exports via CSC</b>	0	0	0	0	0	0	0	0	0	0	
<b>Net Imports via CSC</b>	2,890,800	2,890,800	2,898,720	2,890,800	2,890,800	2,890,800	2,898,720	2,890,800	2,890,800	2,890,800	
<b>Total Imports from ISONE</b>	1,610,919	1,535,121	606,197	675,600	990,175	1,099,500	985,176	876,128	1,265,922	1,412,845	
<b>Total Exports to ISONE</b>	7,277,360	7,005,002	5,935,440	6,235,130	6,631,150	6,826,750	6,741,149	6,524,774	6,983,927	7,368,407	
<b>Total Net Exports to ISONE</b>	8,888,280	8,540,123	6,541,637	6,910,730	7,621,325	7,926,250	7,726,325	7,400,902	8,249,849	8,781,252	
<b>AC Imports from PJM</b>	9,443,632	9,054,975	9,524,067	9,721,514	9,103,025	9,671,618	9,855,801	9,356,195	9,843,136	9,761,353	
<b>AC Exports to PJM</b>	-616,950	-560,448	-436,934	-471,999	-472,718	-419,982	-472,162	-456,572	-523,413	-649,523	
<b>Net AC Imports from PJM</b>	8,826,682	8,494,527	9,087,133	9,249,515	8,630,308	9,251,637	9,383,640	8,899,624	9,319,722	9,111,829	
<b>Imports via Neptune</b>	5,781,600	5,781,600	5,797,440	5,781,600	5,781,600	5,781,600	5,797,440	5,781,600	5,781,600	5,781,600	
<b>Exports via Neptune</b>	0	0	0	0	0	0	0	0	0	0	
<b>Net Imports via Neptune</b>	5,781,600	5,781,600	5,797,440	5,781,600	5,781,600	5,781,600	5,797,440	5,781,600	5,781,600	5,781,600	
<b>Imports via Hudson</b>	5,781,600	5,781,600	5,797,440	5,781,600	5,781,600	5,781,600	5,797,440	5,781,600	5,781,600	5,781,600	
<b>Exports via Hudson</b>	0	0	0	0	0	0	0	0	0	0	
<b>Net Imports via Hudson</b>	5,781,600	5,781,600	5,797,440	5,781,600	5,781,600	5,781,600	5,797,440	5,781,600	5,781,600	5,781,600	
<b>Total Imports from PJM</b>	21,006,832	20,618,175	21,118,947	21,284,714	20,666,225	21,234,818	21,450,681	20,919,395	21,406,336	21,324,553	
<b>Total Exports to PJM</b>	-616,950	-560,448	-436,934	-471,999	-472,718	-419,982	-472,162	-456,572	-523,413	-649,523	
<b>Total Net Imports from PJM</b>	20,389,882	20,057,727	20,682,013	20,812,715	20,193,508	20,814,837	20,978,520	20,462,824	20,882,922	20,675,029	
<b>Imports from ONT</b>	6,132,000	6,132,000	6,148,800	6,132,000	6,132,000	6,132,000	6,148,800	6,132,000	6,132,000	6,132,000	
<b>Exports to ONT</b>	0	0	0	0	0	0	0	0	0	0	
<b>Net Imports from ONT</b>	6,132,000	6,132,000	6,148,800	6,132,000	6,132,000	6,132,000	6,148,800	6,132,000	6,132,000	6,132,000	
<b>Imports from HQ</b>	8,496,000	8,496,000	8,520,000	8,496,000	8,496,000	8,496,000	8,520,000	8,496,000	8,496,000	8,496,000	
<b>Exports to HQ</b>	0	0	0	0	0	0	0	0	0	0	
<b>Net Imports from HQ</b>	8,496,000	8,496,000	8,520,000	8,496,000	8,496,000	8,496,000	8,520,000	8,496,000	8,496,000	8,496,000	

