

Key Deactivation Study

Assumptions for: West Babylon 4

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Generator Summary

- **West Babylon 4**
 - Zone K
 - Nameplate 52.4 MW
 - Seeking to Retire

Deactivation Assessment Assumptions

- **The most recent base cases from the reliability planning process are those used for the 2020 Reliability Needs Assessment (RNA) (discussed at the April 4 TPAS/ESPWG)**
 - The 2020 RNA Base Case and the Inclusion Rules Application as well as the DEC's Peaker Rule Impacts on the 2020 RNA Base Case presented at the April 4th TPAS/ESPG are provided at the end of this presentation for reference
- **There are no additional changes from the RNA databases for this Generator Deactivation Assessment**

Deactivation Assessment Information

- The NYISO is performing the assessment of the BPTF
- The assessment of the non-BPTF will be performed by:
 - PSEG-LI
- The Generator Deactivation Assessment for West Babylon 4 will be completed by July 22, 2020

2020 RNA Base Case and the Inclusion Rules Application

2020 RNA Base Case Development Background

- **Based on the RNA Base Case, the NYISO identifies Reliability Needs of the New York State Bulk Power Transmission Facilities (BPTFs) in accordance with applicable Reliability Criteria (*i.e.*, NERC, NPCC, and NYSRC)**
- **2020 RNA Base Case:**
 - For the transmission security evaluations, the NYISO uses the 2020 FERC Form 715 filing and the information from the 2020 Gold Book as a starting point for developing the base case system models with the application of the inclusion rules.
 - For the resource adequacy evaluation, the models are developed starting with prior resource adequacy models, and are updated with information from the 2020 Gold Book and historical data, with the application of the inclusion rules. Information on modeling of neighboring systems is based on the input received from the NPCC CP-8 working group.
- **An updated Manual 26 was approved on December, 2019, with certain changes related with the inclusion rules**
 - The inclusion rules are used as guidelines to determine what proposed projects will be included in the RNA Base Case, and also how to treat generator deactivations

2020 RNA: Inclusion Rules Application

- **Proposed generation and transmission to be included:**
 - next slide contains a list of projects
- **Generation deactivations: all plant deactivations listed in the 2020 Gold Book Section IV will be out of service**
- **Proposed Local Transmission Owner Plans (LTP) to be included:**
 - All BPTF LTPs listed in the 2020 GB Section VII as firm, with consideration for the in-service date
 - All non-BPTF LTPs listed by the Transmission Owner as firm
- **Existing transmission facilities modeled out-of-service include:**
 - Con Edison's B3402 and C3403 345 kV cables for the entire study period
 - Moses-St. Lawrence L33P through winter 2022

Proposed Projects Included in the 2020 RNA Base Case

also included in the 2018-2019 RPP Base Cases				
Project Types	Queue #	Project Name	SP MW	Interconnection Status
Large Gens	387	Cassadaga Wind	126.5	CY17
	396	Baron Winds	238.4	CY17
	422	Eight Point Wind Energy Center	101.8	CY17
	505	Ball Hill Wind	100.0	CY17
	546	Roaring Brook Wind	79.7	CY19
	678	Calverton Solar Energy Center	22.9	CY19
Regulated Transmission Solutions	Q545A	Empire State Line	n/a	completed TIP Facility Study (Western NY PPTPP)
	556	Segment A Double Circuit		TIP Facility Study in progress (AC PPTPP)
	543	Segment B Knickerbocker-Pleasant Valley 345 kV		TIP Facility Study in progress (AC PPTPP)
	430	Cedar Rapids Transmission Upgrade		CY17
System Deliverability Upgrades (SDUs)		Leeds-Hurley SDU	n/a	SDU triggered for construction in CY11

Acronyms:

CYxx: (Interconnection) Class Year (Facilities Studies) + last 2 digits of the year

TIP: Transmission Interconnection Process

AC PPTPP: Alternative Current Public Policy Transmission Planning Process

DEC's Peaker Rule Impacts on the 2020 RNA Base Case

DEC Peaker Rule Background

- New York State Department of Environmental Conservation (DEC) adopted a regulation to limit nitrogen oxides (NO_x) emissions from simple-cycle combustion turbines (“Peaking Units”) (referred to as the “Peaker Rule”)
- The Peaker Rule required all impacted plant owners to file compliance plans by March 2, 2020
- NYISO is considering generators’ compliance plans in the development of the 2020 Reliability Needs Assessment Base Case

Status Change due to DEC's Peaker Rule, Zone G

Units	Nameplate MW	2023 OS	2023 non-OS	2024 OS	2024 non-OS	2025 OS	2025 non-OS
		May 2023 - September 2023	October 2023 - April 2024	May 2024 - September 2024	October 2024 - April 2025	May 2025 - September 2025	October 2025 - April 2026
Coxsackie GT	22	Out of Service	Out of Service	Out of Service	Out of Service	Out of Service	Out of Service
South Cairo	22	Out of Service	Out of Service	Out of Service	Out of Service	Out of Service	Out of Service
Unavailable Capacity		43	43	43	43	43	43
Impacted Capacity	43	OS - Ozone Season: May 1st - September 30th					

Notes:

1. The service pattern in the last two columns repeats in subsequent years of the RNA Study Period
2. Other Compliance Plans were submitted in addition to what is shown on this table. The table lists the compliance plans that resulted in a change of status.

Status Change due to DEC's Peaker Rule, Zone J

Units	Nameplate MW	2023 OS	2023 non-OS	2024 OS	2024 non-OS	2025 OS	2025 non-OS
		May 2023 - September 2023	October 2023 - April 2024	May 2024 - September 2024	October 2024 - April 2025	May 2025 - September 2025	October 2025 - April 2026
Astoria GT1	16	In Service	In Service	In Service	In Service	Out of Service	In Service
Gowanus 1&4	320	Out of Service	In Service	Out of Service	In Service	Out of Service	In Service
Gowanus 2&3	320	In Service	In Service	In Service	In Service	Out of Service	In Service
Narrows 1&2	352	In Service	In Service	In Service	In Service	Out of Service	In Service
Ravenswood GTs	369	Out of Service	Out of Service	Out of Service	Out of Service	Out of Service	Out of Service
Arthur Kill GT1	20	In Service	In Service	In Service	In Service	Out of Service	Out of Service
Astoria GTs	558	Out of Service	Out of Service	Out of Service	Out of Service	Out of Service	Out of Service
Con Ed 59th St	17	In Service	In Service	In Service	In Service	Out of Service	Out of Service
Con Ed 74th St	37	Out of Service	Out of Service	Out of Service	Out of Service	Out of Service	Out of Service
Con Ed Hudson Ave	49	Out of Service	Out of Service	Out of Service	Out of Service	Out of Service	Out of Service
Unavailable Capacity		1,333	1,013	1,333	1,013	2,058	1,050
Available Capacity		725	1,045	725	1,045	0	1,008
Impacted Capacity	2,058	OS - Ozone Season: May 1st - September 30th					

Notes:

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2. Other Compliance Plans were submitted in addition to what is shown on this table. The table lists the compliance plans that resulted in a change of status.

Status Change due to DEC's Peaker Rule, Zone K

Units	Nameplate MW	2023 OS	2023 non-OS	2024 OS	2024 non-OS	2025 OS	2025 non-OS
		May 2023 - September 2023	October 2023 - April 2024	May 2024 - September 2024	October 2024 - April 2025	May 2025 - September 2025	October 2025 - April 2026
Glenwood GT1	16	Out of Service	Out of Service	Out of Service	Out of Service	Out of Service	Out of Service
Northport GT	16	Out of Service	Out of Service	Out of Service	Out of Service	Out of Service	Out of Service
Port Jefferson GT1	16	Out of Service	Out of Service	Out of Service	Out of Service	Out of Service	Out of Service
West Babylon GT4	52	Out of Service	Out of Service	Out of Service	Out of Service	Out of Service	Out of Service
Unavailable Capacity		100	100	100	100	100	100
Impacted Capacity	100	OS - Ozone Season: May 1st - September 30th					

Notes:

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- Maintaining and enhancing regional reliability
- Operating open, fair and competitive wholesale electricity markets
- Planning the power system for the future
- Providing factual information to policymakers, stakeholders and investors in the power system

