

Summer 2023 Capacity Assessment

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NYSERC-EC (via Webex)

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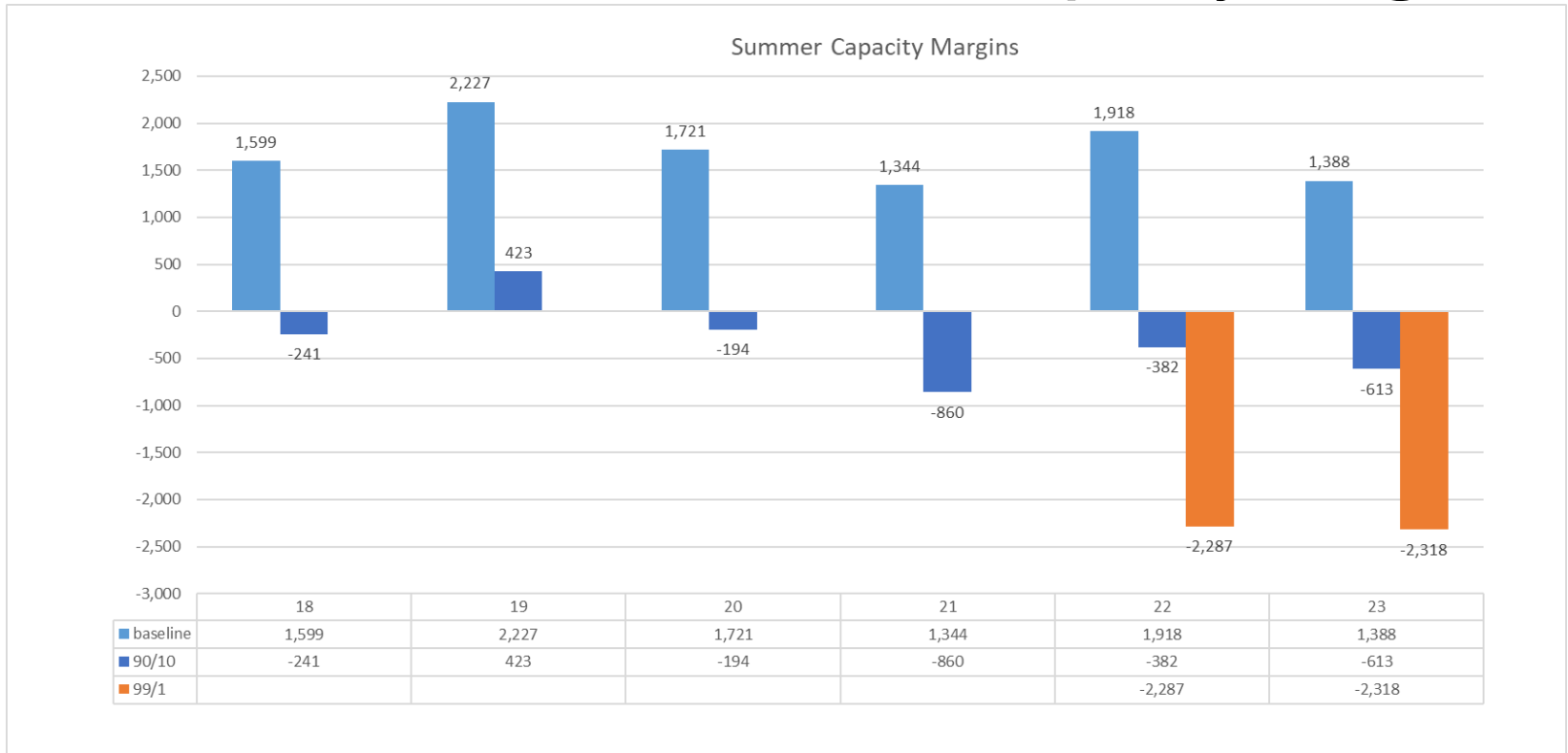
Agenda

- **Key Observations**
- **Summer Capacity Assessment**
- **Summer Preparedness**
- **Infrastructure Updates**

Key Observations

- **Projected capacity margins for normal and extreme weather conditions without emergency operating actions**
 - 1,388 MW - capacity margin for baseline peak forecast conditions
 - -613 MW - capacity margin for 90-10 peak forecast conditions
 - -2,318 MW - capacity margin for 99-1 peak forecast conditions
- **Projected capacity margins for normal and extreme weather conditions with up to 3,160 MW of emergency operating actions**
 - 4,548 MW - capacity margin for baseline peak forecast conditions
 - 2,547 MW - capacity margin for 90-10 peak forecast conditions
 - 842 MW - capacity margin for 99-1 peak forecast conditions

Summer 2018 to Summer 2023 Capacity Margins



2022 & 2023 Summer Capacity Assessment & Comparison

		2022	2023		
Line	Item	Baseline Forecast	Baseline Forecast	90th Percentile Forecast	99th Percentile Forecast
1a	Summer Generation Capacity ¹	37,420	36,990	36,990	36,990
1b	SCR - ICAP Values	1,164	1,226	1,226	1,226
1c	Net Purchases & Sales	2,465	2,932	2,932	2,932
1	Total Capacity Resources	41,049	41,148	41,148	41,148
2	Assumed Unavailable Capacity (Gen + SCR)^{2,3}	-4,746	-5,092	-5,258	-5,465
3 = 1 + 2	Net Capacity Resources	36,303	36,056	35,890	35,684
4	Peak Load Forecast	31,765	32,048	33,883	35,382
5	Operating Reserve Requirement	2,620	2,620	2,620	2,620
6 = 4+5	Total Capacity Requirement	34,385	34,668	36,503	38,002
7 = 3 - 6	Capacity Margin⁴	1,918	1,388	-613	-2,318

1. Reflects the 2023 Gold Book existing capacity plus projected changes during the summer of 2023, as well as known outages
2. Derates: 1,985 MW for wind, 538 MW for Hydro, 2,153 MW for thermal units, 50 MW for other renewables and 366 MW for SCRs
3. 90th / 99th Percentile Capacity include an additional 166 MW / 373 MW of derates for thermal units operating in extreme temperatures
4. It is expected that there may be up to an additional 3,160 MW available under Emergency Operating Procedures

Zone J, NYC: Summer Transmission Security - Base Case

Line	Item	2023 Baseline Forecast	2023 90th Percentile Forecast	2023 99th Percentile Forecast
1a	Available Generation Capacity Resources	8,399	8,399	8,399
1b	Net ICAP External Imports	315	315	315
1c	Transmission Capability from Sprainbrook to Dunwoodie (N-1-1)	2,875	2,875	2,875
1d	Transmission Capability, Long Island to NYC	300	300	300
1e	Transmission Capability, A/B/C	0	0	0
1	Total Capability	11,889	11,889	11,889
2	Assumed Unavailable Capacity (Gen.)^{1,2}	-647	-683	-758
3 = (1+2)	Total Capability	11,242	11,206	11,131
4	Load Forecast in Zone J	11,023	11,434	11,876
5 = (3-4)	Capacity Margin w/o SCR	219	-228	-745
6	Derated SCR J³	220	220	220
7 = (5+6)	Capacity Margin w/ SCR	439	-8	-525

1 - Derates: 647 MW for thermal units

2 - 90th / 99th Percentile Capacity includes an additional 36 MW / 111 MW of derates for thermal units operating in extreme temperatures

3 - SCR Derates: 199 MW

2023 Emergency Operating Procedures

Procedure	Effect	2023 MW Value
Emergency Demand Response Programs	Load Impact	8
Voltage Reductions	Load Impact	558
Voluntary Industrial Curtailment	Load Impact	210
General Public Appeals	Load Impact	74
Emergency Purchases	Additional Resources	1,000
Thirty Minute Reserves to Zero	Allow Operating Reserve to Decrease to Largest Single Contingency	1,310
Total Emergency Operating Procedures		3,160

*Note: The Emergency Operating Procedures above do not reflect an exhaustive list of operator actions available to avoid load shed.

Summer 2023 Operational Preparedness

- Weekly fuel surveys indicate oil and dual fuel capability generation have sufficient start-of-summer oil inventories.
- ISO MMA group is conducting generator site visits to assess readiness for future operating conditions.
- ISO Operations coordination of transmission and generation maintenance outages helps mitigate the reliability impact of such outages during hot weather periods.

Generation Deactivations*

Station Name	Nameplate MW
Astoria GT 1 (IIFO)	16
Astoria House 2 (Proposed Retirement)	186
Astoria House 3 (Proposed Retirement)	186
Astoria House 4 (Proposed Retirement)	186
Ravenswood 10 (Retirement)	25
74 St GT 1 & 2 (Retirement)	37
Hudson Ave 5 (Retirement)	16.3
Total Deactivations	652.3

* Since the 2022-2023 Winter Assessment

Generation Additions*

Station Name	Nameplate MW
Ball Hill Wind Energy	100
Baron Winds	235
Eight Point Wind Energy Center	101.2
Number 3 Wind	105.8
Bluestone Wind	124.2
South Fork Wind**	96
South Fork Wind II**	40
East Point Solar**	50
Homer Solar Energy Center**	90
Total Additions	942.2

* Since the 2022-2023 Winter Assessment

** Units not scheduled to be in service by July 1. Capacity not counted in assessments.

Transmission Operations

Equipment	Voltage (kV)	Status
Hudson-Farragut B3402	345	Out-of-Service
Marion-Farragut C3403	345	Out-of-Service
St. Lawrence-Moses L34 PAR	230	Out-of-Service
Chase Lake-Porter 11 or Adirondack- Chases Lake 13	230	Out-of-Service with recall
Moses-Willis MW2	230	Out-of-Service with recall
Hurley Ave-Roseton 303	345	Out-of-Service with recall
Sprain Brook/Dunwoodie Series Reactors	345	In-Service
Marcy South Series Capacitors	345	In-Service

Our Mission & Vision



Mission

Ensure power system reliability and competitive markets for New York in a clean energy future



Vision

Working together with stakeholders to build the cleanest, most reliable electric system in the nation