



Summer 2022 Capacity Assessment

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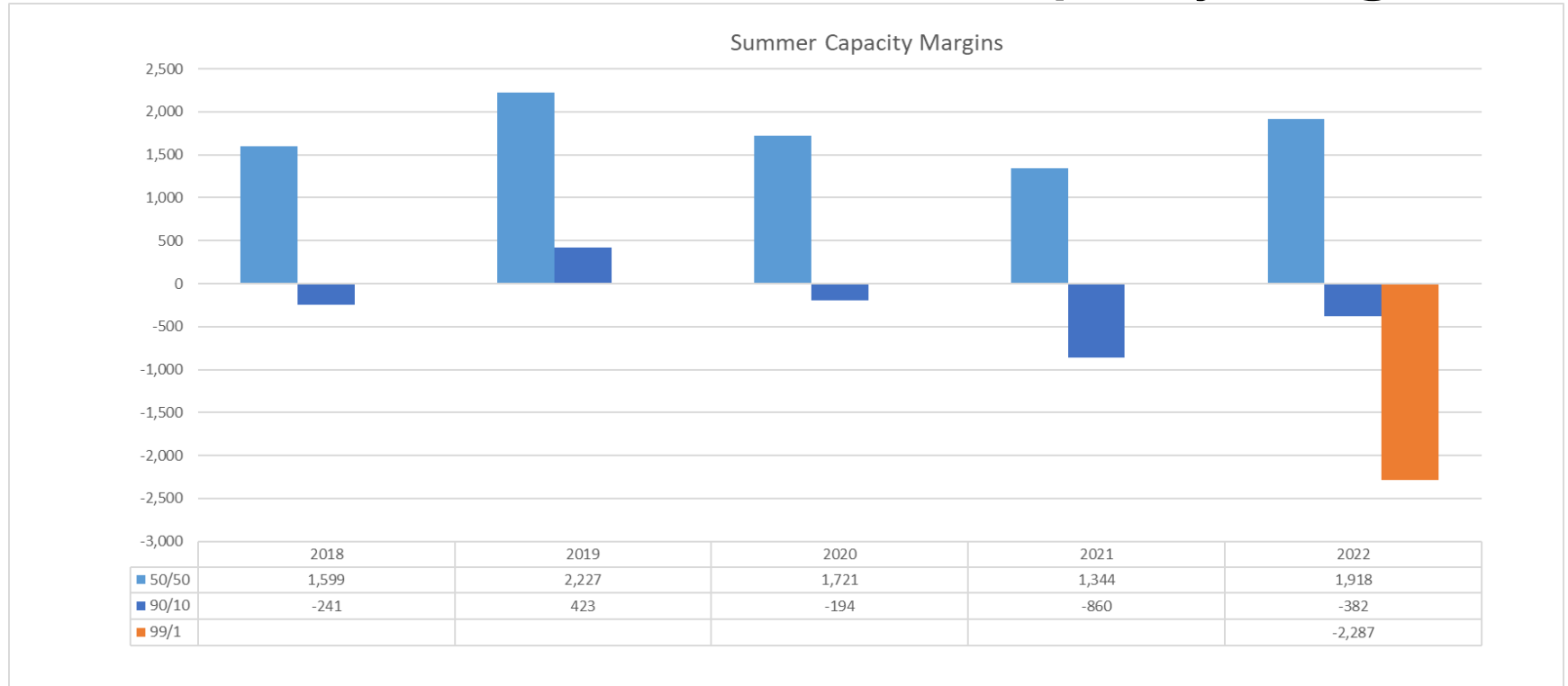
Agenda

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

Key Observations

- **Projected capacity margins for normal and extreme weather conditions without emergency operating actions**
 - 1918 MW - capacity margin for 50-50 peak forecast conditions
 - -382 MW - capacity margin for 90-10 peak forecast conditions
 - -2287 MW - capacity margin for 99-1 peak forecast conditions
- **Projected capacity margins for normal and extreme weather conditions with up to 3294 MW of emergency operating actions**
 - 5212 MW - capacity margin for 50-50 peak forecast conditions
 - 2912 MW - capacity margin for 90-10 peak forecast conditions
 - 1007 MW - capacity margin for 99-1 peak forecast conditions

Summer 2018 to Summer 2022 Capacity Margins



2021 & 2022 Summer Capacity Assessment & Comparison

Line	Item	2021		2022		
		Baseline Forecast	90th Percentile Forecast	Baseline Forecast	90th Percentile Forecast	99th Percentile Forecast
1a	Summer Generation Capacity ¹	37,785	37,785	37,420	37,420	37,420
1b	SCR - ICAP Values	1,195	1,195	1,164	1,164	1,164
1c	Net Purchases & Sales	2,087	2,087	2,465	2,465	2,465
1	Total Capacity Resources	41,066	41,066	41,049	41,049	41,049
2	Assumed Unavailable Capacity (Gen + SCR) ^{2,3}	-4,775	-4,985	-4,746	-5,064	-5,280
3 = 1 + 2	Net Capacity Resources	36,291	36,081	36,303	35,985	35,769
4	Peak Load Forecast	32,327	34,321	31,765	33,747	35,436
5	Operating Reserve Requirement	2,620	2,620	2,620	2,620	2,620
6 = 4+5	Total Capacity Requirement	34,947	36,941	34,385	36,367	38,056
7 = 3 - 6	Capacity Margin⁴	1,344	-860	1,918	-382	-2,287

1. Reflects the 2022 Gold Book existing capacity plus projected changes during the summer of 2022, as well as known outages
2. Derates: 1,585 MW for wind, 507 MW for Hydro, 2,222 MW for thermal units, 61 MW for other renewables and 370 MW for SCRs
3. 90th, 99th Percentile Capacity includes an additional 318, 534 MW of derates for thermal units operating in extreme temperatures
4. It is expected that there may be up to an additional 3,294 MW available under Emergency Operating Procedures

Southeastern New York¹: Summer Transmission Security - Base Case

Line	Item	2022 Baseline Forecast	2022 90th Percentile Forecast	2022 99th Percentile Forecast
1a	Available Generation Capacity Resources	14,038	14,038	14,038
1b	Net ICAP External Imports	315	315	315
1c	Transmission Capability from UPNY to SENY (N-1-1)	3,180	3,180	3,180
1d	Transmission Capability, Long Island to SENY	0	0	0
1	Total Capability	17,533	17,533	17,533
2	Assumed Unavailable Capacity(Gen. + SCR)^{2,3}	-1,355	-1,521	-1,627
3 = (1+2)	Total Capability	16,178	16,013	15,907
4	Load Forecast in Zones G to J⁴	15,281	16,052	16,786
5 = (3-4)	Capacity Margin w/o SCR	897	-39	-879
6	SCR GHIJ	529	529	529
7 = (5+6)	Capacity Margin w/ SCR	1,426	490	-350

1 - Southeast Region (SENY) includes Zones G to J

2 - All generation capability less known forced outages

3 - 90th, 99th Percentile Capacity includes an additional 166, 272 MW of derates for thermal units operating in extreme temperatures

4 – Load forecasts include addition of PJM RECO load

Zone J, NYC: Summer Transmission Security - Base Case

Line	Item	2022 Baseline Forecast	2022 90th Percentile Forecast	2022 99th Percentile Forecast
1a	Available Generation Capacity Resources	9,243	9,243	9,243
1b	Net ICAP External Imports	315	315	315
1c	Transmission Capability from Sprainbrook to Dunwoodie (N-1-1)	2,800	2,800	2,800
1d	Transmission Capability, Long Island to NYC	300	300	300
1e	Transmission Capability, A/B/C	0	0	0
1	Total Capability	12,658	12,658	12,658
2	Assumed Unavailable Capacity (Gen. + SCR)^{1,2}	-920	-1,074	-1,155
3 = (1+2)	Total Capability	11,738	11,584	11,503
4	Load Forecast in Zone J	10,760	11,227	11,701
5 = (3-4)	Capacity Margin w/o SCR	978	357	-198
6	SCR J	427	427	427
7 = (5+6)	Capacity Margin w/ SCR	1,405	784	229

1 - All generation capability less known forced outages.

2 – 90th, 99th Percentile Capacity includes an additional 154, 235 MW of derates for thermal units operating in extreme temperatures.

2022 Emergency Operating Procedures

Procedure	Effect	2021 MW Value
Emergency Demand Response Programs	Load Impact	6
Voltage Reductions	Load Impact	658
Voluntary Industrial Curtailment	Load Impact	240
General Public Appeals	Load Impact	80
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		3,294

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

Summer 2022 Operational Preparedness

- ISO Operations is monitoring regional energy supplies and prices as indications are these will be higher than in recent history.
- Weekly fuel surveys indicate oil and dual fuel capability generation have sufficient start-of-summer oil inventories (but lower than past years' inventories).
- ISO MMA group is conducting generator site visits to ensure generators are ready 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
Sithe Alleghany (Retirement)	62.9
Sithe Sterling (Retirement)	57.4
Ravenswood 11 (IIFO)	20.2
Ravenswood GT 1 (IIFO)	18.6
Total Deactivations	159.1

Generation Additions

Station Name	Nameplate MW
Calverton Solar Energy Center	22.9
Dog Corners Solar	20
Grissom Solar	20
Regan Solar	20
Janis Solar	20
Puckett Solar	20
Skyline Solar	20
Total Additions (effective 6/30)	142.9

Transmission Operations

Equipment	Voltage (kV)	Status
Hudson-Farragut B3402	345	Out-of-Service until 7/31
Marion-Farragut C3403	345	Out-of-Service until 7/31
St. Lawrence-Moses L33 PAR	230	In-Service after 7/25
Warren-Falconer 171	115	Operated Normally Open
Sprain Brook/Dunwoodie Series Reactors	345	Bypassed
Marcy South Series Capacitors	345	In-Service
Moses-Adirondack MA-1 or 2	230	Out-of-Service with Recall
Newbridge Road Transformer	345	Out-of-Service until 8/1, Neptune at 50% Capacity

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