

NYISO Summer 2026 Hot Weather Operations

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NYSRC – Executive Committee

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Agenda

- Summer 2026 Hot Weather Preparation & Key Observations
- Summer 2026 Weather and Loads
- Early July Heat Wave
- Additional Hot Weather Days
- Appendix

Summer 2026 Hot Weather Preparation & Key Observations

Summer 2026 Preparation

- **Proactive Fuel Monitoring:** Track regional oil and gas supplies.
- **Conduct surveys and discussions** on past performance, summer preparation, fuel procurement, and switching capabilities.
- **Annual Capability Survey:** Assess oil and dual-fuel readiness and replenishment plans.
- **Site Visits:** Rotate annual generator site inspections to evaluate operational readiness.
- **Outage Coordination:** Seek to align transmission and generation planned maintenance to minimize reliability risks during peak conditions.
- **Interagency Collaboration:** Coordinate with NERC, NY agencies (NYDPS, NYSERDA and NYSDEC), ISOs/RTOs, and gas industry stakeholders
- **Operator Training:** Run simulation sessions on emergency procedures, restoration, and load shedding.

Summer 2026 Key Observations

- June 30 – July 4, 2026 were marked by a region-wide heat wave with a composite high temperature of 95.1 °F occurring on July 2 and peak cumulative temperature–humidity index (CTHI) of 87.1 °F occurring on July 3 which exceeds 90/10 load forecast assumptions.
 - Peak load of 31,097 MW occurred on July 2 during hour beginning (HB) 18.
- The NYISO called on External ICAP suppliers and activated Emergency Demand Response Program (EDRP) resources/Special Case Resources (SCRs) multiple times over the summer period.
- The NYISO issued multiple Supplemental Resource Evaluation (SRE) requests over the summer period
- The NYISO issued an Energy Watch on July 2 due to forecasted reserves dropping below 2,620 MW for longer than 60 minutes.
- Natural Gas Pipeline and Local Gas Distribution Company (LDC) Operational Flow Orders (OFOs) were observed during high load periods with the greatest impact occurring August 6th and 7th.
- Forced generation and transmission outages exceeded planning assumptions in the downstate region and resulted in challenging operating conditions.
 - A number of these forced outages are still ongoing
- Behind-the-meter (BTM) solar continued to shift net load peaks later in the afternoon.

Summer 2026 Weather and Loads

Summer 2026 Weather & Loads

- Daily mean temperatures were near the 30-year average with only small monthly deviations from average
- Precipitation was slightly above normal, driven by large upstate deviations in July and downstate deviations in August
 - Several days of cloud cover and showers and thunderstorms contributed to reduced load levels

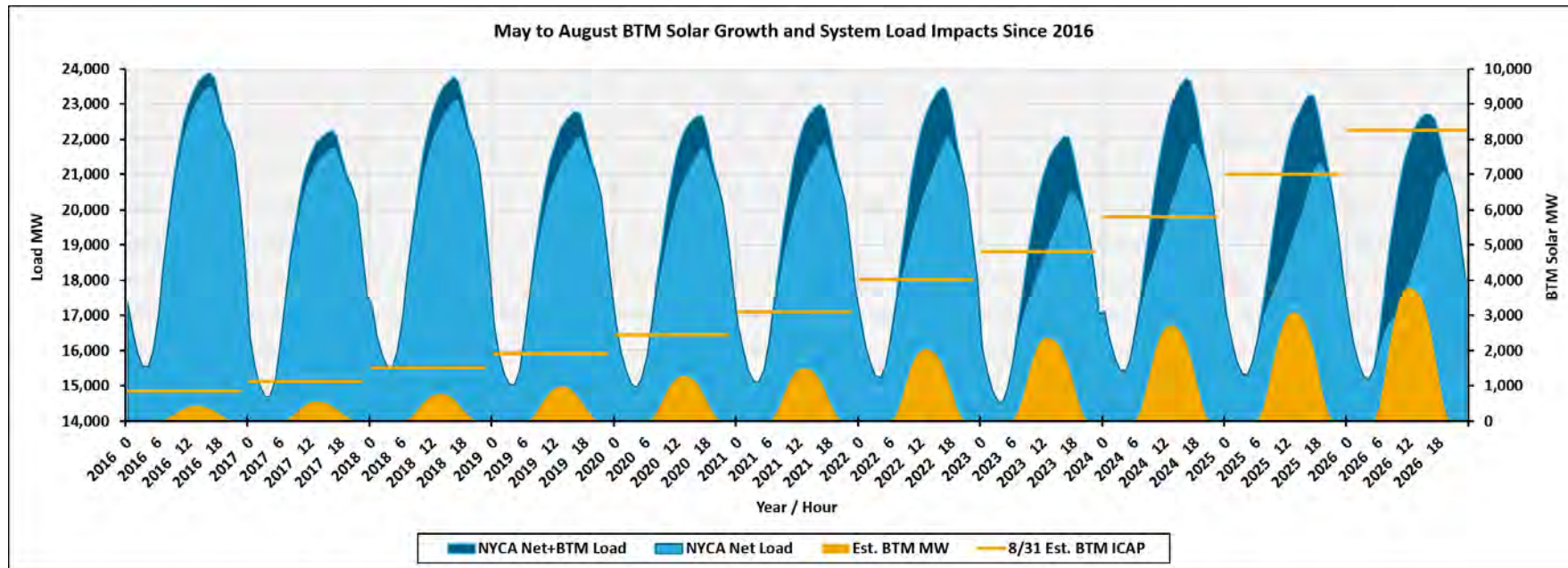
	Average Temperature							Total Precipitation				
	May	June	July	August	Average	Season Highest	Days >= 90 °F	May	June	July	August	Total
Albany	57.9 °F (59.6 °F)	69.0 °F (68.4 °F)	73.0 °F (73.1 °F)	71.3 °F (71.4 °F)	67.8 °F (68.1 °F)	96 °F	8 Days (9 days)	3.00" (3.41")	4.09" (4.05")	9.88" (4.55")	1.93" (3.76")	18.90" (15.77")
Central Park	63.2 °F (63.2 °F)	73.4 °F (72.0 °F)	76.4 °F (77.5 °F)	75.7 °F (76.1 °F)	72.2 °F (72.2 °F)	100 °F	11 Days (16 Days)	3.05" (3.96")	3.39" (4.54")	4.89" (4.60")	8.64" (4.56")	19.97" (17.66")

Note: Observed monthly and seasonal values are listed compared with the corresponding NWS 30-year normal values from 1991 - 2020 in parentheses.

(Source: National Weather Service – www.weather.gov/aly and www.weather.gov/okx)

- Total net energy (GWh) was below 50/50 projections during all months from May through August (2.9% in aggregate)
 - May and June were about 2% below forecast
 - July was 4.5% lower than forecast
 - August was 2.8% lower than forecast
- Peak net load was below the 2026 Load & Capacity Data report (Gold Book) baseline projection
 - Summer 2026 Gold Book baseline forecast was 31,578 MW
 - Summer 2026 actual peak load was 31,097 MW (July 2nd)
 - Summer 2025 actual peak load was 31,857 MW (June 24th)
- Two days with measured peak loads over 30,000 MW (July 2nd and 3rd)
 - Loads net of BTM solar and NYISO/Retail (Utility) demand response
 - 7 days with NYCA peak demands above 28,000 MW (5 in July; 2 in August)

BTM Solar Growth Impacting May to August Load

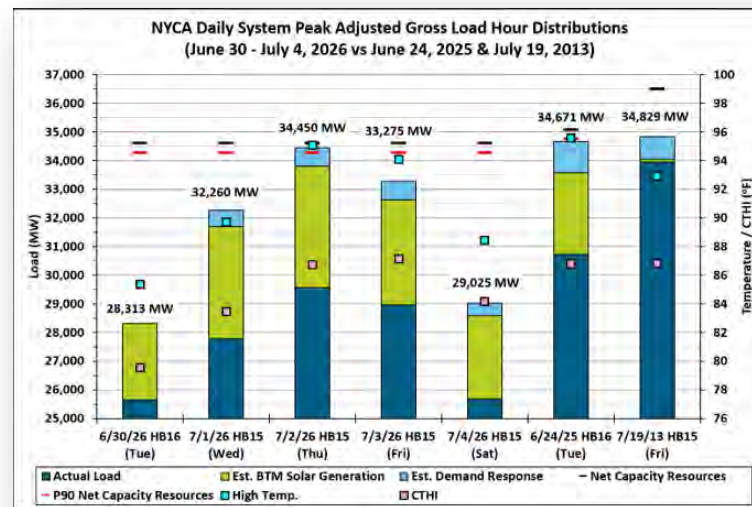
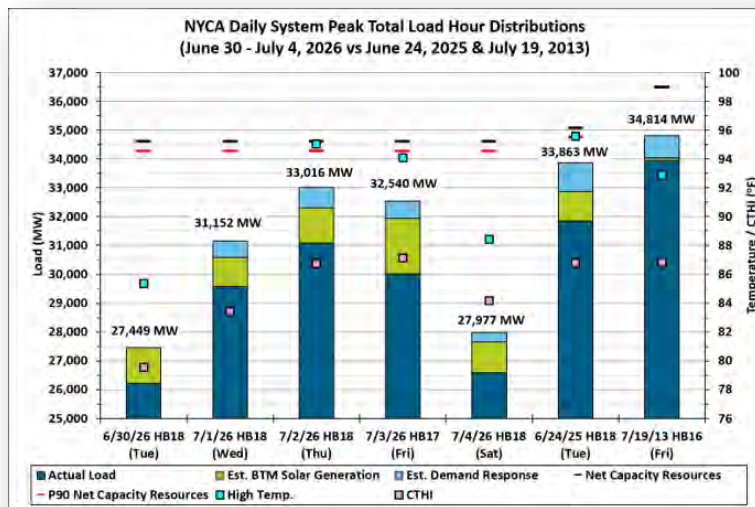


- The plot above represents the average daily load from May through August (2016-2026) with the associated BTM solar generation profiles
 - Average daily peak BTM solar generation has grown from about 450 MW to roughly 3,800 MW
 - BTM solar generation growth has shifted the measured net peak load hour three hours later (from HB16 to HB19)
 - Nameplate BTM solar now exceeds 8,300 MW DC as of 9/30/2026

Early July Heat Wave

Early July Heat Wave Summary

- Summer 2026 Gold Book baseline peak load forecast: 31,578 MW
- CTHI is a temperature/humidity index that correlates more strongly with peak load patterns than temperature.
- The Gold Book peak load is calculated at the following baselines:
 - High Temperature: 92 °F.
 - CTHI: 84.15 °F
- The plots below represent the load disaggregation during the following respective peak hours each day:
 - System Peak Total Load (left): The maximum hourly Load + Losses measured by NYISO Operations in real time
 - System Peak Adjusted Gross Load (right): The maximum hourly Load + Losses + Estimated BTM Solar Generation + Estimated Demand Response
- Comparisons with Summer 2025 peak day (June 24, 2025) and the NYISO all-time peak day (July 19, 2013) are included to illustrate both the respective load and temperature levels, and the evolution of how demand is served



June 30 – July 4, 2026 Load and Demand Data

System Peak Total Load Hour

Date	6/30/2026	7/1/2026	7/2/2026	7/3/2026	7/4/2026	6/24/2025	7/19/2013
Hour Beginning	18	18	18	17	18	18	16
System Total Load (MW)	26,218	29,582	31,097	30,032	26,576	31,857	33,956
Est. BTM Solar Generation (MW)	1,231	1,009	1,215	1,904	1,065	947	85
Est. Demand Response (MW)	0	561	704	604	336	995	773
Total Adjusted Gross Load (MW)	27,449	31,152	33,016	32,540	27,977	33,799	34,814
High Temperature (°F)	85.4	89.7	95.1	94.1	88.4	95.6	92.9
CTHI (°F)	79.5	83.4	86.7	87.1	84.2	86.8	86.8

System Peak Adjusted Gross Load Hour

Date	6/30/2026	7/1/2026	7/2/2026	7/3/2026	7/4/2026	6/24/2025	7/19/2013
Hour Beginning	16	15	15	15	15	16	15
System Total Load (MW)	25,646	27,790	29,577	28,970	25,672	30,720	33,955
Est. BTM Solar Generation (MW)	2,667	3,905	4,227	3,652	2,918	2,675	101
Est. Demand Response (MW)	0	566	646	653	435	1,096	773
Total Adjusted Gross Load (MW)	28,313	32,260	34,450	33,275	29,025	34,491	34,829
High Temperature (°F)	85.4	89.7	95.1	94.1	88.4	95.6	92.9
CTHI (°F)	79.5	83.4	86.7	87.1	84.2	86.8	86.8

Key Observations

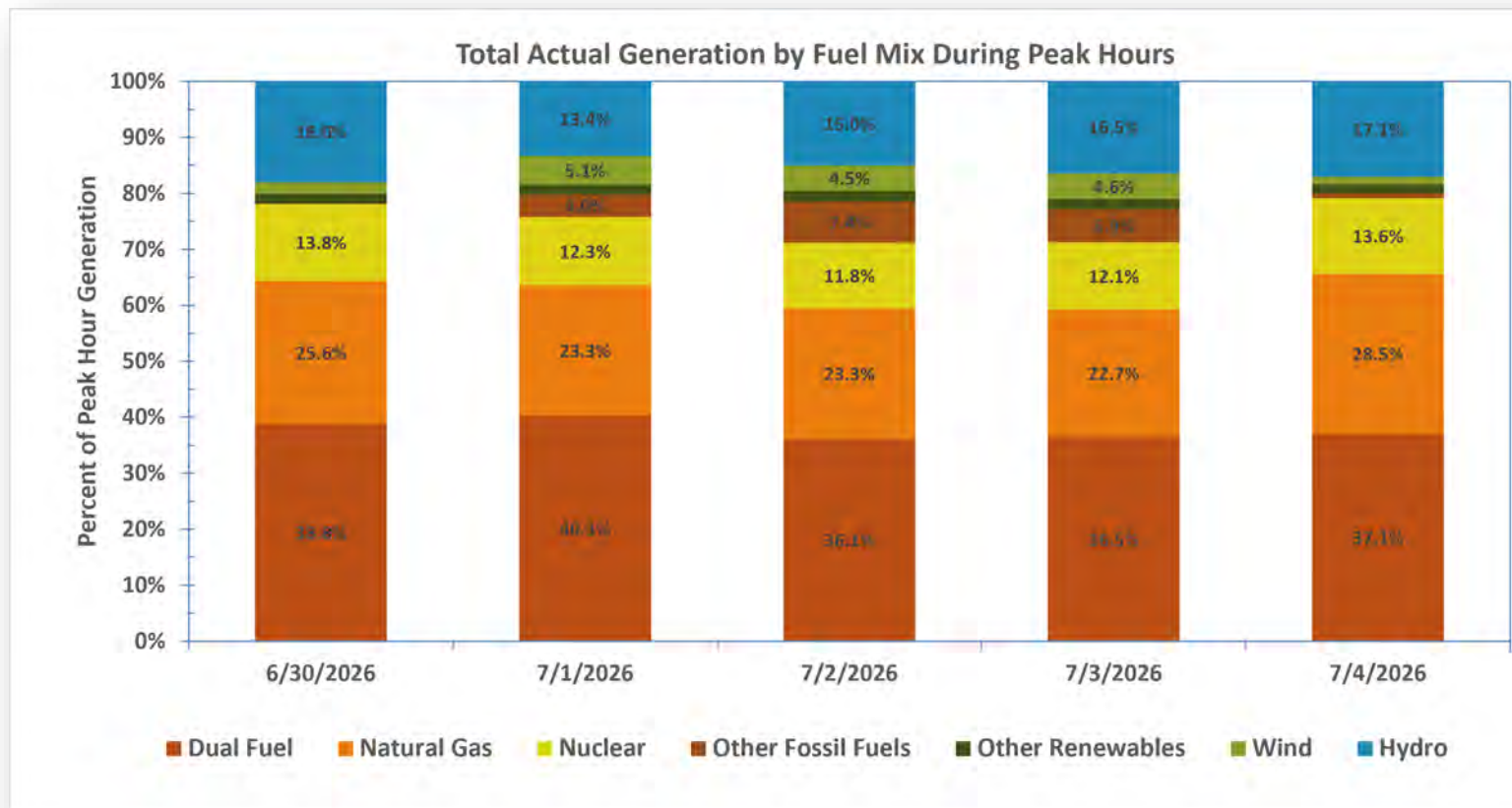
- **The June 30 – July 4, 2026 heat wave occurred during a shortened work week because of the Independence Day holiday and represented a shift from a stretch of generally below normal temperatures between June 15th and June 27th**
 - July 1st was the first day with a NYCA composite high temperature near 90 °F (89.7 °F)
 - July 2nd had the highest NYCA composite high temperature of the period (95.1 °F)
 - July 3rd (observed holiday) was the hottest day in the NYCA by CTHI (87.1 °F) since July 22, 2011
- **BTM solar generation and demand response shifted the system peak total load hour 3 hours later relative to the highest adjusted gross load hour on three days, and two hours later on two days**
 - Assumed BTM solar generation during Gold Book Baseline Peak Load hour: 941 MW (HB18)
 - System peak total Load hour estimated BTM solar generation: 1,009 MW to 1,231 MW (HB18); 1,904 MW (HB17) on 7/3
 - System peak adjusted gross Load hour estimated BTM solar generation: 2,667 MW (HB16 on 6/30); 2,918 MW to 4,227 MW (HB15)
- **Business closures and other holiday impacts on Friday, July 3rd reduced peak load levels by an estimated 600 MW**
 - It is unclear how much residual holiday impact occurred on Thursday, July 2nd
- **Estimated demand response (both NYISO- and TO-initiated) load reductions peaked between 650 MW and 700 MW on July 1st to 3rd (full state) and 435 MW on July 4th (Load Zones G to K only)**
 - Demand response MW impacts are lower than 2025 because of some transitions into the Distributed Energy Resource (DER) program and reduced SCR enrollments

June 30 – July 4 Operations

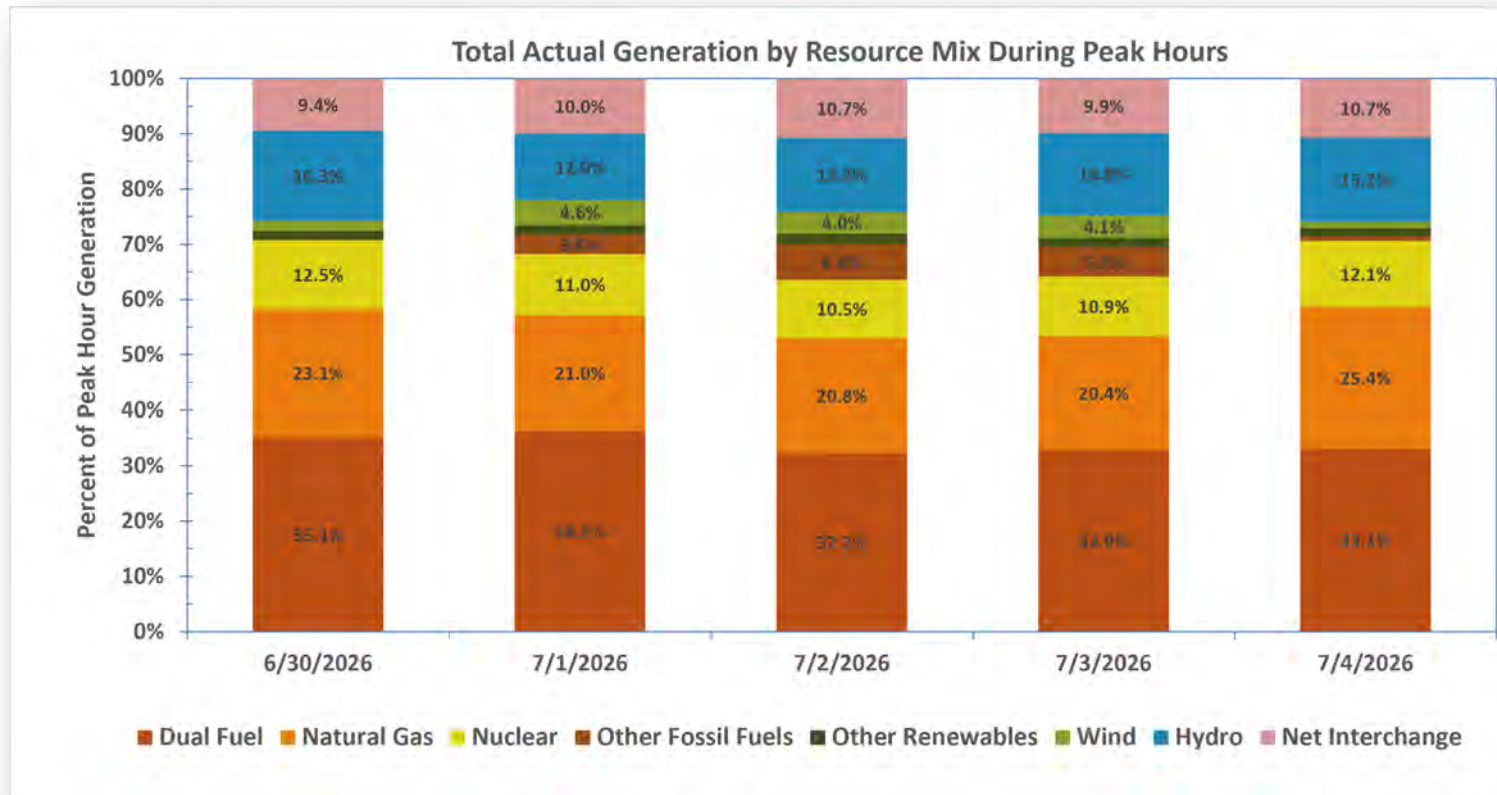
- **The NYISO called on External ICAP suppliers and activated EDRP/SCRs multiple times between June 30 – July 4.**
 - Statewide EDRP/SCR activations occurred July 1 – July 3
 - Load Zones G-K EDRP/SCR activation on July 4
 - External ICAP called HB 13–HB22 on June 30 – July 3
- **June 30 – July 4 SRE Requests¹**
 - Oswego 5 (7/1 HB12 – EOD, 7/2 HB23 only, 7/3 all hours)
 - Oswego 6 (7/1 HB12 – EOD, 7/2 HB23 only, 7/3 HB 21 - EOD)
 - Bowline 2 (7/3 all hours, 7/4 all hours)
 - Danskammer 4 (7/3 HB23)
 - Astoria 2 (7/4 all hours)

1. All SRE calls were for NYISO Capacity unless otherwise indicated  New York ISO

Generation during Peak Demand (%)

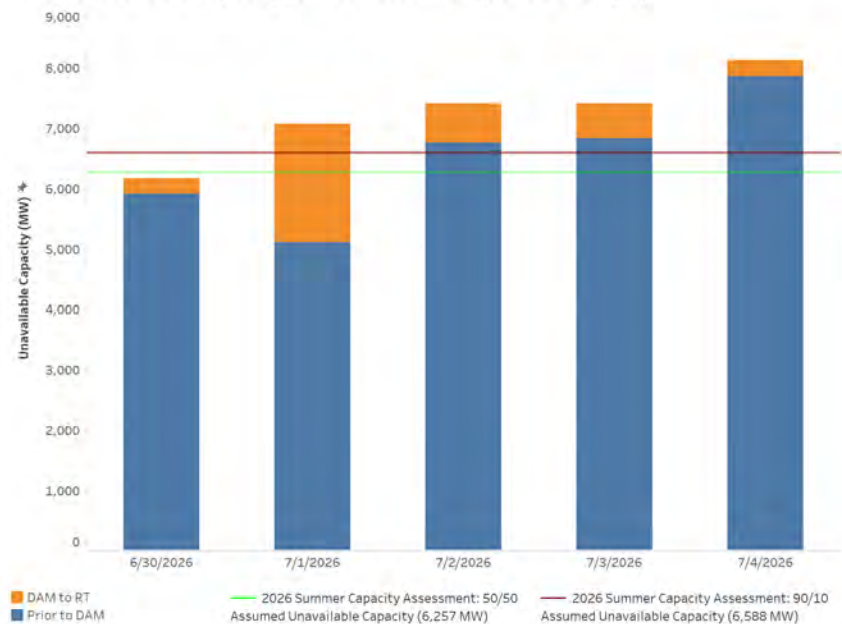


Generation and Net Imports during Peak Load (%)

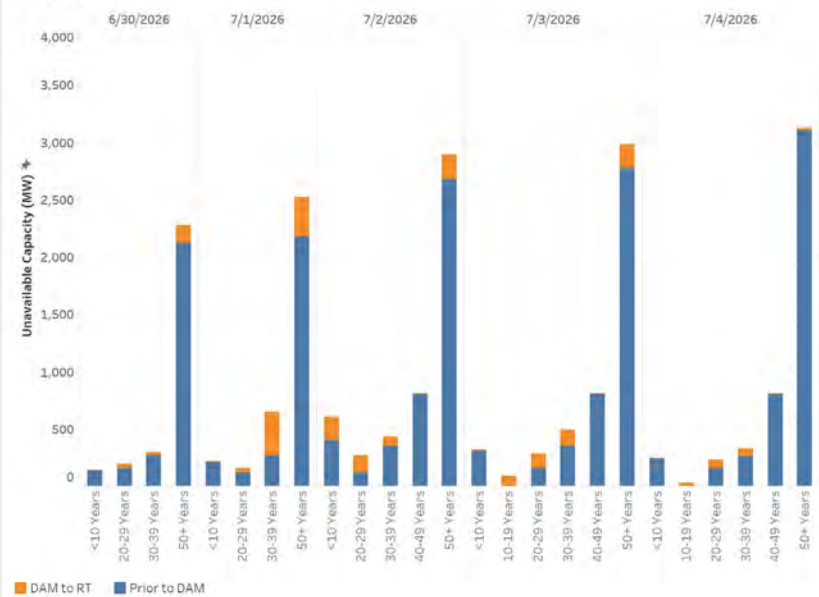


Unavailable Capacity (NYCA) 6/30 – 7/4

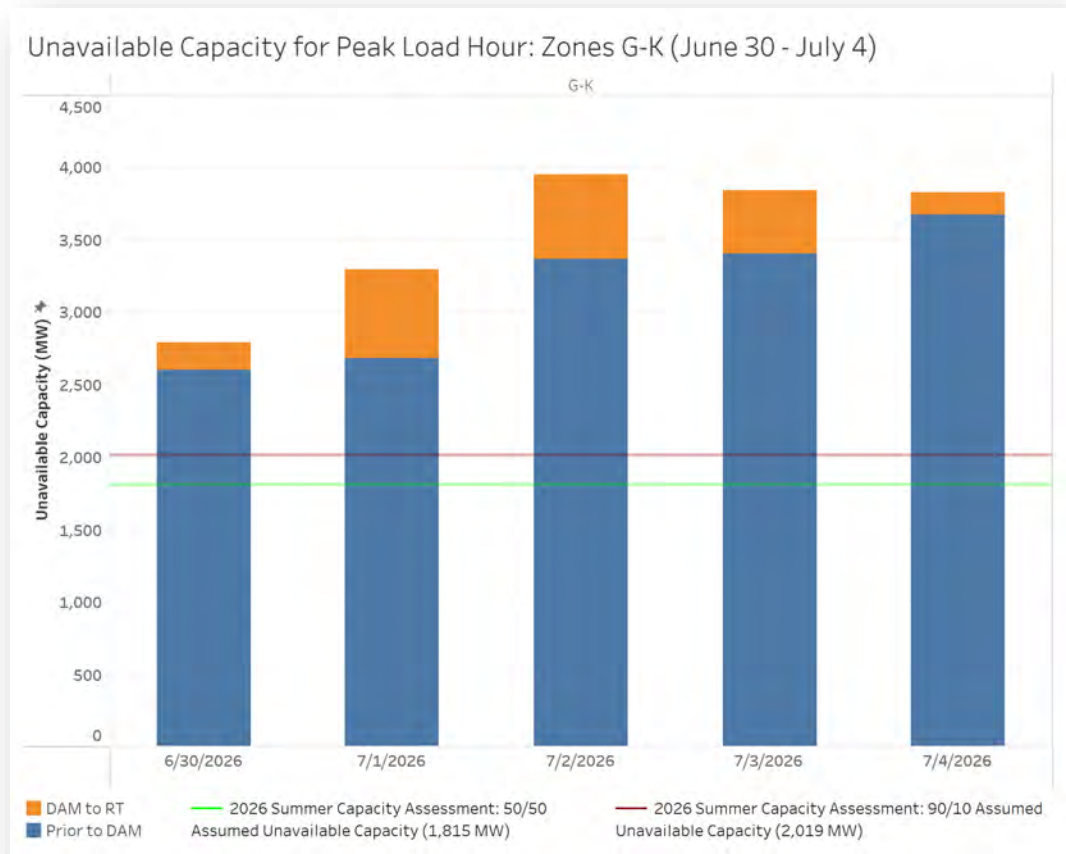
NYCA Unavailable Capacity for Peak Load Hour (June 30 - July 4)



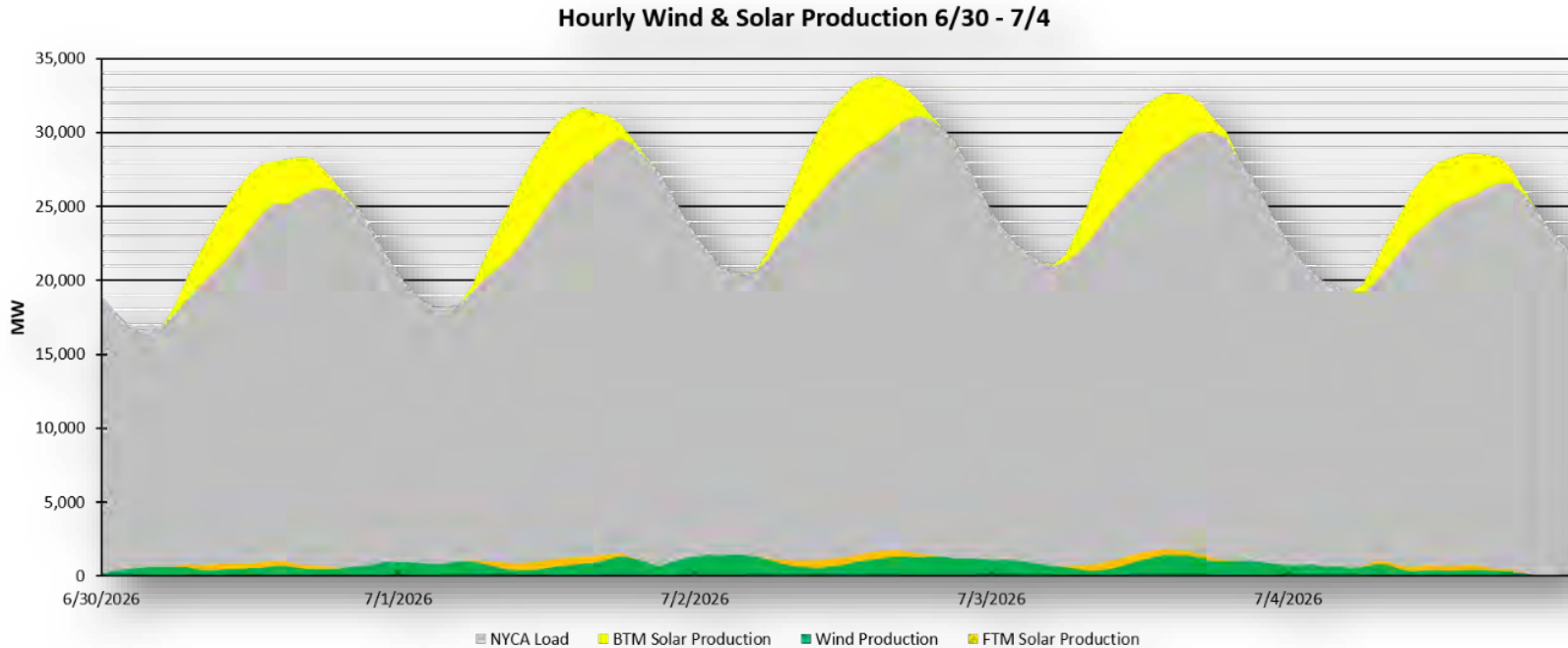
NYCA Unavailable Fossil Capacity for Peak Load Hour (June 30 - July 4) by Age Bucket



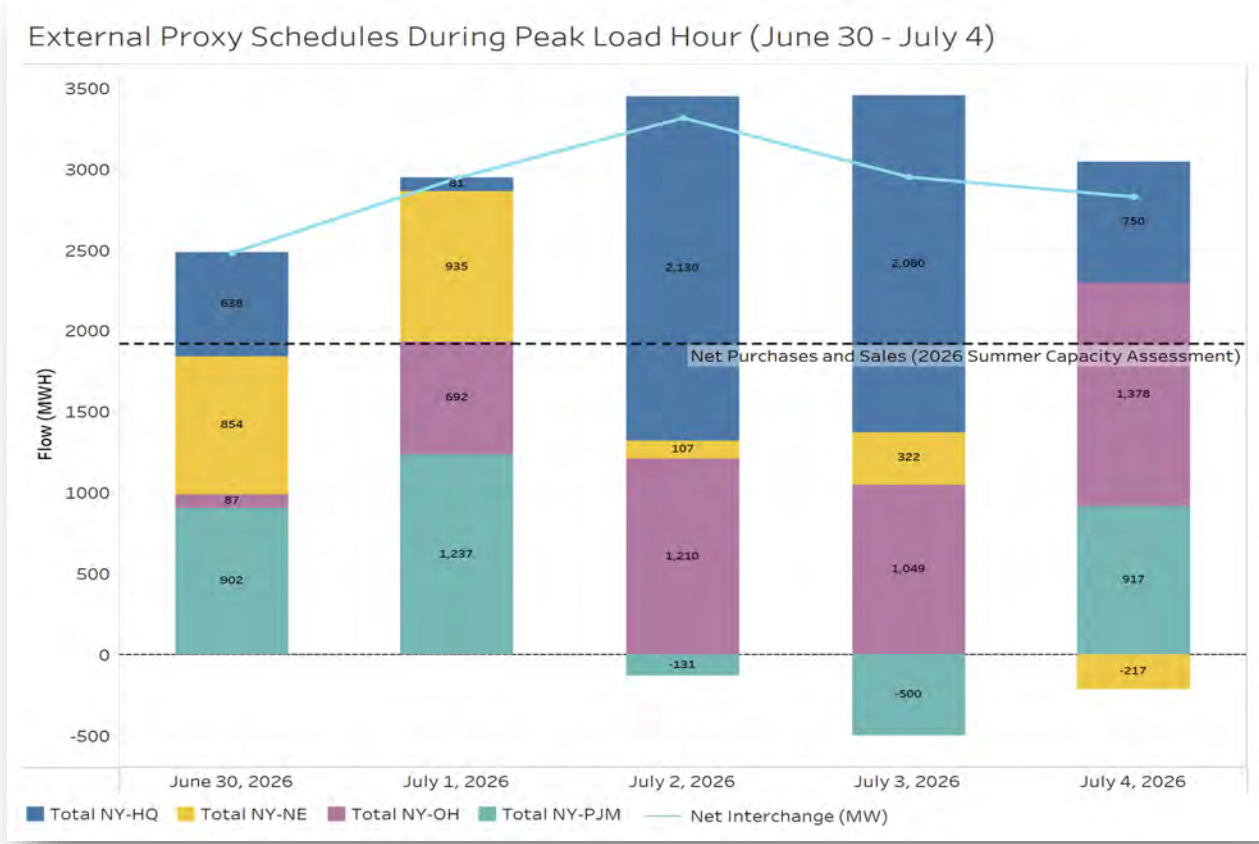
Unavailable Capacity (Load Zones G-K) 6/30 – 7/4



6/30 – 7/4 System Load vs. Renewables



Interchange June 30 – July 4



*The NYISO made emergency energy purchases on 7/3

SCR/EDRP Events: 6/30 – 7/4

Program	Start Date and Time	End Date and Time	Zones
SCR/EDRP	7/1/2026 16:00	7/1/2026 22:00	A,B,C,D,E,F,G,H,I,J,K
SCR/EDRP	7/2/2026 15:00	7/2/2026 22:00	A,B,C,D,E,F,G,H,I,J,K
SCR/EDRP	7/3/2026 15:00	7/3/2026 22:00	A,B,C,D,E,F,G,H,I,J,K
SCR/EDRP	7/4/2026 15:00	7/4/2026 22:00	G,H,I,J,K

Transmission Outages

Line Name	Date Out	Date In
CHPE	7/1/2026 04:50	7/2/2026 12:00
	7/4/2026 08:02	7/22/2026 23:59
Knickerbocker-Pleasant Valley 345 kV Y57	6/30/2026 19:22	7/1/2026 00:00
	7/1/2026 13:18	7/1/2026 17:38
	7/2/2026 00:52	7/2/2026 13:59
Gowanus – Goethals 345 kV 25	6/24/2026 00:01	7/2/2026 03:00

Utility Retail Demand Response Activation

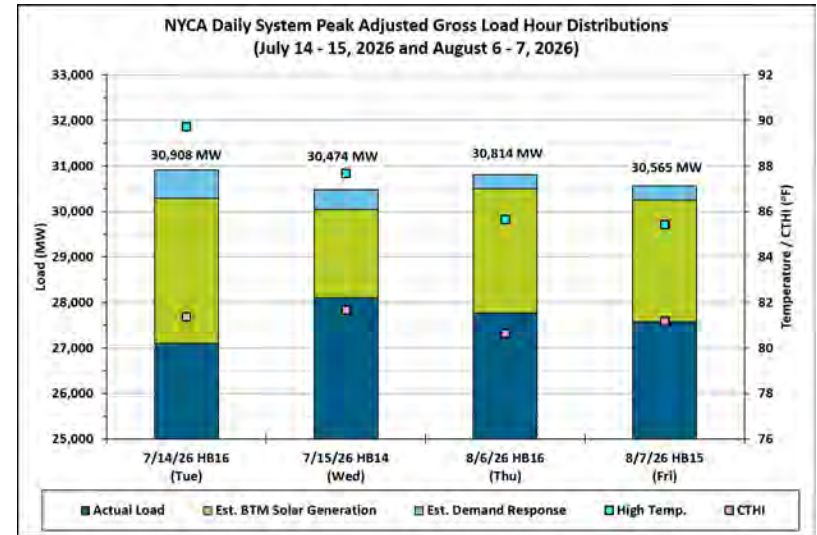
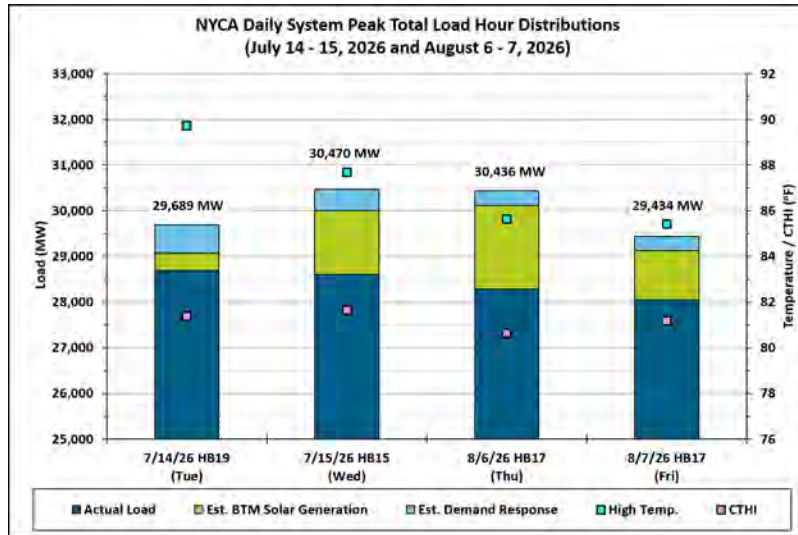
Date	Transmission Owner
6/30/2026	NYSEG, RG&E
7/1/2026	Con Ed, Central Hudson (CHG), National Grid (NG), NYSEG, Orange and Rockland (ORU), RG&E
7/2/2026	Con Ed, CHG, LIPA, NG, NYSEG, ORU, RG&E
7/3/2026	Con Ed, CHG, LIPA, NG, NYSEG, ORU
7/4/2026	Con Ed, LIPA

Additional Hot Weather Days

Additional Hot Weather Periods

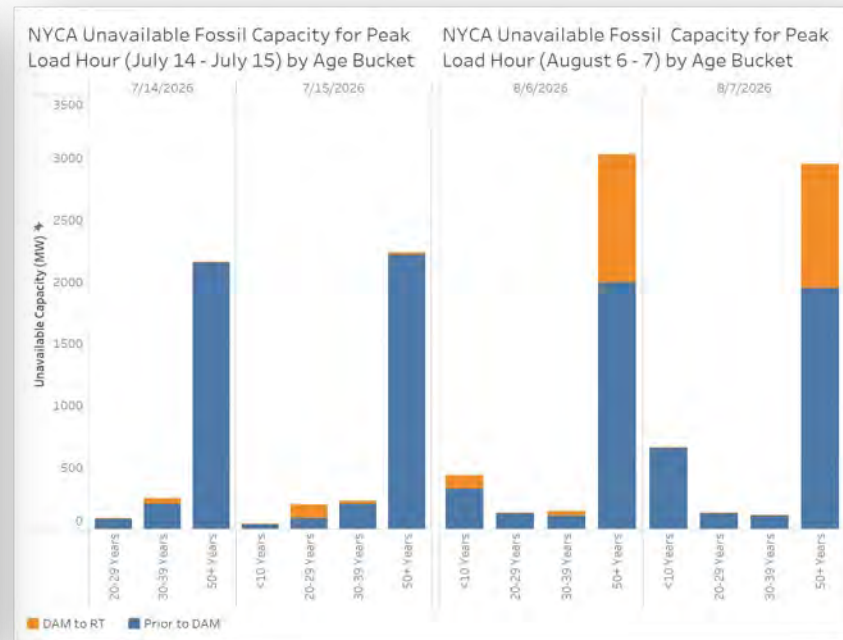
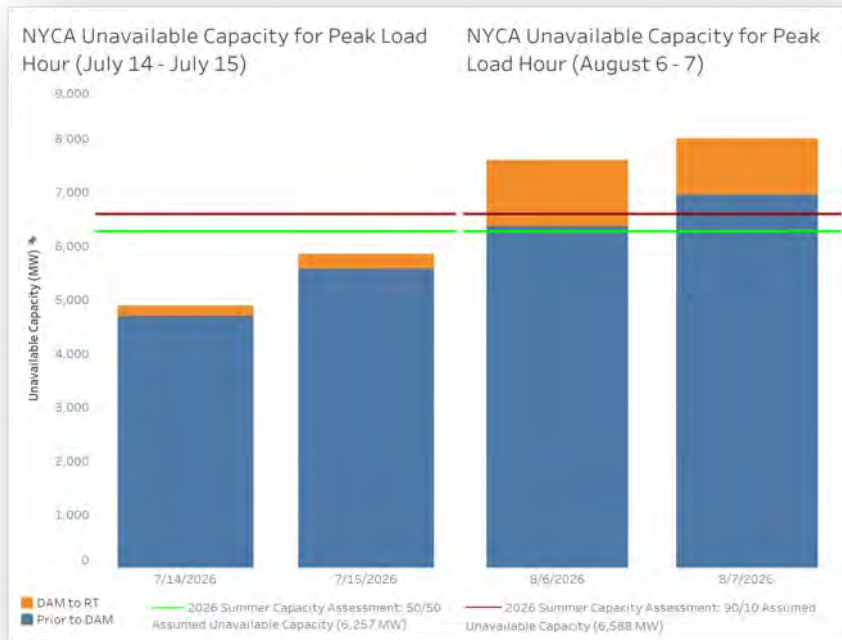
- **July 14 – 15** Peak load for the period of 28,697 MW occurred on Tuesday, July 14 HB 19 (~91% of the baseline forecast of 31,578 MW)
 - The NYISO activated EDRP/SCRs for Load Zones F-K on July 14 and Load Zones G-K on July 15 from HB15-22 on both days
 - The NYISO called External ICAP suppliers HB13 – HB22 on both July 14 and 15
 - SRE Requests
 - Oswego 5 for NYISO Capacity (7/15 all hours)
 - Oswego 6 for NYISO Capacity (7/15 HB12 – EOD)
- **August 6 – 7**
 - Peak load for the period of 28,284 MW occurred on Thursday, August 6 HB 17 (~90% of the baseline forecast of 31,578 MW)
 - The NYISO activated EDRP/SCRs for all zones on both 8/6 and 8/7 from HB15-HB22
 - SRE Requests (NYISO Capacity)
 - Sithe Batavia (8/6 HB12 - HB21)
 - Sithe Sterling (8/6 HB12 - HB21)
 - CPV Valley CC1 (8/6 HB12 - EOD)
 - Ravenswood 2 (8/7 HB02 – EOD)

Other Summer 2026 High Load Days



- The plots above represent the load disaggregation during the following respective peak hours each day:
 - System Peak (left): The maximum Observed Load by Operations in real time
 - System Total Demand (right): The maximum Observed Load + Estimated BTM Solar Generation + Estimated Demand Response
- BTM solar generation resulted in NYCA system peaks occurring at least 1 to 2 hours later than the peak total demand
 - Showers and thunderstorms reduced late afternoon/early evening load levels on 7/15 and 8/7

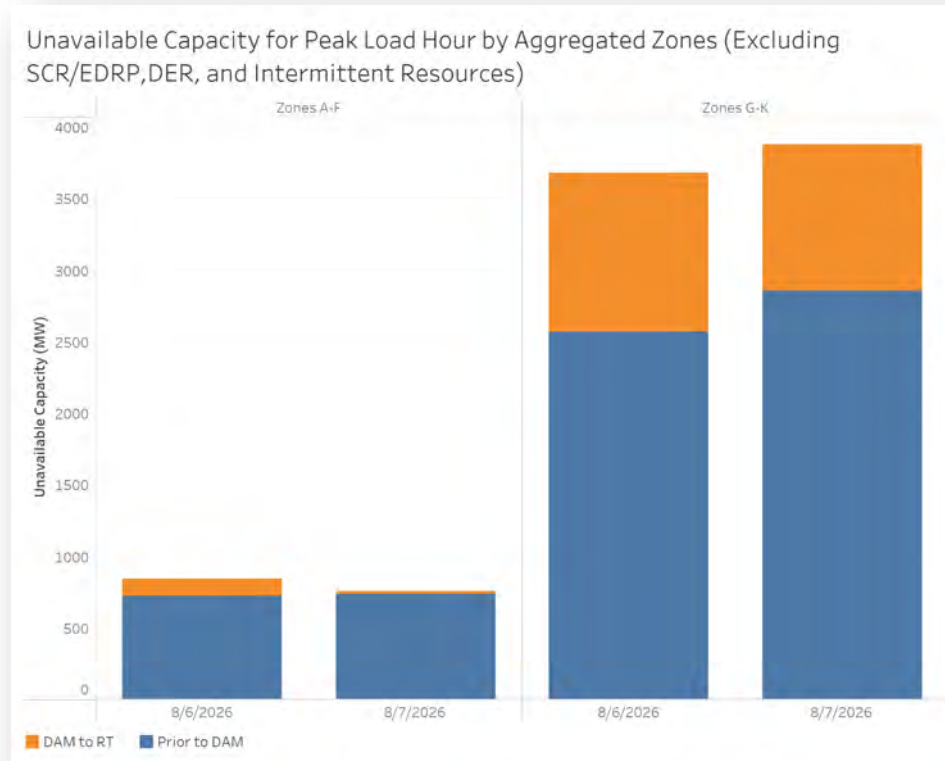
Unavailable Capacity (NYCA)



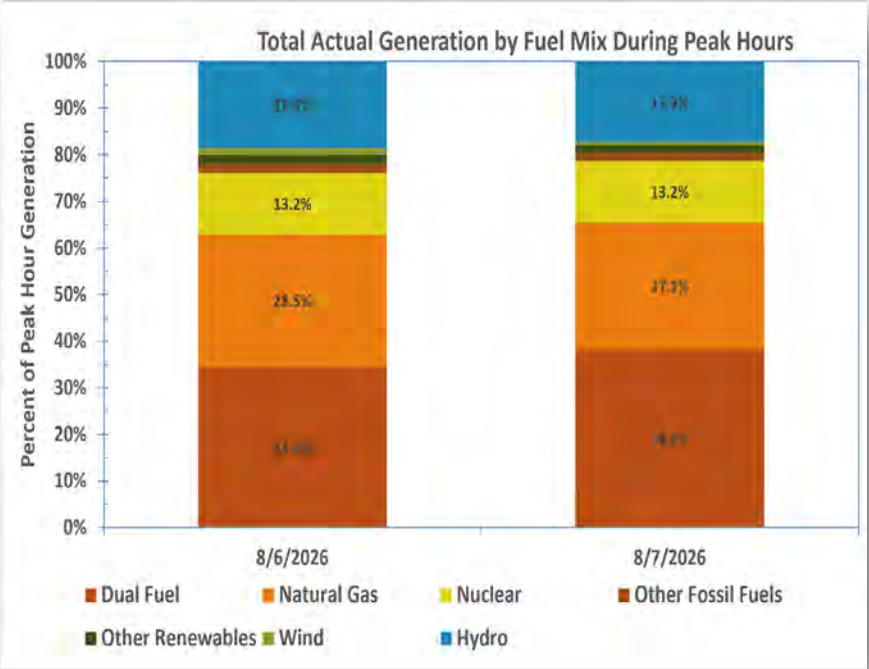
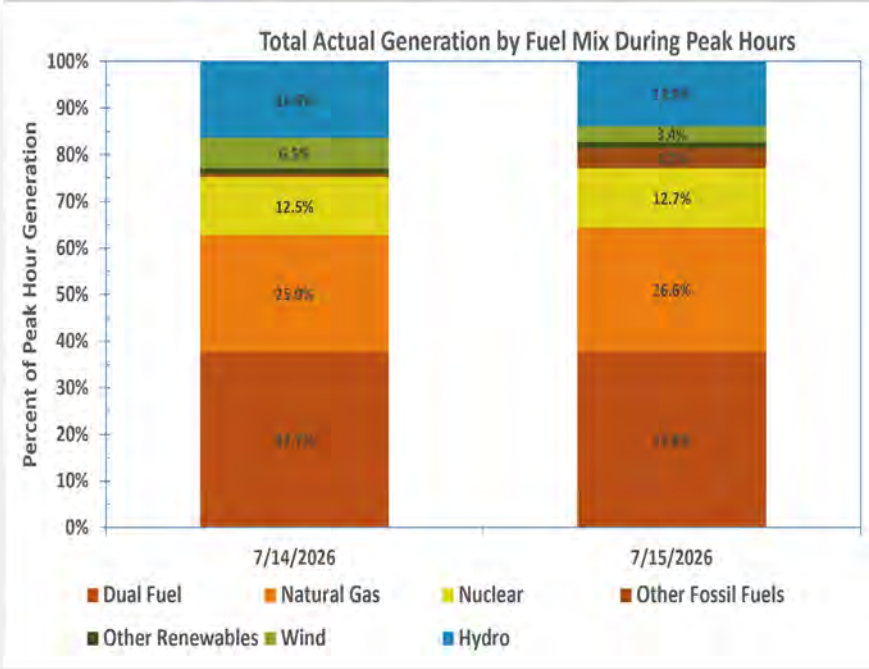
- Comparatively higher Unavailable Capacity (MW) in both the "prior to DAM" and "DAM-to-RT" time horizons on August 6th and 7th were observed due to fuel-related outages of certain dual fuel and gas-only generators.
- Multiple critical gas notices and OFOs were observed during this period, primarily triggered by low gas pressures on the Iroquois pipeline.

Unavailable Capacity by Aggregated Zones

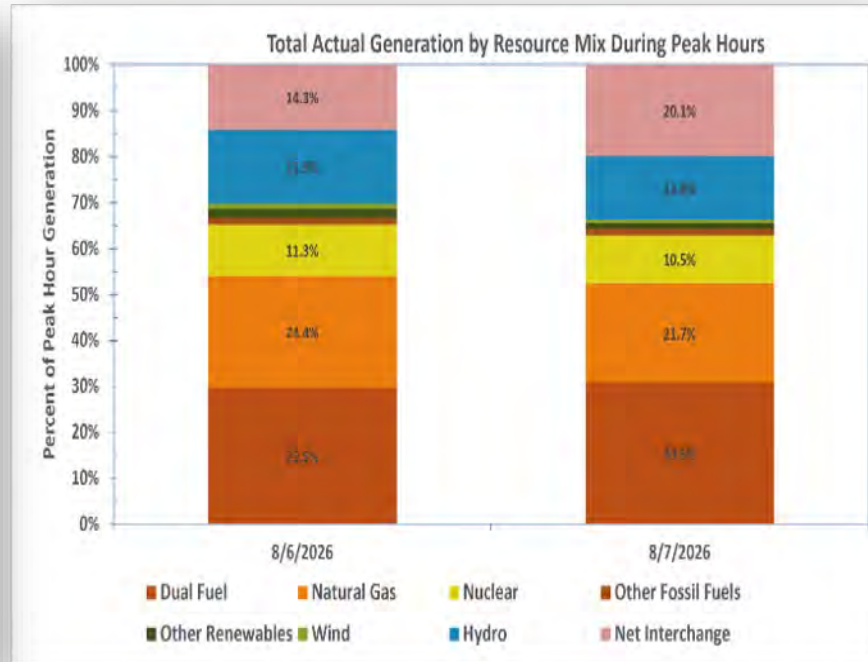
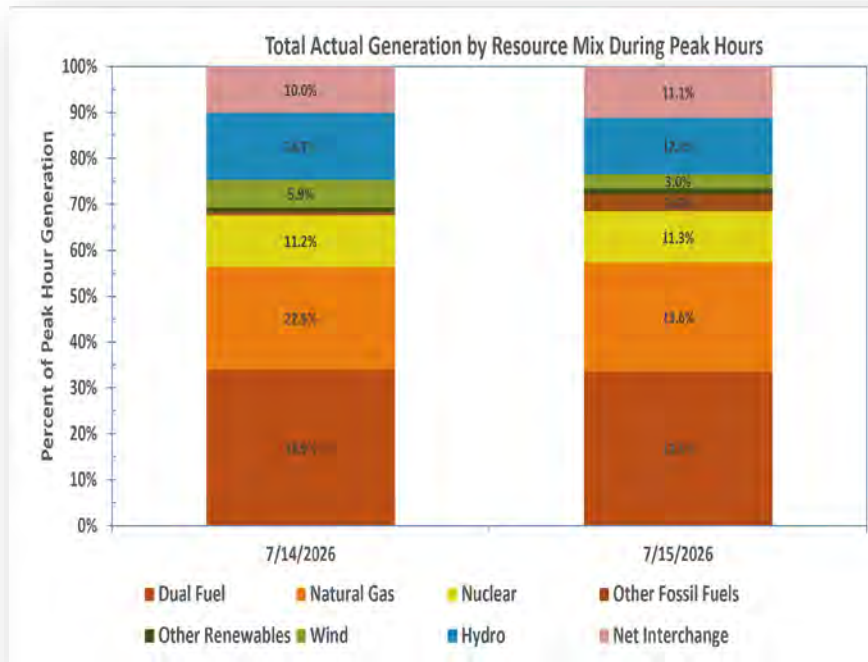
August 6-7



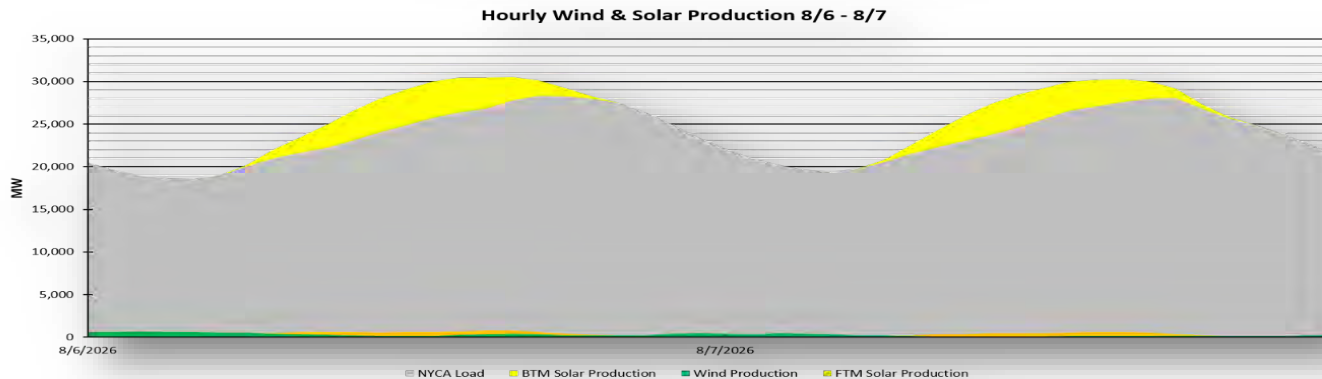
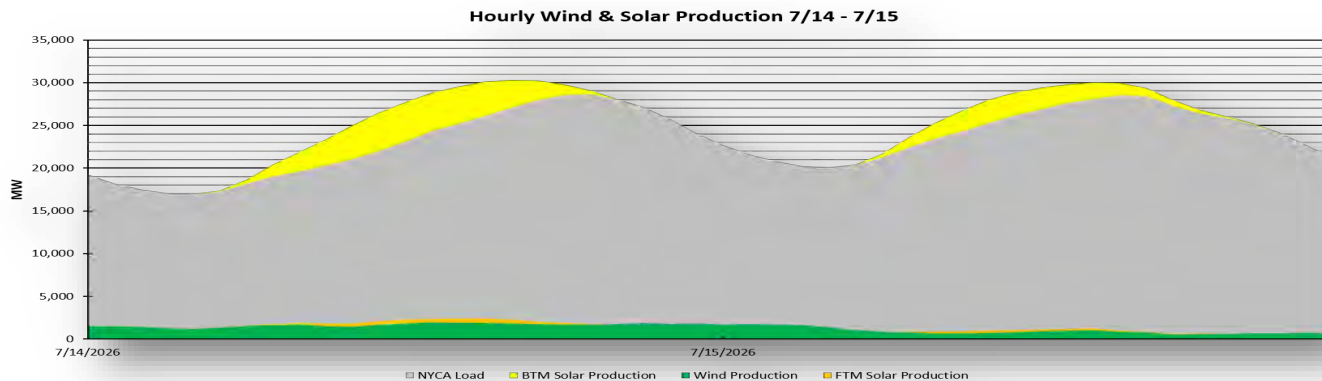
Generation during Peak Demand (%)



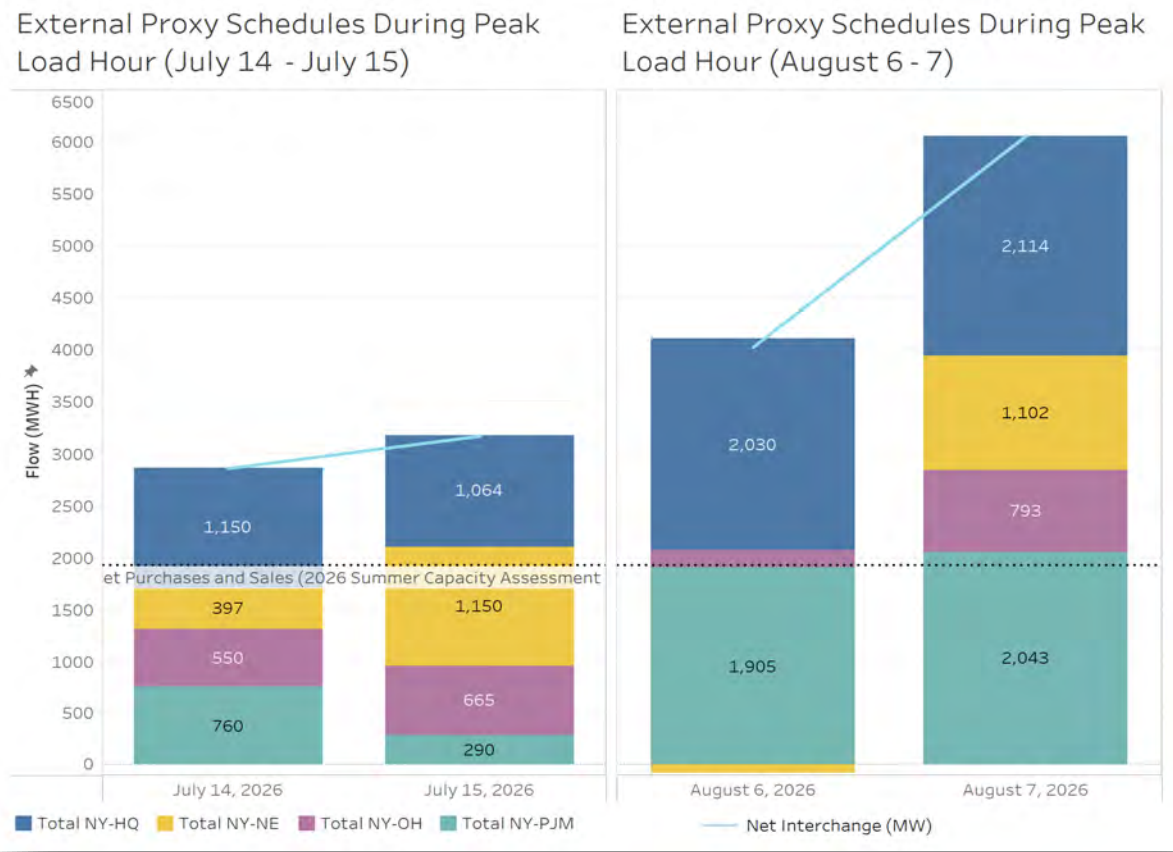
Generation and Net Imports at Peak Load (%)



System Load vs. Renewables



Interchange



SCR/EDRP Events

Program	Start Date and Time	End Date and Time	Zones
SCR/EDRP	7/14/2026 15:00	7/14/2026 22:00	F, G, H, I, J, K
SCR/EDRP	7/15/2026 15:00	7/15/2026 22:00	G, H, I, J, K
SCR/EDRP	8/6/2026 15:00	8/6/2026 22:00	A,B,C,D,E,F, G, H, I, J, K
SCR/EDRP	8/7/2026 15:00	8/7/2026 22:00	A,B,C,D,E,F, G, H, I, J, K

Transmission Outages

Line Name	Date Out	Date In
Bowline 67	7/1/2026 21:39	10/9/2026 23:59*
CHPE	7/4/2026 08:02	7/22/2026 23:59
M52	7/27/2026 06:00	8/10/2026 23:59
W72	8/6/2026 00:57	8/6/2026 20:50
Tremont PAR 12	8/6/2026 14:49	8/7/2026 08:00

*Based on publicly posted outage record data as of 10/1/2026

Utility Retail Demand Response Program Activations

Date	Transmission Owner
7/14/2026	CHG, LIPA, NG, NYSEG, RG&E
7/15/2026	Con Ed, CHG, LIPA, NYSEG, RG&E
8/6/2026	NYSEG*, RG&E**
8/7/2026	Con Ed, LIPA

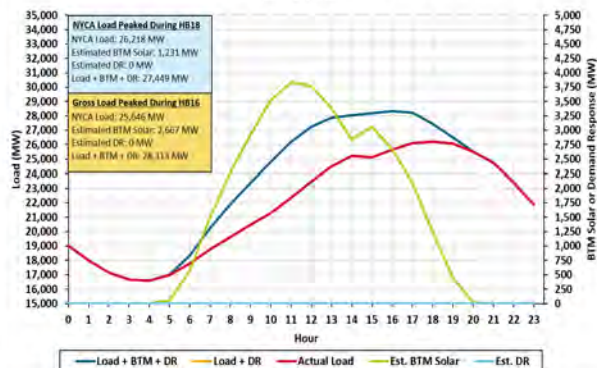
* DLS (Thermostats) and ESS (Energy Storage Solutions Program)

** RG&E ESS

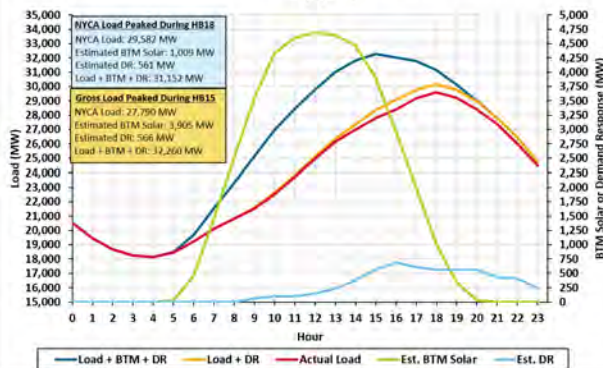
Appendix

June 30 – July 4, 2026

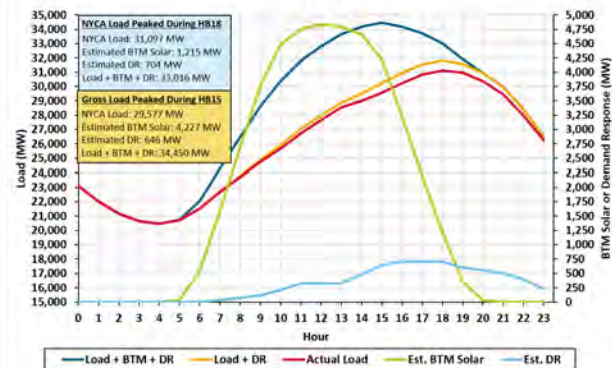
NYCA Load, Demand Response (NYISO- & TO-Initiated), and BTM Solar Generation
June 30, 2026



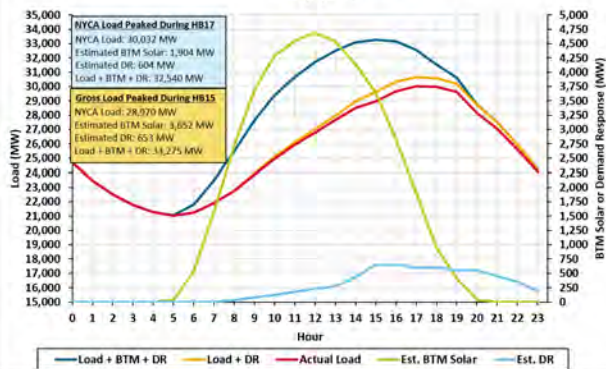
NYCA Load, Demand Response (NYISO- & TO-Initiated), and BTM Solar Generation
July 1, 2026



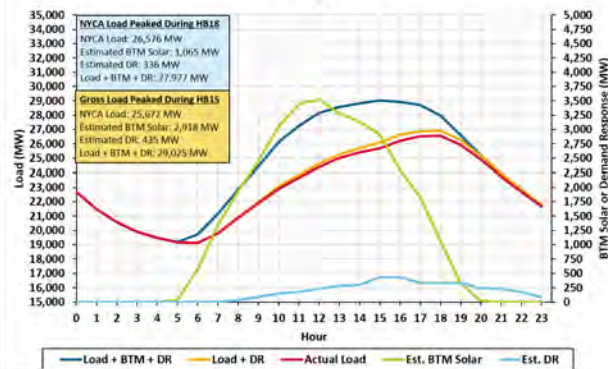
NYCA Load, Demand Response (NYISO- & TO-Initiated), and BTM Solar Generation
July 2, 2026



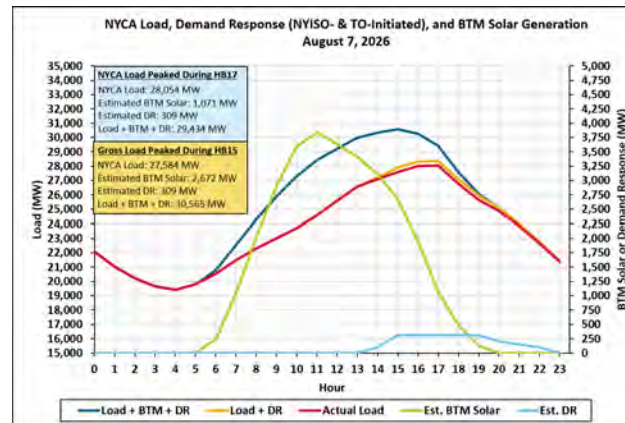
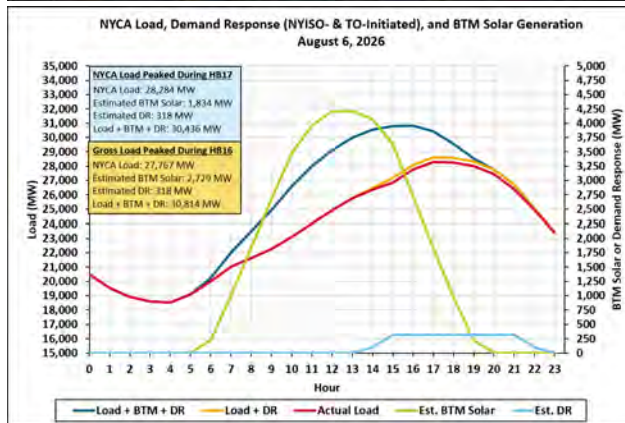
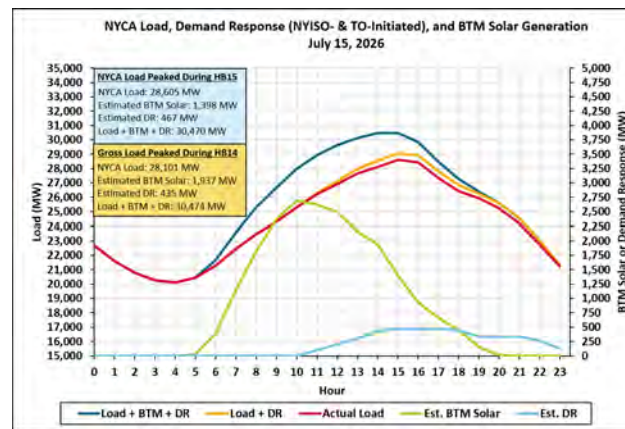
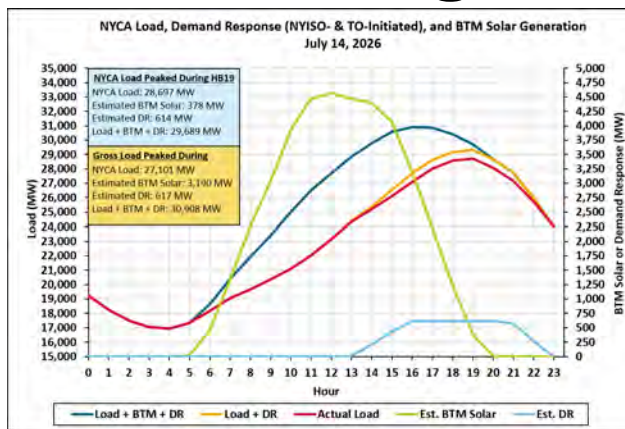
NYCA Load, Demand Response (NYISO- & TO-Initiated), and BTM Solar Generation
July 3, 2026



NYCA Load, Demand Response (NYISO- & TO-Initiated), and BTM Solar Generation
July 4, 2026

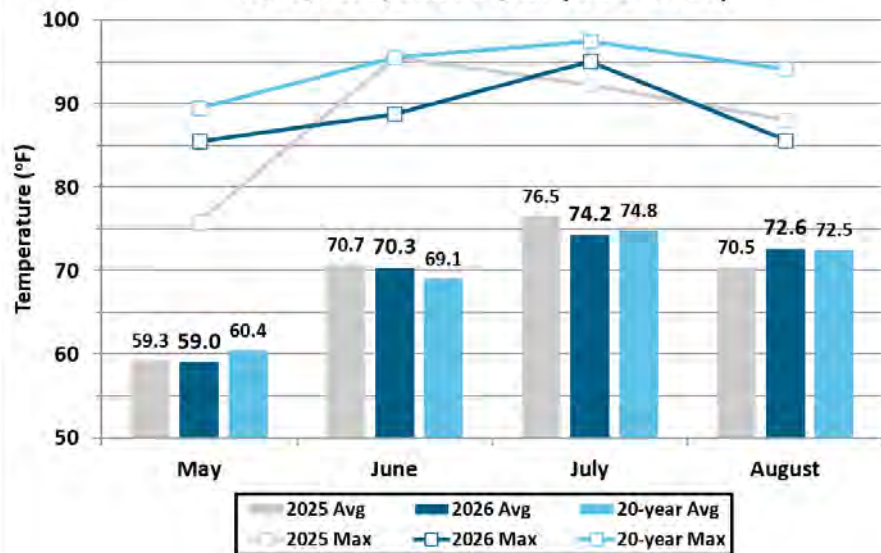


July 14 - 15 and August 6 - 7, 2026

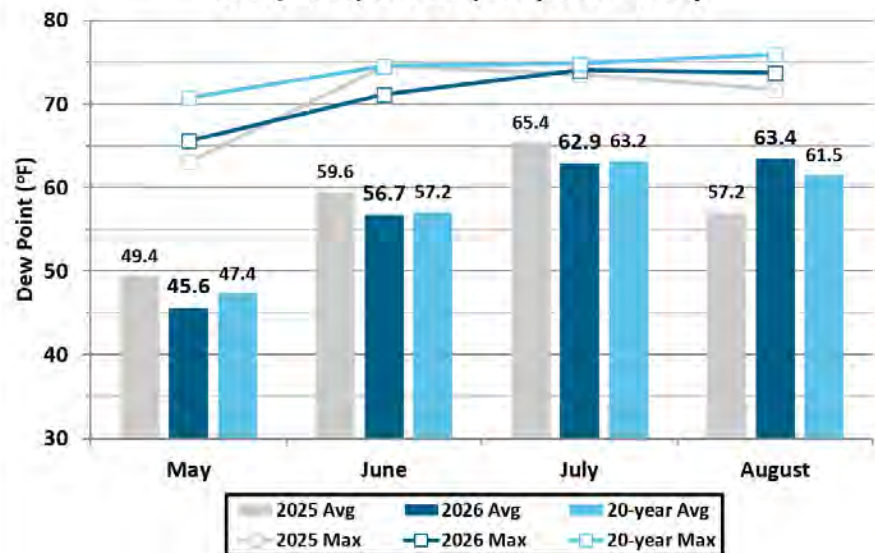


Historical Comparison of Temperature and Dew Point

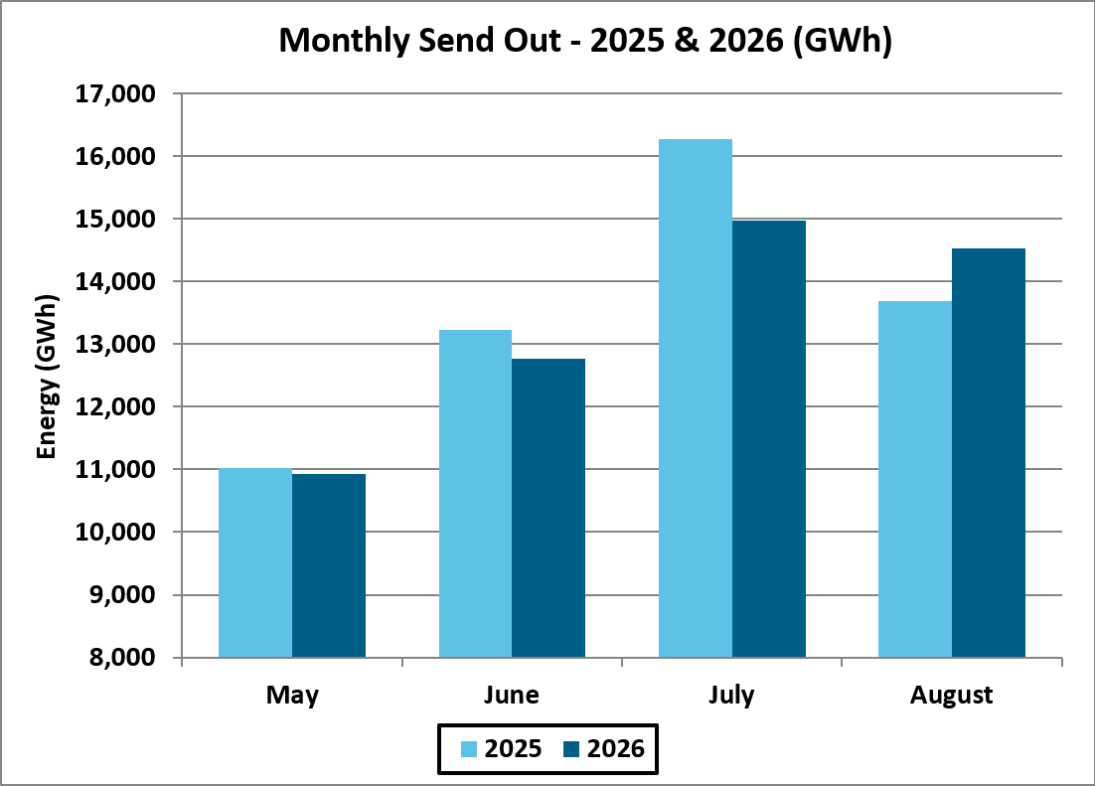
Monthly Average and Max Temperatures
2025, 2026, and 20-year (2006 - 2025)



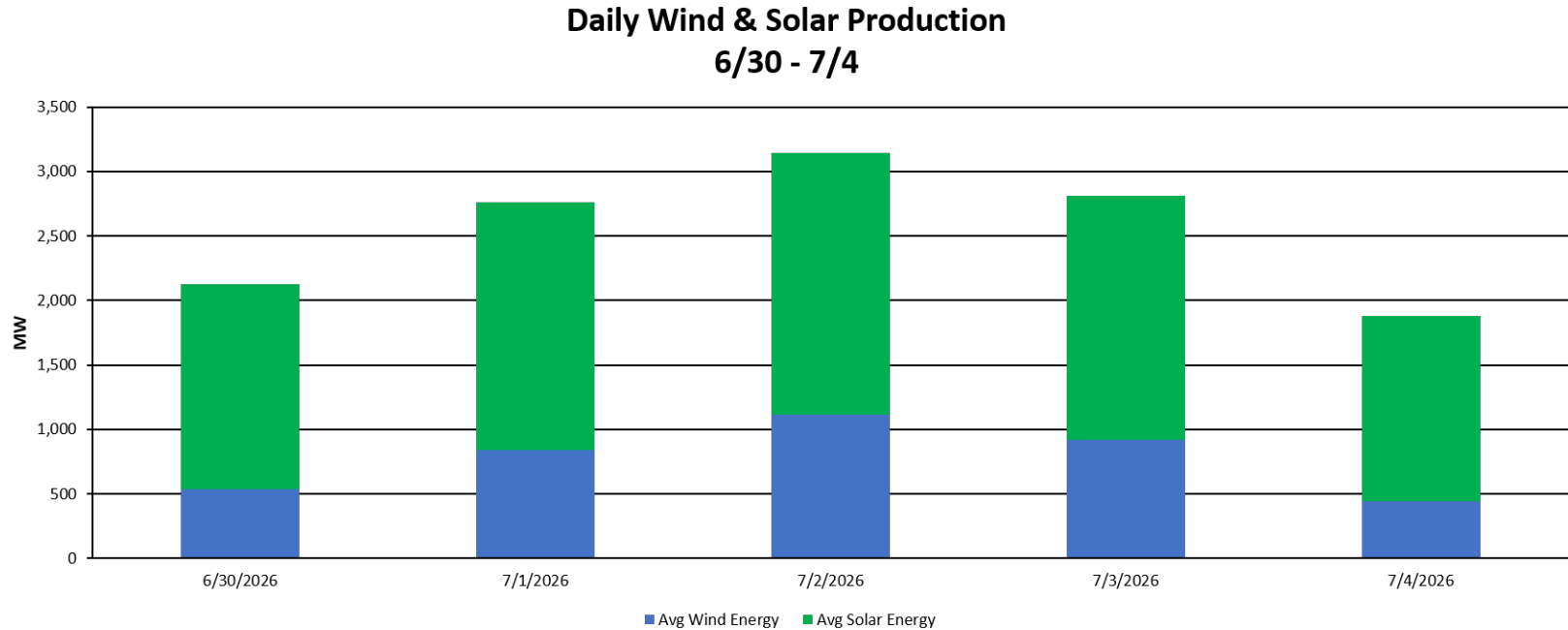
Monthly Average and Max Dew Points
2025, 2026, and 20-year (2006 - 2025)



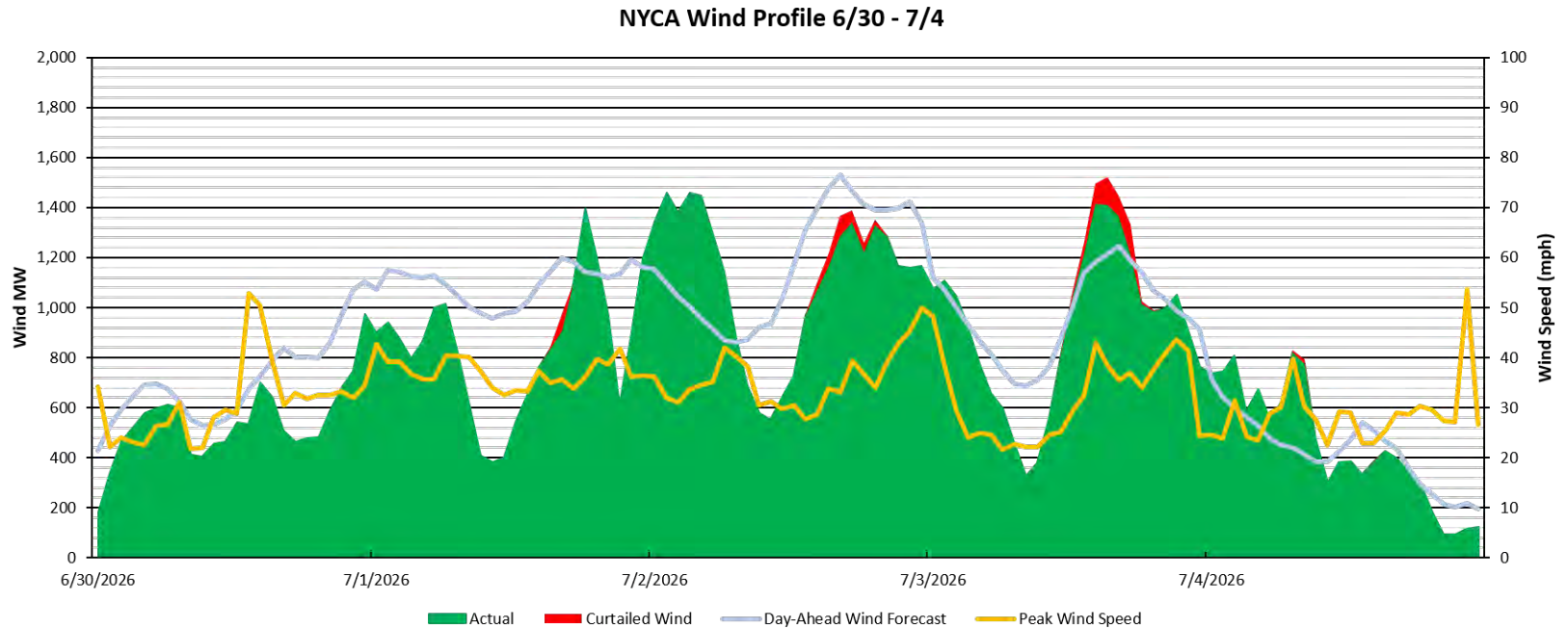
2025 & 2026 Total Energy Demand Comparison



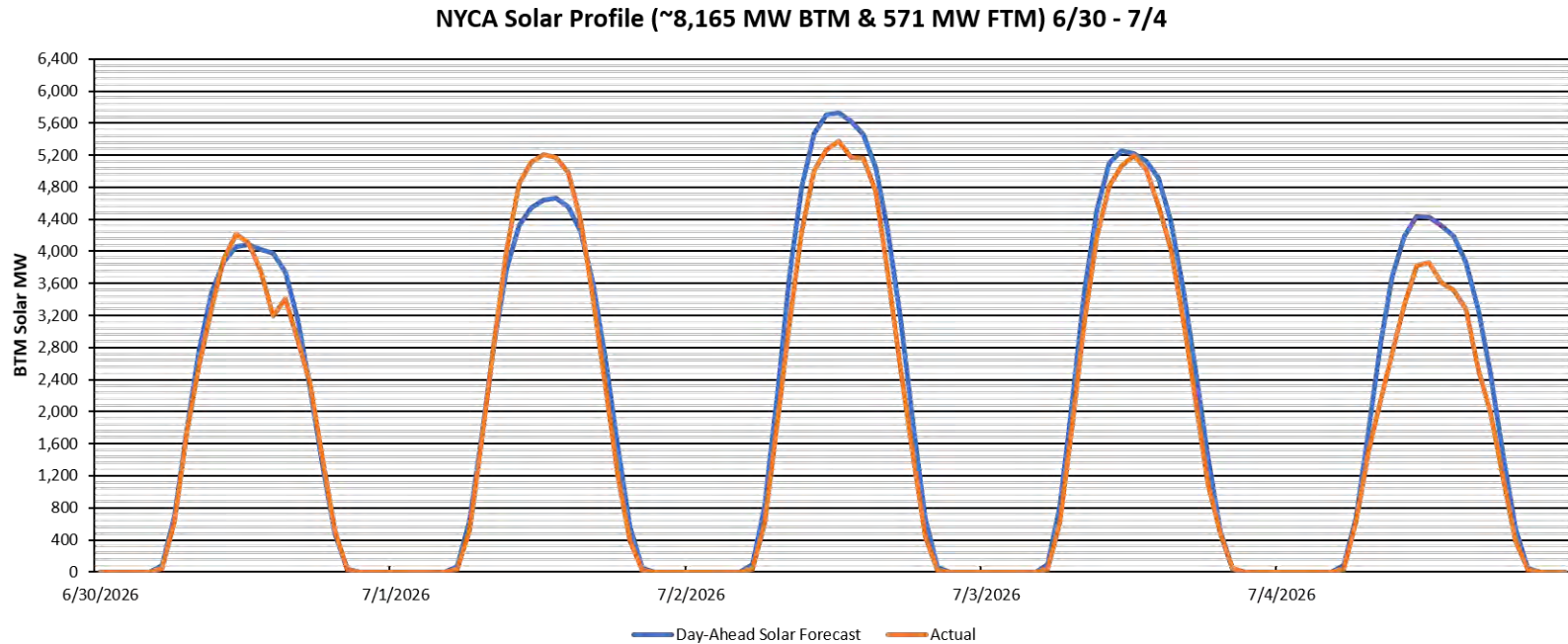
6/30 – 7/4 Renewable Production



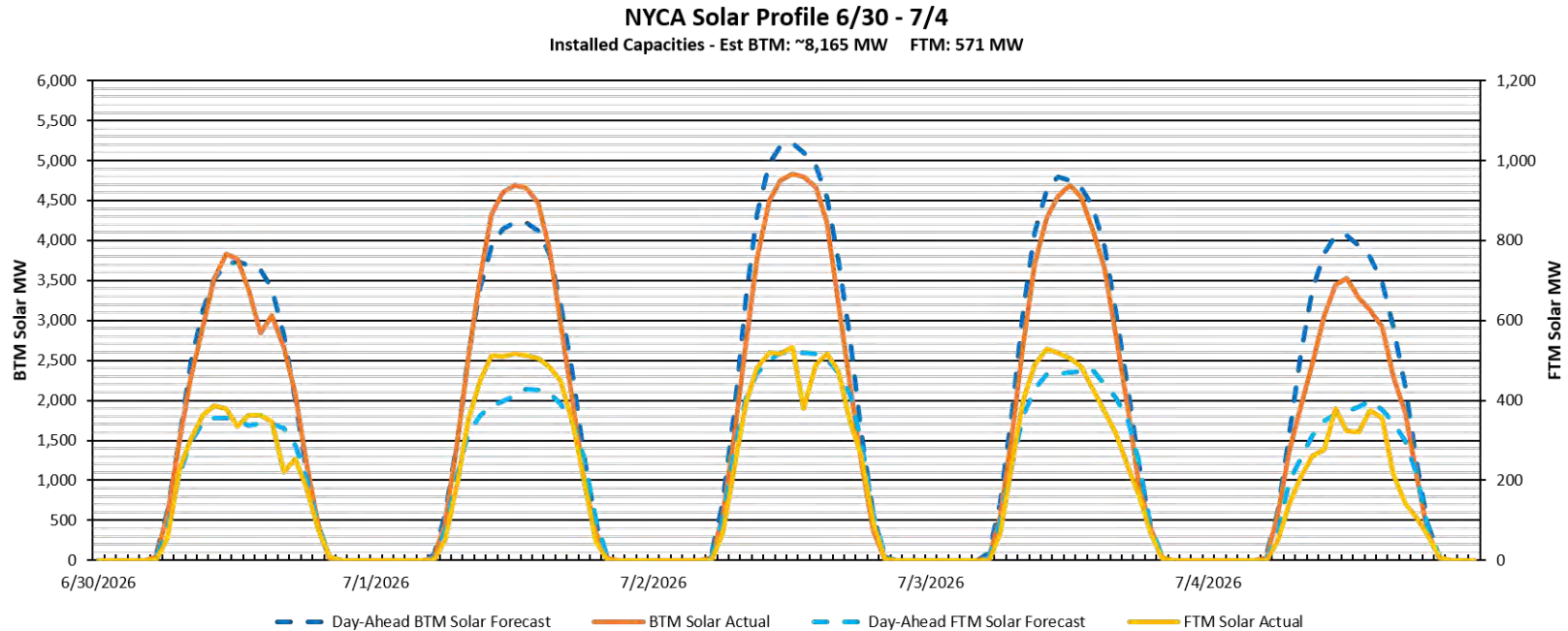
6/30 – 7/4 Wind Production



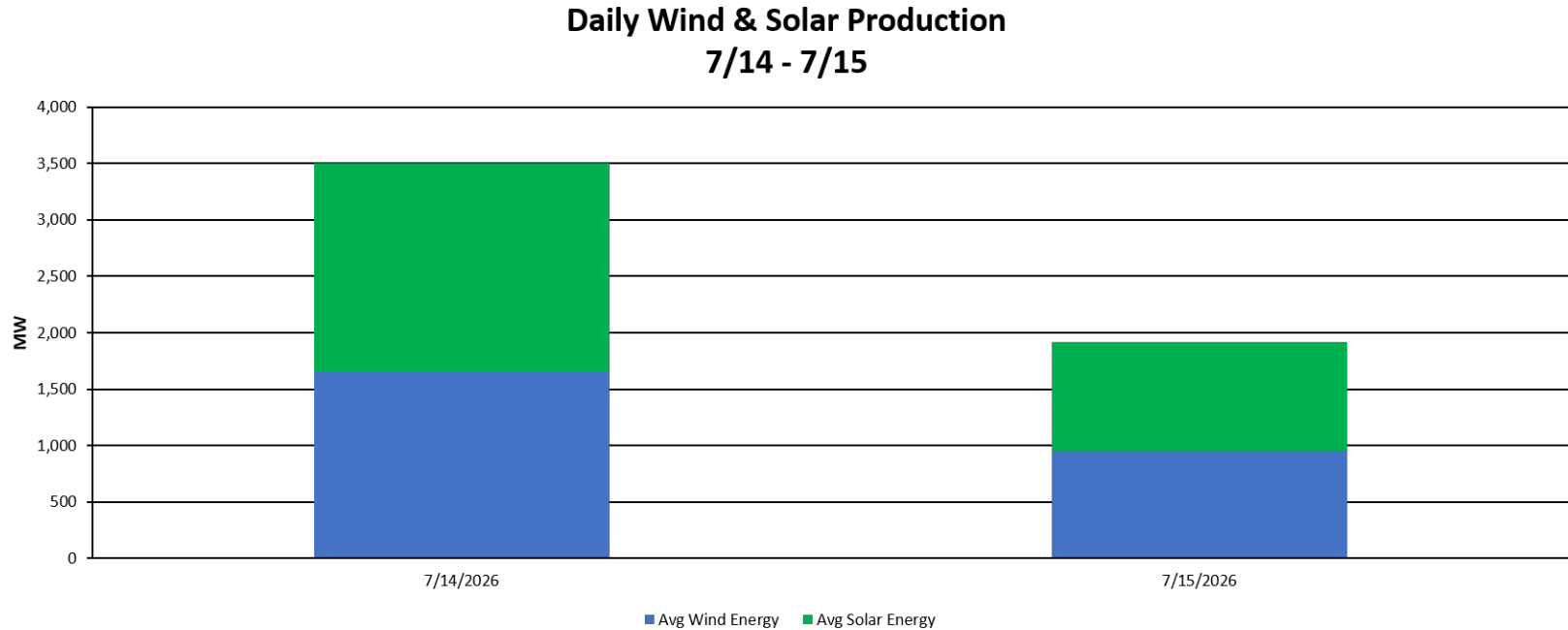
6/30 – 7/4 Total Solar Chart Production



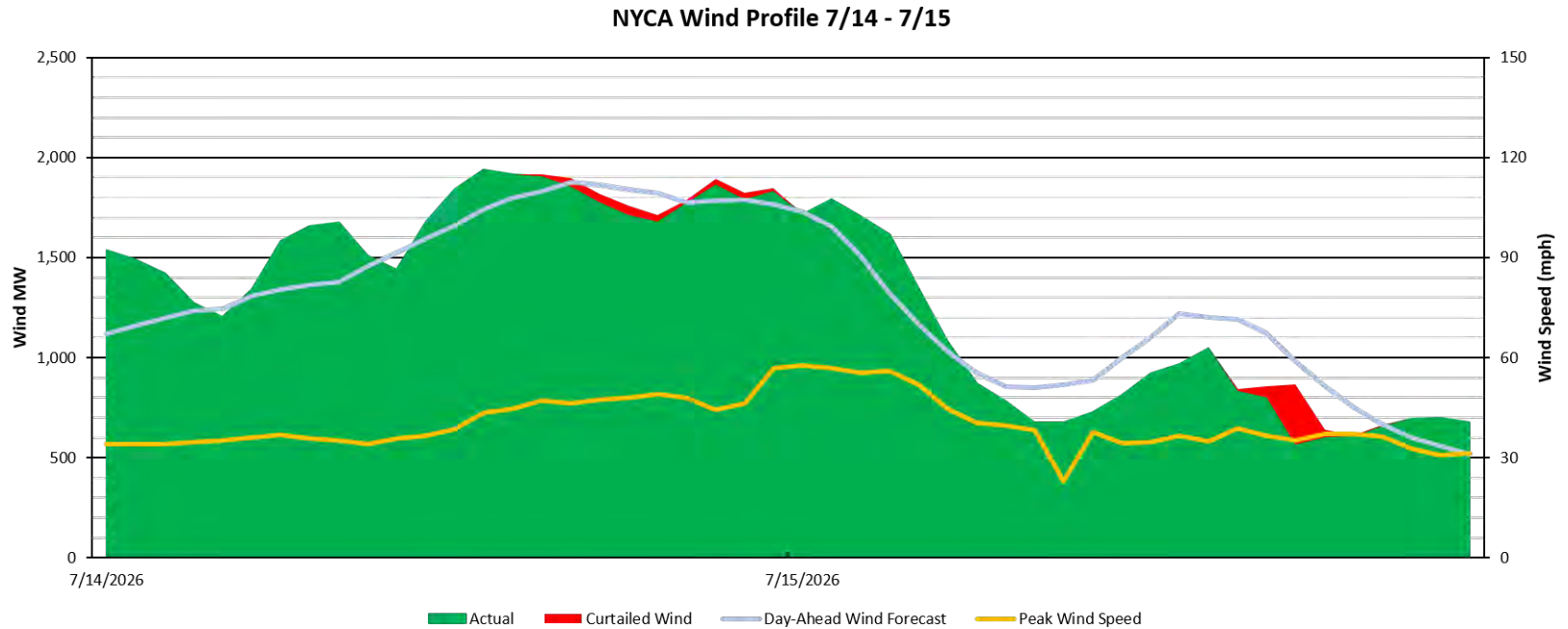
6/30 – 7/4 Disaggregated Solar Chart Production



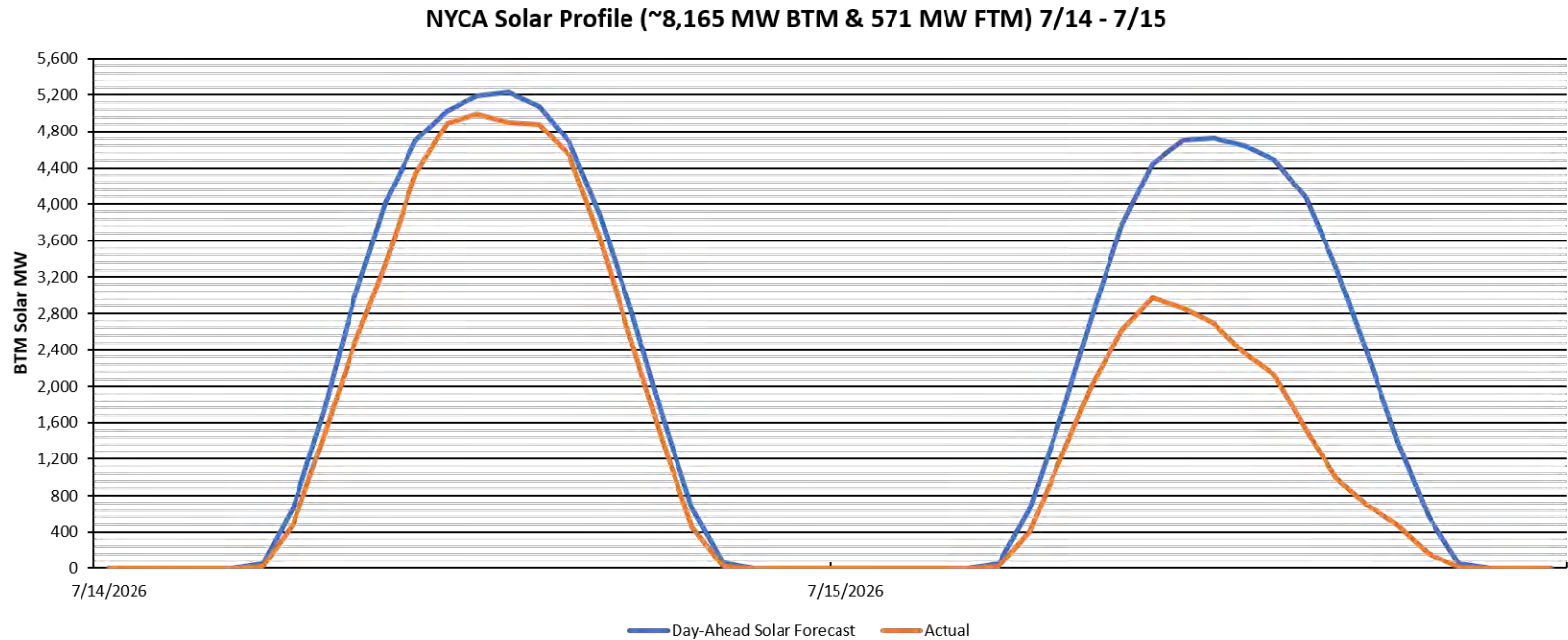
7/14 – 7/15 Renewable Production



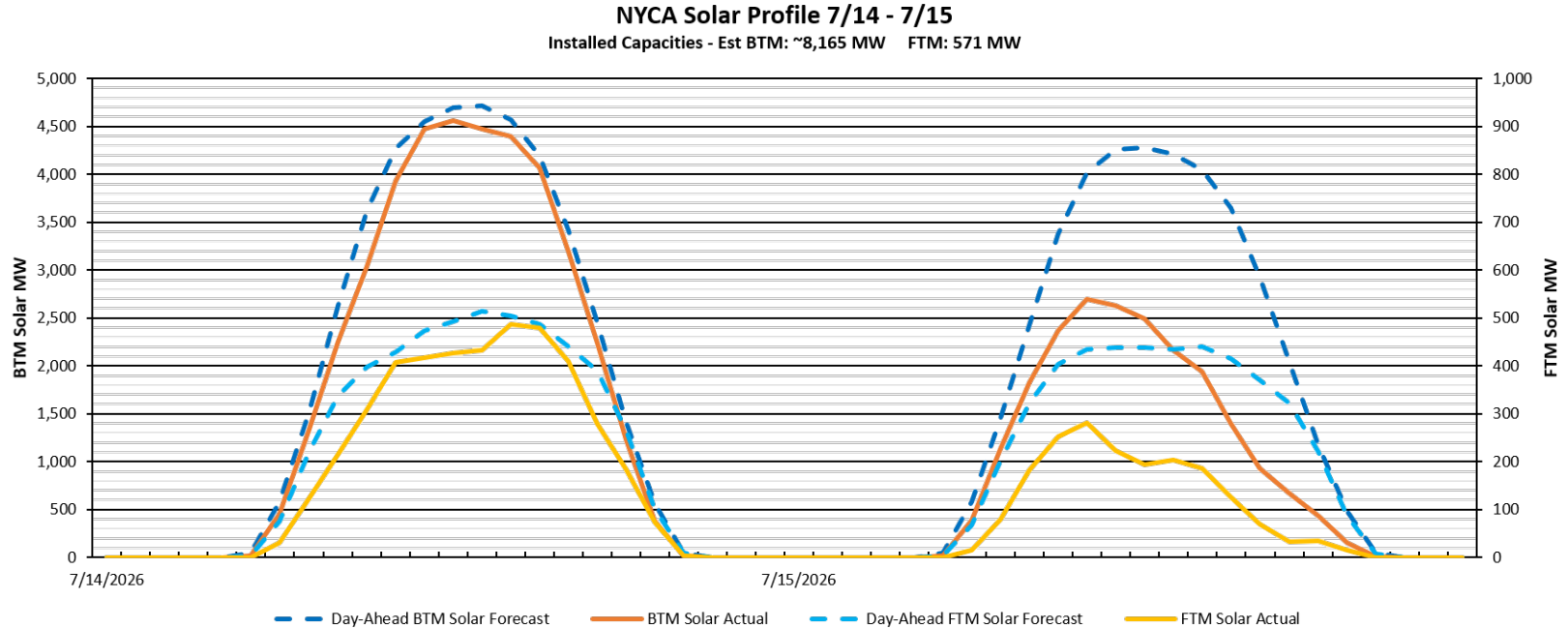
7/14 – 7/15 Wind Production



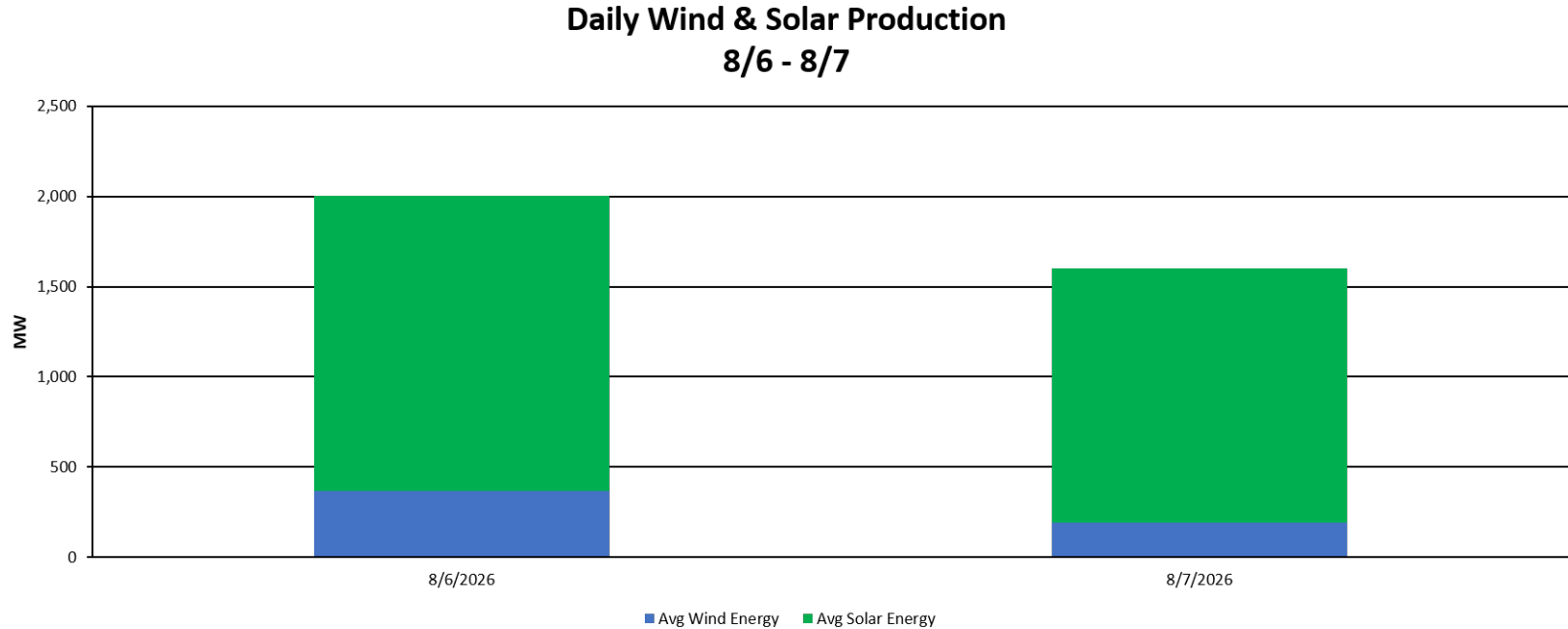
7/14 – 7/15 Total Solar Production



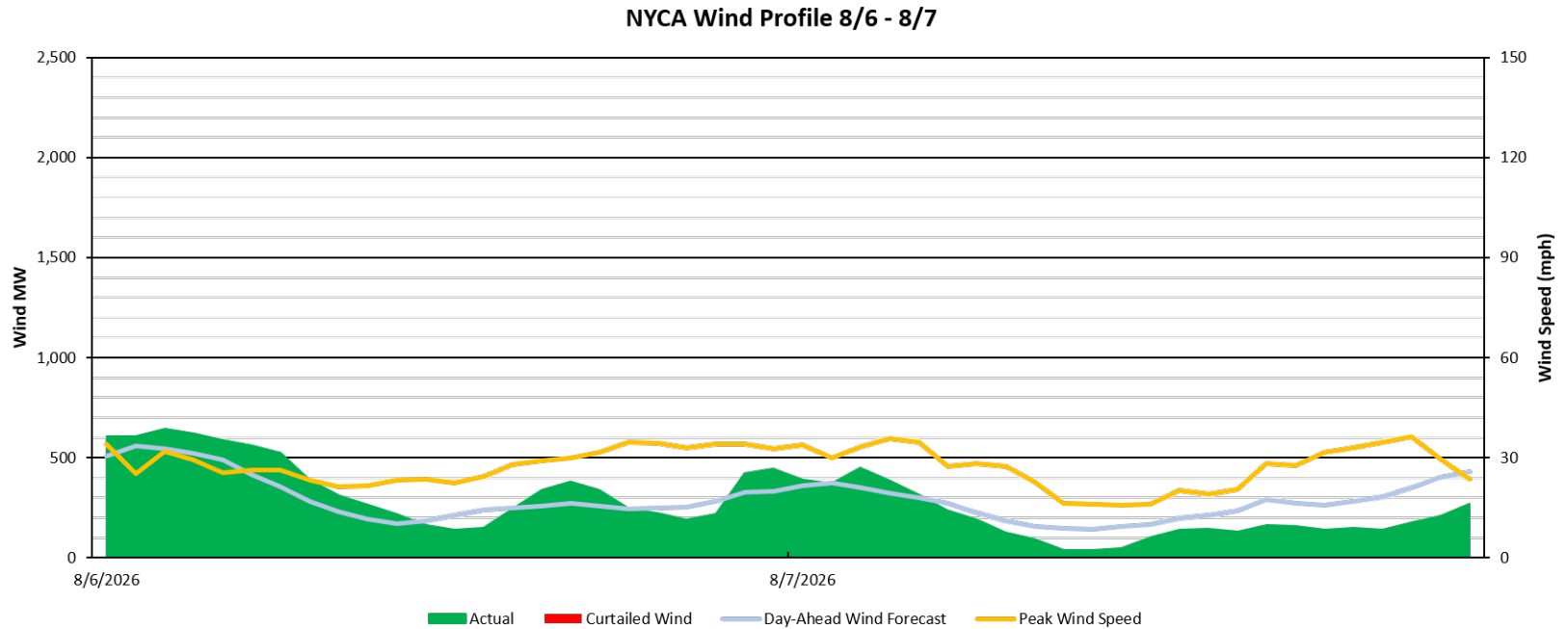
7/14 – 7/15 Disaggregated Solar Production



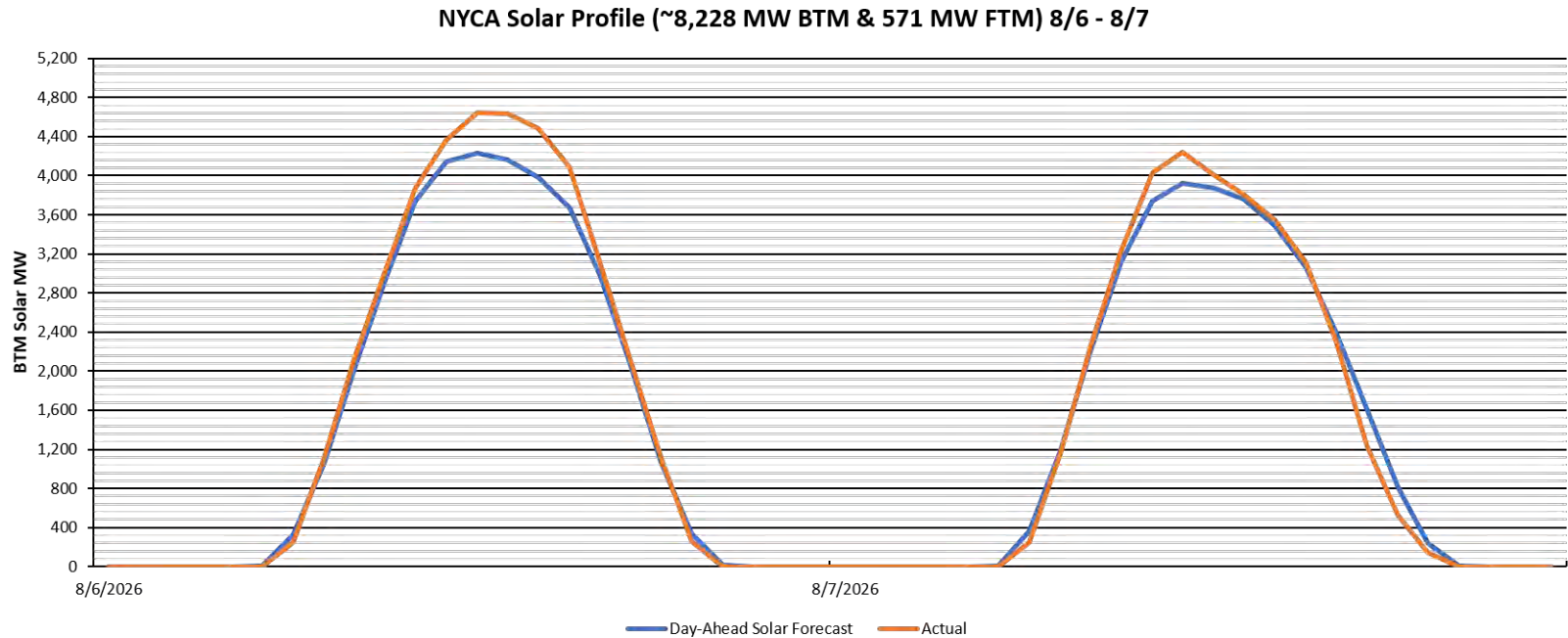
8/6 – 8/7 Renewable Production



8/6 – 8/7 Wind Production



8/6 – 8/7 Total Solar Chart Production



8/6 – 8/7 Disaggregated Solar Production

