NYISO Summer 2019 Hot Weather Operations

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VICE PRESIDENT, OPERATIONS

Management Committee

September 25, 2019 Rensselaer, NY



Agenda

- Summer 2019 Hot Weather Operations
- Summer Ambient Temperatures & Loads
 - Thursday, July 18 Sunday July 21
 - Monday, July 29 Tuesday, July 30
- Loads & Peaks
- Renewable Forecasting & Actual Generation



July 18-21 Hot Weather Operations

- Heat indexes as high as 110 F over the weekend
- Recorded all-time peak for a Sunday on July 21 at 30,339 MW
- Met reliability criteria with surplus operating margins
- No activations of SCR/EDRP required
- No need for statewide supplemental capacity commitments
- Operations participated in one NPCC conference call
- Prior to July 18, Transmission Owners rescheduled transmission work
- Local reliability commitments per NYSRC ARR rules
- Transmission Owners did activate utility (retail) demand response programs
- No need for emergency actions such as emergency purchases or voltage reduction



July 29-30 Hot Weather Operations

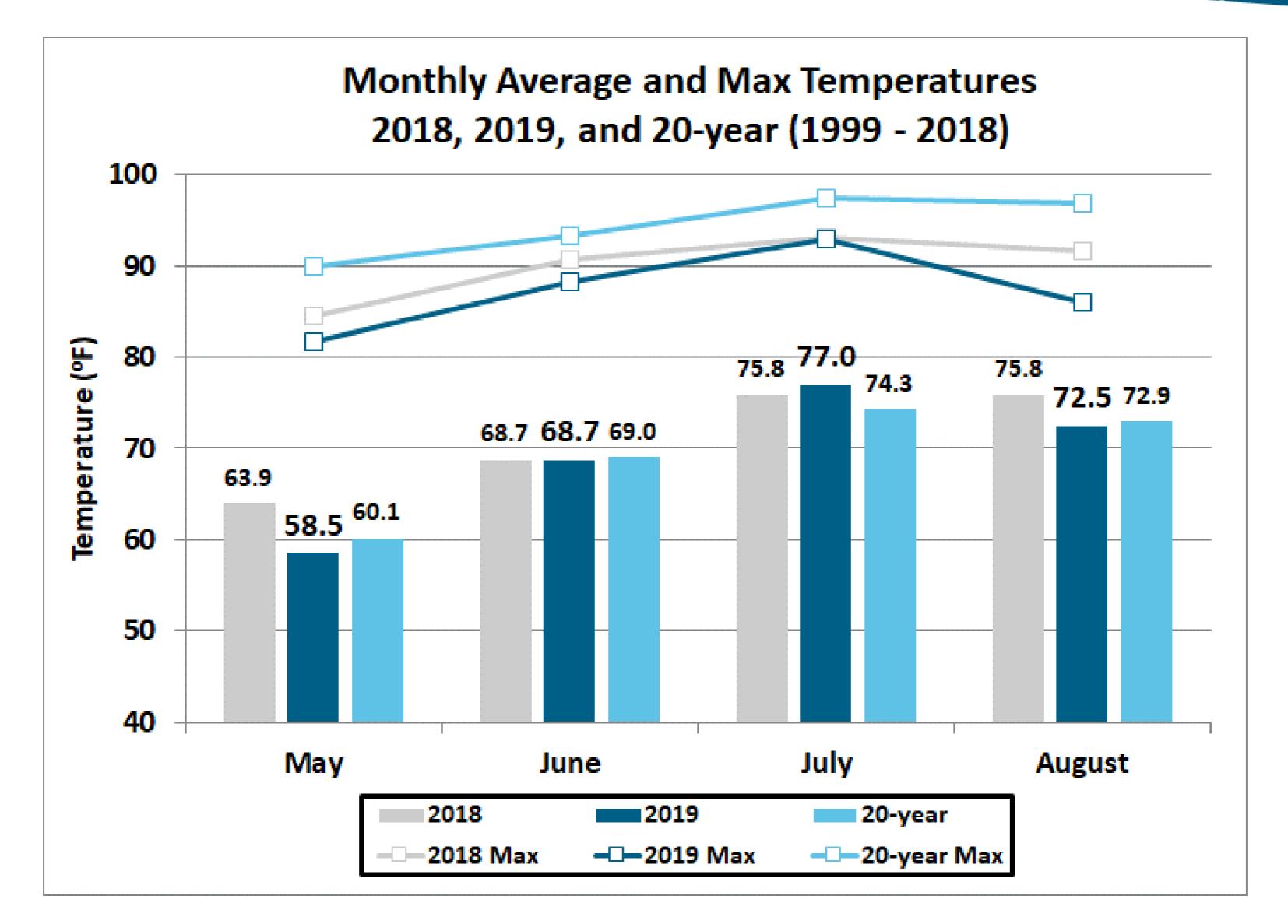
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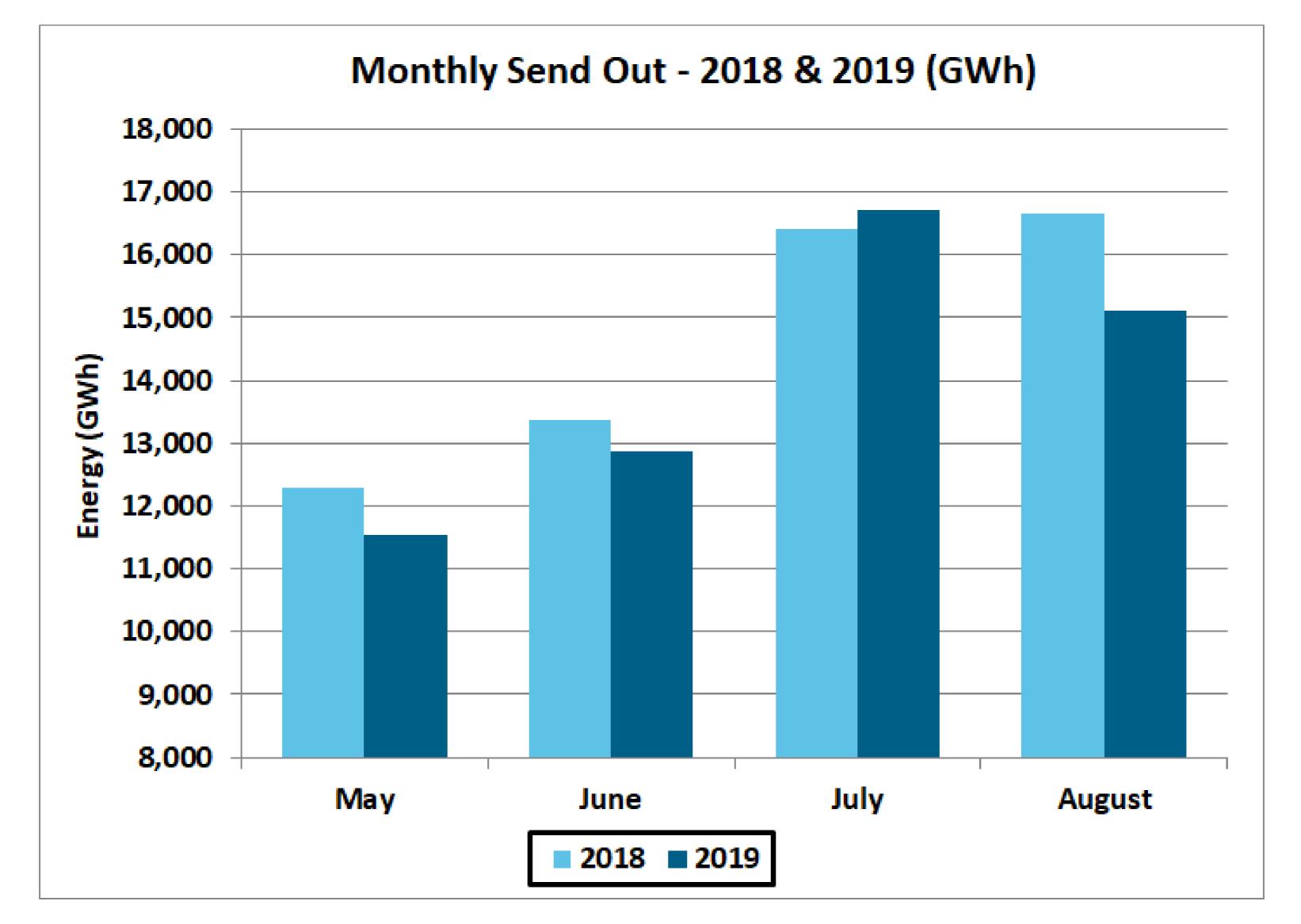
Ambient Conditions

- Daily mean temperatures were above the 20-year average in July; near average in June and August; and below average in May
 - 12 days with highs above 90F in Albany (https://www.weather.gov/media/aly/Climate/90DegreeDays.pdf)
- Total load (GWh) was below 50/50 projections
- Peak load was <u>below</u> the 50/50 projection for the 6th consecutive summer
 - Summer 2019 50/50 forecast was 32,382 MW
 - Summer 2019 actual peak load was 30,397 MW (July 20)
 - Summer 2018 actual peak load was 31,861 MW
- Four days with peak loads over 30,000 MW

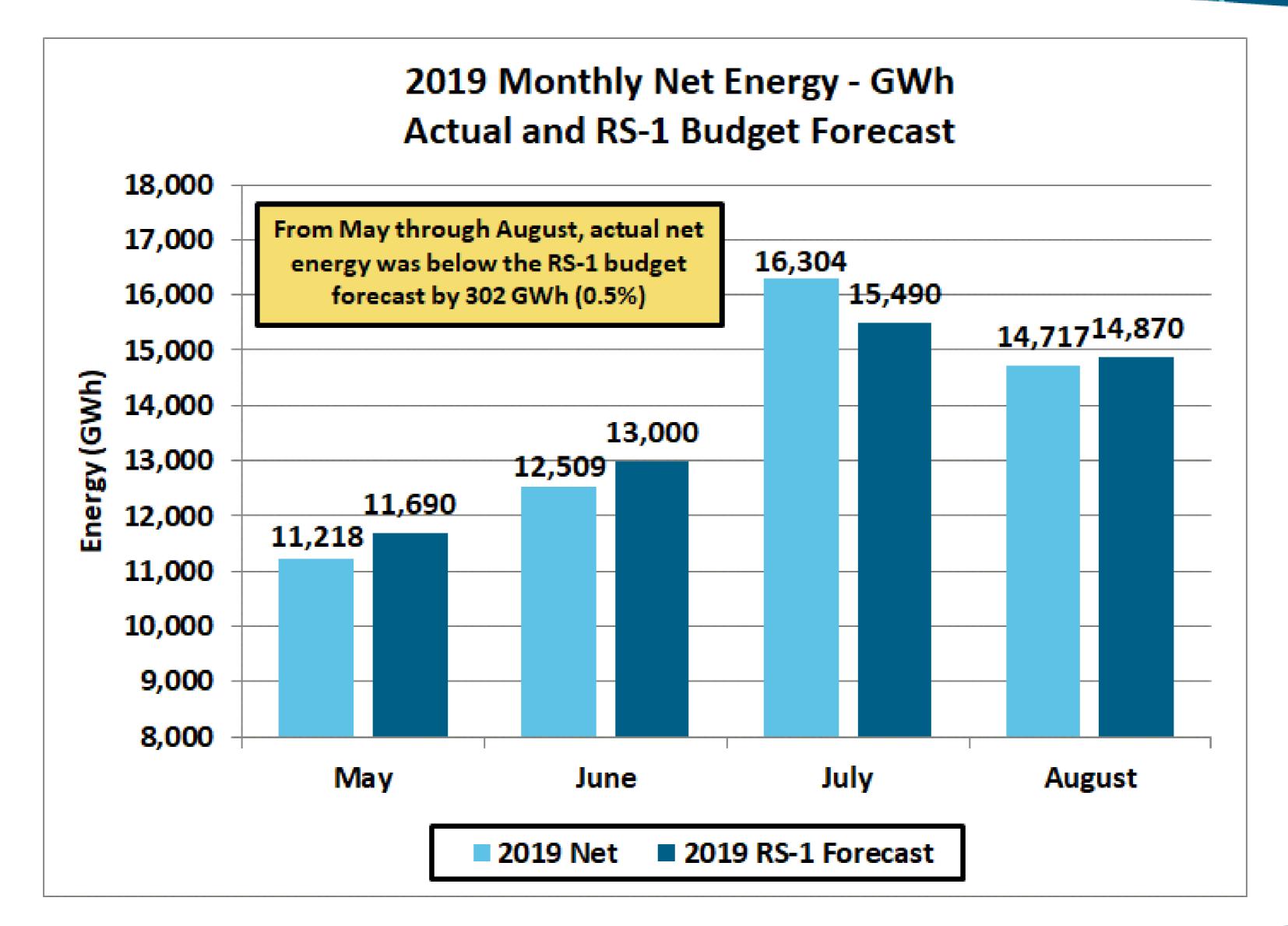




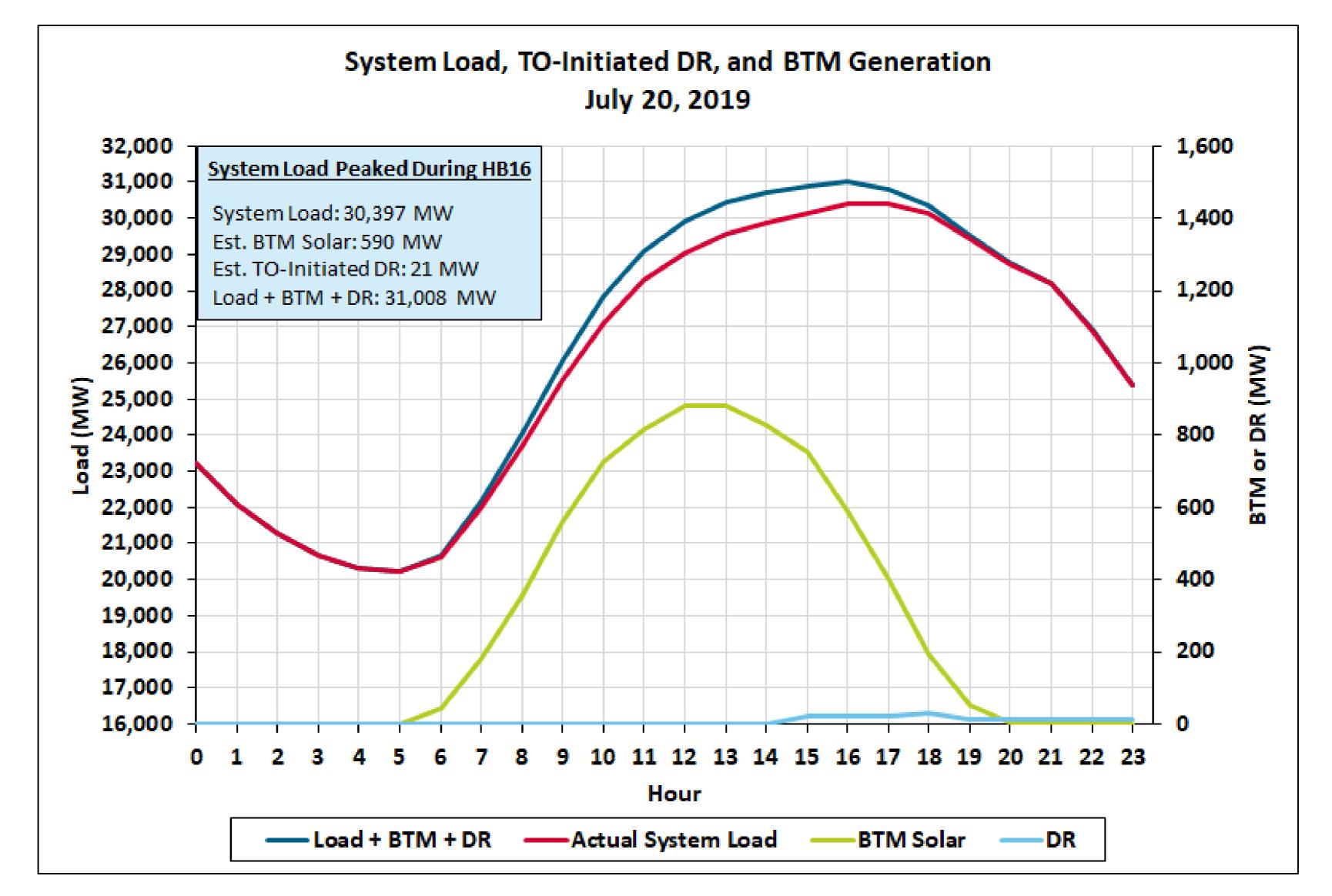




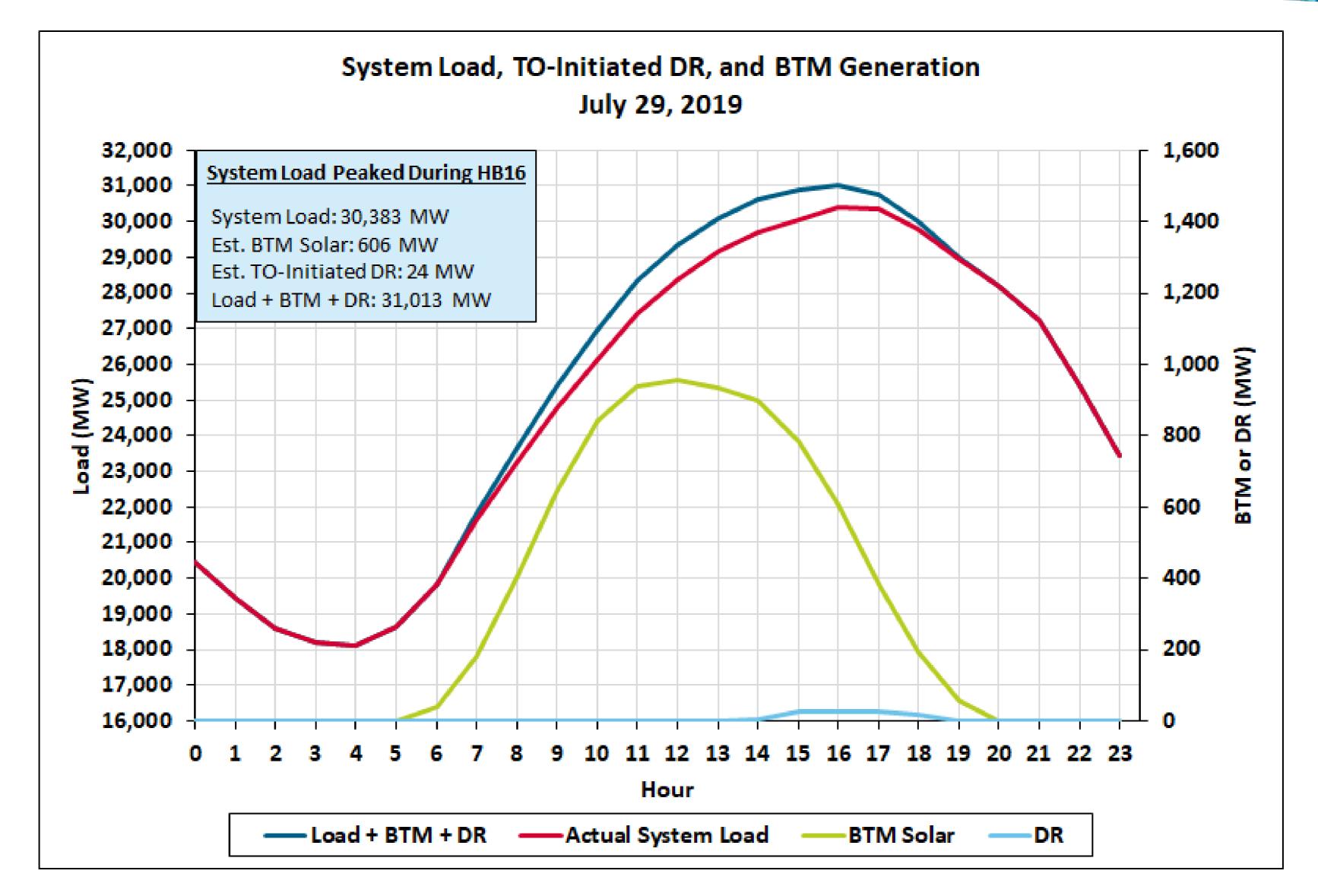








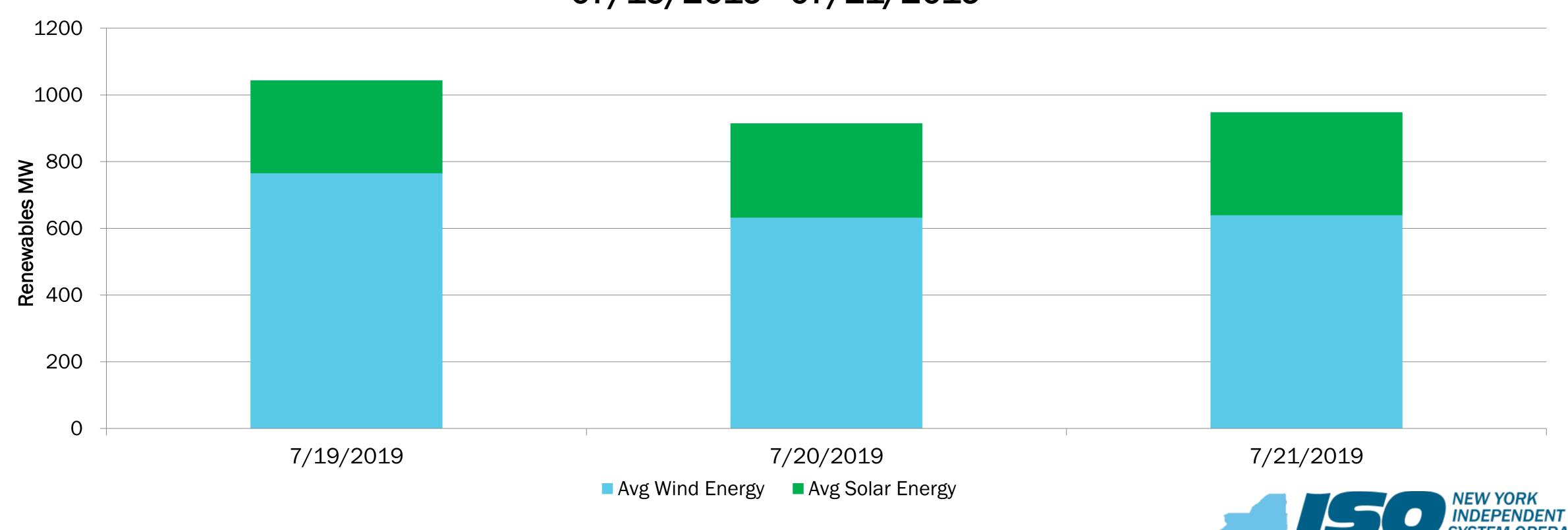






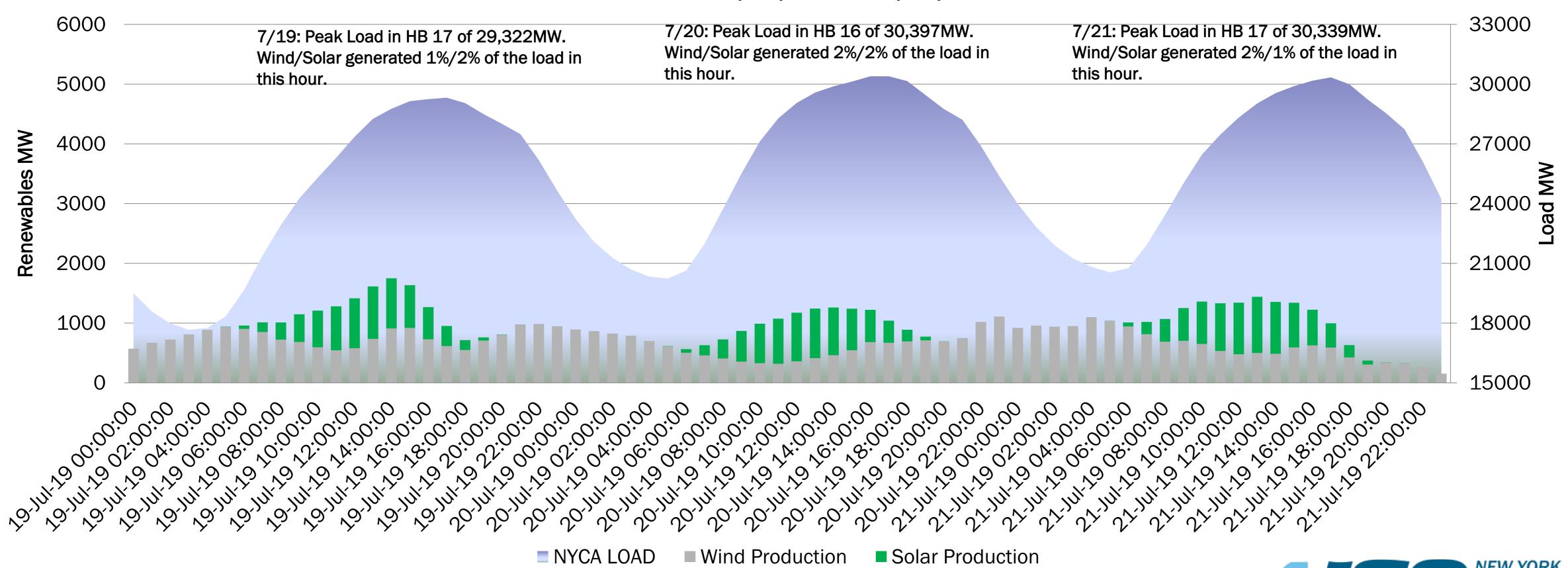
Renewable Production (Daily)

Daily Wind & Solar Production 07/19/2019 - 07/21/2019



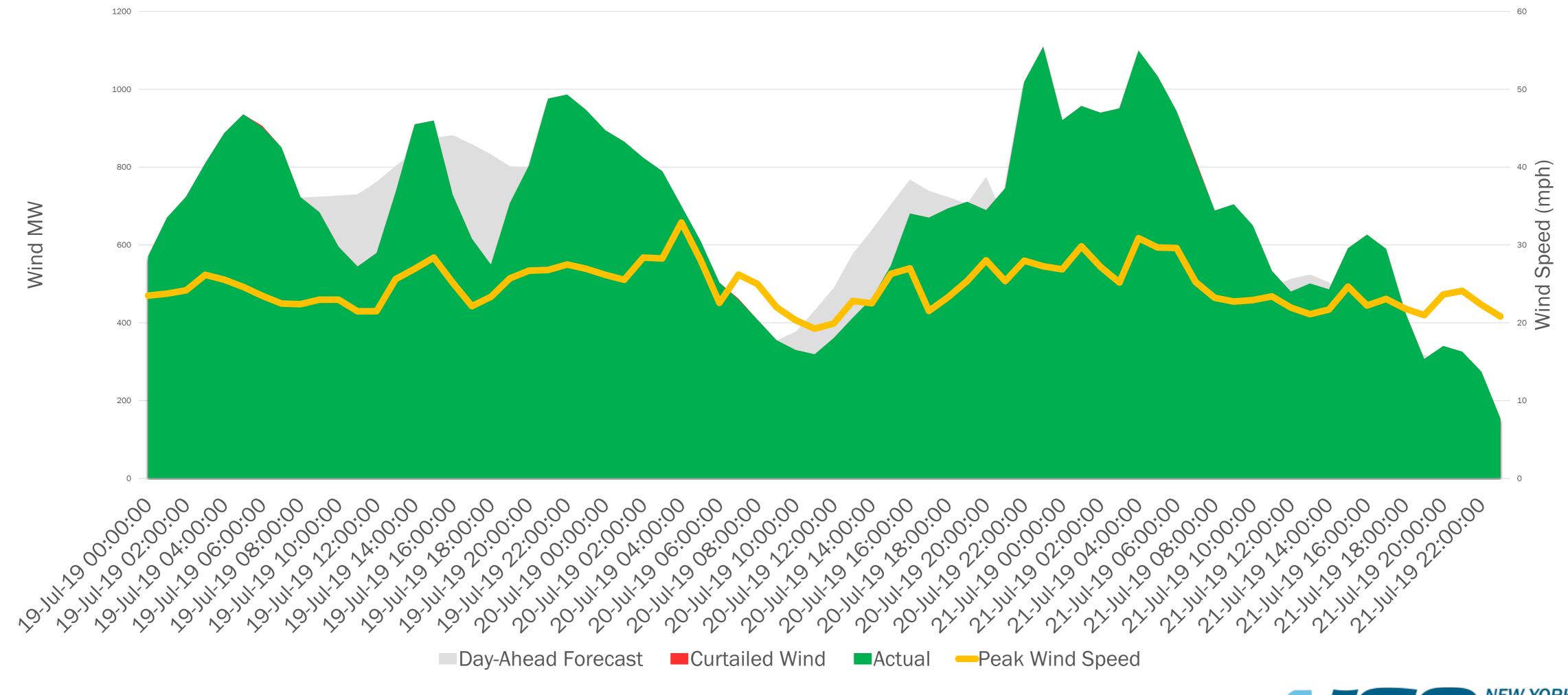
Renewable Production (Hourly)

Hourly Wind & Solar Production 07/19/2019 - 07/21/2019



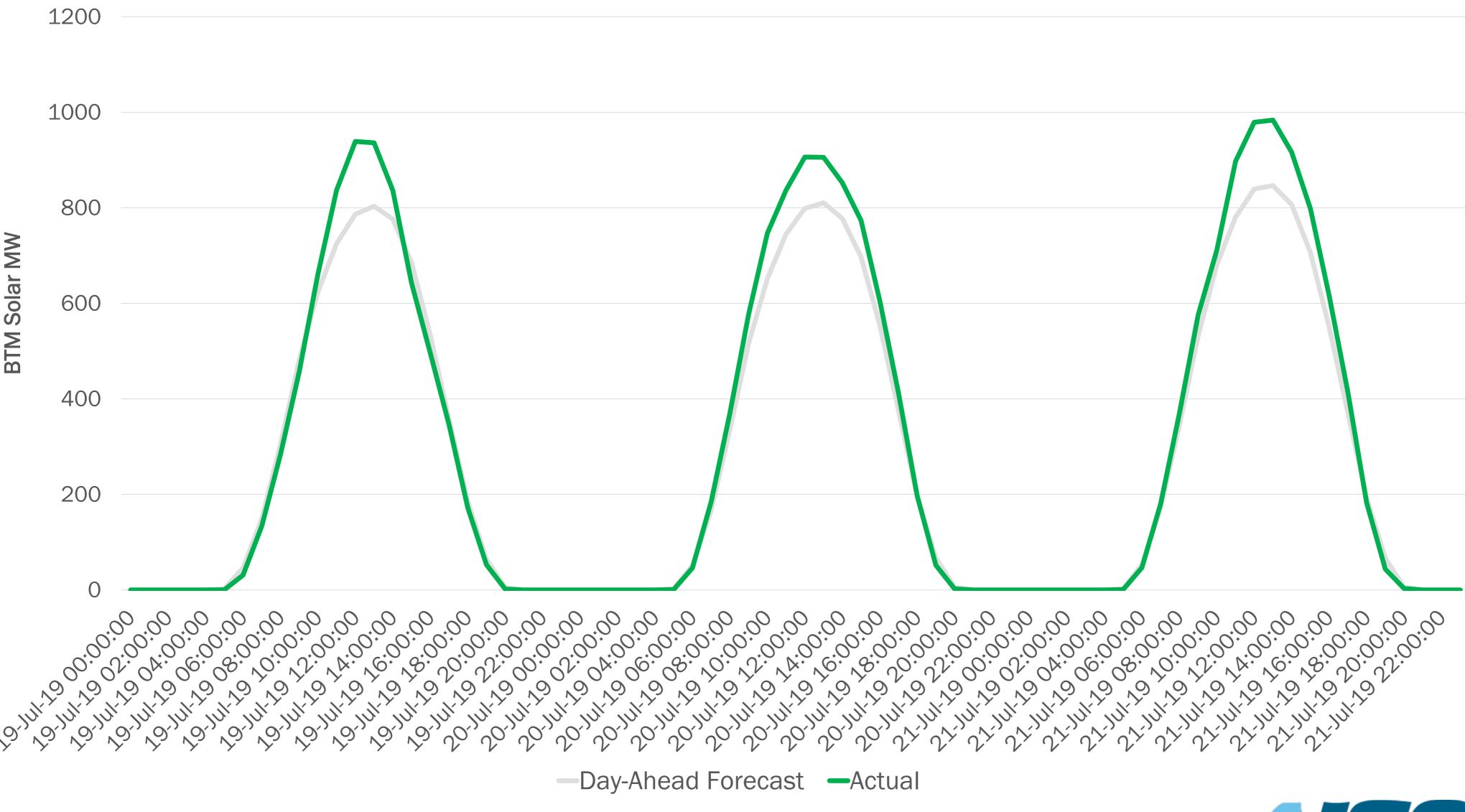
INDEPENDENT SYSTEM OPERATOR

Heat Wave - NYCA Wind Profile 7/19/2019-7/21/2019





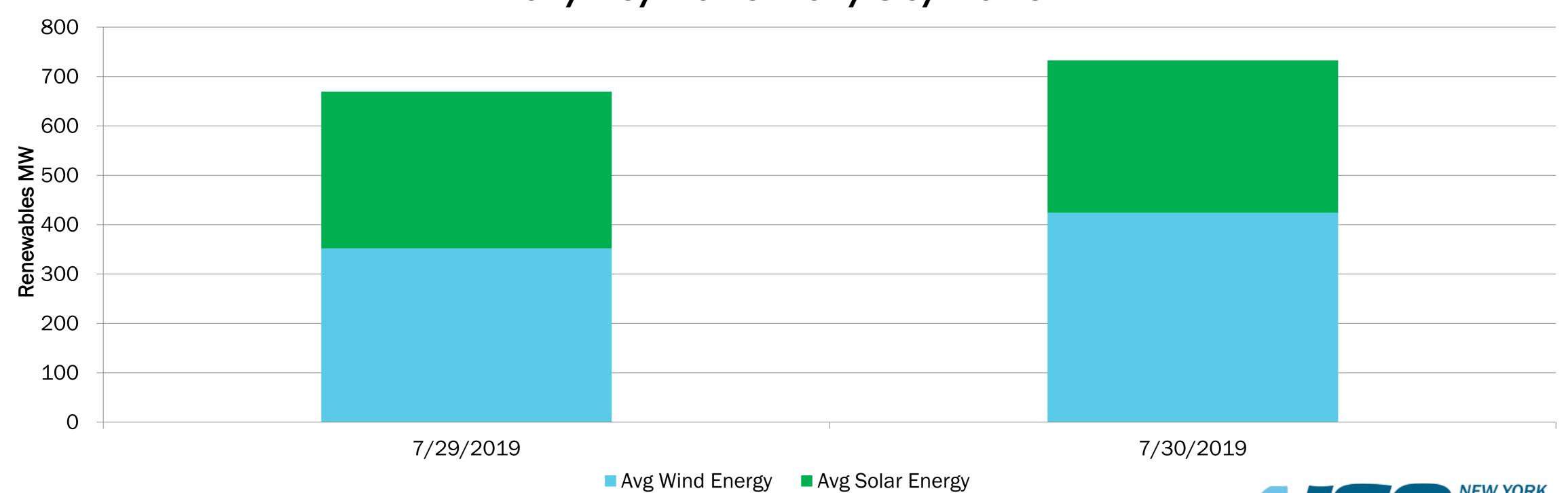
July 19-21, 2019 NYCA BTM Solar Profile (~1,614MW)





Renewable Production (Daily)

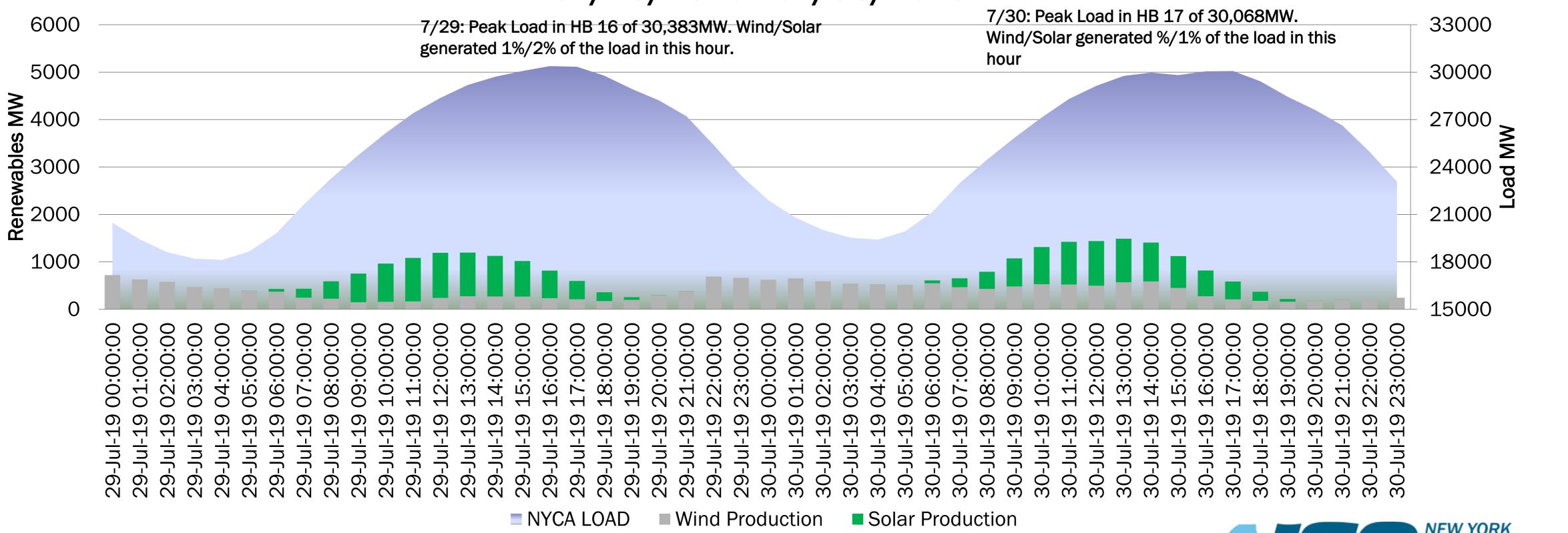
Daily Wind & Solar Production 07/29/2019 - 07/30/2019



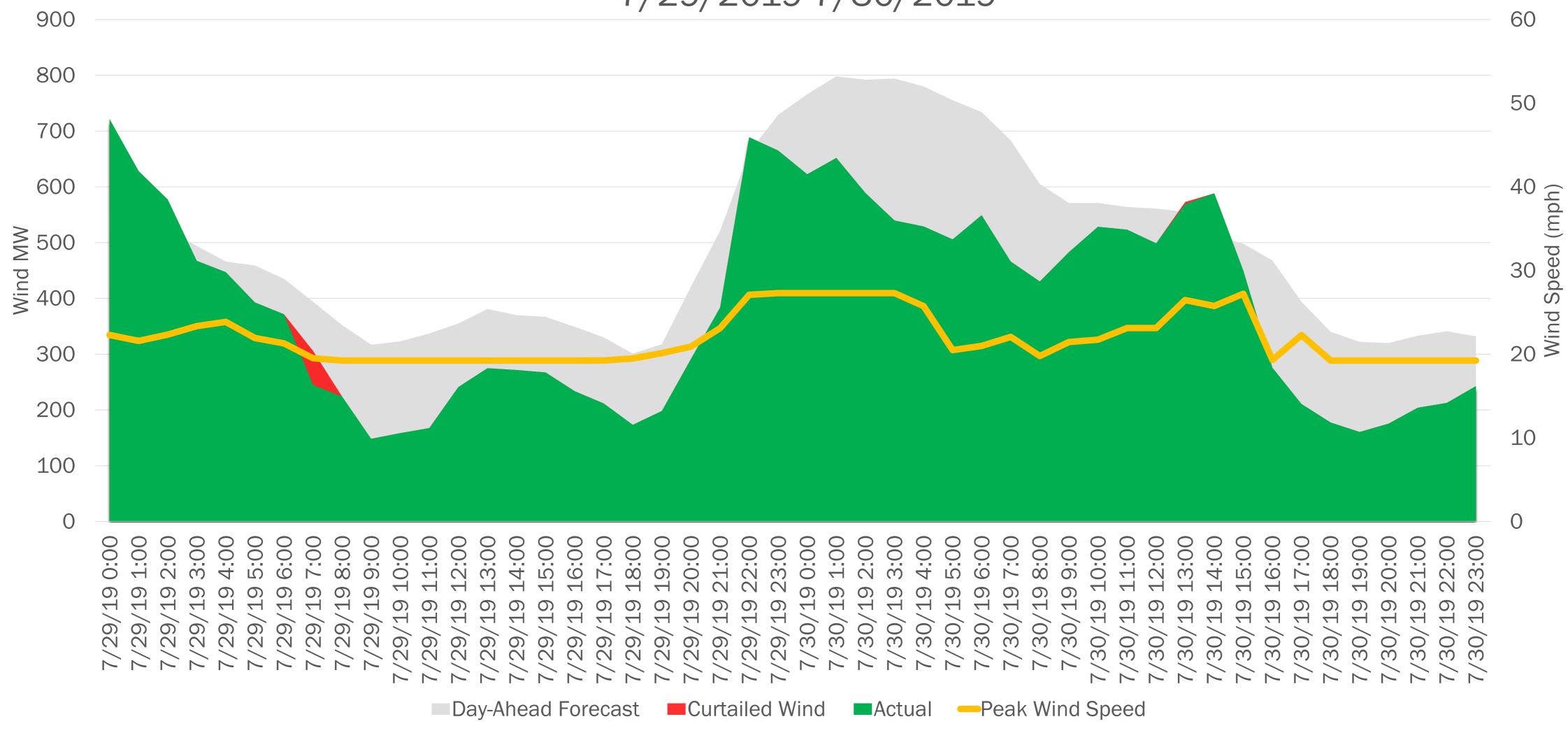
DRAFT - FOR DISCUSSION PURPOSES ONLY

Renewable Production (Hourly)

Hourly Wind & Solar Production 07/29/2019 - 07/30/2019

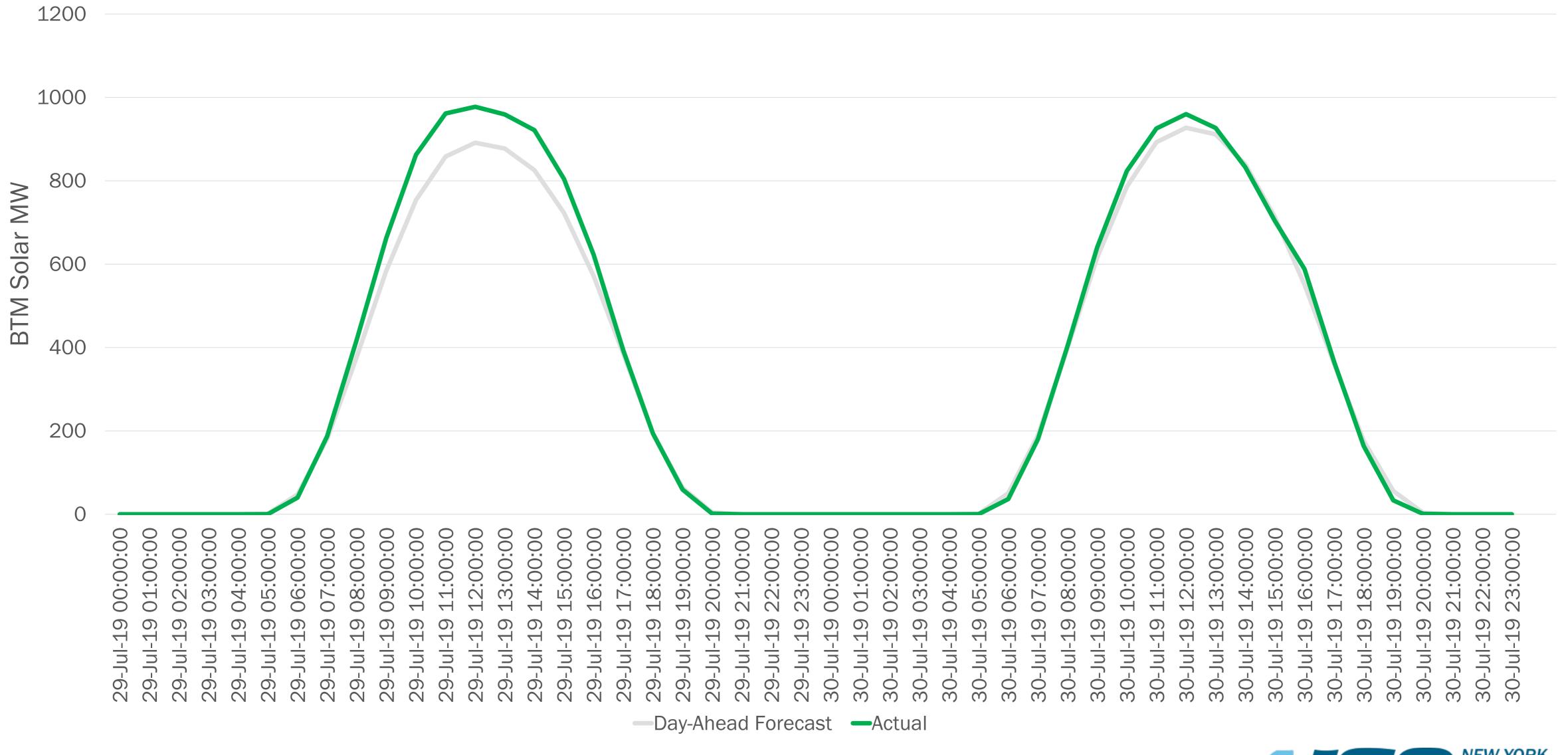


Heat Wave - NYCA Wind Profile 7/29/2019-7/30/2019





July 29-30, 2019 - NYCA BTM Solar Profile (~1,614MW)





Retail Demand Response Program Activations

Date	Transmission Owner
June 27, 2019	Con Ed, LIPA, National Grid, Orange & Rockland
July 10, 2019	RG&E
July 11, 2019	RG&E
July 16, 2019	RG&E
July 17, 2019	Con Ed, LIPA
July 18, 2019	RG&E
July 19, 2019	Central Hudson, Con Ed, National Grid, NYSEG, RG&E
July 20, 2019	Con Ed, LIPA
July 21, 2019	Con Ed, LIPA
July 22, 2019	Con Ed
July 29, 2019	LIPA, RG&E
July 30, 2019	Central Hudson, Con Ed, LIPA
July 31, 2019	Orange & Rockland
August 08, 2019	Central Hudson
August 19, 2019	Central Hudson, Con Ed, NYSEG, RG&E
August 20, 2019	Con Ed
August 22, 2019	Con Ed



The Mission of the New York Independent System Operator, in collaboration with its stakeholders, is to serve the public interest and provide benefits to consumers by:

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

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