

# 2021-25 RS-1 Budget Forecast

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# RS-1 Forecast Methodology

- **Net Energy**

- Based on end-use energy models, net of transmission losses, with adjustments. Through July 2020, Actual Net Energy is below budget.
- 2020 through 2025 Net Energy forecast values reflect the anticipated impacts due to COVID-19 and the resulting economic outlook. Actual energy usage through July has been incorporated into the updated Net Energy forecast.

- **Wheels and Exports**

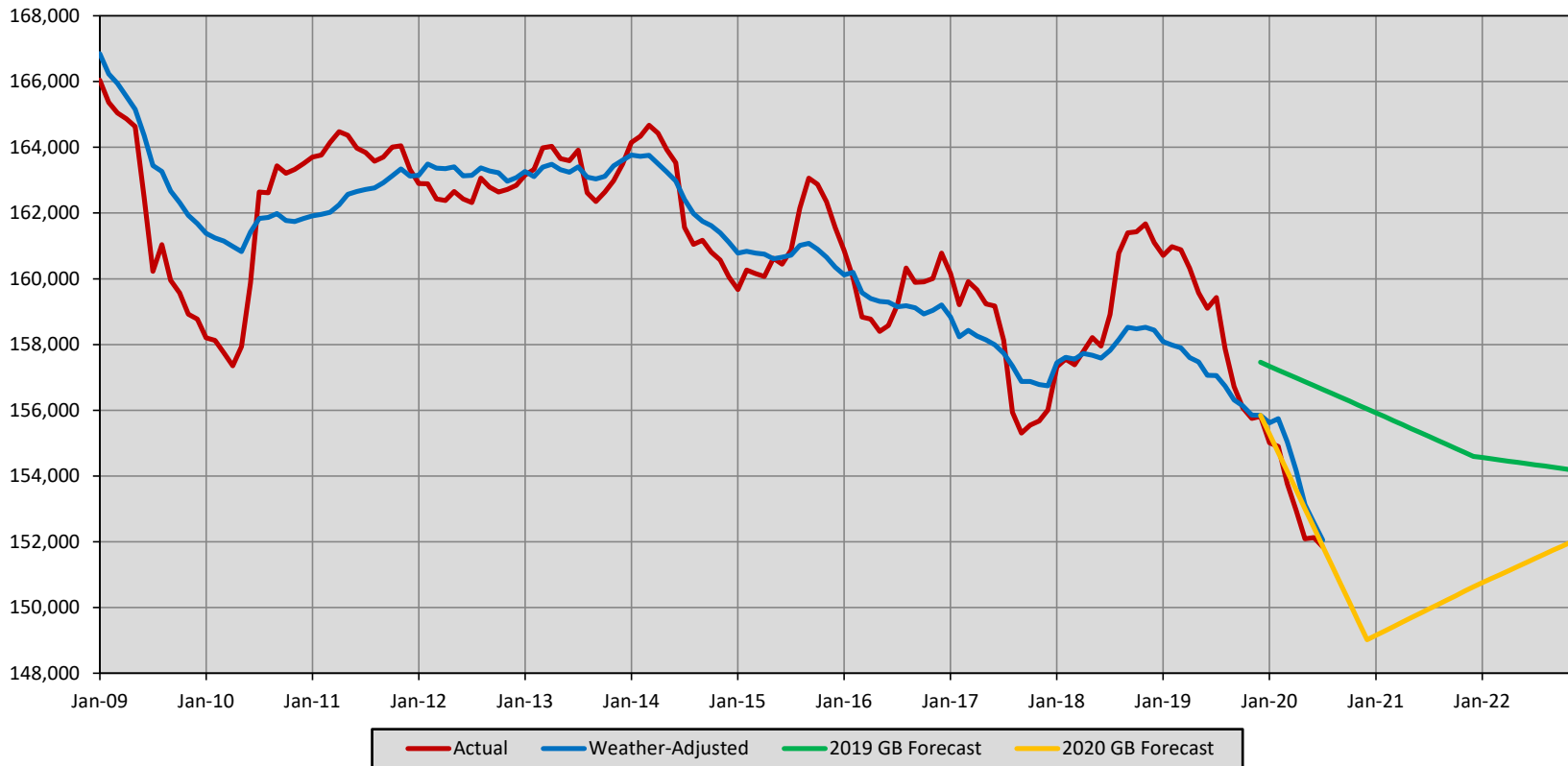
- Updated methodology: Forecast levels are determined by a statistical analysis of recent history. Through July 2020, Actual Wheels and Exports are below budget.

# Energy Forecast Updates

- In updating the 2020-2025 baseline energy forecast, the NYISO:
  - Included the May 2020 Moody's baseline economic forecast was included in the model guidance. Gross Domestic Product and employment are composite forecasts including information from the June and July 2020 EIA Short Term Energy Outlook (STEO) forecasts
  - Considered Transmission Owner forecast outlooks
  - Used Moody's May 2020 high and low regional economic forecasts to gain a sense of the uncertainty surrounding the economic outlook

# Total Energy GWh 12-Month Moving Sum - NYCA

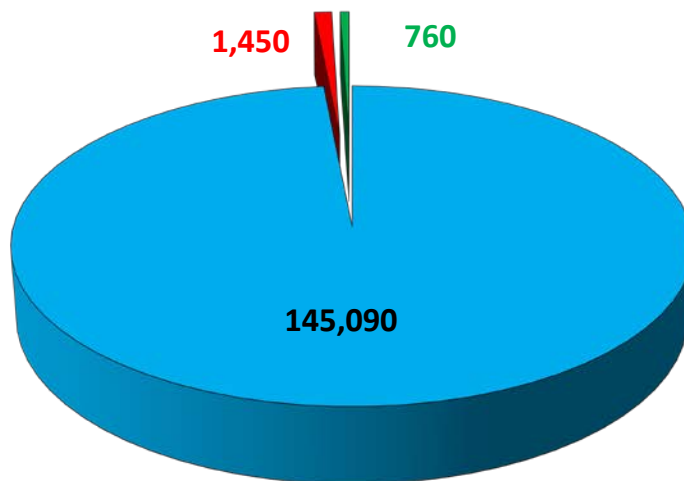
NYCA



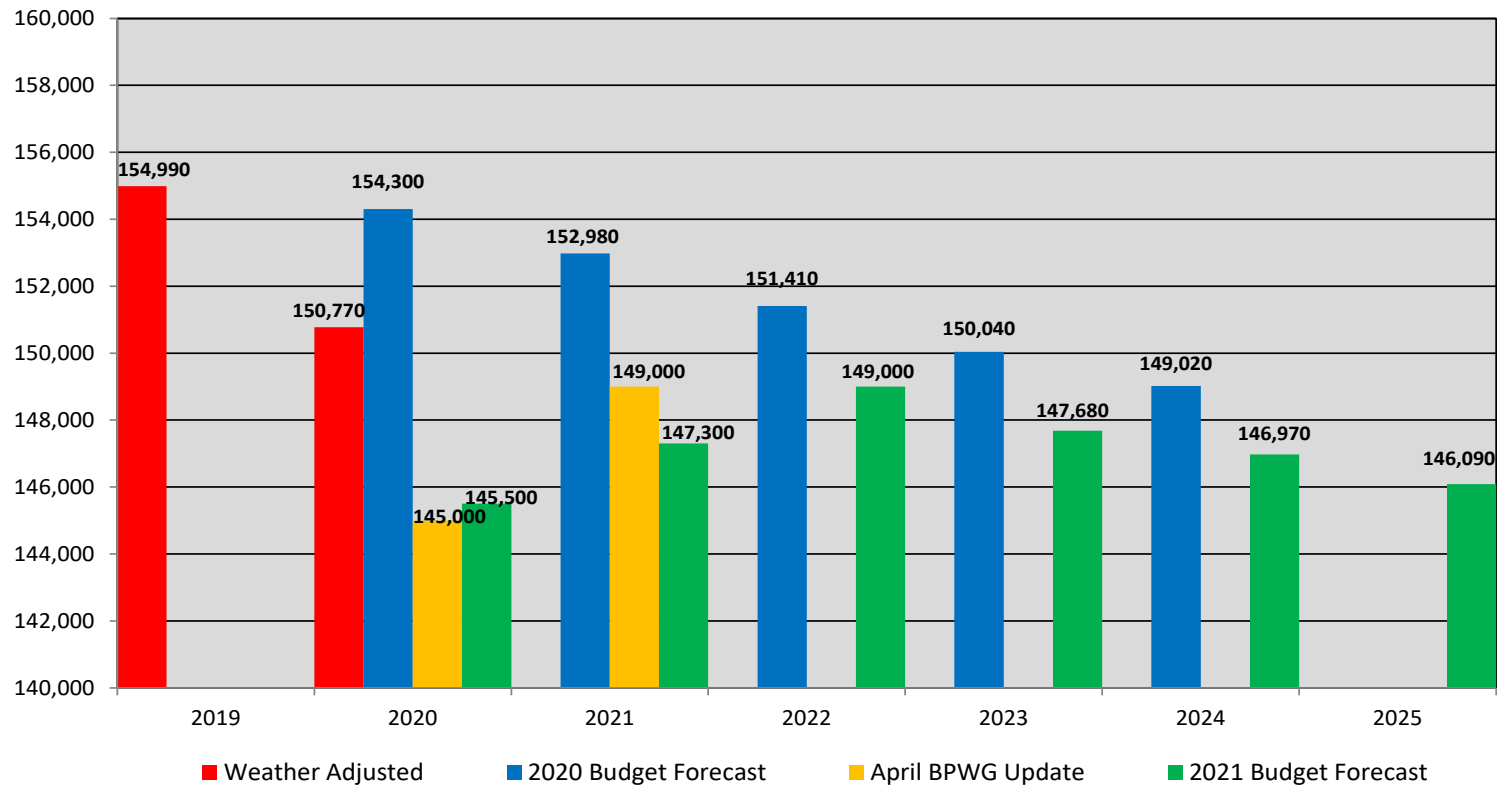
# 2021 RS-1 Budget Forecast Components

## 2021 RS-1 Forecast (GWh)

■ Net Energy - 145,090 GWh
■ Exports - 1,450 GWh
■ Wheels - 760 GWh
<b>TOTAL - 147,300 GWh</b>
2020 RS-1 - 154,300 GWh



# RS-1 Budget Forecast - GWh



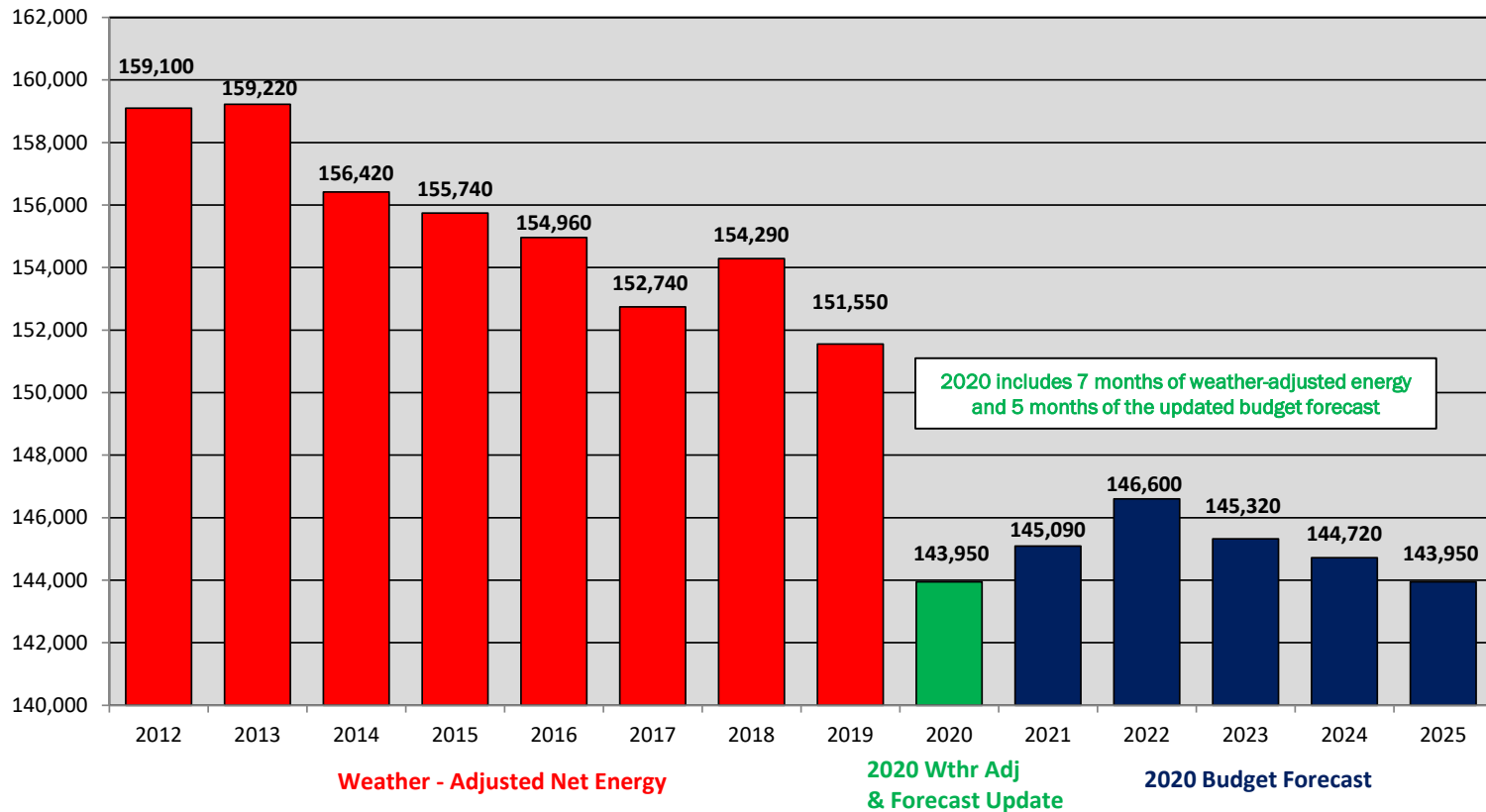
Red 2020 bar represents weather adjusted loads through July plus original 2020 Budget for rest of the year



# Reasons for 2021-25 Budget Forecast Decrease

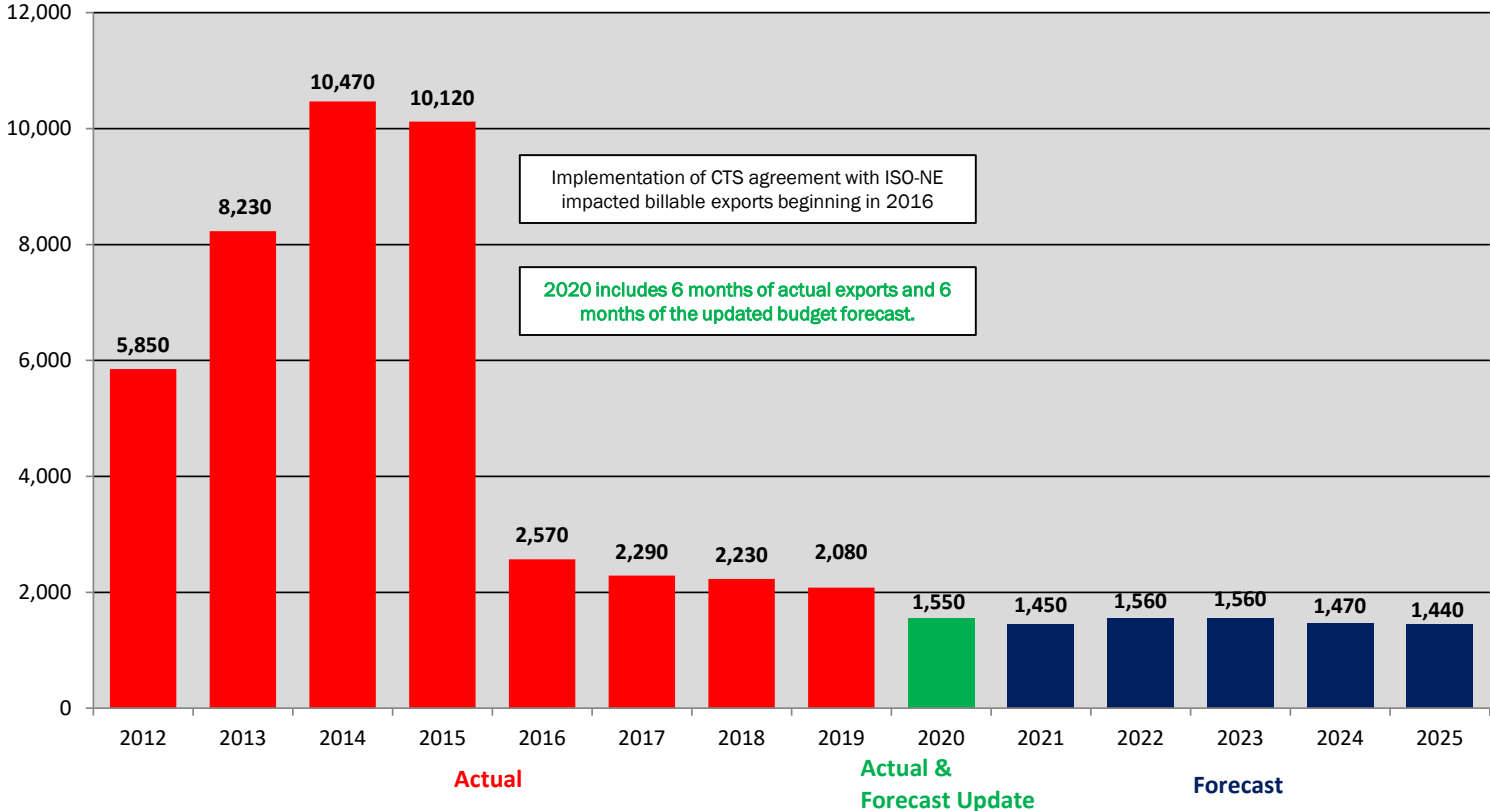
- The budget forecast includes the estimated impacts of the shutdown/recession associated with COVID-19 and subsequent recovery of NY's economy.
- Energy efficiency and codes & standards continue to have strong load reducing impacts (the 2020 Gold Book baseline forecast incorporates the effects of the January 2020 PSC Order).
- While the Wheels and Exports forecasts have been revised down, there continues to be a high level of uncertainty with respect to their volumes. Observed Wheels and Exports GWh have been lower than expected through July 2020.
- There are larger BTM Solar reductions due to the increased 2025 state policy target (as reflected in the 2020 Gold Book scenarios).

# Net Energy - GWh

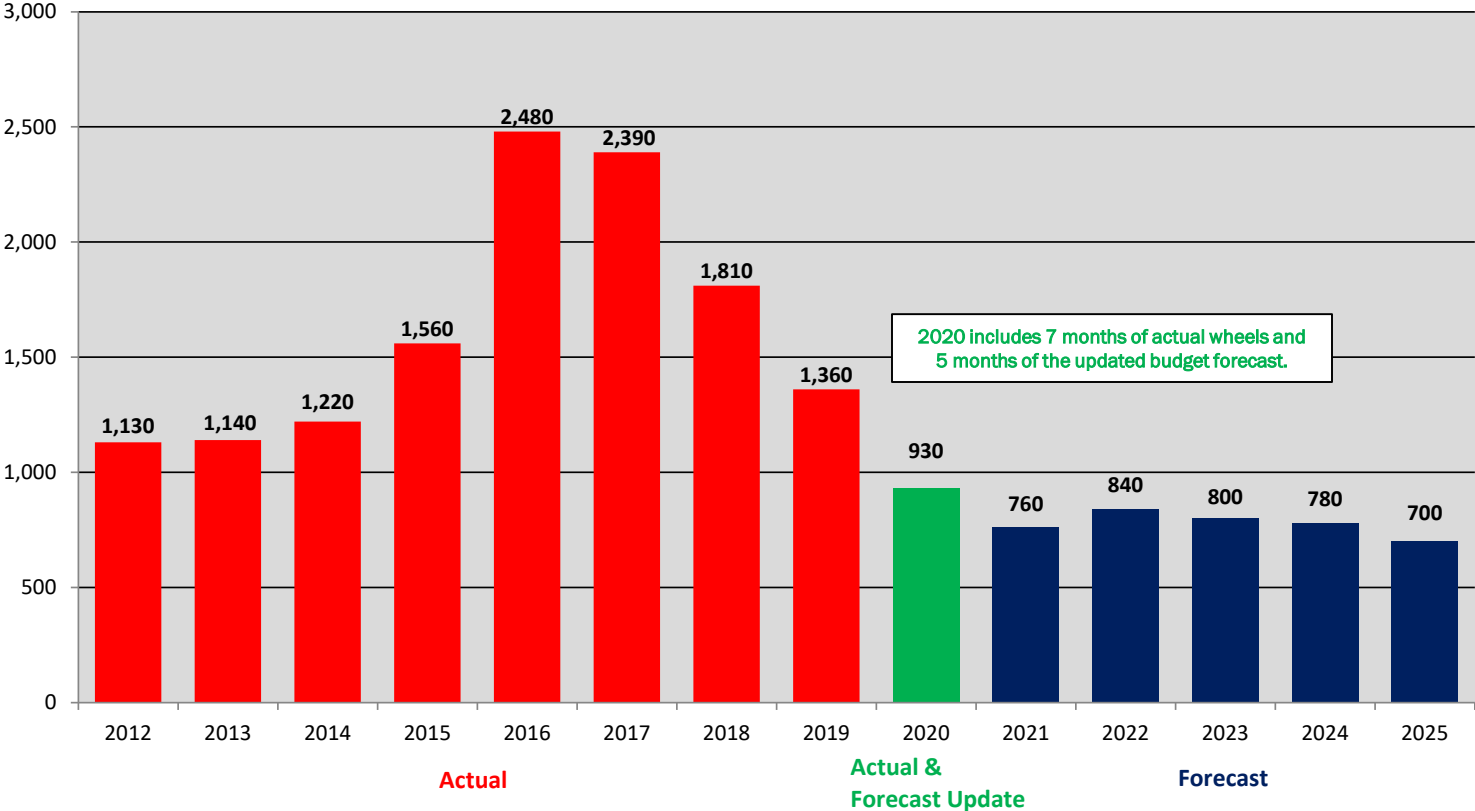




# Exports - GWh



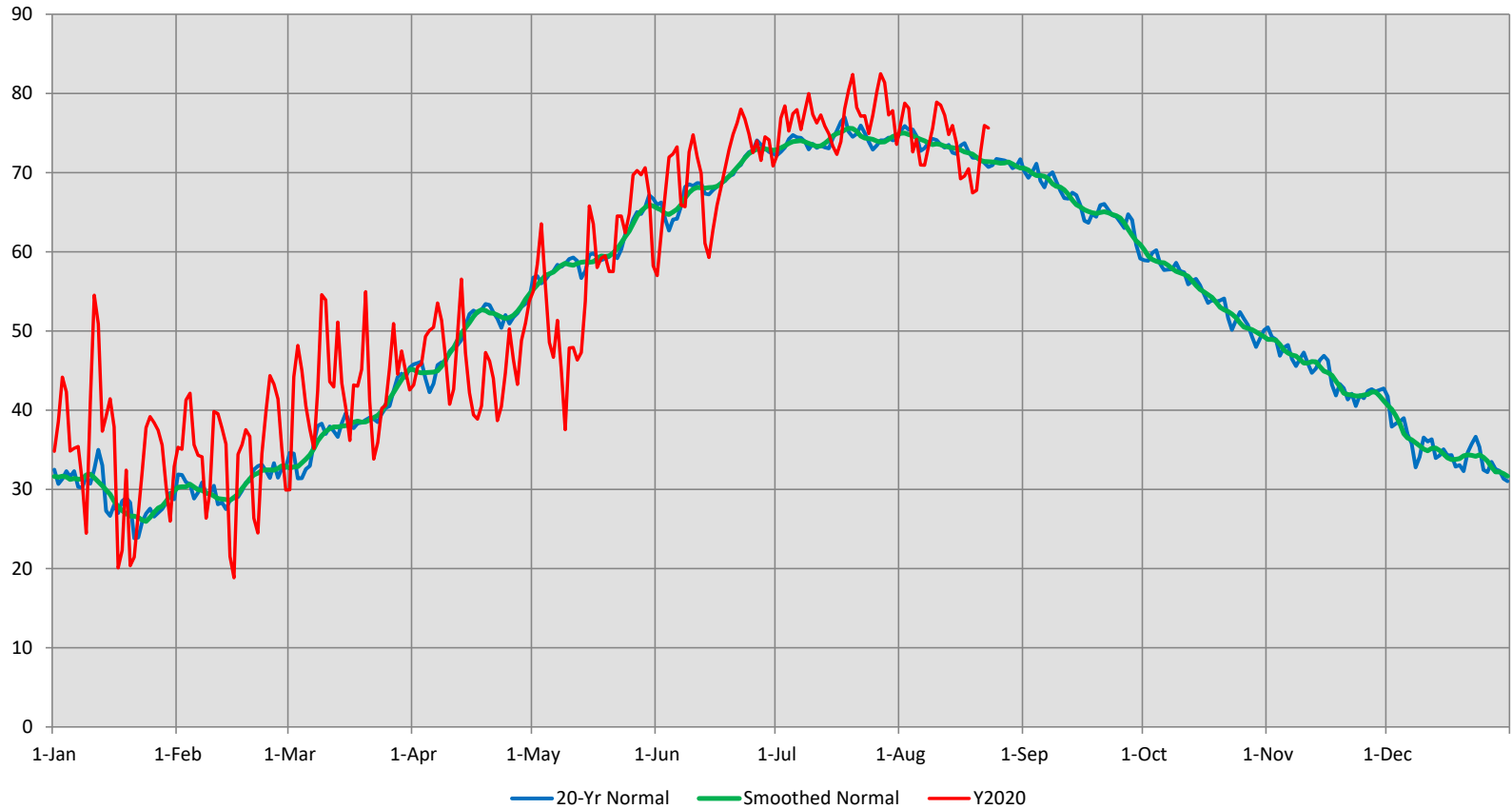
# Wheels - GWh



# 2020 Budget Forecast Updated Outlook

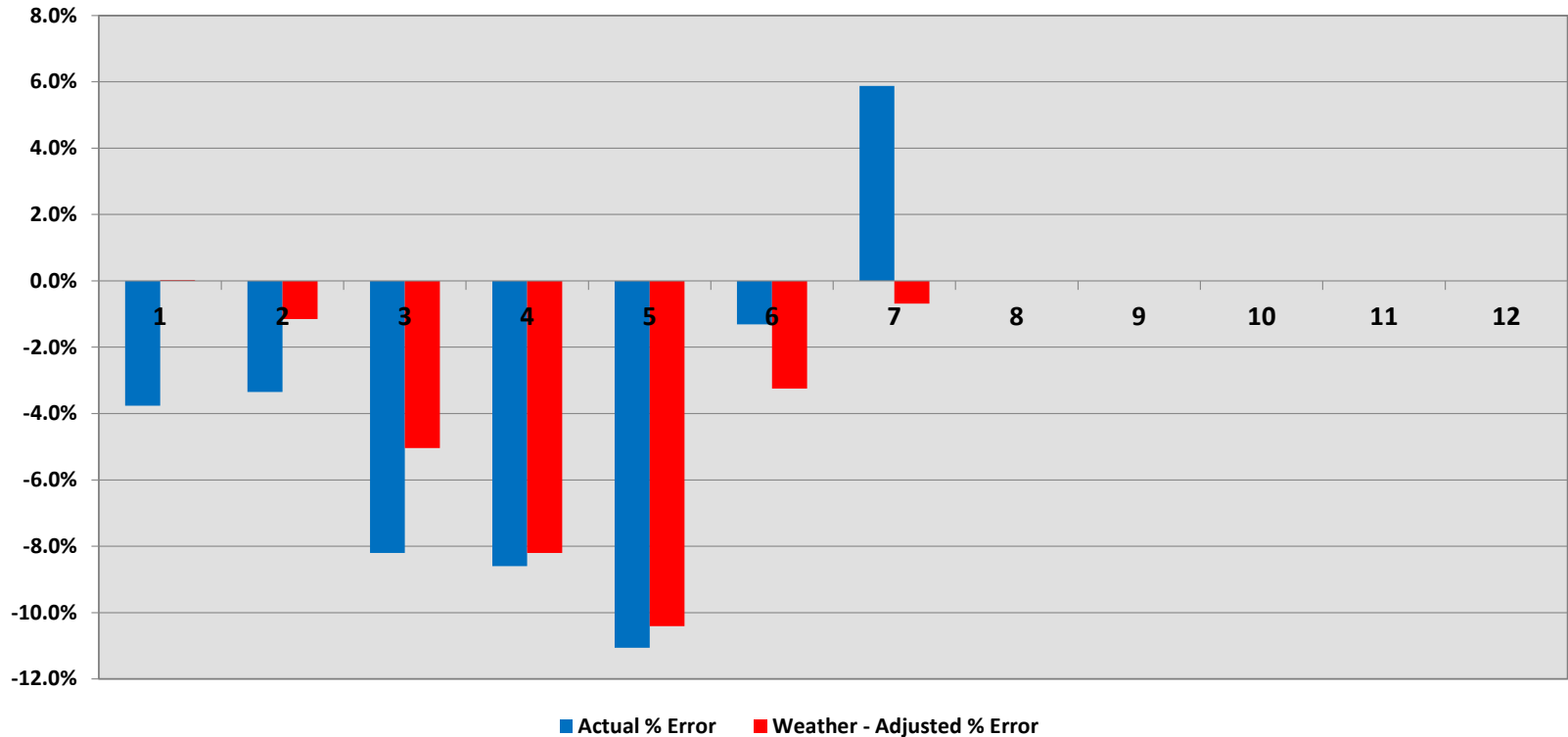
- The mild winter contributed weather related impacts of -1,000 GWh (relative to the budget forecast under normal weather)
- The load-reducing impacts of COVID-19 and the economy have contributed to -3,500 GWh of energy reductions relative to budget through July
- The very warm summer has contributed offsetting weather related impacts of +1,300 GWh through mid-August

# NYCA Composite Daily Average Temperature, 2020 and Normal



# 2020 Net Energy Budget Forecast Tracking – Monthly Percent Over/Under

Net Energy Forecast Percent Error (Actual - Forecast)



The blue bars represent the total budget difference including weather impacts.

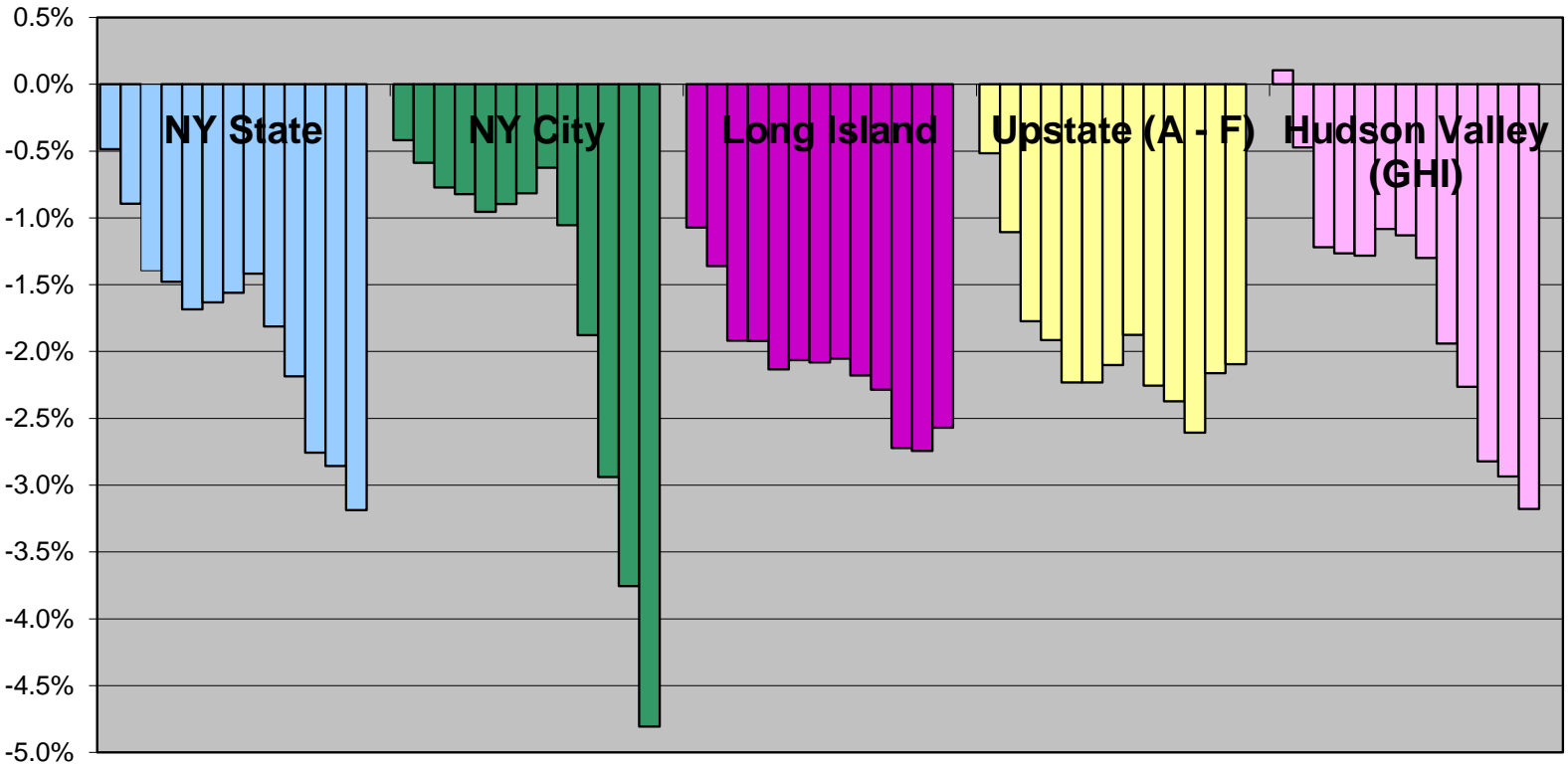
The red bars represent the isolated non-weather impacts including the virus, the economy, and other factors.



# Weather Adjusted Energy Growth Rates, July 2019 to July 2020

## NYCA Sendout - 12-Month Moving Average Annual Growth Rate

Weather Adjusted Growth, Jul-2019 to Jul-2020



# RS-1 Budget Summary - GWh

Actual & Forecast Energy - GWh						Pct Growth		
Year	Net Energy	Exports	Wheels	RS-1 Total	Forecast	Net Energy <sup>a</sup>	RS-1 Tot <sup>b</sup>	Cumulative <sup>c</sup>
2014	156,030	10,470	1,220	167,720				
2015	157,310	10,120	1,560	168,990				
2016	156,820	2,570	2,480	161,870				
2017	152,040	2,290	2,390	156,720				
2018	156,850	2,230	1,810	160,890				
2019	151,550	2,080	1,360	154,990				
2020*	143,020	1,550	930	145,500	154,300	-5.63%	-0.45%	
2021	145,090	1,450	760	147,300	147,300	1.45%	-4.54%	-4.54%
2022	146,600	1,560	840	149,000	149,000	1.04%	1.15%	-3.38%
2023	145,320	1,560	800	147,680	147,680	-0.87%	-0.89%	-4.27%
2024	144,720	1,470	780	146,970	146,970	-0.41%	-0.48%	-4.75%
2025	143,950	1,440	700	146,090	146,090	-0.53%	-0.60%	-5.35%

\* 2020 Includes 7 months actual & 5 months updated 2020 budget forecast

(a) - year-over-year percent change in net energy

(b) - year-over-year percent change in total RS-1 Budget forecast

(c) - cumulate percent change in total RS-1 Budget forecast relative to 2020 RS-1 Budget

# RS-1 Budget by Month, Actual and Forecast - GWh

Month	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
1	15,800	15,320	13,710	13,380	14,380	13,890	12,940	13,030	13,110	13,060	13,030	12,990
2	14,140	14,660	12,750	11,720	11,860	12,110	11,980	11,190	11,310	11,260	11,610	11,190
3	14,540	14,670	12,400	13,050	12,730	12,620	11,520	11,420	11,550	11,490	11,440	11,380
4	12,190	12,190	11,690	11,280	11,690	11,090	10,200	10,260	10,410	10,350	10,290	10,250
5	12,510	12,970	12,410	12,000	12,360	11,470	10,530	11,000	11,140	11,070	11,010	10,970
6	14,180	13,760	13,730	13,570	13,350	12,870	12,920	12,750	12,920	12,830	12,750	12,720
7	15,690	16,110	16,580	15,470	16,390	16,660	16,440	16,400	16,600	16,440	16,330	16,300
8	14,800	16,140	17,100	14,840	16,630	15,070	14,830	15,180	15,380	15,220	15,110	15,080
9	13,650	14,730	13,840	13,230	13,790	12,590	11,380	11,850	12,010	11,870	11,770	11,720
10	12,710	12,950	12,110	12,320	12,330	11,570	10,530	10,980	11,100	10,960	10,820	10,770
11	13,210	12,670	11,990	12,090	12,280	11,920	10,410	10,890	11,010	10,860	10,710	10,670
12	14,300	12,820	13,560	13,770	13,100	13,130	11,820	12,350	12,460	12,270	12,100	12,050
<b>Annual</b>	<b>167,720</b>	<b>168,990</b>	<b>161,870</b>	<b>156,720</b>	<b>160,890</b>	<b>154,990</b>	<b>145,500</b>	<b>147,300</b>	<b>149,000</b>	<b>147,680</b>	<b>146,970</b>	<b>146,090</b>



# Questions?