

RS-1 Budget Forecast, 2019 to 2023

Arthur Maniaci

Supervisor, Load Forecasting & Analysis

Budget & Priorities Working Group

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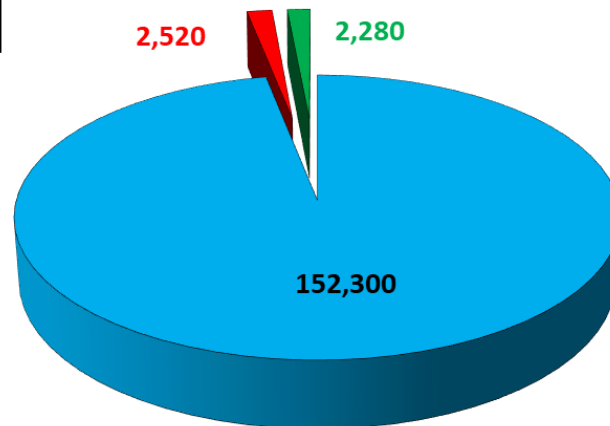
RS-1 Forecast Methodology

- **Net Energy** – Based on end-use energy models, net of transmission losses, with adjustments. Through July 2018, actual is ahead of budget.
 - **Energy Models:** Examined Moody’s Analytics forecasts & reviewed current energy usage patterns. Budget forecast is based on 2018 Gold Book.
 - **Energy Efficiency & Solar PV Impact:** The budget forecast includes the same energy efficiency impacts and BTM Solar PV as the Gold Book forecast.
- **Exports**
 - Annual levels determined by judgment & statistical analysis of recent history. Through July 2018, actual is ahead of budget.
- **Wheels**
 - Annual levels determined by judgment & statistical analysis of recent history. Through July 2018, actual is behind budget.

Three Components of Forecast

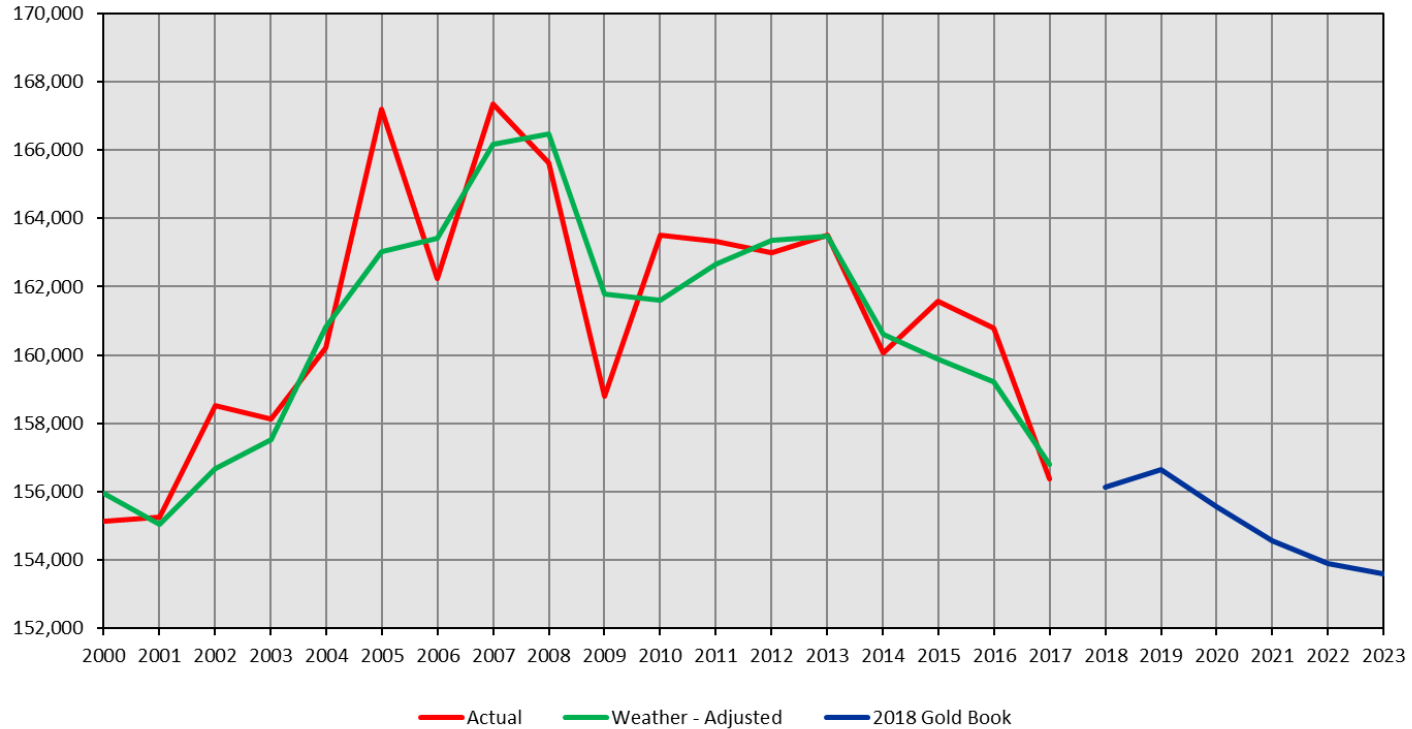
2019 RS-1 Forecast (GWh)

■ Net Energy - 152,300 GWh
■ Exports - 2,520 GWh
■ Wheels - 2,280 GWh
TOTAL - 157,100 GWh
2018 RS-1 - 157,810 GWh

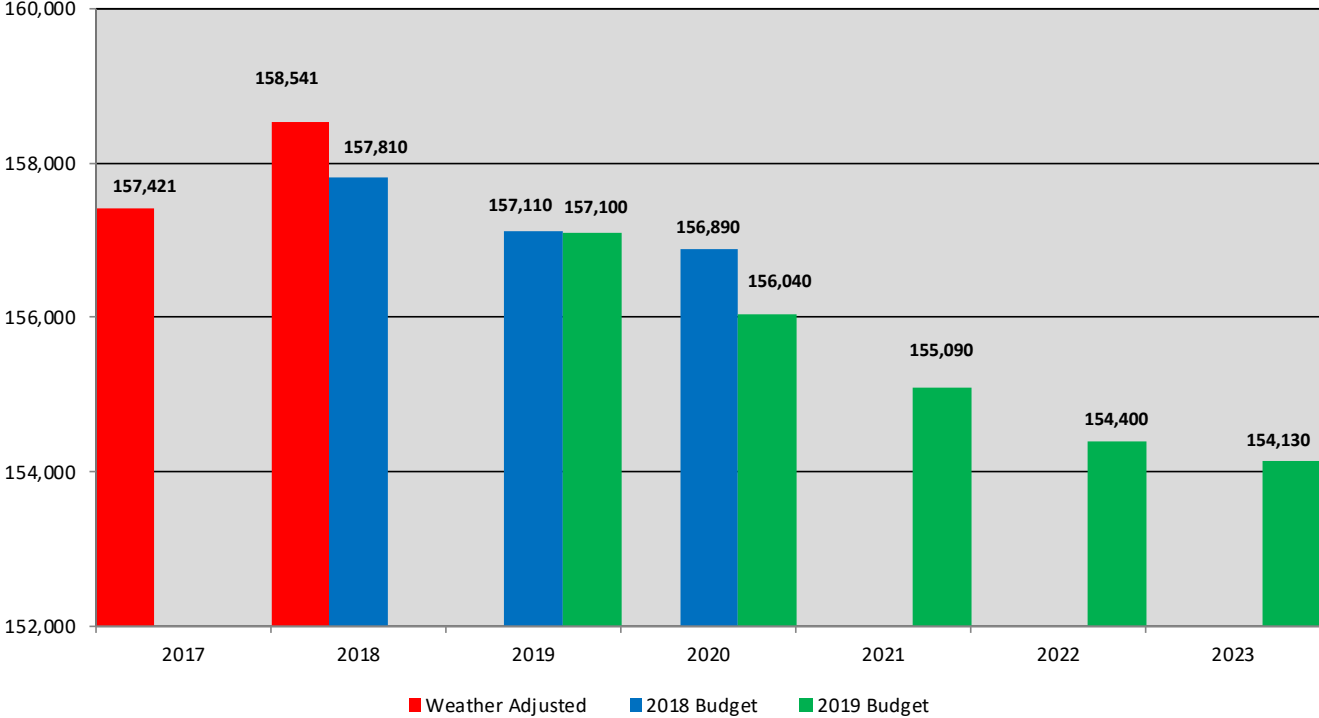


Energy Sendout - GWh

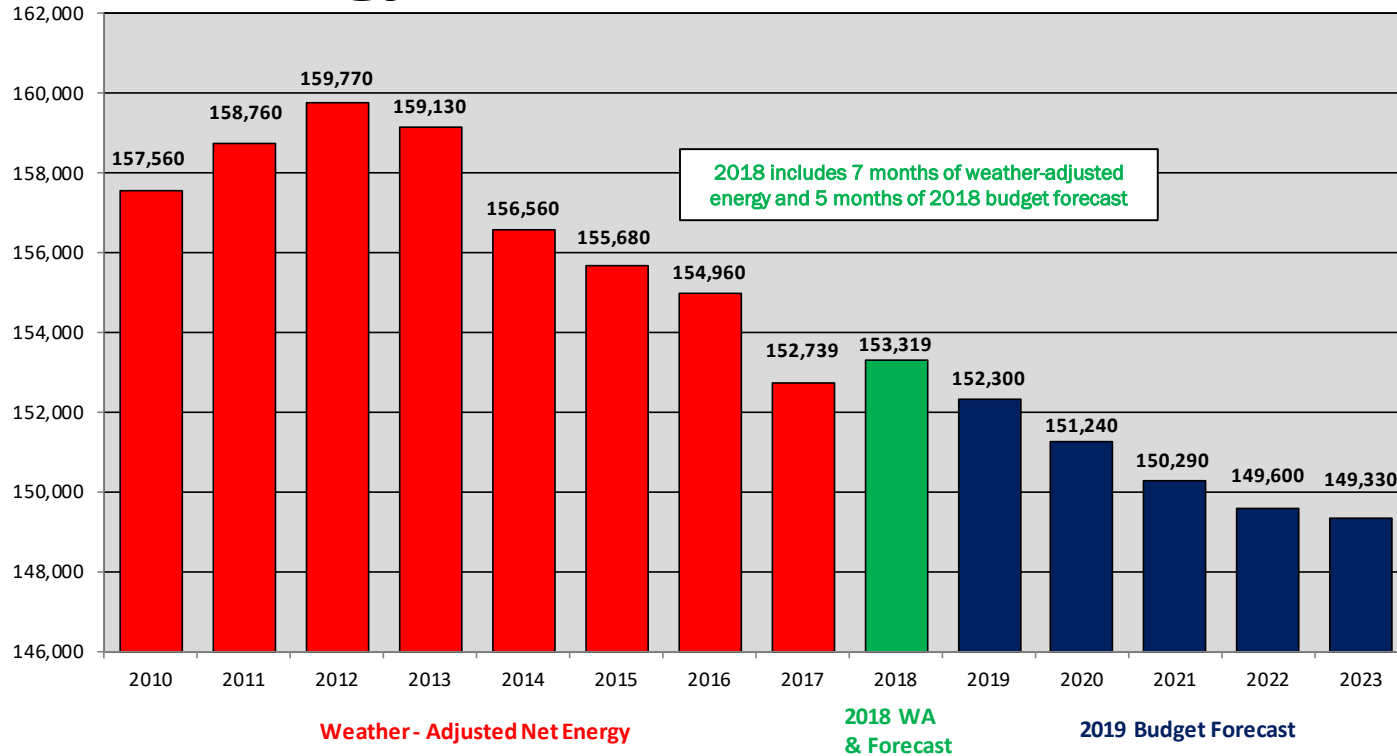
Actual, Weather-Adjusted, and Forecast



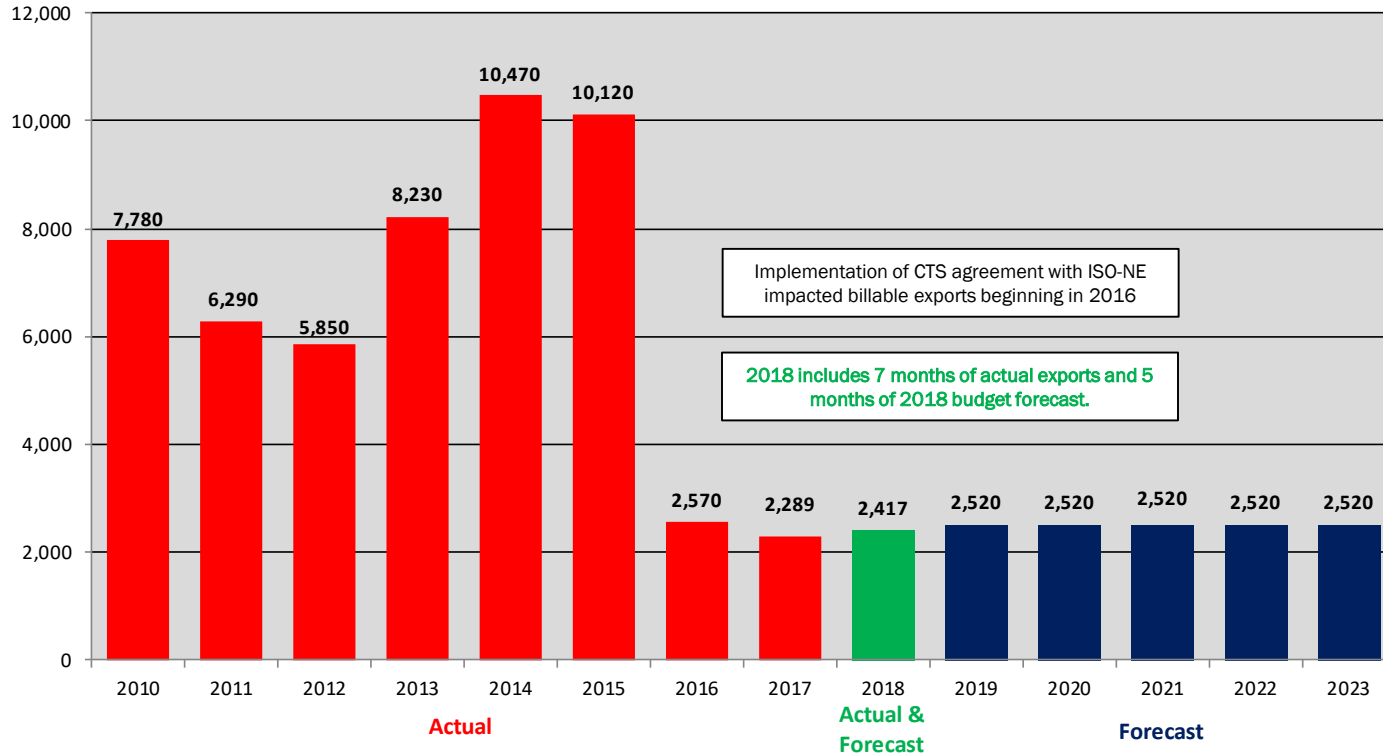
RS-1 Budget Forecast - GWh



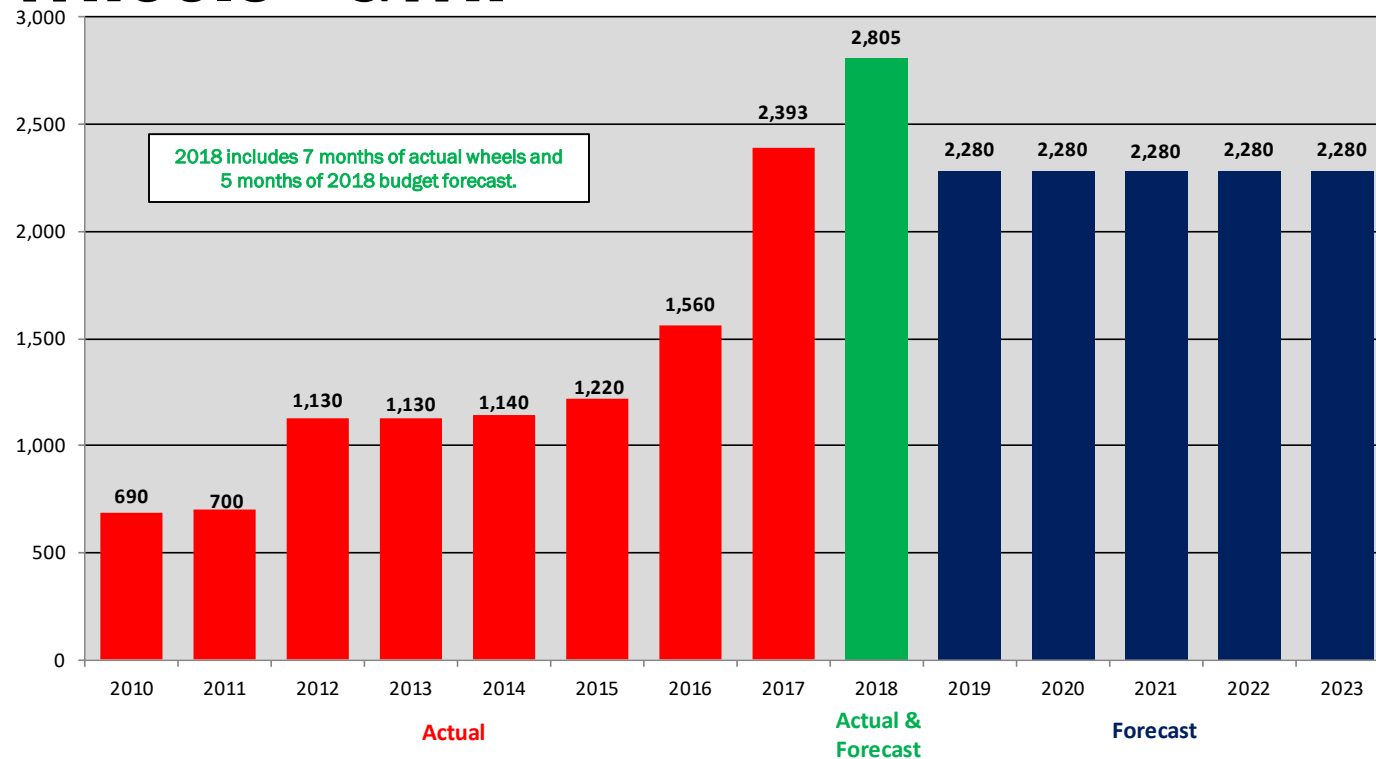
Net Energy - GWh



Exports - GWh



Wheels - GWh



RS-1 Budget Summary - GWh

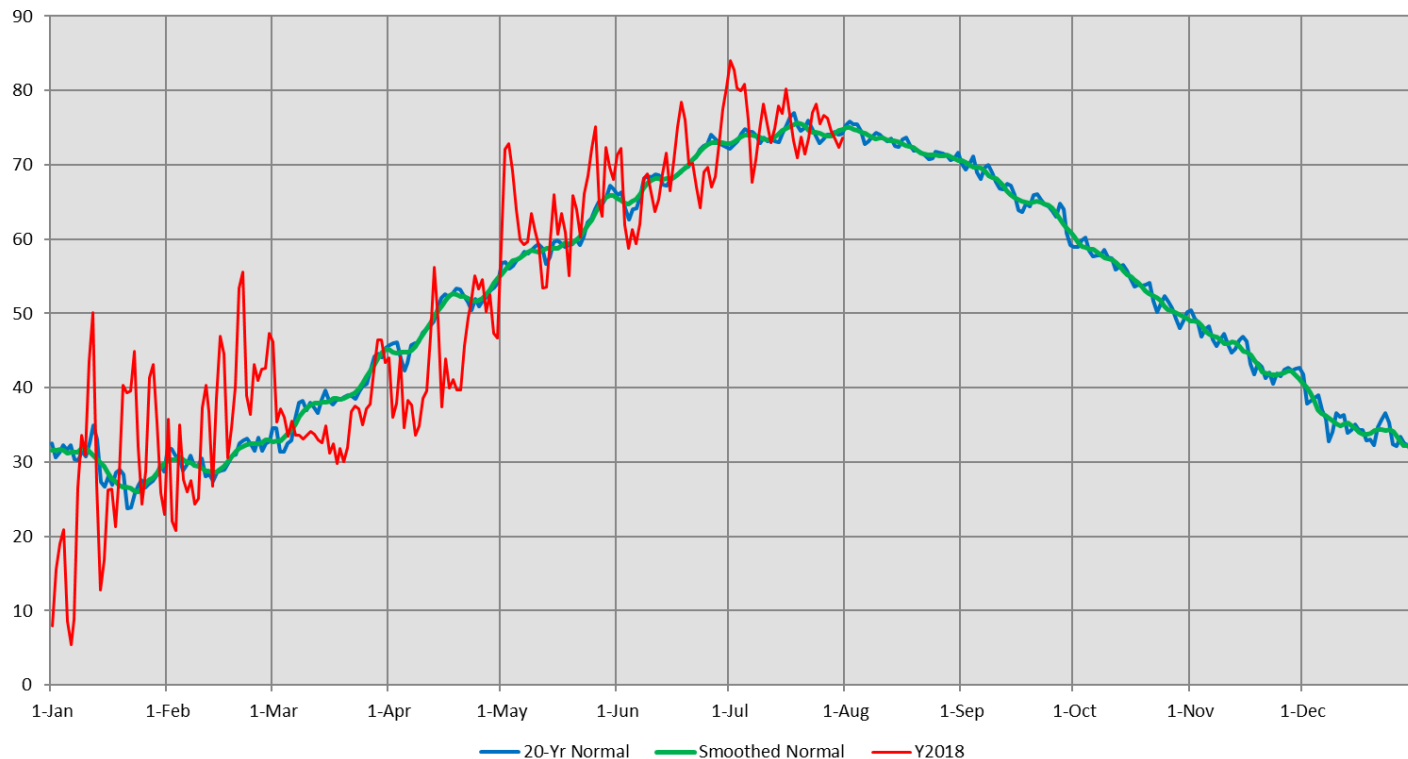
Actual & Forecast Energy - GWh						Pct Growth		
Year	Net Energy	Exports	Wheels	RS-1 Total	Forecast	Net Energy	RS-1 Tot	Cumulative
2012	159,170	5,848	1,125	166,143				
2013	159,132	8,229	1,136	168,497				
2014	156,035	10,470	1,220	167,725				
2015	157,307	10,121	1,559	168,987				
2016	156,826	2,572	2,481	161,879				
2017	152,034	2,289	2,393	156,716				
2018*	153,844	2,417	2,805	159,066	157,810	1.19%	0.70%	
2019	152,300	2,520	2,280	157,100	157,100	-1.00%	-0.45%	-0.45%
2020	151,240	2,520	2,280	156,040	156,040	-0.70%	-0.67%	-1.12%
2021	150,290	2,520	2,280	155,090	155,090	-0.63%	-0.61%	-1.73%
2022	149,600	2,520	2,280	154,400	154,400	-0.46%	-0.44%	-2.18%
2023	149,330	2,520	2,280	154,130	154,130	-0.18%	-0.17%	-2.35%

* 2018 Includes 7 months actual & 5 months budget forecast

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

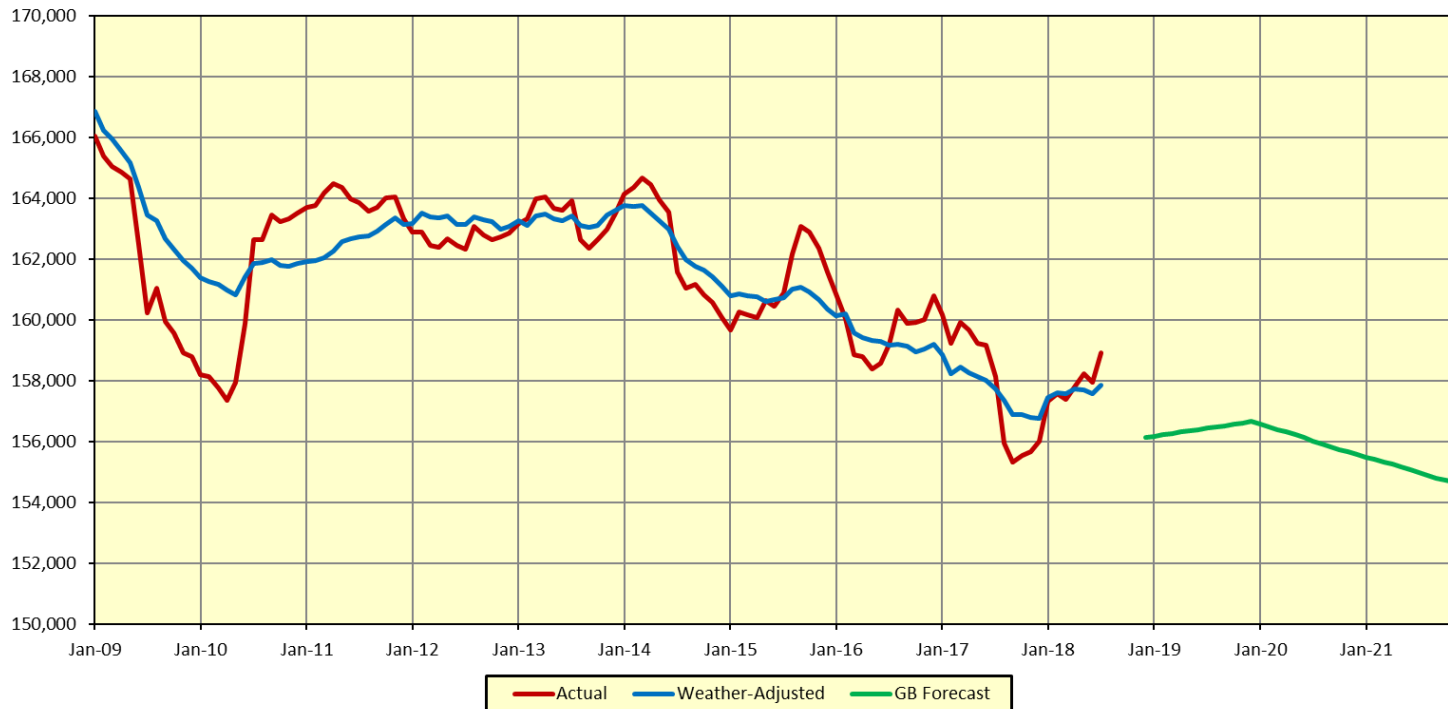
Month	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
1	14,020	14,680	15,800	15,330	13,710	13,380	14,380	13,650	13,560	13,480	13,420	13,390
2	12,670	13,470	14,140	14,660	12,750	11,720	11,860	12,410	12,330	12,260	12,200	12,180
3	12,710	13,750	14,540	14,670	12,400	13,050	12,730	12,870	12,780	12,700	12,650	12,630
4	12,110	12,450	12,190	12,190	11,690	11,280	11,690	11,430	11,350	11,280	11,230	11,210
5	13,310	12,970	12,510	12,960	12,410	12,000	12,360	12,090	12,010	11,930	11,880	11,860
6	14,360	14,220	14,180	13,750	13,730	13,570	13,350	13,400	13,310	13,230	13,170	13,150
7	17,350	17,710	15,690	16,120	16,580	15,470	16,390	15,890	15,790	15,690	15,620	15,590
8	16,630	15,190	14,800	16,140	17,100	14,840	15,350	15,270	15,160	15,070	15,000	14,980
9	13,550	13,280	13,650	14,730	13,840	13,230	13,180	13,170	13,080	13,000	12,940	12,920
10	12,590	12,740	12,710	12,960	12,110	12,320	12,290	11,960	11,880	11,810	11,760	11,740
11	12,850	13,130	13,210	12,680	11,990	12,090	12,130	11,930	11,850	11,780	11,730	11,700
12	13,990	14,900	14,300	12,810	13,560	13,770	13,360	13,030	12,940	12,860	12,800	12,780
Annual	166,850	166,140	168,490	167,720	169,000	156,720	159,070	157,100	156,040	155,090	154,400	154,130

NYCA Composite Daily Average Temperature, 2018 and Normal



Total Energy GWh 12-Month Moving Sum - NYCA

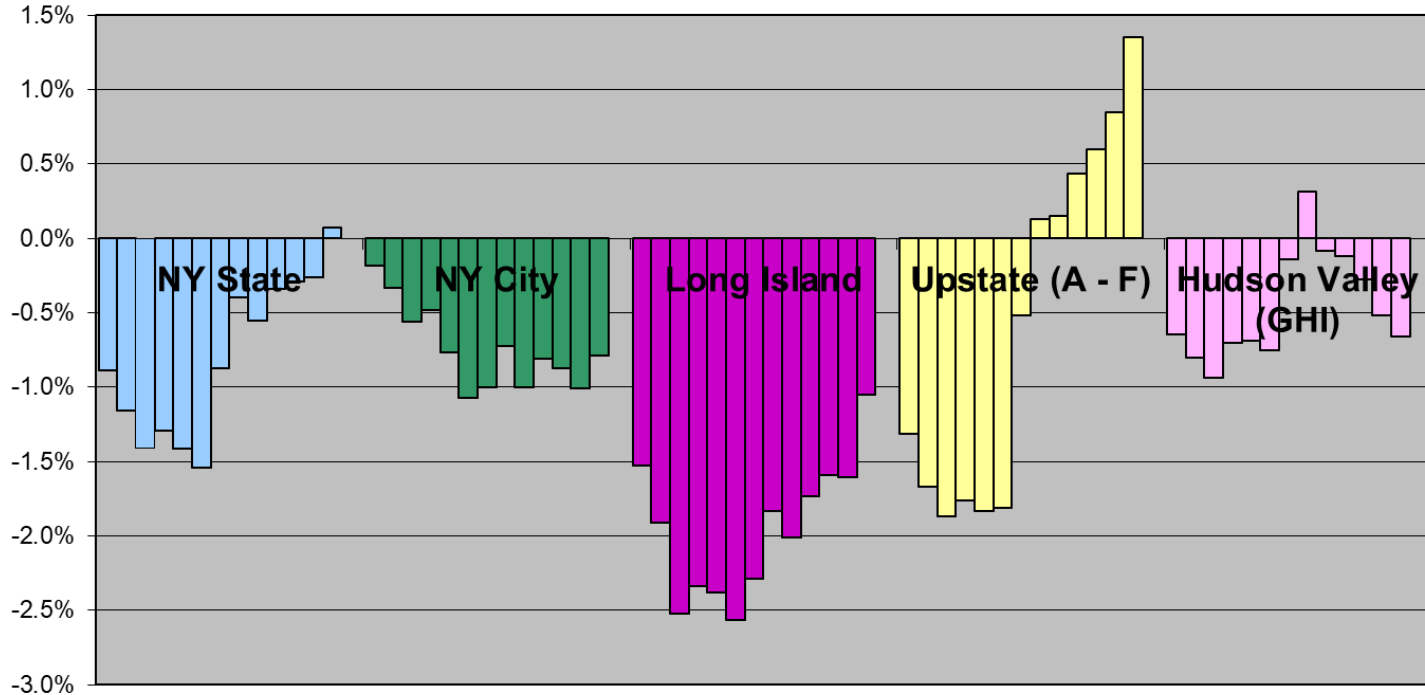
NYCA



Weather Adjusted Energy Growth Rates, June 2017 to June 2018

NYCA Sendout - 12-Month Moving Average Annual Growth Rate

Weather Adjusted Growth, Jul-2017 to Jul-2018



Questions?

We are here to help. Let us know if we can add anything.

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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