



Estimated Impacts of COVID-19 on Recent NYCA Demand & NYISO RS-1 Energy Forecasts

Demand Analysis through 4/25/2020

Chuck Alonge

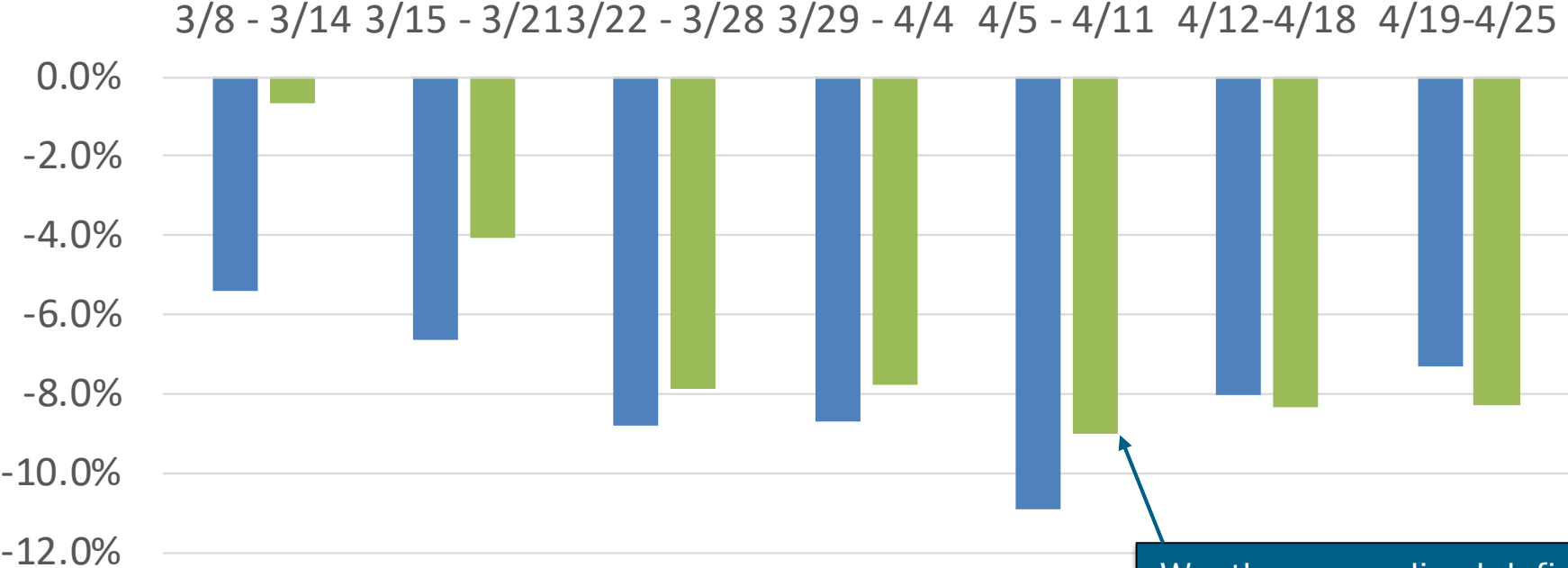
Demand Forecasting & Analysis

Management Committee

April 29, 2020, Teleconference

Recent Impacts on Daily Energy by Week

Weekly Energy Use -% Versus Expected (NYCA)



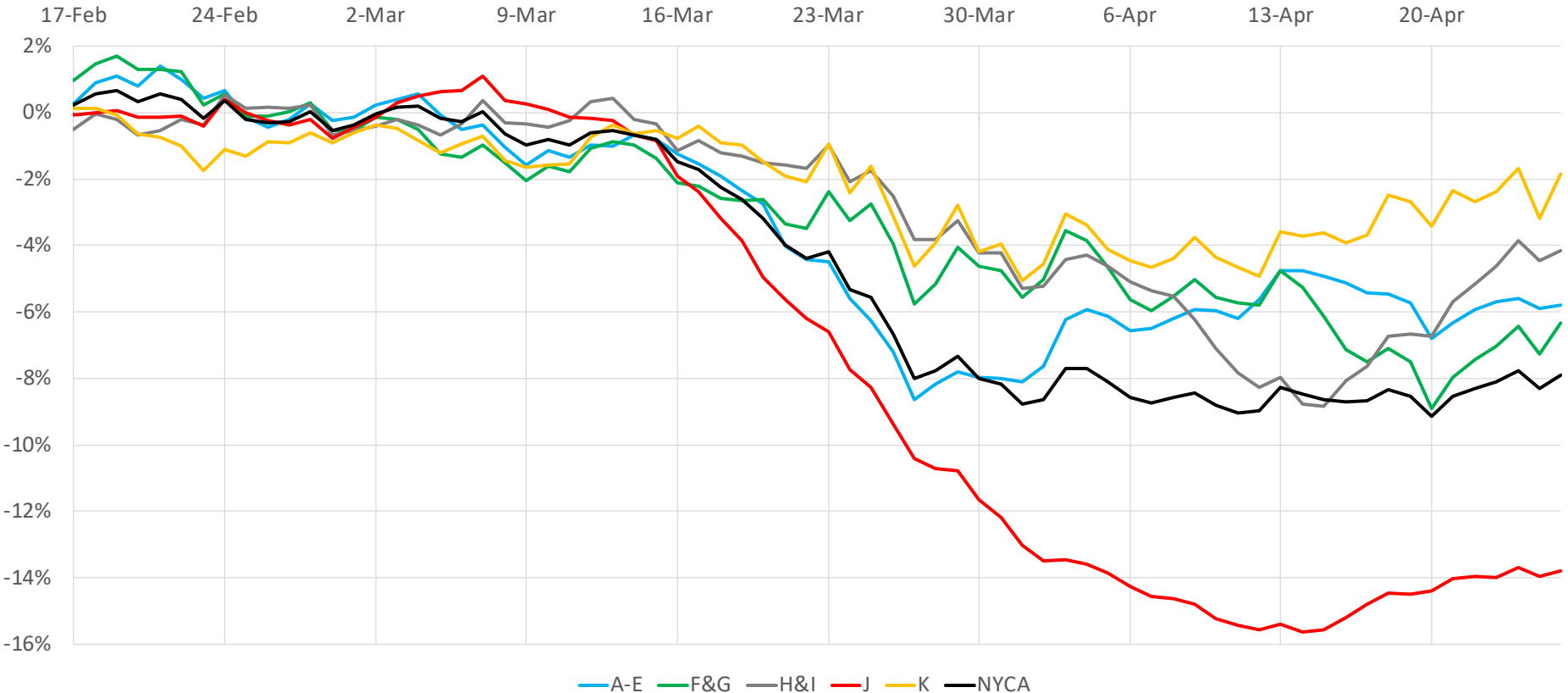
Includes Weekend Days

Actual Weather Normalized

Weather normalized deficits show effects of COVID-19 shutdowns

Regional Impacts on Daily Energy Patterns

2020 Weather Normalized Load Relative to Expected Load, 7-Day Moving Average (Daily Energy)

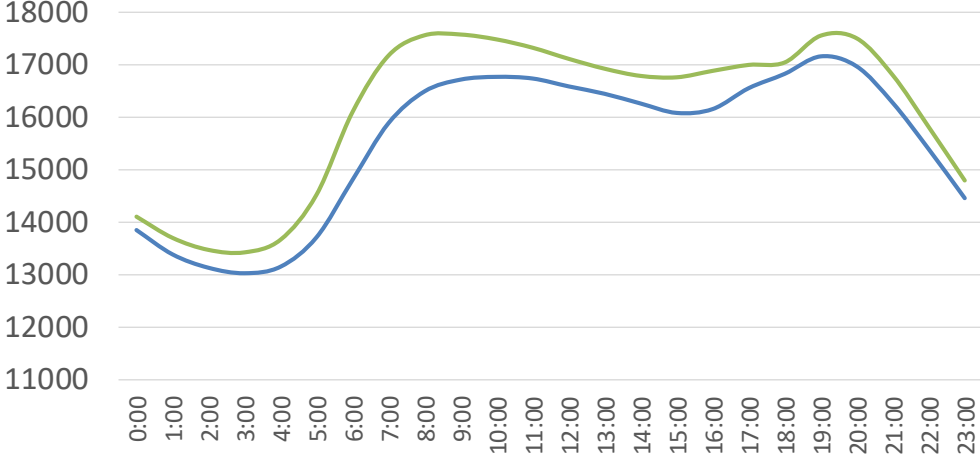


Recent Impacts on Hourly Load Patterns

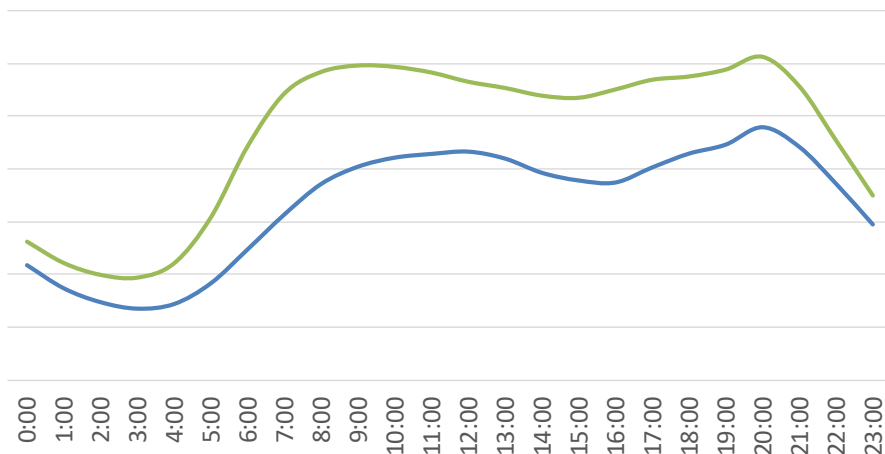
March 16-20 (MW)

— Actual — Simulated

April 20-24 (MW)



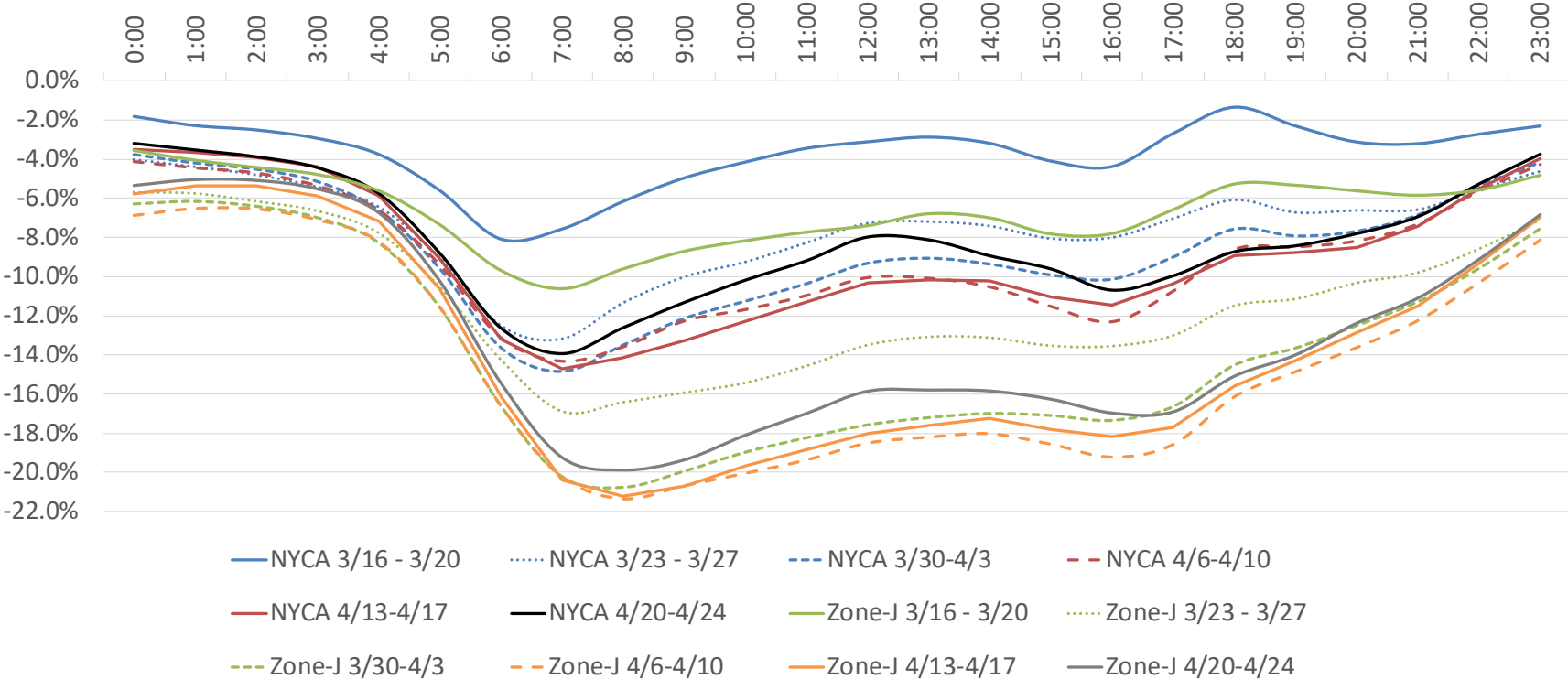
Week 1 of COVID-19 Shutdowns



Week 7

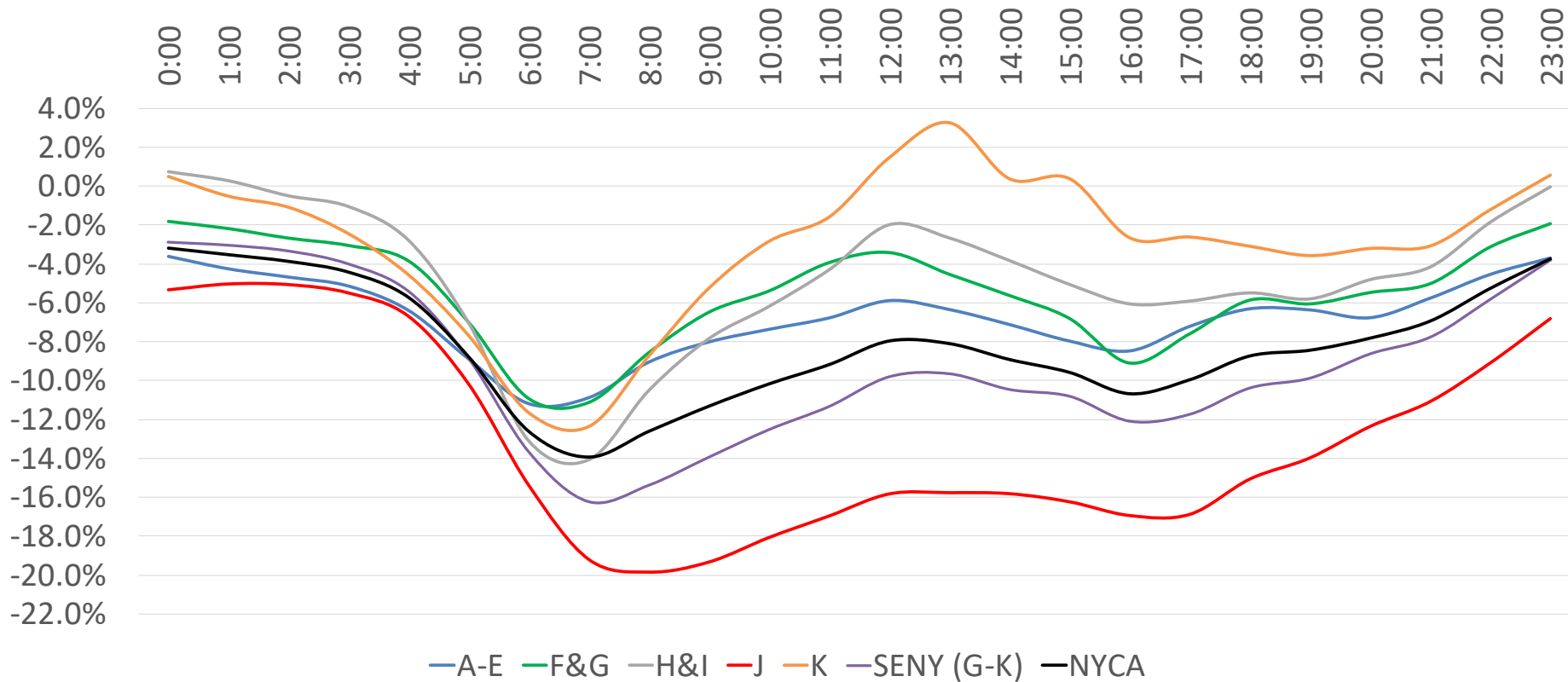
Impacts on Hourly Load Patterns

NYCA/Zone-J Load Profile - Weekday Diurnal Load Changes



Impacts on Hourly Load Patterns (Area)

Average Hourly Deficit by Area - Week of 4/20 - 4/24 (Weekdays)



Impacts on Hourly Load Patterns (Area)

Hour	A-E	F&G	H&I	J	K	SENY (G-K)	NYCA
0:00	-3.6%	-1.8%	0.7%	-5.3%	0.5%	-2.9%	-3.2%
1:00	-4.3%	-2.2%	0.3%	-5.0%	-0.5%	-3.1%	-3.5%
2:00	-4.7%	-2.7%	-0.5%	-5.1%	-1.1%	-3.3%	-3.9%
3:00	-5.1%	-3.1%	-1.1%	-5.5%	-2.4%	-4.0%	-4.4%
4:00	-6.4%	-3.9%	-2.8%	-6.7%	-4.6%	-5.4%	-5.7%
5:00	-8.9%	-7.0%	-7.0%	-10.2%	-7.7%	-8.9%	-8.8%
6:00	-11.2%	-10.9%	-13.1%	-15.4%	-11.7%	-13.7%	-12.6%
7:00	-10.9%	-11.1%	-14.1%	-19.2%	-12.4%	-16.3%	-13.9%
8:00	-9.1%	-8.6%	-10.5%	-19.9%	-8.7%	-15.4%	-12.6%
9:00	-8.0%	-6.5%	-7.8%	-19.3%	-5.2%	-14.0%	-11.3%
10:00	-7.4%	-5.4%	-6.2%	-18.1%	-2.8%	-12.5%	-10.2%
11:00	-6.8%	-3.9%	-4.3%	-17.0%	-1.6%	-11.3%	-9.2%
12:00	-5.9%	-3.4%	-2.0%	-15.8%	1.5%	-9.8%	-8.0%
13:00	-6.4%	-4.6%	-2.7%	-15.8%	3.3%	-9.7%	-8.1%
14:00	-7.1%	-5.6%	-3.8%	-15.8%	0.4%	-10.5%	-8.9%
15:00	-8.0%	-6.8%	-5.1%	-16.2%	0.4%	-10.8%	-9.6%
16:00	-8.5%	-9.1%	-6.1%	-16.9%	-2.6%	-12.1%	-10.7%
17:00	-7.2%	-7.6%	-5.9%	-16.9%	-2.6%	-11.7%	-10.0%
18:00	-6.3%	-5.9%	-5.5%	-15.1%	-3.1%	-10.4%	-8.7%
19:00	-6.4%	-6.1%	-5.8%	-14.0%	-3.6%	-9.9%	-8.4%
20:00	-6.8%	-5.5%	-4.8%	-12.4%	-3.2%	-8.6%	-7.8%
21:00	-5.8%	-5.0%	-4.2%	-11.1%	-3.1%	-7.8%	-6.9%
22:00	-4.5%	-3.1%	-1.9%	-9.1%	-1.2%	-5.8%	-5.3%
23:00	-3.7%	-2.0%	0.0%	-6.8%	0.6%	-3.8%	-3.7%

Average Hourly
Load Deficit
By Area
Week of
4/20-4/24

Impacts on Hourly Load Patterns (Zone)

Hour	A	B	C	D	E	F	G	H	I	J	K
0:00	-5%	-6%	-6%	-1%	8%	-3%	0%	-1%	2%	-5%	1%
1:00	-5%	-7%	-7%	-3%	7%	-4%	-1%	-3%	2%	-5%	-1%
2:00	-6%	-7%	-7%	-4%	6%	-4%	-1%	-3%	1%	-5%	-1%
3:00	-6%	-8%	-8%	-3%	6%	-4%	-2%	-4%	0%	-5%	-2%
4:00	-8%	-9%	-8%	-5%	5%	-5%	-3%	-6%	-1%	-7%	-5%
5:00	-10%	-12%	-11%	-6%	-1%	-8%	-6%	-11%	-5%	-10%	-8%
6:00	-12%	-14%	-13%	-7%	-5%	-12%	-9%	-17%	-11%	-15%	-12%
7:00	-12%	-14%	-12%	-8%	-4%	-12%	-10%	-15%	-13%	-19%	-12%
8:00	-11%	-12%	-10%	-6%	0%	-9%	-8%	-10%	-11%	-20%	-9%
9:00	-10%	-12%	-9%	-4%	1%	-7%	-6%	-6%	-9%	-19%	-5%
10:00	-9%	-12%	-8%	-2%	2%	-5%	-6%	-3%	-8%	-18%	-3%
11:00	-9%	-11%	-8%	0%	2%	-4%	-4%	0%	-7%	-17%	-2%
12:00	-8%	-10%	-7%	0%	3%	-3%	-4%	4%	-5%	-16%	1%
13:00	-8%	-10%	-8%	-1%	1%	-4%	-5%	3%	-5%	-16%	3%
14:00	-8%	-10%	-9%	-2%	-1%	-5%	-6%	-1%	-5%	-16%	0%
15:00	-8%	-10%	-11%	-3%	-1%	-7%	-6%	-3%	-6%	-16%	0%
16:00	-9%	-10%	-11%	-3%	-2%	-10%	-8%	-4%	-7%	-17%	-3%
17:00	-8%	-9%	-9%	-4%	0%	-9%	-6%	-4%	-7%	-17%	-3%
18:00	-7%	-8%	-8%	-3%	1%	-7%	-4%	-6%	-5%	-15%	-3%
19:00	-8%	-8%	-8%	-4%	2%	-7%	-5%	-8%	-5%	-14%	-4%
20:00	-8%	-8%	-9%	-5%	2%	-7%	-4%	-8%	-3%	-12%	-3%
21:00	-8%	-7%	-8%	-3%	3%	-6%	-4%	-8%	-2%	-11%	-3%
22:00	-7%	-6%	-7%	-1%	6%	-4%	-2%	-4%	-1%	-9%	-1%
23:00	-6%	-5%	-6%	-1%	7%	-4%	0%	-2%	1%	-7%	1%

Average Hourly Load Deficit By Zone: Week of 4/20-4/24



Next Steps

- **NYISO Operations and Demand Forecasting Team continue to monitor and assess the impacts of the COVID-19 shutdowns**
 - Track daily/hourly energy deficits vs. expected values
 - Track changes to load-weather sensitivity
 - Track available medium and long-term economic forecasts and continue to consult with Transmission Owners on sector impacts
- **Short-term Forecasting System updates for Day-Ahead and Real Time Commitment**

Questions?

Our mission, in collaboration with our stakeholders, is to serve the public interest and provide benefit 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 policymakers, stakeholders and investors in the power system

