New York ISO
Independent System Operator

Estimated Impacts of COVID-19 on NYISO Load

Analysis through 2/28/2021

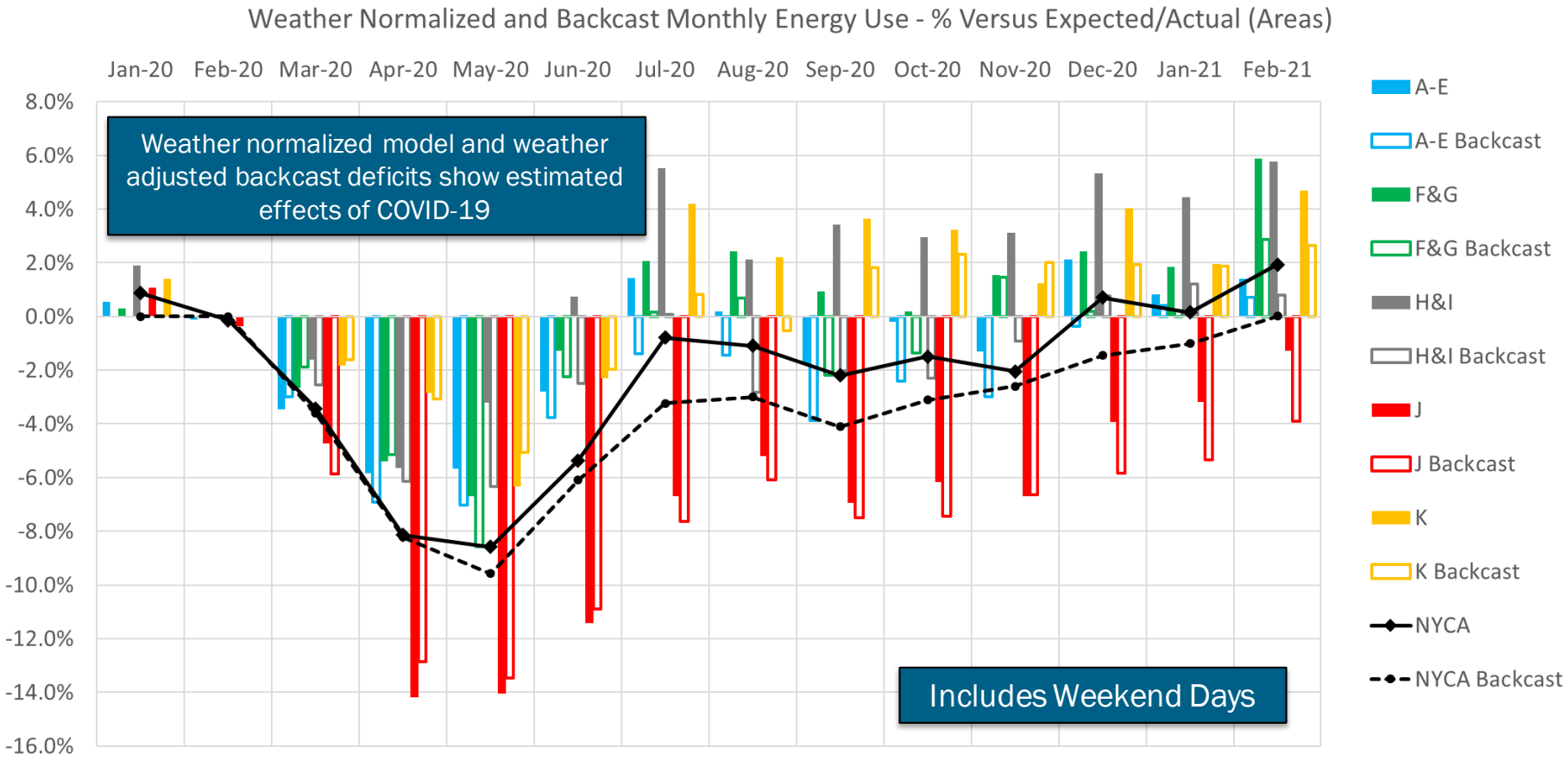
Demand Forecasting & Analysis Team

System & Resource Planning

COVID-19 Tracking Update

March 12, 2021

Impacts on Daily Energy by Month



Model Explanation - Impacts on Daily Energy by Month

Actual Difference

- Equals: Actual Load – Expected Load
- Expected Load is the 2020 pre-COVID baseline annual load forecast, shared out on a daily basis using the 10-year history of daily weather-normalized energy
- This difference reflects the total change in load relative to expected levels, including weather, economic, virus, and any other impacts

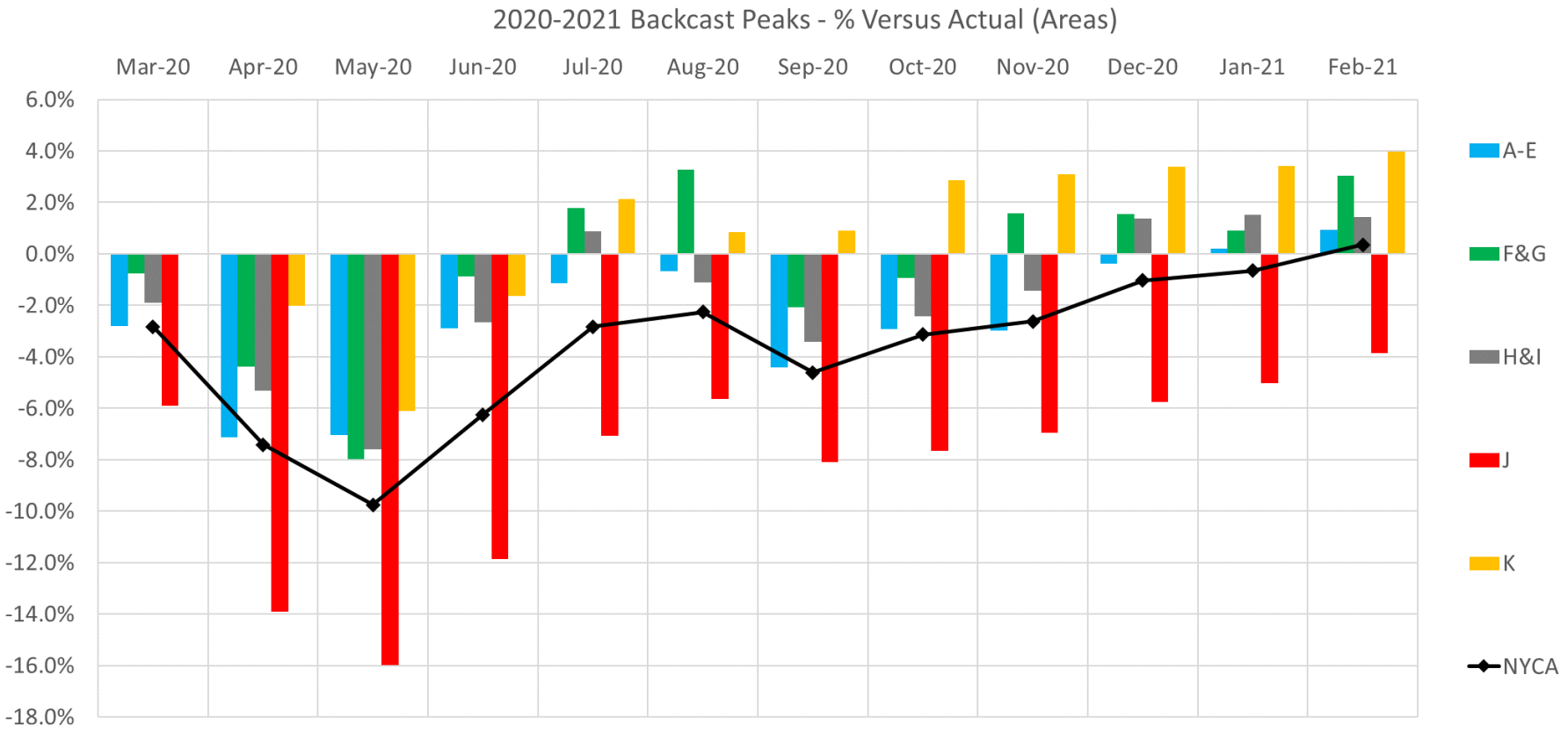
Weather Normalized Difference

- Equals: Weather Normalized Load – Expected Load
- Weather Normalized Load is calculated via Zonal models regressing daily energy against daily weather variables and binaries. These models estimate what the load would have been on a given date under normal weather conditions
- These models are fit through the most recent 12 months of data, and have recent weather response signals.
- Expected Load is equivalent to that defined in the Actual Difference calculation
- This difference reflects non-weather driven changes in load levels, including economic, virus, and other impacts. The comparison is weather neutral as normal weather is used on both sides of the comparison

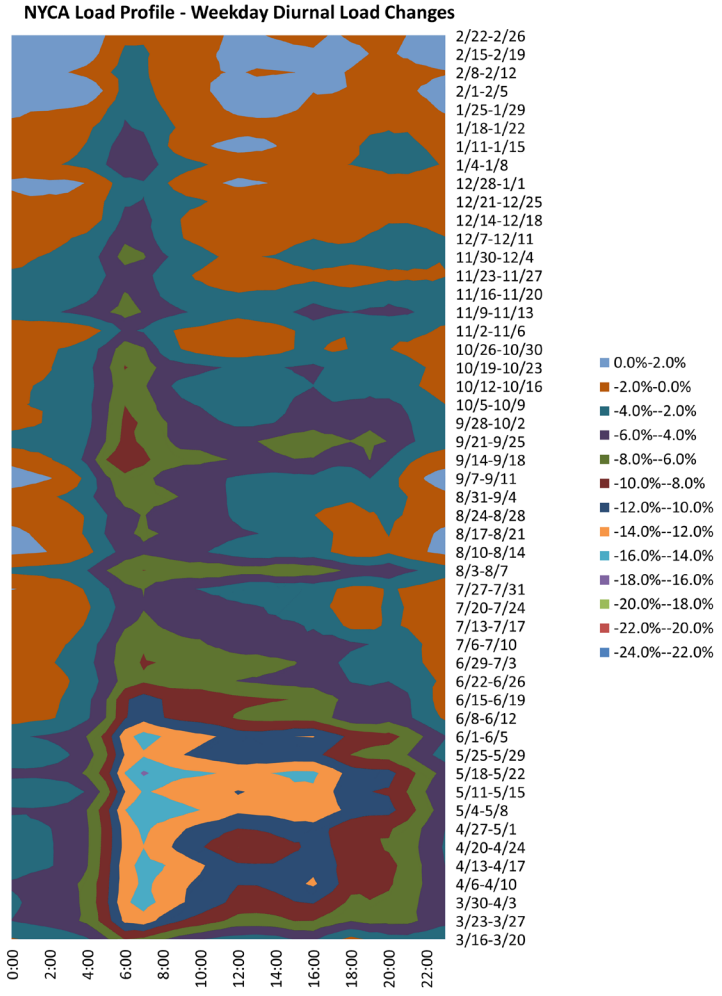
Weather Adjusted Backcast Difference

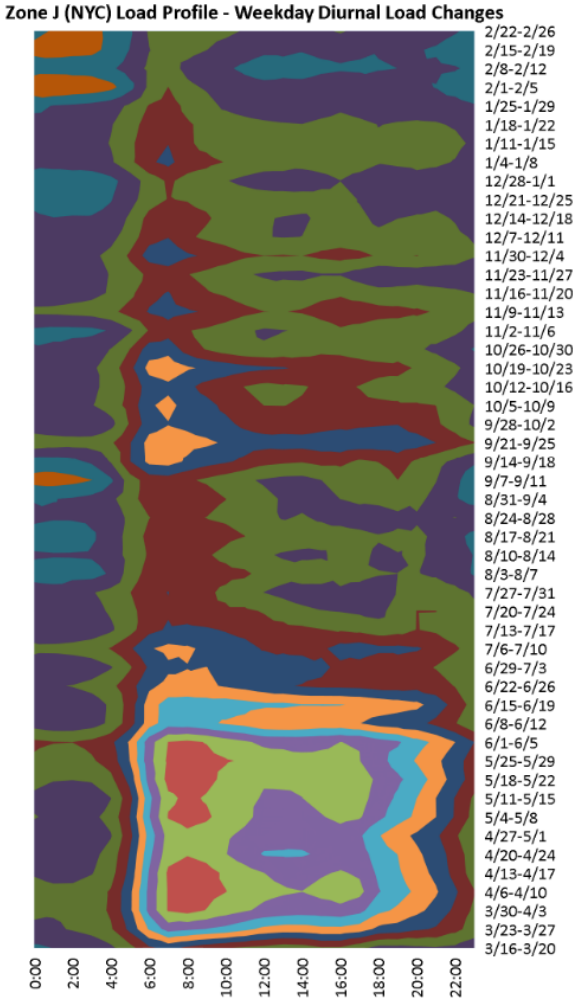
- Equals: Actual Load - Backcast Load
- Backcast Load is the load generated by the Zonal hourly day-ahead models using actual weather, where the model estimation period ends in February. Thus, these backcasts estimate what the load would have been on a given day under pre-COVID conditions
- These models were fit through February, so they do not contain the most recent weather response signals
- This difference reflects non-weather driven changes in load levels, including economic, virus, and other impacts. The comparison is weather neutral as actual weather is used on both sides of the comparison

Regional Impacts on Peak Demand

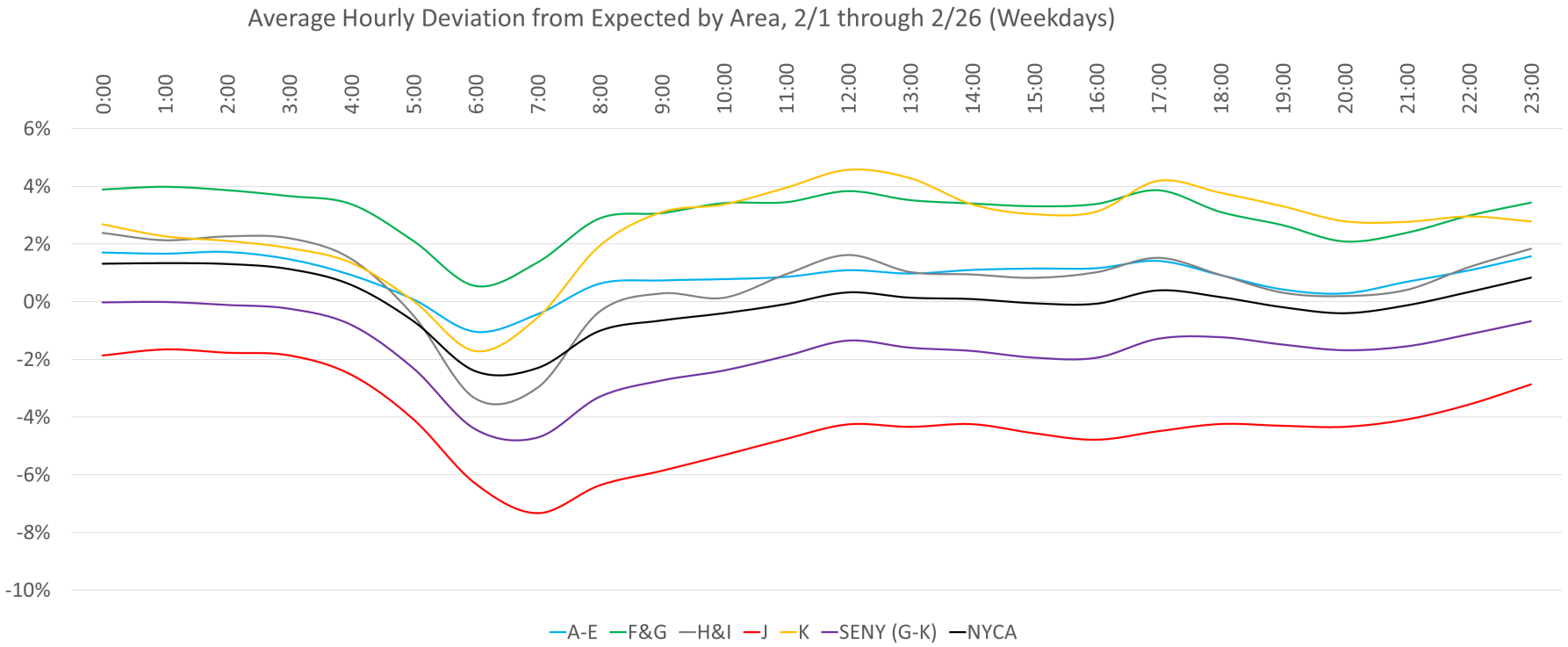


Impacts on Hourly Load Patterns





Impacts on Hourly Load Patterns (Area)



Impacts on Hourly Load Patterns (Area)

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

Average Hourly Load Deficit By Area 2/1 - 2/26 (Weekdays)

New York ISO

Impacts on Hourly Load Patterns (Zone)

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

Average Hourly Load Deficit by Zone, 2/1 - 2/26 (Weekdays)

New York ISO

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

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