

**Comments of DPS Staff, City of New York, Multiple Intervenors and
Consumer Power Advocates on the Independent Consultant Study to
Establish New York ICAP Demand Curve Parameters for the 2021/2022
Through 2024/2025 Capability Years – Initial Draft Report**

July 2, 2020

INTRODUCTION

The New York State Department of Public Service (DPS) Staff, City of New York, and Multiple Intervenors and Consumer Power Advocates (collectively, the Consumer Stakeholders) hereby submit these informal comments on the Draft Study to Establish New York Electricity Market ICAP Demand Curve Parameters (Draft Report), issued on June 4, 2020 by the Analysis Group, Inc. and Burns & McDonnell (collectively, the Consultants).

The Draft Report provides preliminary reference point values for the 2021-2022 Capability Year Installed Capacity (ICAP) demand curves. Importantly, however, there are a number of inputs and assumptions that will be updated in the future and are not yet available to stakeholders that could have a significant impact on the degree to which the existing demand curves are modified. For example, the final reference point prices will be updated in September 2020 to reflect data for: (i) historical location-based marginal prices, reserve prices and certain variable operating costs (fuel and emissions) for the relevant three-year period (September 2017 through August 2020); (ii) winter-to-summer ratio for that same period; and (iii) gross Cost of New Entry cost escalation factors and level of excess adjustment factors.

Notwithstanding these forthcoming changes, the Consumer Stakeholders are generally supportive of the recommendations provided by the Consultants in the Draft Report with respect to the demand curve modeling inputs, with the exception of three unsupported assumptions that should be modified. Specifically, the Consumer Stakeholders support: (i) use of the GE 7HA.02

(H Class Frame) as the proxy peaking unit technology for all Load Zones; (ii) exclusion of selective catalytic reduction (SCR) emissions control technology in Load Zones C, F, and G (Dutchess County); (iii) the natural gas price indices used by the proxy peaking unit to set the reference value; and (iv) the use of and method for calculating the level of excess adjustment factors. The Consumer Stakeholders oppose: (i) the inclusion of noise mitigation capital costs for the proxy peaking units located in the New York Control Area (NYCA) and Lower Hudson Valley (LHV); (ii) a reduced amortization period of 20 years to 17 years for fossil-fueled units and from 20 years to 15 years for energy storage; and (iii) the cost of debt and cost of equity financial parameters as being too high.

The Consumer Stakeholders also advance the proposal that the New York Independent System Operator, Inc. (NYISO) should be taking steps in this demand curve reset (DCR) process to account for the impacts that the novel coronavirus COVID-19 has had on consumers and energy markets, generally.

DISCUSSION

1. Use Of the GE 7HA.02 for the Proxy Peaking Plant Technology Statewide is Appropriate

The Consultants recommend using the GE 7HA.02 (H Class Frame) as the peaking plant technology for all Load Zones. This unit represents the highest variable cost, lowest fixed cost peaking plant that is economically viable under the NYISO's Market Administration and Control Tariff (Services Tariff).

As a threshold matter, the Consumer Stakeholders support the conclusion that the passage of the Climate Leadership and Community Protection Act (CLCPA) does not eliminate consideration of a fossil-fueled plant as the reference case technology for the NYISO's demand curve process. Nor does New York City Executive Order No. 52 (EO-52) prohibit the designation

of a fossil-fueled plant as the proxy peaking unit for Load Zone J in the current DCR process.¹ As such, the Consultants should be guided by the Services Tariff's requirement to select the proxy unit based on economic factors.

The NYISO Services Tariff Section 5.14.12 requires that the proxy peaking unit be a technology with the “lowest fixed costs and highest variable costs among all other units’ technology that are economically viable” In the last DCR, the Consumer Stakeholders advocated for studying the H Class Frame generator, which the NYISO agreed to do for informational purposes only due to the fact that no such units were operational in the United States at that time. Since the last reset process, however, multiple H Class Frame generators have since entered service and the costs associated with such technology deem it the most economic choice pursuant to the Services Tariff.

a. Use of SCR Technology

The Consultants also recommend that to be economically viable and practically constructible, an H Class Frame generator would be built with SCR emission control technology in Load Zones G (Rockland County), J, and K, and without SCR emissions control technology in the Load Zones C, F, and G (Dutchess County). The Consumer Stakeholders agree with and support this recommendation.

Inclusion of SCR technology for Load Zones C, F and G (Dutchess) is neither required by law or regulation, nor justified by the incremental revenues attributable to such potential incremental investment. Load Zones C, F, and Dutchess County in Zone G are also outside of the downstate non-attainment area with respect to air permitting conditions. Assertions that peaking plants located in these Load Zones and locations may be required to install SCR technology in the

¹ See Letter from the NYC Mayor's Office of Sustainability to the NYISO dated April 16, 2020.

future is speculative and ignores the current state of the law and the more-beneficial project economics associated with not including SCR.

Importantly, the Federal Energy Regulatory Commission (FERC) supported the continued use of a federally-enforceable limitation on annual operating hours in lieu of installing SCR emissions controls to achieve compliance with applicable emissions requirements in the last NYISO DCR proceeding. In its 2017 DCR Order, FERC held that SCR emissions controls are not required for peaking plants located in Load Zones C and F in the NYCA.² FERC also acknowledged that the Article 10 permitting and certification process does not require SCR.³

In its 2017 DCR Order, the FERC cited from its 2014 DCR Order which held that, “[w]hile there is always a risk that regulations will change in the future, we cannot base the finding of viability on speculation that the [U.S. Environmental Protection Agency] or New York State regulators will act at some point in the future;” rather, the ICAP DCR process takes place every four years “so that changed circumstances, such as new regulations, can be taken into account.”⁴

The FERC 2017 DCR Order also found to be compelling the New York State Department of Environmental Conservation’s (NYSDEC) letter to the NYISO Board of Directors indicating that the State has issued air permits and Article 10 certificates for electric generators without SCR emissions controls.⁵ There has been no NYSDEC issuance to the contrary since the 2017 DCR Order was issued.

² *N.Y. Indep. Sys. Operator, Inc.*, 158 FERC ¶ 61,028 (2017) at P 60 (hereinafter “2017 DCR Order”).

³ *Id.* at P 61.

⁴ *Id. citing N.Y. Indep. Sys. Operator, Inc.*, 146 FERC ¶ 61,043 (2014) at P 74.

⁵ *Id.* at P 62.

In fact, nothing has changed with respect to the current siting process and/or regulatory framework surrounding use of SCR emissions controls technology since FERC's 2017 DCR Order. The Consumer Stakeholders support the recommendation in the Draft Report to exclude SCR emissions control technology in the Load Zones C, F, and G (Dutchess County), and commend the Consultants for relying on the regulatory arena as it exists today and refraining from advancing alternate conclusions based on mere speculation.

b. Inclusion of Noise Mitigation Capital Costs for the NYCA and LHV Proxy Peaking Unit

In the Draft Report, the Consultants' design basis assumes that for all Load Zones, the proxy peaking unit would be installed indoors, and include an additional allowance for sound barrier walls. The Consumer Stakeholders oppose automatic inclusion of noise mitigation measures for the NYCA and LHV peaking unit technology.

There are no laws or regulations that require a generating unit to install noise mitigation as of right. For units that are located in the NYCA and the LHV, where space is not nearly as constrained as it may be in Load Zones J (New York City) and K (Long Island), the costs associated with installing noise mitigation far outweigh the cost to purchase a larger parcel of land so that noise mitigation measures are not necessary. No data was presented by the Consultants to support that noise mitigation measures even would be needed in the NYCA or LHV, or have been historically used on a consistent basis.

Accordingly, the Consumer Stakeholders request that the Consultants remove this capital cost from the proxy peaking unit assumptions as it is not required by law or regulation, and is speculative (and likely inaccurate) as to the economic decisions a developer would be when constructing a unit in the NYCA or LHV.

2. The Amortization Period for Both the Fossil-Fueled Proxy Peaking Unit and Informational Energy Storage Unit Should Be 20 Years

The Consumer Stakeholders oppose the Consultants' recommendation that it is necessary to reduce the amortization period for fossil-fueled plant technologies from 20 years to 17 years due to the CLCPA. The Draft Report acknowledges the fact that despite the CLCPA, newly-constructed fossil units would not necessarily need to retire in 2039, and instead could implement plant modifications to continue operations. Notwithstanding such acknowledgement, however, there has been no assessment of the technology options that would obviate the need for a reduction in the amortization period, such as flexible fuel or fully hydrogen combustion turbines. Such technologies exist in the market today and are already in use around the world. Reducing the amortization period has significant impacts on the total cost of capacity to consumers, and the Consultants have failed to explore reasonable – if not likely – options that may avoid such impacts.

It is well established that because a fossil-fueled plant may not operate in its current configuration past a certain date does not mean it necessarily must retire. Consider the extensive history of fossil-fueled power plants not retiring and instead electing to retrofit with new technologies including water injection, SCRs, and other emissions control technologies to reduce carbon, SO_x, NO_x, and other pollutants. A fossil-fueled generation plant has numerous options to continue operation past the proposed 2039 cut-off date by utilizing zero-carbon-fuel-capable technology, including retrofits to hydrogen capability that already exist today (and which likely will be more advanced and less costly by that cut-off date).

If a facility deems it appropriate and in its economic interests to retrofit in the future, such a cost would only be borne by the unit owner once. Since the retrofit need not occur until 18 years (or more) into the future, it is quite possible that the impact of such a retrofit on total costs today could result in a lower-cost option overall as compared to the proposal by the Consultants to reduce

the amortization period length, which assumes a complete retirement of the proxy unit. The very fact that this option could result in a lower total cost requires the NYISO, by its own tariff, to have the Consultants evaluate the retrofit as an option for the "least-cost facility." Yet, no such analysis has been performed to date.

Additionally, it is apparent that the Consultants' approach to blindly reducing the amortization period is unsustainable. In the span of two DCR proceedings, this method will result in the amortization period dropping below ten years, leading to dramatic increases in cost for these units under evaluation, and to consumers. The Consultants' recommendation is also inconsistent with the amortization assumptions that other RTOs use in setting demand curves. For example, both PJM and ISO-NE use a 20-year amortization period. The states within these regions (*e.g.*, Connecticut, Massachusetts) also have emissions reductions requirements similar to New York, yet 20 years continues to be used as the appropriate amortization parameter.

The Consultants are also proposing to reduce the amortization period for battery storage units as well. At the beginning of this DCR process, the Consultants recommended a 20-year amortization for the energy storage unit being studied for informational purposes. Surprisingly, in the Consultants' last presentation on this issue before release of the Draft Report, they reduced the amortization period of storage facilities to 15 years. No valid reasons for this change in amortization period have emerged since the Consultants' initial proposal. Indeed, all justifications presented by the Consultants were demonstrated to be inaccurate and/or inappropriate by stakeholders.

Not only was the decision to reduce the amortization period for energy storage units unjustified, but no analysis was completed to quantify the impact that this change has on the total cost of storage technologies under consideration. Stakeholders were told verbally that this decision

would not change the final results of the proxy unit decision, but no supporting data has been provided confirming such statement. The change in amortization is significant – it increases costs associated with storage by up to 25% and has yet to be justified by the Consultants.

There is ample data available that indicates the amortization period should remain at 20 years. All state-sponsored storage facilities, which constitute the vast majority of the near-term deployment of storage technologies in the NYCA (including resources contracted under the Large-Scale Renewable Program, Bulk Storage Incentive Program, and utility solicitations), have a contracted lifetime of 20 years, precisely the same length of time as the Consultants’ initial amortization recommendation. Considerably more information should be provided by the Consultants attempting to justify their proposed use of a 15-year amortization period for energy storage and, absent such compelling justification, the originally-proposed 20-year amortization period should be utilized.

The Consumer Stakeholders are also concerned that using a 15-year amortization period for energy storage technology would create an inaccurate precedent for the next DCR process. Accordingly, the Consumer Stakeholders oppose the amortization period assumptions used by the Consultants for the proxy peaking unit and the informational storage unit and request that such assumptions be modified and more supporting data be provided.

3. The Cost of Debt and Cost of Equity Parameters Assumed by the Consultants Are Too High and Should be Lowered

a. Cost of Debt

The Draft Report recommends a 7.7% cost of debt for the proxy peaking unit. This is partly based on data from four power companies from January 2017 to present. The Draft Report also notes that the outbreak of the novel coronavirus COVID-19 has resulted in a higher cost of debt for “BB” and “B” rated securities. While it is true that there was an initial spike in cost of

debt for “BB” and “B” generic corporate debt, the Consultants place too much emphasis on this unusually-volatile period. In fact, “BB” rated debt has fallen from just below 9% in the second half of March to below 5% during June 2020, while “B” rated debt has experienced a similar decline from above 12% to below 7% in the same span of time. There is no reason to assume that debt rates will spike back up to those temporarily-high levels by or before the start of the 2021 Capability Period.

Additionally, the Consultants’ 7.7% cost of debt recommendation reflects rates for “B” rated debt, even though only 28% of issuances were at the Bloomberg Composite Rate of “B” or lower. The Consumer Stakeholders also reviewed the three-year average spread between “BBB+” utility rated debt (4.28%) and “BB” corporate debt (4.87%), which was approximately 60 basis points. Assuming some additional risk for a power producer, an additional 90 basis points above the “BB” corporate rate appears to be a reasonable proxy, which is still far below the Consultants’ recommended rate of 7.7%. Therefore, it is appropriate to consider “BB” generic debt rates in determining the overall debt costs, especially since each of the four companies the Consultant cites issued debt at ratings above “B” in 2019. The Consumer Stakeholders recommend a cost of debt rate of 5.77% as reasonable.

b. Cost of Equity

The nationwide average awarded return on equity (“ROE”) for predominately regulated electric utilities is approximately 9.5%, as reported by Regulatory Research Associates. We find that a spread above the average ROE for regulated electric utilities of 100 basis points is a reasonable ROE for a power producer, which is significantly below the recommended ROE of 13.3%. Accordingly, the Consumer Stakeholders recommend an ROE of 10.5% as reasonable and aligned with market returns.

4. The Natural Gas Price Indices Used to Set the Reference Point Price Are Appropriate

To calculate the net Energy and Ancillary Services (EAS) revenues realized by the H Class Frame proxy peaking unit, the Draft Report recommends that the unit purchase gas at: (a) the TGP Zone 4 (200L) price if it is located in Load Zone C; (b) the Iroquois Zone 2 price if it is located in Load Zones F, G (Dutchess County), or K; (c) the TETCO M3 price if it is located in Zone G (Rockland County); or (d) the Transco Zone 6 price if it is located in Load Zone J. The Consumer Stakeholders support these assumptions as just and reasonable and aligned with the Consultants' four governing criteria (*i.e.*, market dynamics, liquidity, geography, precedent).

5. Impacts of the COVID-19 Pandemic Must Be Accounted For in This DCR Process

The Consultants utilized the previously-established approach of using the most recent three-year historic period of EAS prices to estimate projected EAS revenues for the proxy peaking unit. The Consultants presented the preliminary reference point prices in the Draft Report based on forecasting revenues utilizing the period of September 2016 through August 2019. Due to the anomalous impact of the COVID-19 pandemic on energy demand in 2020, the Consumer Stakeholders submit that the NYISO should ask FERC for a one-time exception (or waiver) from its tariff-prescribed methodology for calculating the proxy unit EAS revenues, and adopt the current period (September 2016 through August 2019) as the final estimates for Capability Year 2021/2022 ICAP demand curves.

The COVID-19 pandemic has had an unprecedented impact on a number of industries and behaviors, including energy usage and energy prices. Due to the closing of many businesses and the temporary elimination or decrease of a material portion of energy demand, the most recent data is anomalous. Attached to these comments as Appendix A are charts from the most recent NYISO Monthly Report that demonstrate the impact on load that the global pandemic has had in New York

State. In some hours, the NYISO estimates that the actual load is nearly 14% lower than expected.

Importantly, the estimated impact of COVID-19 has only increased since March. The month of May 2020 had the largest impact yet on energy load and prices. Without question, energy prices this year have been anomalous to anything we have seen in the past. As projected revenues in the DCR process for the peaking unit are partly based on these prices, this fact will lead to forecasted revenues for the proxy unit that are much lower than would actually be expected over the life of the unit. Potentially even more troubling, if included, these anomalous prices would continue to remain in the calculations for the majority of the four-year demand curve period.

While using three years of historic prices to estimate revenues somewhat lessens the impact of this anomaly, including the anomalous September 2019 to August 2020 period of revenues would result in the proxy peaking plant receiving higher capacity prices than appropriate for the entirety of the four-year DCR period. New York State consumers have already suffered economically because of the pandemic in ways that cannot be controlled or quantified fully. Inflating capacity costs, and exposing consumers to additional, unwarranted costs is an outcome that should be avoided.

It is for these reasons that the Consumer Stakeholders strongly recommend that the Consultants adopt the preliminary forecasted revenues as final, and that the NYISO seek a one-time waiver from FERC to exclude the anomalous EAS revenues from the demand curves for Capability Year 2021/2022, the first year of the new 4-year DCR period. Under this period, during 2022/2023 Capability Year, the September 2016 to August 2017 period revenues would “roll off” and the September 2020 through August 2021 period revenues would “roll on.”

6. The Level of Excess Adjustment Factors in the Draft Report are Just and Reasonable

The Consultants used the same procedures for determining the level-of-excess adjustment

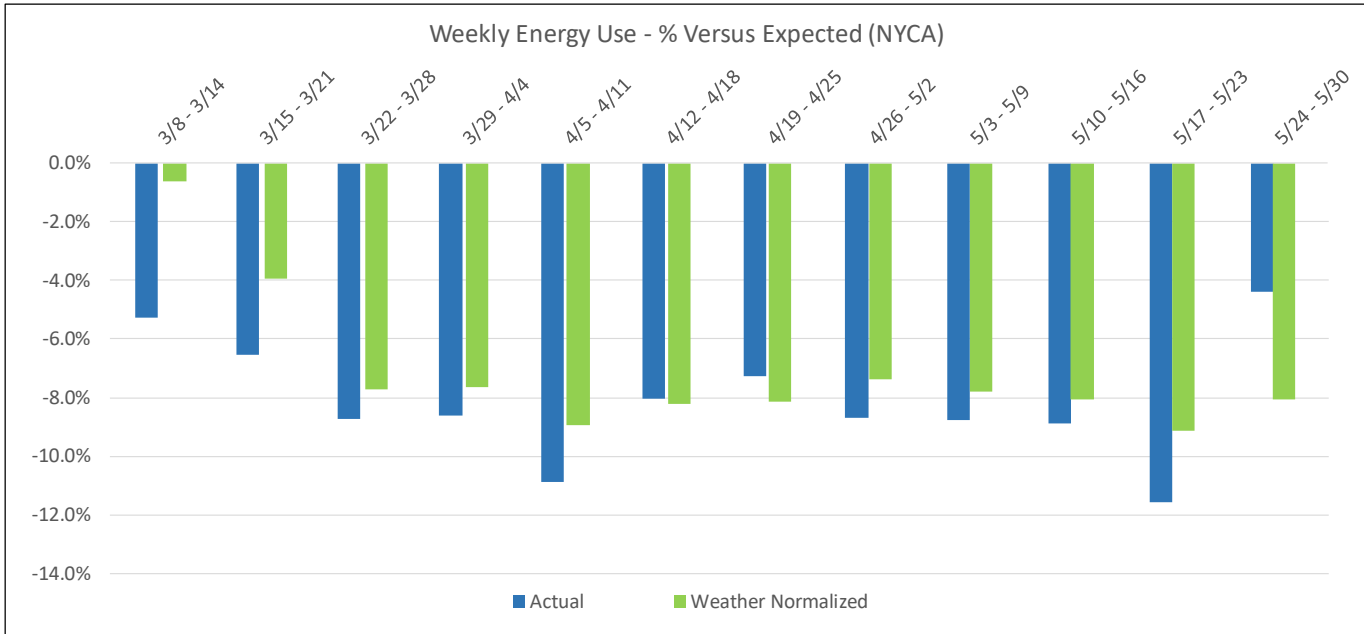
factors (“LOE-AFs”) that were used in the last DCR process and approved by FERC in its 2017 DCR Order. The Consumer Stakeholders submit that it is reasonable to use LOE-AFs in setting the ICAP demand curves, as they account for the impact that reducing the amount of excess capacity during the three-year historical period would have had on net EAS revenue. The Consumer Stakeholders also support the manner in which the Consultants’ calculated the proposed LOE-AFs in the Draft Report.

In FERC’s 2017 DCR Order, it found that the demand curves produced using the proposed LOE-AFs were consistent with the NYISO Services Tariff as well as just and reasonable.⁶ There has been no evidence presented, or change in circumstance, that would nullify FERC’s conclusions and/or warrant a departure from the current procedure for determining LOE-AFs. Accordingly, the Consumer Stakeholders support the Draft Report’s proposed LOE-AFs.

⁶ 2017 DCR Order at P 163.

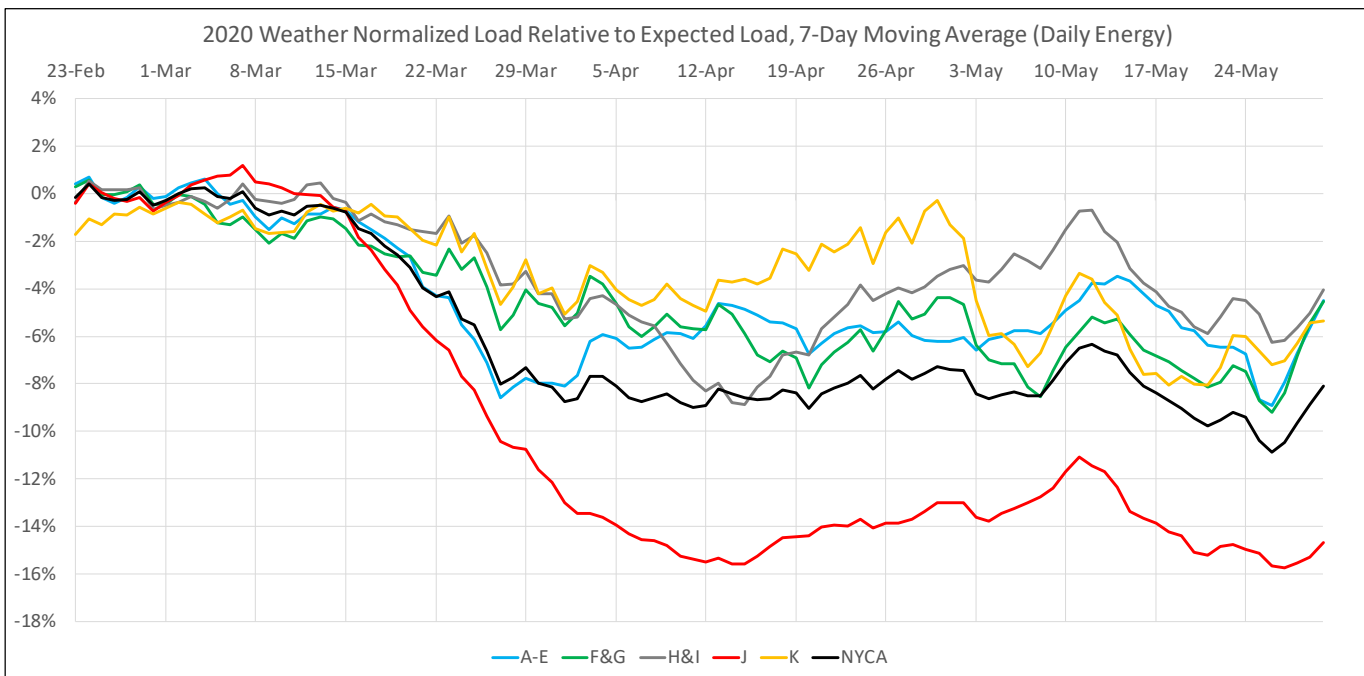
COVID-19: Estimated Load Impacts

NYCA Weekly Energy Impacts versus Expected*



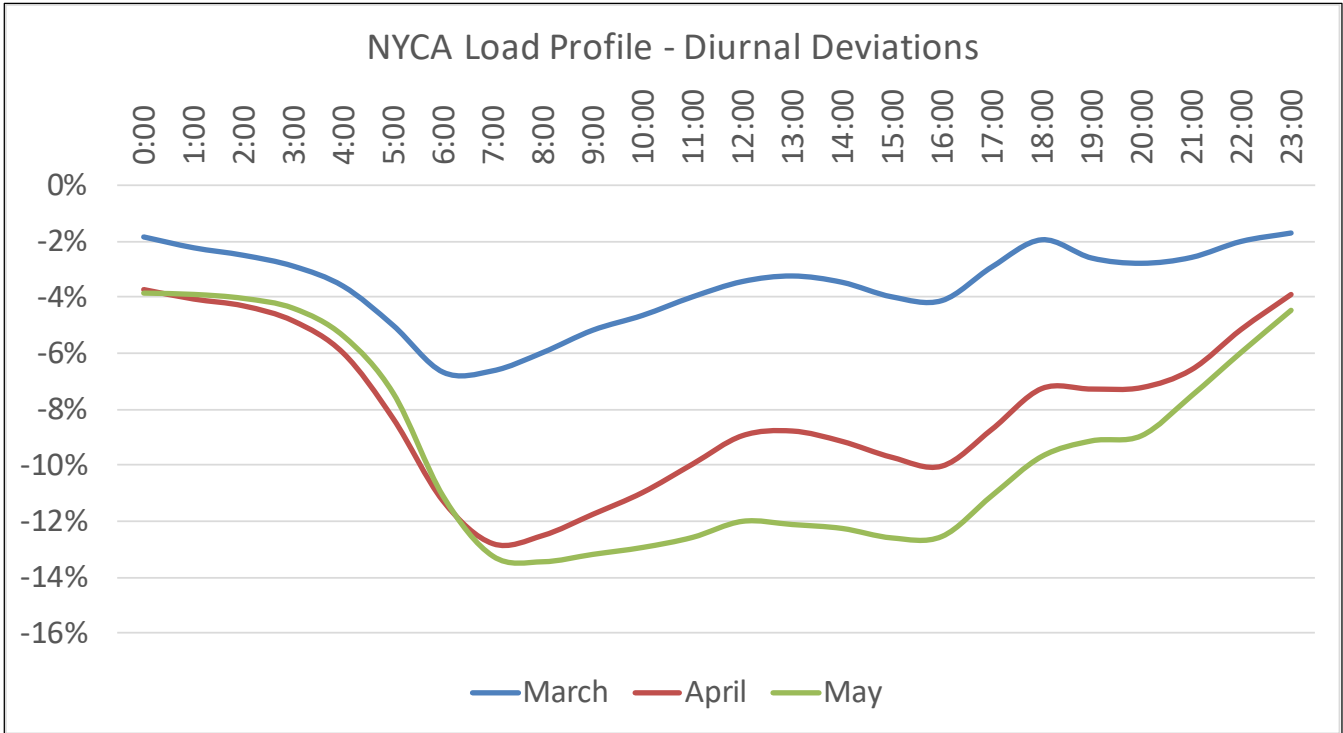
* Green bars indicate COVID-19 impact

Regional Energy Impacts



COVID-19: Estimated Load Impacts APPENDIX A

NYCA Hourly Impacts versus Expected*



* Includes Weekdays and Weekends

Percent Deviations

Hour	March	April	May
0:00	-2%	-4%	-4%
1:00	-2%	-4%	-4%
2:00	-3%	-4%	-4%
3:00	-3%	-5%	-4%
4:00	-4%	-6%	-5%
5:00	-5%	-8%	-7%
6:00	-7%	-11%	-11%
7:00	-7%	-13%	-13%
8:00	-6%	-13%	-13%
9:00	-5%	-12%	-13%
10:00	-5%	-11%	-13%
11:00	-4%	-10%	-13%
12:00	-3%	-9%	-12%
13:00	-3%	-9%	-12%
14:00	-3%	-9%	-12%
15:00	-4%	-10%	-13%
16:00	-4%	-10%	-13%
17:00	-3%	-9%	-11%
18:00	-2%	-7%	-10%
19:00	-3%	-7%	-9%
20:00	-3%	-7%	-9%
21:00	-3%	-7%	-7%
22:00	-2%	-5%	-6%
23:00	-2%	-4%	-4%

MW Deviations

Hour	March	April	May
0:00	-261	-502	-513
1:00	-306	-530	-498
2:00	-336	-551	-503
3:00	-386	-617	-541
4:00	-487	-775	-669
5:00	-712	-1140	-970
6:00	-1042	-1686	-1588
7:00	-1093	-2027	-2038
8:00	-1002	-2029	-2137
9:00	-871	-1916	-2129
10:00	-781	-1785	-2111
11:00	-667	-1610	-2069
12:00	-571	-1432	-1982
13:00	-533	-1397	-2011
14:00	-562	-1448	-2039
15:00	-644	-1540	-2107
16:00	-672	-1612	-2125
17:00	-485	-1424	-1898
18:00	-332	-1192	-1652
19:00	-454	-1211	-1545
20:00	-485	-1217	-1518
21:00	-431	-1068	-1237
22:00	-317	-781	-914
23:00	-253	-552	-633

Peak Hour