

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

At a session of the Public Service
Commission held in the City of
Albany on October 16, 2024

COMMISSIONERS PRESENT:

Rory M. Christian, Chair
James S. Alesi
David J. Valesky
John B. Maggiore
Uchenna S. Bright
Denise M. Sheehan
Radina R. Valova

CASE 20-G-0086 - Tariff filing by The Brooklyn Union Gas Company d/b/a National Grid NY to Modify its Gas Tariff Schedule, P.S.C. No. 12 - Gas, to Establish a Firm Demand Response Program.

CASE 20-G-0087 - Tariff filing by KeySpan Gas East Corp. d/b/a National Grid to Modify its Gas Tariff Schedule, P.S.C. No. 1 - Gas, to Establish a Firm Demand Response Program.

CASE 20-G-0381 - Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Niagara Mohawk Power Corporation d/b/a National Grid for Gas Service.

ORDER AUTHORIZING TARIFF AMENDMENTS REGARDING GAS DEMAND
RESPONSE PROGRAMS FOR FIRM CUSTOMERS

(Issued and Effective October 18, 2024)

BY THE COMMISSION:

INTRODUCTION

On June 15, 2024, The Brooklyn Union Gas Company d/b/a National Grid NY (KEDNY), KeySpan Gas East Corp. d/b/a National Grid (KEDLI), and Niagara Mohawk Power Corporation d/b/a National Grid (NMPC) (collectively, National Grid or the Companies) each filed Annual Reports and Petitions requesting

three modifications to improve their respective gas demand response programs for firm customers (Firm DR Programs). Regarding the modifications, the Companies first propose to establish a Performance Factor threshold of 25 percent for returning customers and aggregators who add additional accounts to their portfolios and receive no-cost metering upgrades for those new accounts. Second, the Companies propose to modify the baseline calculations for the Load Shedding and Load Shifting programs lookback period from the current five of 10 like-days for weekdays and four of six like-days for weekends or holiday days to five of 30 like-days for weekdays and four of 12 like-days for weekends and holidays. Third, the Companies propose to pilot a Full Day Bonus option for the Connected Solutions Bring Your Own Thermostat (BYOT) Program. BYOT customers who participate in the Full Day Bonus option would, in addition to the current four-hour setback period, have their device's temperature settings setback at lower temperatures over a longer period of time.

By this Order, the Commission approves the Companies' proposals to improve the Firm DR Programs and directs the Companies to make tariff filings in compliance with this Order to effectuate the programs as approved herein on a permanent basis effective on November 1, 2024. Establishing a minimum Performance Factor threshold is designed to ensure reliability of enrolled customers with historically low performance and will mitigate program costs associated with installing meter upgrades. The proposed modification to the baseline calculation methodology and the proposal to pilot a BYOT Full Day Bonus option each reflect incremental improvements to the Firm DR Programs based on observations from past program performance and feedback from participants.

BACKGROUND

The Commission initially approved KEDNY and KEDLI's Firm DR Programs in a 2020 order in Cases 20-G-0086 and 20-G-0087, and NMPC's in a 2022 order in Case 20-G-0381.¹ In the Implementation Orders, the Commission directed the Companies to file Annual Reports following the end of each winter capability period, and alongside those Annual Reports to request authorization for improvements to the Firm DR Programs as needed.² KEDNY, KEDLI, and NMPC each operate three common programs: the Load Shedding Program, the Load Shifting Program, and the BYOT Program. In addition to the three common programs, KEDNY and KEDLI also operate a Behavioral Demand Response Program.

The Load Shedding Program focuses on commercial, industrial, and multi-family firm service customers capable of reducing their peak gas load for up to an eight-hour period on a day for which the Companies call one of three types of "Events," as described below. Though focused on providing load relief over the course of a peak day, the Load Shedding Program event windows correspond to the Companies' typical system peak hours to ensure that load reductions on that peak day occur during the gas system's most critical periods. For KEDNY and KEDLI, participants must choose whether to participate with or without

¹ Cases 20-G-0086 and 20-G-0087, Order Directing Implementation Plan Filing, Annual Reporting, and Tariff Modifications (issued October 15, 2020); Case 22-G-0381, Order Authorizing Tariff Amendments Regarding Gas Demand Response Programs for Firm Gas Customers (issued October 13, 2022) (collectively, the Implementation Orders).

² The winter capability period runs from November 1 of each year through March 31 of the subsequent year. The Companies then file their Annual Reports describing the operations, benefit-cost analysis results, and other pertinent information related to the Firm DR Programs, as well as any requests for program modifications if needed, by June 15 of each year.

Direct Load Control, whereas for NMPC the program operates without Direct Load Control for all participants. The Direct Load Control option allows customers to accept direct utility control of specific pieces of customer equipment during Events.³ Participants in the Load Shedding Program may switch to an alternate fuel source during Events.

The Load Shifting DR Program focuses on commercial, industrial, and multi-family firm service customers capable of reducing intra-day gas load over a four-hour period on Event days during specified peak hours. The primary goal of the Load Shifting DR Program is to reduce demand during peak hour usage in the early morning hours, which is the period in which the Companies' systems typically experience the highest customer demand. To participate in the Load Shifting DR Program, participants must shift load to alternate hours prior to or following the event window and are not allowed to switch to an alternate fuel source to achieve such load relief except for use of specified exempt resources.⁴

Events in both the Load Shedding and Load Shifting Programs can be called on a day-ahead basis when specified temperature thresholds are forecast (Planned Event), on an immediate or less than day-ahead basis (Emergency Event), or on a day-ahead basis with a shortened performance duration to test

³ The Direct Load Control option requires installation of particular equipment to implement Direct Load Control capability, which is commonplace in the KEDNY and KEDLI service territories but uncommon in the NMPC service territory.

⁴ Exempt resources include: electricity-based technologies, including heat pumps; biodiesel/biofuel blends that contain twenty percent or more biodiesel by volume; solid biomass fuels; alcohols; hydrogen; renewable natural gas; or any combination of resources listed as a Renewable Energy System under the Climate Leadership and Community Protection Act.

participants' readiness to respond to future Events (Test Event). Participant response to Planned and Test Events is mandatory, whereas response to Emergency Events is optional.

Both the Load Shedding and Load Shifting Programs use a baselining methodology to measure participant performance during Events. This baselining methodology compares each participant's gas usage during Event days to the participant's gas usage during a number of recent similar days, plus a weather adjustment to account for differences in weather between the Event day and the comparison days. The number of days used to determine the baseline differs depending on whether the Event day falls on a weekday or weekend day. For weekday Events, the Companies compare each participant's average gas usage during the Event period to the average of the participant's five highest usage days within 10 days of the Event (i.e., five like-days within 10, or 5-of-10). For weekend or holiday Events, the Companies compare each participant's average gas usage during the Event period to the average of the participant's four highest usage weekend or holiday days within the last six weekend or holiday days (i.e., four like-days within six, or 4-of-6). The Companies base the weather adjustment on a comparison of the number of heating degree days during the Event day relative to the weekday or weekend/holiday days used to establish the baseline. The Companies cap the weather adjustment at 35 percent of the unadjusted baseline.⁵

The Load Shedding and Load Shifting Programs each have two types of performance-based incentives - a monthly Reservation Payment and a Performance Payment. The monthly

⁵ That is, the weather-adjusted baseline cannot be modified further than the unadjusted baseline plus or minus 35 percent, even if the comparison of an Event day's actual weather to the baseline weather would result in a greater adjustment factor.

Reservation Payment is in exchange for the commitment to reduce a pre-set quantity of gas in dekatherms (Dth) during events, and, like an insurance premium, is paid to program participants regardless of whether an Event is called during a given month. Reservation Payments are subject to an adjustment based on customers' average performance rating (Performance Factor) established during Events, with the Companies providing payments at the end of the capability period.⁶ The Companies provide participants enrolled in a Direct Load Control option a higher Reservation Payment rate in return for them giving the utility greater control over their equipment. The Companies make Performance Payments only for measured Dth load relief provided during called Events - if no Events are called, the Companies will not provide a Performance Payment to participants. The Performance Payment Rate in dollars per DTh of load relief provided is the same for all Events, regardless of whether such event is a Planned Event, an Emergency Event, or a Test Event.

Customers participating in either the Load Shedding or Load Shifting programs must have functional hourly gas metering equipment during the winter capability period. New participants receive free metering equipment and installation.

The BYOT Program is a load shifting program focusing on residential and small commercial customers, which uses Wi-Fi connected thermostats that enable the Companies to remotely lower temperature set points, thus shifting peak hour gas loads on event days. Under the BYOT Program, customers are asked to

⁶ The Performance Factor is a rolling average, calculated as the average of the participant's last three Event Performances. The Event Performance is a percentage value based on an account's actual event consumption when compared to the baseline usage amount. The Companies do not change a participant's Performance Factor as a result of the participant's response to an Emergency Event to avoid disincentivizing them from performing during Emergency Events.

shift part of their gas use out of peak morning or evening periods into other times of the gas day.⁷ BYOT customers are eligible for two types of incentives: a one-time instant incentive after the Wi-Fi connected thermostat is installed and after the Companies have confirmed the ability to communicate with the device, and an annual incentive beginning in the second year of participation in the program and continuing through subsequent years. A customer may override the automatic thermostat controls at any point prior to or during an event, however doing so may impact the customer's ability to continue to receive annual incentives. To receive the additional annual incentives starting in the customer's second winter of enrollment, a customer must participate in at least 70 percent of the program's event hours for that capability period. The Companies issue the annual incentives following the close of each winter capability period.

The Behavioral DR Program is a non-incentivized program for residential and small-commercial customers whereby KEDNY and KEDLI request that customers decrease their gas usage during peak days. The Behavioral DR Program uses e-mail messaging to notify customers of impending cold weather and suggests methods to lower gas consumption during peak hours.

ANNUAL REPORTS AND PETITIONS

The Companies propose a mostly identical set of modifications to their respective Load Shedding and Load Shifting Programs. KEDNY and KEDLI's petition, and NMPC's petition, both contain a summary of the Companies' proposals and draft tariff leaves to implement such proposals, while the

⁷ A gas day runs from 10:00 a.m. to 10:00 a.m. the following morning.

Companies provide their observations and rationale supporting each proposal in their respective Annual Reports.

Minimum Performance Factor for Returning Participants

During the 2023/2024 winter capability period, KEDNY and KEDLI's Load Shifting Programs overall performance was brought down by a single aggregator with a large number of accounts that failed to participate in demand response events. In response to its performance and following discussions with the aggregator, and to mitigate high costs associated with installing meter upgrades, the Companies propose that, to add additional accounts and receive no-cost metering upgrades for those new accounts, returning participants or aggregators must meet a minimum portfolio-level Performance Factor of 25 percent.⁸

Baseline Methodology

The Companies propose to modify the baseline calculations used to determine performance for the Load Shedding and Load Shifting Programs during weekday Events by extending the lookback period from the present 5-of-10 like-days comparison to instead use a 5-of-30 like-days comparison. Similarly, the Companies propose to modify the baseline calculations used to determine performance for the programs during weekend or holiday Events by extending the lookback period from the present 4-of-6 like-days comparison to instead use a 4-of-12 like-days comparison.

The Companies explain that most Events occur during cold snaps, characterized by periods of significantly reduced temperature surrounded by periods of relatively warmer

⁸ Absent this modification, the Companies would continue providing expensive enhanced metering and control devices to newly enrolled customers regardless of those customers' reasonably anticipated performance in the program, paid for through Gas Demand Response Program funding ultimately paid for by other customers.

temperatures. To accurately gauge participants' performance, the Companies state that the lookback period needs to be long enough so it includes participants' usage during similarly cold weather on non-Event days. An inadequate lookback period may result in inaccurate baseline calculations. National Grid states that since its lengthened baseline duration methodology would capture additional cold-weather days the resulting baseline would be more representative of gas consumption during cold weather than the current baseline method.

BYOT Full Day Bonus Program Option

The Companies propose to pilot a Full Day Bonus option in their respective BYOT programs that would expand the options beyond the current four-hour setback period (base program), focused on reducing demand during the peak usage hours, to include a smaller setback for a longer portion of the day. The proposed BYOT Full Day Bonus program would include two timeframes - the base period, which is the current four-hour peak window from 6:00 a.m. to 10:00 a.m., during which the Company would adjust customers' thermostats by four degrees, and a 20-hour setback period, during which the Company would adjust customers' thermostats by one degree.

On top of the current \$25 annual incentive for participation in the base program, the Companies propose an additional \$15 per device per year bonus incentive for participation in the BYOT Full Day Bonus option. The Companies propose to maintain the 70 percent participation performance threshold and propose to apply that threshold separately to performance during the full day and peak hour periods. This allows customers to receive incentives of up to \$40 per winter season, in addition to the one-time \$25 enrollment incentive payment.

NOTICE OF PROPOSED RULE MAKING

Pursuant to the State Administrative Procedure Act (SAPA) §202(1), Notices of Proposed Rulemaking were published in the State Register on July 24, 2024 [SAPA No. 20-G-0086SP6 and SAPA No. 20-G-0381SP4]. The time for submission of comments pursuant to the Notices expired on September 23, 2024. No comments were received.

LEGAL AUTHORITY

Pursuant to Public Service Law §§5, 65, and 66, the Commission has broad authority over electric and gas corporations, including the responsibility to ensure that all services provided by such corporations are safe and adequate and that all charges are just and reasonable. Accordingly, the Commission has the authority to review the Companies' filings and approve, reject, or modify the Companies' proposed changes to their firm gas demand response programs.

DISCUSSION AND CONCLUSION

The Firm DR Programs primary objectives are to help preserve system reliability during periods of peak usage, reduce costs associated with upgrades to the distribution system, and avoid the purchase of incremental upstream capacity and supply. The Firm DR Programs are an integral part of the Companies' system planning in future years. The reduction in peak day and peak hour gas usage from existing customers improves the gas utility's ability to maintain system reliability during peak winter heating events and allows the utilities to continue meeting customer energy needs while simultaneously reducing the need to build additional infrastructure.

KEDNY and KEDLI have completed their fifth winter season, and NMPC its second, and as shown in their respective

annual reports, the Companies have been able to carry out their Firm DR Programs in a cost-effective manner and expect to continue to do so in the upcoming winter capability period. NMPC's 2023/2024 winter capability period reflects an increase of seven percent of enrolled Dth reductions in its Load Shedding Program, a 100 percent increase in enrolled Dth reductions in its Load Shifting Program, and an increase of 113 percent in the number of devices enrolled in its BYOT Program. KEDNY and KEDLI have continued to see enrollment increases in their Firm DR Programs. KEDNY and KEDLI's Load Shedding Program, which completed its fifth season, has shown an average growth rate of 24 percent in terms of Dth enrollments from the 2019/2020 winter season through the 2023/2024 winter season. KEDNY and KEDLI's BYOT Program has completed its fourth winter season with an average growth rate of 83 percent in the number of devices enrolled. Finally, KEDNY and KEDLI have completed the third season for their Load Shifting Program, with a 12 percent average growth rate in Dth enrollments.

As Firm DR Programs for gas customers are still relatively new with little operational experience to draw on, the Companies will continue to make improvements as they identify issues. KEDNY and KEDLI note that their Load Shifting Program event performance was significantly brought down, from an average of 56 percent during the 2022/2023 winter season to an average of 28 percent event performance in the 2023/2024

winter season, by a single aggregator portfolio, comprised of many accounts that showed no signs of program participation.⁹

Participants in the Load Shedding and Load Shifting programs are required to have operational interval gas meters capable of providing hourly readings and communicating that data to the Companies during the winter season. This equipment is necessary for participation regardless of the participants' actual performance. The Companies currently provide and install this required gas metering equipment for new participants at no cost. They do this because requiring all potential participants to fund the costs of these meters themselves may result in an unreasonable barrier to participation. The Commission agrees with the Companies' aim to enhance the reliability of the enrolled load relief and mitigate high program costs associated with meter upgrades by requiring returning participants or aggregators that do not meet the 25 percent minimum performance factor to pay the costs associated with the enhanced metering equipment for any new accounts such participants or aggregators add. The Companies' proposal strikes a balance between maintaining low barriers to entry for new participants, generally, while ensuring that poor-performing aggregators and participants have an incentive to maintain at least a minimum level of performance during events. Therefore, the Commission approves the Companies' proposal to establish a minimum Performance Factor of 25 percent for returning customers and aggregators to receive no-cost metering upgrades for new

⁹ Performance during an Event is measured as a percentage by dividing the amount of load relief a participant provides during an Event from the amount of load relief a participant enrolls in the program. This computation can be done on a per-participant basis, used for setting Performance Factors that incentive payments are based on, for the whole program portfolio to observe trends in participants' performance, and other levels in between, e.g., by aggregator.

accounts the existing aggregators and participants seek to enroll in the programs.

During the 2022/2023 winter capability period, the Companies found that events are not always preceded by days with cold enough temperatures to provide a reasonable indicator of cold weather utilization. In accordance with the Commission's 2023 Program Changes Order, the Companies instituted a modified baseline methodology. In addition, the 2023 Program Changes Order directed the Companies to report on the impact and effectiveness of the modified baseline methodology.

The Companies submitted the results of a third-party study assessing the accuracy of event performance baseline calculations as an Appendix to KEDNY and KEDLI's Annual Report. The report recommends that the Companies continue using their current five of 10 methodology, noting its effectiveness in comparison to alternative methods. However, the report also acknowledges its limitations arising from the use of simulated event days. The Companies also performed an impact analysis using real demand response events and found that, compared to the 5-of-10 methodology, the proposed 5-of-30 modification identified more cold-weather days when analyzing actual demand response events rather than simulated data.

Unlike electric consumption patterns that are more predictable and less influenced by weather, gas consumption can fluctuate significantly based on weather conditions. As a result of this, a longer time frame is needed to accurately assess gas consumption patterns. Therefore, the Commission approves the Companies' proposal to use a 5-of-30 baseline for weekday Events and a 4-in-12 baseline for weekend or holiday Events is approved.

The Companies' Firm DR programs endeavor to provide reductions in gas consumption during both peak hours and on peak

days during the winter season. The BYOT program primarily focuses on peak hour reductions, with limited peak day savings observed after accounting for preheat and snapback effects, which are which are inherent in curtailment methods.¹⁰ The proposed Full Day Bonus option offers a chance to reduce energy consumption throughout the entirety of a peak day. By adding a 20-hour incentivized setback period with small temperature adjustments to the existing four-hour setback period, the Companies encourage greater participation during the peak day.

The Commission commends the Companies on their innovative and reasonable approach to decrease peak day gas consumption within the BYOT Program and directs the Companies to report on the impact and effectiveness of the BYOT Full Day Bonus offering as part of the Annual Report due on June 15, 2025.

The Commission expects that the Companies will continue to design their Firm DR Programs to operate cost effectively but recognizes the need for flexibility so that the Companies can continue to make improvements to the programs as they identify issues. The Commission finds each of the Companies' proposed changes to their Firm DR Program for the 2024/2025 winter capability period to be reasonable.

The Companies shall file the necessary tariff amendments to implement the draft tariff leaves attached to the Petitions. These tariff amendments shall be filed on at least five days' notice to become effective on November 1, 2024. As

¹⁰ Preheating refers to increasing the temperate setpoint before an Event so the conditioned space feels less cold during the Event itself. Snapback refers to the increased gas usage after an Event associated with a resumption of heating at an accelerated rate to return the indoor air temperature to a comfortable level. Preheating and Snapback around a four-hour Event period can undermine efforts to manage peak load over a full 24-hour period.

these tariff revisions will be filed in compliance with this Order, and stakeholders have already had an opportunity to comment on the contents of the draft tariff leaves, the newspaper publication requirements of PSL §66(12)(b) and 16 NYCRR §720-8.1 shall be waived.¹¹

The Commission orders:

1. The modifications to the Firm Demand Response Programs proposed by The Brooklyn Union Gas Corporation d/b/a National Grid NY, KeySpan Gas East Corp. d/b/a National Grid, and Niagara Mohawk Power Corporation d/b/a National Grid are approved consistent with the discussion in the body of this Order.

2. The Brooklyn Union Gas Company d/b/a National Grid NY, KeySpan Gas East Corp. d/b/a National Grid, and Niagara Mohawk Power Corporation d/b/a National Grid are directed to file tariff amendments, as discussed in the body of this Order, to become effective November 1, 2024, on not less than five days' notice.

3. Newspaper publication requirements pursuant to PSL§66(12)(b) and 16 NYCRR §720-8.1 related to the tariff filings directed in Ordering Clause No. 2 are waived.

4. The Brooklyn Union Gas Company d/b/a National Grid NY, KeySpan Gas East Corp. d/b/a National Grid, and Niagara Mohawk Power Corporation d/b/a National Grid shall report on the impact and effectiveness of the BYOT Full Day Bonus option as part of their June 15, 2025, Annual Reports.

5. In the Secretary's sole discretion, the deadlines set forth in this Order may be extended. Any request for an

¹¹ The Commission understands that the Companies has been informing participants of their requested modifications, approved herein, as part of their enrollment process.

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extension must be in writing, must include a justification for the extension, and must be filed at least three days prior to the affected deadline.

6. These proceedings are continued.

By the Commission,

(SIGNED)

MICHELLE L. PHILLIPS
Secretary