

**IN THE MATTER OF THE IMPLEMENTATION OF P.L. 2018, C. 17, THE NEW
JERSEY CLEAN ENERGY ACT OF 2018, REGARDING THE SECOND TRIENNIUM
OF THE ENERGY EFFICIENCY AND PEAK DEMAND REDUCTION PROGRAMS**

DOCKET NO. QO23030150

**COMMENTS OF THE DIVISION OF RATE COUNSEL ON THE DEMAND
RESPONSE STRAW PROPOSAL**

June 27, 2023

Introduction

The Division of Rate Counsel (“Rate Counsel”) thanks the Board of Public Utilities (“Board” or “BPU”) for the opportunity to provide comments on the Straw Proposal titled “EE5: Demand Response Program Straw Proposal” (“DR Straw”). The Division of Clean Energy staff (“DCE” or “Staff”) circulated the DR Straw for comments on June 6, 2023 and held two stakeholder webinars on June 20, 2023, at which stakeholders were invited to provide verbal comments. Written comments are due by June 27, 2023.

The DR Straw states that the second Triennium is a critical period to begin to expand energy efficiency (“EE”), or permanent load reduction, with the capabilities of demand response (“DR”), which is classified as temporary load reduction.¹ Unlike EE, DR has a variable operating element for both when and how it is utilized, as well as who shares in the economic benefit of its use.² Staff also states that both electric distribution companies (EDCs”) and gas distribution companies (“GDCs”) will be encouraged to submit DR service programs as a part of their EE filings so long as the filings include: rules and standards for data; full disclosure on

¹ DR Straw, p1.

² Id.

system modeling methodology, reliability, and economic impacts are provided.³ This represents the only opportunity for the public to present written comments.

Specific Comments on Demand Response Service Programs

Rate Counsel recognizes that the technology and opportunities to implement demand response have changed dramatically in recent years, and that the widespread and ongoing adoption of Advanced Metering Infrastructure (“AMI” or “smart meters”) may present an opportunity to help customers control costs while providing significant system benefits. New Jersey’s progress in this area has been limited, to date, and Rate Counsel appreciates Staff’s initiative to jump start DR in this State. In particular, simple measures such as Time of Use (“TOU”) rate design, which prices electricity according to the time of day it is used, and managed EV charging, which encourages off-peak charging of electric vehicles should be encouraged for all EDCs without delay. In addition, New Jersey’s EDCs should ensure that their EE measures are designed to maximize the savings during peak hours. This will help mitigate the cost of system upgrades to accommodate additional electric load as we continue to electrify building heat, and transportation, and other energy end-uses.

Rate Counsel agrees with Staff that it is premature to develop full-scale DR and grid flexibility programs for the second triennium, and appreciates that the goal is to avoid lost opportunities by setting the ground work for the programs in Triennium 3 and beyond. To that end, DR technologies such as direct load control, where customers receive payment for allowing their utility to control the operation of their equipment, and Vehicle-to-Grid integration, which alter the time, power level, or location of charging, that are more speculative and untested, should only be undertaken as pilot studies at this time.

³ Id.

The Straw Should Encourage LMI-Specific Demand Response Programs

Notably missing from the DR Straw is a program that is tailored to low and moderate income customers. In recent years, the Board has emphasized the importance of equity in EE and other clean energy programs. The DR Straw should direct utilities to offer a program to specifically serve and educate low and moderate income users to implement DR. This could include a program that is similar to RECO's current Peak Demand pilot with incentives for automatic curtailment where AMI is available or it could be targeted toward customer education and monitored use reduction for a selected group of customers. Tailoring some DR programs to LMI customers is critical since most DR programs are usually developed with larger users in mind. Given the Board's focus on equity and overburdened communities, there should be a carve-out for LMI communities and LMI communities should be added as a Targeted Market Segment in the Minimum Filing Requirements ("MFRs") for Demand Response Programs under the bullet points which appear within II.ii of the MFRs.

Determining Baseline for Large Energy Users is Key to Establishing a DR Program

As the DR Straw mentions, it is imperative that the Board be mindful of the fact that EE causes permanent energy reduction while DR is a temporary load reduction.⁴ Therefore, determining large users' energy baseline could prove to be challenging especially if EE measures have recently been implemented or are implemented at the same time. The Board needs to set a uniform way to determine baseline for users to avoid any gaming. One example of a large user likely taking advantage of a DR program occurred when the Federal Energy Regulatory Commission ("FERC"), opened an investigation in 2010 in response to a referral from PJM which alleged "irregular electricity consumption activity" by the major league baseball stadium,

⁴ DR Straw p. 1.

Camden Yards in Baltimore, Maryland.⁵ This alleged irregular usage, which witnesses say was turning on the stadium lights when there was no game, was alleged to have occurred right before PJM declared emergency events on three separate occasions.⁶ Shortly after the lights were turned on, PJM's DR Program contacted Camden Yards to reduce electricity and it was paid through the DR program for a 1.8MW reduction when it did so. In settlement, the parties responsible for the alleged violation agreed to pay \$780,000 in civil penalties and make over \$500,000 in technology improvements.⁷ Another example of inflating baseline occurred when Rumford Paper Company in Maine agreed to pay \$3 million to settle a civil penalty of \$10 million and return \$28 million in profits after it was determined that Rumford implemented a scheme to defraud ISO-NE of demand response payments by establishing a falsely inflated baseline.⁸ Rumford created a false baseline by curtailing its internal generation and purchasing replacement energy during the baseline period, which allowed Rumford to claim load reductions without actually reducing any load.⁹ While these may be outlier situations, they serve as examples of manipulation of baseline usage, which can and did occur to game DR programs. The establishment of baseline is crucial in determining the value of the temporary reduction in energy and must be done in concert with PJM and the utilities.

It will be especially difficult to determine an accurate baseline for energy aggregators since they will generally have a combination of permanent reductions due to EE along with temporary energy reductions as a result of DR. Although Staff recognizes this issue and cautions

⁵ Enerwise Global Techs., Inc., 143 F.E.R.C. P61,210, 62455 2013 FERC LEXIS 981, *3, 2013 WL 4477347 (F.E.R.C. June 7, 2013).

⁶ Id.

⁷ See <https://www.troutmanenergyreport.com/2013/06/ferc-settles-investigation-concerning-demand-response-products-in-pjm/> and <https://www.environmentalleader.com/2013/07/did-camden-yards-energy-management-game-the-system/> AND Enerwise Global Techs., Inc., 143 F.E.R.C. P61,218, 2013 FERC LEXIS 981, 2013 WL 4477347 (F.E.R.C. June 7, 2013).

⁸ Rumford Paper Co., 142 F.E.R.C. P61,210, 62484-62485, 2013 FERC LEXIS 493, *3-4, 2013 WL 1179328 (F.E.R.C. March 22, 2013).

⁹ Id.

against “double-counting”¹⁰ for aggregators, Rate Counsel underscores the need for the Board to establish specific guidelines to ensure this does not occur. Additionally, the larger the energy user, the more information should be required to determine the difference between permanent and temporary energy reductions.

**Bill Impacts Should be a Major Component of the Board’s Decision
to Approve a DR Program**

Rate Counsel appreciates that the utilities are required to provide a rate impact summary under MFR IV.e. When the Board is deciding whether to approve a DR proposal from utilities, the bill impacts to the overall ratepayers should be given just as much weight as the reduction in energy. If all ratepayers are going to be paying incentives for some customers to participate in DR programs, the bill impacts to most ratepayers should be minimal.

The Relationship between DER and DR in the DR Straw Should be Clarified

The DR Straw describes DR and distributed energy resource (“DER”) as a suite of grid flexibility services.¹¹ The DR Straw further states that the use of DR and DER assets coupled with advanced communication platforms can lead to enhanced grid reliability and improve operational cost-effectiveness.¹² While relying more on DER might forestall grid upgrades, it may not achieve the greenhouse gas reduction goals that have become the policy of the state, depending on the generating technology behind the DER. DER in the form of a gas-fired CHP system, for example, would assist with efforts for DR but may create stranded assets in the near

¹⁰ DR Straw, p.18.

¹¹ DR Straw, p.14.

¹² Id.

future. Rate Counsel questions whether gas-fired generation DER should be relied upon to further DR efforts given the Governor’s recent guidance to reduce usage of natural gas.¹³

GDCs Should Not Be Permitted to Propose DR Programs

Rate Counsel strongly objects to the inclusion of the gas distribution companies (“GDCs”) in the DR pilot program. As the Straw Proposal notes, “...the dynamics for natural gas DR events are different than for the electricity market”.¹⁴ Further, there is no interval metering technology in use for residential or commercial gas users. While it is true that the Clean Energy Act of 2018 calls for gas peak load reduction,¹⁵ implementation of DR programs is not required – as peak load reduction is a natural impact of any gas efficiency measure that reduces gas use during peak heating season. Rate Counsel would support other measures to reduce peak gas demand and avoid unnecessary investment in the gas distribution system, such as strategic storage, use of smart devices, or providing bonus gas efficiency incentives in area where peak reduction will provide the greatest benefit. However, gas “demand response” is simply not a concept for which the technology or operational protocols exists.

Although Staff acknowledges that DR events for natural gas and electricity are different, Staff encourages the GDCs to propose DR programs to influence customer actions through the implementation of either:

1. With a TOU rate design that reflects higher natural gas prices during peak months and potentially the critical peak signal for periodic market spikes; or

¹³ Exec. Order N. 317 (2023).

¹⁴ DR Straw, p.5.

¹⁵ N.J.S.A. 48:3-87.9(c) states: “[F]or each electric public utility and gas public utility, which shall establish reasonably achievable targets for energy usage reductions and peak demand reductions and take into account public utility’s energy efficiency measures and non-utility energy efficiency measures including measures to support the development and implementation of building code changes, appliance efficiency standards, the Clean Energy program, any other State-sponsored energy efficiency or peak reduction programs, and public utility energy efficiency programs...”

2. Where smart thermostats and AMI are used to control natural gas demand during extreme cold events, with the resulting temperature offset acting as a measured proxy for reduced gas consumption until interval metering is available directly for GDC billing.

Rate Counsel has concerns with the strategies suggested by Staff. The first strategy includes rate mechanisms that are intended to incentivize residential customer's participation through significantly higher or peak-day rates to address winter use for residents. The problem with this strategy is that customers invariably use much more gas during the winter heating season. The current DR Service programs in the state are interruptible tariffs for large energy users and Rockland Electric Company's ("RECO") Bring Your Own Thermostat ("BYOT") program. Interruptible tariff customers curtail natural gas use when requested by the utility in exchange for the discounted rate. However, unlike most residential customers, interruptible tariff customers have a back-up heating system to use when the natural gas is curtailed. Thus, if a GDC implements Staff's first strategy, ratepayers will be forced to either use less heat or face significantly higher rates during the winter season. There is already a strong incentive to reduce gas usage – and consequently peak usage – in the winter. This is and should be addressed through the existing gas efficiency programs. Raising rates in winter months and peak heating times would be particularly harmful to low-income customers with high energy burdens, who may have the least ability to respond to such signals.

Rate Counsel questions the efficacy of RECO's BYOT pilot program. Under this direct load control program, RECO can make limited adjustments to customers' central air conditioner through smart thermostats on peak days during the summer; in return, customers receive an \$85 rebate check for their participation.¹⁶ However, the customer can override the adjustment, which leads to the question of whether, without some form of limitation on when the adjustment can be

¹⁶ DR Straw, p.17.

overridden, peak load is actually reduced. For these reasons, Rate Counsel recommends that the incentive only be provided if customers do not override a certain number of curtailments.

The second strategy presumes technology that Staff has already acknowledged essentially does not exist in New Jersey. To date, the GDCs have not deployed AMI in their respective service territories. Implementing this strategy would be prohibitively expensive, and entirely unnecessary and would ultimately become a stranded investment. If Staff is suggesting that this strategy is achieved through electric-only reduction which will in turn may cause a reduction in gas, this also seems to miss the mark since the exact reduction of gas cannot be easily extrapolated from that data. Rate Counsel believes the best way to reduce peak gas usage is through existing efficiency measures, such as home weatherization or converting to more efficient heating technology.

As an alternative, Rate Counsel does support the GDC's incentivizing the use of smart devices, such as smart thermostats, as a part of its core programs. Smart thermostats can make it easier for consumers to change their behavior and reduce peak period consumption with features such as temperature presets and presence sensing technologies which enable more efficient use of home heating and/or cooling equipment. These smart devices also empower customers to use their HVAC more efficiently by providing users with information on their power consumption and costs. These smart devices are far more cost-effective than the infrastructure upgrades necessary to deploy AMI.

Conclusion

Rate Counsel appreciates the opportunity to provide these comments on the DR Straw. For the reasons discussed above, Rate Counsel recommends that staff consider a DR program specifically for LMI customers, and pay particular attention to baseline and bill impacts while developing a DR program. Moreover, Rate Counsel strongly opposes GDC participation in DR programs. Alternatively, if the Board permits the GDCs to propose DR programs, the proposed programs should be limited to the use of non-generating smart devices.