



February 8, 2022

New Jersey Board of Public Utilities
Aida Camacho-Welch, Secretary of the Board
44 South Clinton Avenue, 9th Floor
Trenton, NJ 08625
board.secretary@bpu.nj.gov

Via Electronic Delivery

Re: Comments from New Jersey Natural Gas Company Pertaining to Docket No. GO20010033

Dear Secretary Camacho-Welch:

New Jersey Natural Gas Company (“NJNG”) appreciates the opportunity to offer comments in response to the New Jersey Board of Public Utilities (“Board” or “BPU”) Notice, dated January 6, 2022, soliciting public comments on DOCKET NO. GO20010033 – IN THE MATTER OF THE NATURAL GAS COMMODITY AND DELIVERY CAPACITIES IN THE STATE OF NEW JERSEY – INVESTIGATION OF THE CURRENT AND MID-TERM FUTURE SUPPLY AND DEMAND.

NJNG is a lifeline utility provider, responsible for acquiring sufficient gas supply to deliver natural gas service to more than 566,600 customers each day. The vast majority of NJNG’s customers are households and businesses that rely on reliable, cost effective service to meet home and building heating needs. Throughout its service territory, dozens of schools, hospitals, first responders and government buildings rely on NJNG for safe, reliable natural gas service to support their critical operations.

NJNG appreciates the opportunity to provide comments regarding the findings and recommendations of London Economics International, LLC (“LEI”) in their Analysis of Natural Gas Capacity to Serve New Jersey Firm Customers, and we are encouraged by the dialogue in this open docket and from the attendant public hearing held on January 25, 2022.

We look forward to our continued dialogue on these important matters pertaining to the gas supply necessary to deliver the safe, reliable and reasonable cost service New Jersey customers expect.

In accordance with the Order issued by the Board in connection with I/M/O the New Jersey Board of Public Utilities’ Response to the COVID-19 Pandemic for a Temporary Waiver of Requirements for Certain Non-Essential Obligations, BPU Docket No. EO20030254, Order dated March 19, 2020, this document is being electronically filed. No paper copies will follow.

Sincerely,

A handwritten signature in blue ink that reads 'Jayana Shah'.

Jayana Shah
Managing Director, Gas Supply

NJNG's Resource Planning

NJNG is a lifeline service provider. On the coldest days of the year, reliable home heating is a matter of health and safety for customers.

As such, our mandate and goal is to prudently plan for and deploy the resources necessary to ensure reliable service to the millions of New Jerseyans who depend on us to heat their homes and run their businesses. We undertake extensive planning to achieve this mandate.

Our planning includes:

- Robust analysis of the firm requirements of our customers;
- Analysis and extensive modeling of the capability and integrity of our distribution system to meet design requirements;
- Comprehensive gas supply and capacity planning to structure our upstream resource portfolio to meet our portfolio goals of reliability, reasonable costs, price stability, flexibility and diversity; and
- Aggressive implementation of non-pipe alternatives.

Apart from the efforts we put into ensuring the operational design and integrity of our distribution system itself, capacity planning, which is the focus of this proceeding, is the single most important tool we have to protect our customers from the risk of an outage. Capacity resources are integral to the safe and reliable service provided to customers.

The implications of an outage to gas customers are significant, particularly if one were to occur during an extended cold spell. Gas outages require significant effort and time to remedy. Depending on the nature of the outage, system integrity could also be affected. There are health and human safety impacts for a gas outage resulting in loss of the ability to heat a home during winter. There are additional economic consequences of freeze-off damages and business interruptions. An economic value cannot be placed on these implications. One only has to look at last year's Texas weather event to see what is at stake when an integrated energy system is stressed beyond its design.

NJNG fully supports regulatory review and input on the various elements of resource planning, including the development of a GDC's planning criteria. Resource planning standards, including planning for a design day, are integral to ensuring natural gas customers receive reliable service from their GDC. A failure to provide reliable service would result in detrimental consequences for customers.

NJNG supports the BPU's ongoing oversight of its resource planning decisions and encourages placing increased effort on the important non-pipe alternatives and playbook recommendations offered by LEI. However, it is critically important that the responsibility for planning for capacity resources remain with each GDC. Maintaining current capacity planning roles supports acquisition of capacity to cost-effectively integrate with distribution system needs and ensures adequate resources are under contract to avoid system outages. NJNG's residential and business customers rely on the service we provide to them.

Non-Pipe Alternatives (“NPAs”)

NJNG remains committed to working with the BPU and other stakeholders to develop effective programs to reduce design day requirements with cost-effective and reliable solutions. NJNG’s ongoing commitment to incorporating NPAs in its resource planning is evidenced by actions and achievements to bring the benefits of NPAs to its customers.

- Through the efforts of NJNG’s SAVEGREEN Program, 88,745 of its customers have participated in SAVEGREEN and the program has grown the green energy economy in New Jersey. These efforts have substantially reduced gas consumption and the associated environmental impacts.
- NJNG was the first GDC in New Jersey to develop and implement a programmatic pipe replacement program together with the BPU and Rate Counsel. Our replacement program eliminated all cast iron pipes in 2015 and will complete the replacement of unprotected steel pipe early this year. This represents our long track record of continuous improvement in leak reduction.
- This past year, NJNG placed into service the First Green Hydrogen plant on the east coast to deliver hydrogen using our distribution system to heat customers’ homes and businesses.

NJNG is currently analyzing multiple opportunities related to Renewable Natural Gas.

NJNG offers the following comments on specific NPAs discussed by LEI:

- LNG presents a significant resource opportunity for NJNG to manage design day supply needs. Siting and permitting challenges may exist, but NJNG believes this is a significant resource for reliable supply side management. NJNG agrees with Division of Rate Counsel’s verbal comments on January 25, 2022 regarding a solution not mentioned by LEI to explore expanding the vaporization capabilities at existing LNG facilities.
- NJNG has experience with demand response through our Interruptible Tariff Service. We recognize that these types of creative approaches can create partnerships that help participating customers save money and provide a benefit to all customers. While we may be limited with our primarily residential customer base on the number of customers than can participate, the interruptible tariff design has made energy service more affordable for many large commercial and industrial customers that are able to take advantage of this option. It also has provided a cost-effective way to help meet the needs of all firm customers on the coldest days of the year.
- Demand response and Direct Load control have many complexities involved in developing and rolling-out the programs. Most would require the exploration of advanced metering infrastructure along with smart thermostats and program design to ensure effectiveness and cost efficiency. Advanced metering could provide a greater understanding of the impacts of energy efficiency on peak day versus non-peak day consumption. There are additional operational benefits gained with advanced metering that may not have been feasible in the past.

Other than the large-scale interruptible programs, there have not been many successful demand response models in the gas industry to date. There are few jurisdictions in the country that have started to pilot programs, and there is not a strong body of evaluation work documenting their results yet. We look forward to reviewing the outcome of those efforts and working with the Board and other stakeholders to explore the benefits that could be achieved in New Jersey. Additionally, there is considerable work to be done to develop reliable approaches to calculating demand savings for the natural gas system. Currently, the Protocols to Measure Resource Savings for New Jersey’s Clean Energy Program do not include calculations to measure gas demand savings and it does not appear to be common in the Technical Resource Manuals in other jurisdictions. NJNG expects this topic to be explored further by the pending Evaluation, Measurement and Verification Working Group that will be focused on measuring performance related to the implementation of the Clean Energy Act. We look forward to continuing the conversation on these topics to ensure that we continue to progress towards a clean energy future.

Levitan Report

The June 2019 Levitan and Associates Report (“Levitan Report”) commissioned by NJNG had a specific scope of work to conduct a study of New Jersey’s natural gas supply chain and the ability of the state’s four GDCs to meet their reliability obligations. The scope of the report was not related to alignment with the 2019 Energy Master Plan and Integrated Energy Plan. The scope of work did not entail Levitan examining the demand assumptions, but rather it was to:

- Determine the maximum level of New Jersey firm customer sendout that is supported by capacity in New Jersey as of January 1, 2019, including the capacity held by shippers other than the New Jersey GDCs;
- Aggregate the Design Day forecasts for the four New Jersey GDCs based on the June 1, 2018 annual BGSS filings without assessing the reasonableness of the underlying assumptions or forecast results; and
- Determine the level of capacity shortfall or surplus to meet New Jersey’s GDCs’ firm customer demands based on the GDCs’ respective pipeline and storage entitlements.

LEI contends that Levitan incorrectly ignored capacity under contract downstream of New Jersey. A design day event is likely to extend into New York and New England. The same is true for Texas Eastern type of force majeure events. There is no basis for assuming that capacity dedicated to firm New York and New England markets will be available to New Jersey in an extreme event. LEI ignores the capacity constraints in downstream New York and New England.

Best Practices and Playbook

NJNG supports exploration of LEI best practices and playbook recommendations to improve coordination and readiness for extreme events. Given the fact that 75 percent of New Jersey’s households rely on natural gas for home heating – ensuring reliable supply has implications for the more than 6 million people across the state whose health and safety is supported by a secure and reliable energy supply to heat their homes.

To the credit of the Board and its staff, there has already been recognition of the potential benefits of improved coordination and planning for emergency events. The BPU has engaged with the GDCs and the State's preparedness and response communities to conduct tabletop exercises to better understand the impact to the public of an outage event under the current supply constraints of New Jersey's natural gas market.

NJNG agrees with developing a formal plan to address reliability responses. We are prepared to work with Reliability and Security Team to develop comprehensive actions in advance of emergency situations. BPU NJ Pilot Light 2 provides a great foundation for that work, and we appreciate the efforts of the Reliability and Security Team to conduct the tabletop and lead the planning effort going forward. The exercise emphasized the importance of cross-agency and cross utility communication and collaboration in times of an emergency.

In New Jersey, the active collaboration between the companies, NJ BPU and the Division of Rate Counsel, including this process, have been supportive of actions taken to date to ensure safe and reliable service to our customers.

LEI Short Fall Risk Assessment

One analysis presented by LEI is an assessment of the potential resource shortfall that may occur over the next decade. A shortfall assessment is an appropriate tool for assessing portfolio risks and action plans. NJNG believes that the specific shortfall assessment prepared by LEI would need to be reworked prior to considering the results in relation to future resource strategies for New Jersey GDCs.

Design Day forecasting is about managing risks. This exercise is unique to each GDC, based on system characteristics, customer mix, access to supply, outage risk tolerance and many other factors. The fundamental, common thread is that design day forecasting is meant to answer the question of what portfolio of resources is appropriate to keep serving customers under extreme, high demand circumstances. Design day estimates and forecasts are based on relationships between natural gas sendout and factors that include, but are not limited to: temperature, wind, day-of-week and day-of-year variables as well as persistent trends in and among these variables.

LEI's framework for forecasting design day growth relies on a very limited data set, which, by itself, leads to potential for sizeable forecast error. LEI calculates a 0.95% CAGR of historical weather-normalized firm peak natural gas demand for New Jersey. This is used as one of the benchmarks in the LEI analysis of demand scenarios. LEI bases their entire analysis on the information for only five days reported by New Jersey GDCs in annual BGSS filings. At the same time, LEI makes no effort to evaluate forecast error and the implications for planning.

LEI improperly concluded that NJNG's design day forecast does not correctly reflect future energy efficiency impacts when our forecast does in fact account for our longstanding aggressive energy efficiency effort trends. The level of energy efficiency achieved by NJNG in recent years is relatively consistent with the requirements of the Clean Energy Act ("CEA") set forth in the June 10, 2020 BPU Order ("CEA Order") for the first three years. Any reductions in natural gas usage due to the effects of energy efficiency in the historical sendout data are implicitly reflected in the analysis and forecast. NJNG is uniquely situated

among New Jersey GDCs due to our longstanding aggressive efforts to implement energy efficiency through the SAVEGREEN Program. Even so, NJNG continues to monitor Energy Master Plan activities and will evaluate an explicit adjustment to energy efficiency in future forecasts if one is required.

A related issue is the potential effects of energy efficiency on overall annual demand versus peak demand. It is by no means clear that a percent reduction in overall annual demand from energy efficiency will translate to the same percent reduction in peak demand. However, LEI assumes this correlation in its analysis, writing "LEI assumed this 0.2% of annual sales corresponds to 0.2% of peak demand..." (p. 51).

When examining available supplies, the LEI assessment does not properly consider the future supply resources of NJNG. For NJNG, LEI improperly incorporated off-system peaking resources in its analysis that in some cases double count certain capacity resources and in other cases include resources that are not under contract. For instance, 100.8 Mdt/d was from Asset Management Agreements ("AMAs"), where NJNG released capacity to a manager and had a peaking supply option. The capacity is returned to NJNG at the end of the AMA and is included in future supply resources. LEI's analysis should utilize both the peaking and non-peaking resource information from the 2021-22 BGSS filing in order to correctly reflect NJNG's current capacity portfolio.

LEI's analysis of scenarios for a "perfect storm" is a system-wide broad brush analysis that may not accurately reflect the likelihood of supply disruption for NJNG, especially during a stress event such as a design day. The manner in which each GDC's upstream capacity integrates with its transmission and distribution system are different and need to be considered in planning scenarios. Each GDC's supply portfolio may rely on upstream resources to differing degrees to maintain adequate pressure throughout the distribution system under peak cold conditions. The implications of an outage may differ for each GDC due to the composition of their customer base - residential versus commercial versus industrial.

Lastly, it is not clear whether LEI incorporated any of the findings of the BPU's NJ Pilot Light exercises. There were clear lessons learned from the exercises that highlighted the importance of capacity and supply diversity and that should be considered as part of any resource adequacy assessment scenarios.