February 8, 2022

Via Electronic Mail
Aida Camacho-Welch, Secretary
New Jersey Board of Public Utilities
44 South Clinton Avenue, 9th Floor
P.O. Box 350
Trenton, New Jersey 08625-0350

RE: In the Matter of Natural Gas Commodity and Delivery Capacities in the State of New Jersey – Investigation of the Current and Mid-Term Future Supply and Demand (BPU Docket No. GO20010033)

Dear Secretary Camacho-Welch,

BlocPower welcomes the opportunity to submit comments in response to the Board of Public Utilities' (BPU or Board) Notice issued in the above-named docket on January 6, 2022.

BlocPower is a Brooklyn-based climate technology company rapidly greening American cities. Since its founding in 2014, the company has completed electrification, energy efficiency, and distributed energy projects in more than 1,200 buildings in the Tristate Area and has an increasing national presence.

BlocPower regularly partners with utilities and local governments to deliver electrification solutions. BlocPower utilizes its proprietary software for analysis, leasing, project management, and monitoring of urban clean energy projects, driving energy savings of 20-40% for the renters, building owners, and small businesses we work with.

In doing so, BlocPower works to engage communities in a comprehensive way, with a particular emphasis on bringing electrification and community building to low- and moderate-income (LMI) residents, in multifamily and single-family buildings. These electrification projects not only support local and state climate and energy goals, they deliver important benefits to communities and households, including job creation and improved indoor air quality, health, and comfort.

Summary of Recommendations:

In its Notice requesting comments, BPU Staff asked for comments on the conclusions of London Economics International LLC's (LEI) report analyzing natural gas capacity in New Jersey. Staff further requested comment on the potential non-pipes alternatives (NPAs) outlined in the report, including their viability and potential implementation. Drawing on our significant experience implementing electrification projects in LMI and historically underserved communities, our comments address the following:

1. Incentives and programs should reflect the fact that building electrification is the only way design day demand to 2030 will decline, and should fully value investments in electrification by acknowledging savings from avoided gas infrastructure.

2. Building electrification can, and should, occur at scale by 2030.

3. GDCs should develop comprehensive incentive programs for building electrification that address the full range of customer needs.

4. BPU should explicitly require that NPAs include a focus on equitable program delivery and distribution of benefits. Geographic targets should be created to ensure equity.

5. The BPU should require, rather than recommend, that gas distribution companies (GDCs) invest in demand-side NPAs, with programs commencing as soon as possible.

We expand on these recommendations below.

NPA Programs and Incentives Should Prioritize Building Electrification

Programs focused on building electrification are essential for meeting state goals and legislative requirements. In compliance with the State's Clean Energy Act ("CEA"), the BPU has ordered that Gas Distribution Companies (GDCs) reduce the use of natural gas below what would have otherwise been used.[1] LEI's report finds that building electrification is the only way to achieve this requirement.[2]

NPAs focused on building electrification also align with other Board directives. New Jersey's Energy Master Plan includes decarbonization and electrification of buildings by 2050.[3] LEI

[1] NJ BPU. Order Directing the Utilities to Establish Energy Efficiency and Peak Demand Reduction Programs (Docket Nos. QO19010040, QO19060748, and QO17091004). June 10, 2020. p. 30.
[2] (LEI) Final Report: Analysis of Natural Gas Capacity to Serve New Jersey Firm Customers. Public Version. Prepared by LEI for NJ BPU. p.11
[3] 2019 New Jersey Energy Master Plan: Pathway to 2050. https://www.nj.gov/emp/docs/pdf/2020_NJBPU_EMP.pdf

found that meaningful progress toward this target would eliminate any projected shortfall in gas supply even in extreme cold conditions.[4] Such progress requires focused GDC investment in building electrification. Utilities across the country are effectively investing in "clean heat" programs. In New York, the Clean Heat Program offers heat pump incentives statewide, a coordinated effort between utilities and state agencies.[5] In California, gas ratepayers support the TECH Clean California initiative, which incentivizes air source heat pumps (ASHP) and heat pump water heaters (HPHW) in single-family and multi-family homes.[6]

Efforts to reduce gas usage through electrification should also include a comprehensive review of existing incentives. For example, the Board should ensure that delivered fuel customers are effectively incentivized to switch from wood burning heat or fuel oil to electric heat rather than natural gas. As the LEI report notes, two GDCs currently rely on customers switching from oil to natural gas for a portion of demand growth.[7] The Energy Master Plan included a directive to terminate programs that incentivize the transition of oil heating systems to natural gas systems.[8] This phase out should occur in conjunction with the development of new incentives focused on all-electric solutions.

Finally, incentives should account not just for the natural gas supply savings associated with electrification, but also savings resulting from avoided gas infrastructure investment.

Building Electrification Can Occur at Scale by 2030

Increasingly, cities and communities in the Mid-Atlantic are committing to near-term electrification. For example, BlocPower recently finalized a partnership with the city of Ithaca, New York to electrify and decarbonize its building stock, a major step forward in Ithaca's plan to become carbon-neutral by 2030. Numerous other cities are evaluating similar commitments and programs. In Ithaca alone, the installation of air source heat pumps along with supportive weatherization improvements will reduce overall emissions by 40% and create 400 new jobs.[9]

Initiatives like these are in direct contrast to the LEI report's conclusion that there is not sustainable lead time for electrification efforts.[10] In fact, technology has advanced to the point where it can support full-scale electrification in the near-term. Modern cold climate ASHPs are

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[4] LEI p. 12
[5] *See* https://www.nyserda.ny.gov/-/media/Files/Programs/clean-heating-and-cooling/2021-09-29-NYS-Presentation-Deck.ashx
[6] *See* https://energy-solution.com/tech/
[7] LEI p. 11
[8] New Jersey. 2019 Energy Master Plan: Pathway to 2050. January 27, 2020. P. 167
[9] *See* https://www.blocpower.io/press-release/ithaca-ny-selects-blocpower-to-green-entire-city-first-large-scale-city-electrification-initiative-in-the-u-s
[10] LEI p. 14

capable of delivering 100% rated heating capacity at 5°F, and even at significantly colder temperatures, cold climate ASHPs continue to offer comfortable solutions.[11] Northeast Energy Efficiency Partnership (NEEP) maintains a list of more than certified cold-climate heat pump solutions from over two dozen manufacturers.[12] Studies in cold regions like Minnesota have also found that ASHPs can provide an effective space heating option as a stand-alone home heating solution.[13]

Electrification Incentives Should be Comprehensive

At a minimum, NPAs should incentivize electric heat pumps and heat pump water heaters and associated panel upgrades. However, program efficacy can be significantly increased through the following design considerations:

1. Encourage electrification projects that include complementary measures. Pairing electrification measures with delivery of weatherization measures, like air and duct sealing, that reduce overall energy usage and can improve operational economics. BlocPower recognizes that, even with significant upfront incentives, operational costs of electric end uses like air source heat pumps can lead to increased energy bills in certain cases. Weatherization and paired distributed energy solutions can often address the relatively higher costs of electricity if comprehensively incentivized. A recent ACEEE report found that about half of the electrification programs they reviewed also connected customers with insulation, air sealing, and other building envelope measures in parallel.[14]

2. Leverage financing to increase project reach (including the ability to address health and safety measures) and maintain affordability. Under BlocPower's turnkey model, customers can install a suite of electrification and energy efficiency measures. BlocPower also pairs these measures with health and safety upgrades, ensuring improved comfort and indoor air quality for our customers. Our lease model enables customers to finance these upgrades in a simple, affordable way while containing overall ratepayer program costs. NPAs should be designed to encourage this approach by pairing incentives for individual electrification measures with additional building improvements. BlocPower also encourages investments in a range of electric appliances beyond heat pumps and water heaters (e.g. electric stoves which can improve indoor air quality).

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[11] *See* https://zeroenergyproject.org/2020/01/22/achieve-comfort-and-reliable-performance-with-cold-climate-heat-pumps/

[12] *See* https://neep.org/heating-electrification/ccashp-specification-product-list

[13] Schoenbauer, B., D. Bohac, M. Kushler. *Cold Climate Air Source Heat Pump Field Assessment.* Center for Energy and Environment. https://www.mncee.org/cold-climate-air-source-heat-pump-field-assessment

[14] Cohn, C., and N. W. Esram. 2022. *Building Electrification: Programs and Best Practices*. Washington, DC: American Council for an Energy-Efficient Economy. https://www.aceee.org/research-report/b2201

3. Address potentially higher operating costs of electric heating through complementary tariff development. BlocPower also recommends that the Board consider complementary mechanisms to offset comparatively higher electric heating costs, for example through implementation of an electric heating tariff for residential customers. Such a tariff would address energy burden concerns and ensure that customers can switch to electric heating without seeing associated energy bill increases.

4. Prioritize customers most likely to need new heating solutions. NPA programs should encourage natural gas customers to electrify when their existing equipment reaches end-of-life. Electrification components can also be added to emergency heat strategies, offering electric solutions to customers with failing heating equipment. Ensuring that delivered fuel customers are effectively incentivized to switch from wood burning heat or fuel oil to electric heat rather than natural gas is also a critical strategy.

NPAs Should Prioritize Equitable Program Delivery and Distribution of Benefits

The needs of LMI homeowners and renters should be intentionally considered in the development and delivery of NPAs. These communities are more likely to live in older buildings with older heating systems, so electrification would result in greater benefits to indoor air quality. At the same time, LMI customers are also more likely to face a significant energy burden, meaning that these communities could be disproportionately impacted by NPA programs that lead to rising rates (both electric and gas) and do not ensure equitable distribution of benefits.

BlocPower recommends that, at a minimum, the Board consider the following mechanisms to better ensure equitable outcomes for NPA programs:

1. Explicitly require that a meaningful percentage of program benefits target LMI and environmental justice communities. California's TECH initiative, for example, includes a directive that 40% of program benefits will be targeted towards low-income and disadvantaged communities.

2. Offer additional incentives for building electrification projects in LMI communities. New Jersey's efficiency programs offer a 10% adder to incentives for low-income customers. BlocPower recommends that electrification projects for LMI customers consider a more generous adder (e.g. 25%) or complete coverage of project costs, in recognition both of the barrier that up-front costs can play for LMI customers and the need to address complementary measures like health and safety upgrades.

3. Set specific geographic targets for building electrification, prioritizing LMI and EJ communities, to ensure that disproportionately impacted communities are not left out of program delivery.

4. Engage LMI communities in program planning. BlocPower accomplishes this through coordination with a Community Advisory Board composed of neighborhood advocates, religious and community leaders, contractors, workers and residents. This model ensures community buy-in to electrification programs, increasing participation and associated community benefits.

5. Include a focus on local work-force development, bringing durable jobs as well as energy savings to disproportionately impacted communities.

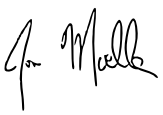
6. Leverage technology to accelerate adoption. Reach communities where they are by utilizing technology-enabled tools including easy-to-complete digital building surveys, remote audits, social media campaigns etc.

Investments in Demand-Side NPAs Should Begin As Soon As Possible

New Jersey has a strong foundation in place to begin significant investment in NPAs like building electrification. The Board has a long history of successful energy efficiency program delivery, and can build upon that basic framework to deliver electrification measures. Third-party program implementers like BlocPower are experienced in program delivery and community engagement. With all of the building blocks in place to launch electrification programs and recognizing that significant electrification must occur before 2030 to decrease design day gas system demand, BlocPower encourages the Board to adopt an accelerated timeline for NPA program development and implementation.

BlocPower appreciates the opportunity to comment on these matters, and looks forward to working with the Board, GDCs, and other stakeholders to develop equitable and impactful NPAs.

Sincerely,



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