Bloomenergy

July 27, 2020

VIA ELECTRONIC MAIL

Aida Camacho-Welch, Secretary
New Jersey Board of Public Utilities
44 South Clinton Avenue, 9th Floor
Post Office Box 350
Trenton, New Jersey 08625-0350
EnergyEfficiency@bpu.nj.gov

Re: Request for Comments – Core Programs

Dear Secretary Camacho-Welch:

Bloom Energy appreciates this opportunity to provide comments on the utilities' design of energy efficiency core programs in response to the Board's July 2, 2020, stakeholder notice.

Bloom Energy is a manufacturer of solid oxide fuel cell systems that produce on-site power for many of the world's most demanding customers. The Bloom "Energy Server" fuel cell generates electricity through an environmentally superior electrochemical process without combustion and therefore does not produce the local forms of "criteria" air pollutants associated with combustion technologies (NOx, SO2, and Particulate Matter). In New Jersey, Bloom Energy is seeing growing interest from customers who desire a clean and reliable distributed power generation solution. Bloom Energy sources some of its most critical component parts from within the Garden State.

Fuel cell without heat recovery projects that are installed in New Jersey significantly reduce primary energy consumption. The generation resources that are displaced by load modifications to the system (e.g. including high efficiency HVAC equipment, LED lighting, and fuel cells) are identified in analyses that determine the avoided energy and capacity costs as well as the demand reduction induced price effects (DRIPE) for energy and capacity markets used to evaluate the cost effectiveness of energy efficiency measures. These displaced generators

primarily combust coal or natural gas and operate at efficiencies in the range of 44.5% HHV or a heat rate of around 9,000 BTU/kWh. In comparison, leading fuel cells operate at an average HHV efficiency of 50.6% over their lifetime, equivalent to a heat rate of 6,745 BTU/kWh. That means over 2,000 BTUs are conserved for each kWh generated by fuel cells, resulting in a >40% reduction in fuel consumption. Bloom customers who install fuel cells without heat recovery at their premises consume less primary energy and avoid line losses while receiving superior energy services.

The leading utility administered energy efficiency program in the nation, the Massachusetts "MassSave" program, has determined that fuel cells without heat recovery constitute cost-effective energy efficiency measures. As a result of the utility administered MassSave program, high efficiency fuel cell microgrids are being installed at hospitals, telecommunications providers, supermarkets, and other important customers in Massachusetts. In addition to substantial and widely applicable energy efficiency savings, these projects are providing important "co-benefits" including avoided local air pollution, the displacement of diesel generators, and avoided customer outages, among other values.

Unfortunately, this is not the case in New Jersey, where fuel cells without heat recovery have been excluded from the utility administered energy efficiency programs and are instead permitted to participate only in the Board's CHP/Fuel Cell program that favors combustion technology over non-combustion fuel cells. For instance, the Board's CHP/Fuel Cell program includes a manufacturer diversity cap for fuel cells that does not apply to combustion CHP, per project funding limits are lower for fuel cells than they are for combustion CHP, and overall funding for fuel cells is limited to one quarter of the funding available to combustion CHP.

Bloom Energy has recently requested that the Board make several changes to the state-run CHP/fuel cell incentive program to place fuel cells on a level playing field with CHP. If the Board declines to revise the CHP/Fuel Cell program rules to provide an equitable playing field for combustion and non-combustion technologies, then utilities should be allowed to include fuel cell incentives in their core programs, particularly for any projects that would not be eligible to receive fuel cell incentives from the state-run program due to the manufacturer diversity cap. Furthermore, if the state declines to include a 25% adder incentive for clean non-combustion fuel

cell projects in LMI communities in the state-run program, then utilities should be allowed to offer such an adder incentive in their core programs. This recommendation is consistent with the Board's June 10th energy efficiency order, which expressly allows utilities to include incentives in their core programs that are "complementary" to and "not competitive" with state run programs.[1] The Board's June 10th order also recommended that utilities include in their core programs "enhanced incentives" for EE measures in LMI communities, a directive that would be enhanced by the inclusion of non-combustion fuel cells in the portfolio of energy efficiency measures that utilities are permitted to offer.[2]

Bloom Energy appreciates the opportunity to provide these comments in response to the Notice filed on July 2, 2020. We look forward to working with the Board and Staff and stand ready to provide additional information wherever that information will be helpful to the process.

Very truly yours,

/S/

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[1] *See* NJ BPU Order Directing The Utilities To Establish Energy Efficiency And Peak Demand Reduction Programs (DOCKET NOs. QO19010040, QO19060748, QO17091004) (June 10, 2020) at 37 ("the Board **DIRECTS** that, where applicable, the utilities shall collaborate with Staff to develop program designs and requirements that are complementary to and noncompetitive with the designs and requirements of State-administered programs").

[2] *See id*. at 10.

To: **Aida Camacho-Welch, Secretary of the New Jersey Board of Public Utilities (EnergyEfficiency@bpu.nj.gov)**
From: **Kara Saul Rinaldi, Vice President of Government Affairs, Policy and Programs Building Performance Association**
Re: **Core Programs**
Date: **July 27, 2020**

As a leader in the residential energy efficiency industry, the Building Performance Association[1] (BPA) is pleased to provide these comments on Docket No. QO17091004 in the matter of the energy efficiency utility core programs. We commend the New Jersey Board of Public Utilities (NJBPU) for all of their work to date to develop this next generation of energy efficiency programs designed to meet the state's ambitious new clean energy goals, and we look forward to continuing to be supportive through this transition. These comments link to several studies and resources to assist the NJBPU staff.

Workforce Development

Building a skilled workforce is critical to the success of New Jersey's energy efficiency programs, and the COVID crisis has further underlined the urgent need to support training opportunities and best leverage the job creation potential of the state's efficiency industry. BPA therefore strongly supports the focus on workforce development and appreciates the discussion questions posed at the stakeholder meeting on July 13. BPA offers the following recommendations to advance workforce development.

1. **Advance online training.** In the midst of the pandemic, other jurisdictions have been looking at ways to advance training amid social distancing requirements and the possibility of future shutdowns if there is a resurgence of COVID cases, including supporting online training. In fact, federal legislation has just been introduced that would provide grants for online training for residential energy efficiency contractors. The bipartisan and bicameral *HOPE for HOMES Act of 2020* (H.R.7325, S.4025)[2] would provide immediate support to hard-hit small residential contracting businesses, helping them rehire and retain employees, while growing a skilled workforce through equitable

[1] The Building Performance Association is a national 501(c)6 industry association dedicated to advancing the home and building performance industry by ultimately delivering improved energy efficiency, health, safety, and environmental performance of buildings.

[2] https://www.building-performance.org/hope4homes

access to online training. Notable, the bill was included in the recently passed H.R.2, INVEST in America Act.

BPA urges New Jersey to be prepared, in case the state needs to shut down again due to a COVID resurgence, with a strategy in place to ensure that critical jobs training can continue and impacted small businesses which are the backbone of the industry can survive—and advancing virtual training opportunities is one key strategy. It is also important to note that energy efficiency is a key sector to tap for local job creation. Investing in training would help the industry to grow and be an engine for economic recovery in New Jersey in light of the current crisis, in addition to supporting the success of the state's energy efficiency programs.

2. **Focus on training for certifications.** As the state develops initiatives to advance workforce development and jobs training opportunities, BPA urges New Jersey to specifically support training (including online training) for industry certifications to enhance the skills of the existing workforce and ensure there are enough qualified workers to fulfill the work for the Core Programs (such as BPI-certified contractors which were highlighted in the July 13 stakeholder meeting).

   The federal legislation mentioned above (*HOPE for HOMES Act of 2020*[3]) would provide grants for online training related to residential contractor certifications for energy efficiency (including those provided by BPI, ACCA, National Comfort Institute, and others), as well as for supplemental training related to the use of smart technology in energy efficiency upgrades or issuance of an energy efficiency home certification.

   Providing support for certification-related training will simultaneously support worker retention and create certified professionals.

3. **Help existing training programs expand.** Through the state-led workforce development initiative, New Jersey should ensure that there is support for a broad range of training programs. **The State and utilities should provide funds for training organizations to reformulate training to meet the existing circumstances, if necessary, including for online training.** BPA also encourages New Jersey to provide support to apprenticeship programs and directly to small businesses for them to train new hires.

   Small businesses are the cornerstone of the residential energy efficiency market,[4] and especially now as so many have been severely impacted by the pandemic and forced to lay off employees there is a critical need to help these companies with training and

[3] https://www.building-performance.org/hope4homes

[4] According to the 2019 Energy Efficiency Jobs in America report, 76% of energy efficiency businesses in New Jersey have fewer than 20 employees.

ongoing education of their workers. It should not be overlooked that these small businesses are an engine for local job creation—supporting their growth will help stimulate a robust economic recovery for New Jersey.

- Maryland offers one model for supporting the expansion of energy efficiency apprenticeship programs. The state established a "Clean Energy Workforce Account" to provide grants to apprenticeship programs in clean energy sectors including energy efficiency, and the first solicitation was just released this month.

EM&V: New Jersey Cost Test & National Standard Practice Manual

BPA applauds the NJBPU decision in the June 10 board order to review its primary New Jersey Cost Test for the next 3- year cycle, with input and guidance from the forthcoming EM&V Working Group. We are also encouraged by the focus on symmetry, transparency and inclusion of non-energy impacts—which are central principles of that National Standard Practice Manual.

We also commend the BPU staff for noting the forthcoming NSPM for distributed energy resources (DERs), due to be published this summer. This NSPM for DERs incorporates the fundamental elements and concepts from the NSPM for EE and will provide guidance on various single DER types (efficiency, demand response, distribution generation, distributed storage and electrification), as well as for multiple DERs (e.g., grid-efficient interactive buildings and non-wires solutions.) BPA looks forward to working with the NJBPU, utilities, and other EM&V Working Group members in support of considering and applying the NSPM for DERs in the future.

Smart Technology in Energy Efficiency Upgrades

As noted in BPA's previous comments submitted to the NJBPU,[5] the use of smart technologies for energy management and enabling demand flexibility is an important strategy to make the residential sector part of the energy grid solution. We noted however that smart home technologies—such as smart thermostats and home energy management systems—are not explicitly included in any of the residential sector core programs. BPA therefore urges the State and utilities to identify opportunities for smart technologies that advance energy efficiency and support customer-controlled demand flexibility to be included in the residential sector programs.

The Building Performance Association's 2018 report, Redefining Home Performance in the 21st Century: How the Smart Home Could Revolutionize the Industry and Transform the Home-to-Grid Connection, discusses the value of including smart technologies in home performance

[5] Including our comments on the Full Straw Proposal submitted on April 13, 2020.

retrofit programs. The proposed utility core programs for the residential sector are focused on improving home performance based on building science principles and increasing the efficiency of HVAC and other appliances. Smart home technologies would add a third efficiency strategy: better control. These technologies not only help achieve greater energy savings through machine learning and optimization, they can also be leveraged to support greater demand flexibility.

We also urge the NJBPU and utility to review Residential Grid-Interactive Efficient Building Technology and Policy, a 2019 report published by the National Association of State Energy Offices (NASEO), which addresses how smart technologies can enable residential loads to shift in response to grid needs and thereby support peak demand reduction and the integration of renewables (in line with the goals set out in New Jersey's Clean Energy Act P.L. 2018, c. 17). The residential sector is a top contributor to peak demand and, therefore, demand flexibility and increased visibility and control over when energy savings occur are increasingly important for the transition to a clean energy grid.

Lastly, New Jersey will need more skilled and certified professionals to keep up with technological advancement and provide the latest and most effective energy efficiency services, including those that include smart technologies. So, as mentioned under the Workforce Development section above, BPA recommends that the state also support training related to the use of smart technologies for home performance to ensure that there is a workforce to do this important work.

Access to Customer Energy Data

BPA was encouraged by the inclusion of data access as a guideline for the program administration framework in the original NJBPU straw proposal, as well as the staff recommendation that utilities be required to make current and historical customer usage data easily and fully accessible to each customer. We noted however that data access was not mentioned in the stakeholder meeting presentation on July 13. We hope this was an oversight and recommend that utilities ensure customers have easy and secure access to their data as well as ability to grant access to third parties.

BPA urges the NJBPU to require utilities to implement Green Button Connect My Data, including billing and account information data fields, to accomplish the dual objectives of increasing customers' access to their utility data, while also maintaining rigorous privacy and security standards—in accordance with **Goal 5.3.2** of the **2019 New Jersey Energy Master Plan** released earlier this year.

We would also like to reiterate our recommendation from previous comments, that NJBPU review the 2017 report Energy Data: Unlocking Innovation with Smart Policy from Mission:data Coalition, which is a useful resource that includes guidance for state policymakers on addressing data access, including issues of ownership and privacy. Michael Murray, lead author of the report, has offered these specific recommendations: NJBPU must carefully define what

data is to be made available to customers and customer-authorized third parties, and should focus on the details of how a customer can exercise their right to share their data with third parties.[6]

Program Coordination: Data Standardization

As the utilities look at program coordination, BPA recommends focusing on standardization of data and quantification efforts which are important to the success of the State's energy efficiency and peak demand programs. Standardization reduces the costs of collecting and exchanging residential energy data so that it can be more easily aggregated, shared, and analyzed to make decisions.

BPA reiterates our recommendation from previous comments that NJBPU support data standardization in the residential energy efficiency industry by requiring the use of the national open data standard, Home Performance Extensible Markup Language (HPXML), for all residential energy efficiency programs.

HPXML can significantly reduce administrative costs by incorporating automated data checks into its program software to validate for program eligibility, energy savings, quality assurance protocols, and more. For example, one year after implementing the standard, Arizona Public Service reduced quality assurance administrative labor by 50 percent. Participating Arizona home performance contractors also reduced administrative labor by 31 percent per project, leading to a 50 percent increase in contractor satisfaction with the program. Program administrators can use the HPXML Implementation Guide to help integrate the standards into program operations.

Financing Options and Access for All Incomes

Finally, BPA applauds the focus on ensuring New Jersey residents of all income levels have access to these programs and the benefits of home energy efficiency improvements. We appreciate the inclusion of free and low-cost measures through the Quick Home Energy Checkup (QHEC) program, the free weatherization for moderate income, as well as the focus on developing special financing terms to make improvements more affordable for low- and moderate-income customers.

BPA encourages developing on-bill repayment options for residential programs in addition to the multifamily sector as single family homeowners also struggle to afford the upfront costs of improvements. Ensuring that residents of all income levels and housing types have access to low-cost financing is key to addressing barriers to program participation. BPA also urges the state and utilities ensure that low- and moderate-income customers also have access to comprehensive projects like through the Home Performance with Energy Star program.

[6] Michael Murray, Mission:data Coalition (www.missiondata.io)

As we have noted in previous comments, BPA released a report in 2017, Weatherization and Home Performance: Recommendations for Mutual Success and Collaboration, identifying opportunities and barriers in creating a more unified set of cost-effective residential energy efficiency programs for all income levels. As utilities work on program coordination, we encourage concerted focus on developing options that are accessible to customers of all income levels including by providing access to innovative financing solutions like on-bill financing.

Thank you for this opportunity to submit comments. Please do not hesitate to contact me with questions.

Sincerely,

Kara Saul Rinaldi
Vice President of Government Affairs, Policy, and Programs
Building Performance Association
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BRIGHT POWER

Your Energy & Water Management Partner

July 27th, 2020

Aida Camacho-Welch
Secretary of the Board
New Jersey Board of Public Utilities
44 South Clinton Avenue, Post Office Box 350
Trenton, New Jersey 08625-0350

RE: Core Programs

Dear Madam Secretary Aida Camacho-Welch,

Enclosed for submission to the New Jersey Board of Public Utilities, please find Bright Power's comments and recommendations relating to the Core Programs.

Please reach out to me directly if you have any questions.

Respectfully submitted,

Amanda Clevinger
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New York, NY 10005
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Bright Power Comments on the Standalone Multifamily Core Program

What challenges exist today under New Jersey's existing programs?

Eligibility

Multifamily building owners face a complex decision-making process when attempting to leverage incentives for their energy efficiency projects. The program offerings include, but are not limited to, Pay-for-Performance, Home Performance with ENERGY STAR, Smart Start Buildings and multiple utility programs. Eligibility criteria vary drastically between each, as do requirements for qualifying energy audits and scopes of work. Because of this, owners face pressure to select a program even before completing an energy audit to ensure that all project activities meet the unique criteria of their anticipated program.

Bright Power respectfully requests that the New Jersey Board of Public Utilities (NJ BPU) and the utilities ensure that the standalone multifamily program caters to all multifamily property types, sizes and metering configurations. This will allow owners to undergo a comprehensive energy audit without the pressure of selecting a program before all energy efficiency measures are thoroughly investigated.

Program Cycles

Bright Power respectfully recommends a multi- year program cycle for the standalone multifamily program to provide the certainty that owners need to plan projects. Most owners plan retrofits a year in advance of project implementation. Without assurances that adequate and comparable program funding will be available in the upcoming fiscal year, many owners cannot commit to participate.

Incentive Structure

Bright Power respectfully recommends a streamlined incentive structure within the standalone multifamily program. Many of the current programs use a complicated calculation using multiple different units of measurement to determine the total incentives a participant will receive. Bright Power applauds efforts to design comprehensive incentives that reward owners for pursuing deeper scopes of work, but in addition, we respectfully recommend that all parts of the incentive for the standalone multifamily program use a uniform structure.

The standalone multifamily program should designate a specific dollar amount per apartment unit for a predetermined tier of energy savings, similar to that used for New Jersey Clean Energy Program's (NJCEP) Home Performance with ENERGY STAR. For example, projects that achieve 5-14% energy savings receive $500/apartment unit in incentives, then 15-19% savings receive $1,000/apartment unit, and the incentives continue to escalate as tiers of achieved savings increase. This simplified structure still allows the program to incentivize different project activities at different dollar amounts, but it will be much easier for multifamily real estate owners to understand the value of the program even before any energy benchmarking or audits take place.

What program services are most important and which are least important to help program administrators address barriers to participation or meet their energy savings goals?

No-Cost Energy Audits

Obtaining an energy audit is always one of the biggest challenges facing multifamily customers interested in a retrofit. Many building owners cannot risk the upfront capital required to complete an audit, a problem that Bright Power has witnessed firsthand with our customers in New Jersey, New York and California.

To this end, Bright Power strongly supports plans for the standalone multifamily program to offer no-cost energy audits. A no-cost audit will deepen the scopes of work considered by owners already interested in a retrofit, and it will also attract new customers that may not have otherwise considered a comprehensive retrofit.

TRC, one of the implementation contractors in our region, is very familiar with no-cost audits. TRC administers no-cost audits and installation incentives for PG&E's Multifamily Upgrade Program (PG&E MUP) in California, one of the largest multifamily energy efficiency retrofit programs in the country. TRC oversees a broad network of partner, not sub, contractors conducting audits that are incentivized up to $125/apartment unit. This dollars-per-unit structure covers the full cost of the audit for most properties. No-cost audits within PG&E MUP have been extremely successful, they have enticed even the most recalcitrant customers to consider an energy efficiency retrofit at their property.

Vendor Selection for No-Cost Audits

Incentivizing the cost of the energy audit is not the only step the NJ BPU and utilities should take to address the barrier that audits pose. Building owners also need the ability to choose their vendor. Bright Power respectfully requests that the standalone multifamily program allow no-cost audits to be completed by qualified program partners of the customer's choosing. Allowing building owners to select their auditor and installation contractor will provide the assurance they need that all stages of the project will closely adhere to the owner's specified financial criteria.

How can the programs streamline income verification?

Bright Power respectfully recommends that the standalone multifamily program allow properties located in Urban Enterprise Zones (UEZ) to qualify as low income, and for properties located outside UEZs, the program should follow the New York State Energy Research and Development Authority's (NYSERDA) example to streamline income verification. NYSERDA allows customers to qualify using one of three possible methods: tenant income verification, rent rolls and proxy documentation for the various regulatory agreements that low income customers may have. NYSERDA's method allows both regulated affordable housing and naturally- occurring affordable housing to qualify, and each property can select the verification method that best fits their needs.

How do we transition to the new programs smoothly?

A smooth transition is vital to preserving customer interest in the new programs. Already, many multifamily customers have bypassed retrofit opportunities they were considering for the new standalone multifamily program, due to the multi-year delays in program launch. Some customers may return once the program launches, but many will not. Multifamily building owners allocate budget for retrofits during specified annual capital planning periods, and unused project funds are often reallocated away to other needs.

To prevent further decline in customer interest, Bright Power respectfully requests that the NJ BPU and the utilities ensure the following:

1. All current program offerings remain open until the Core Programs launch, regardless of when the applicable fiscal year is scheduled to end
2. The new program launch will not be delayed beyond July 2021

crossstate
Credit Union Association

July 23, 2020

Ms. Aida Camacho-Welch, Secretary of the Board
Board of Public Utilities
44 South Clinton Avenue, 9th Floor
Post Office Box 350
Trenton, New Jersey 08625-0350

RE: Energy Efficiency Utility Core Programs

Dear Ms. Camacho-Welch:

On behalf of CrossState Credit Union Association, formerly the NJ Credit Union League, New Jersey's 153 credit unions and their more than one-million members, I write in response to the July 13, 2020 stakeholder meeting on Energy Efficiency Utility Core Programs.

The cuGreenLoan program (cuGreenLoan) is an interest rate buydown program offered through the New Jersey Clean Energy Program's Home Performance with Energy Star program and financed by New Jersey credit unions. Started in 2014, the program assists homeowners in making their homes more energy efficient, lowering their energy costs by up to 30%. cuGreenLoan has a proven track record and ranks as one of the most successful programs of its kind in the nation.

cuGreenLoan offers a uniform statewide digital process for providing energy efficiency financing to consumers. To date, it has financed nearly $30 million in residential home energy improvements for more than three-thousand homeowners, including nearly $2 million in projects where the homeowner was denied credit from their utility.

The capital resources of credit unions are used for lending and loosening capital for higher value-added uses. cuGreenloan utilizes the underwriting expertise of credit unions and provides alternative financing options for those consumers unable to obtain financing from their utility or another source.

We were pleased to note that the Board of Public Utilities' energy efficiency Order adopted on June 10, 2020 recognized the important role that credit unions have played and that local, third-party financers such as credit unions can play in the future. The cuGreenloan business model has worked very well for residential energy programs and has the potential to be successful in financing energy efficiency projects for small and medium-sized businesses and non-owner occupied, multi-family housing.

CrossState Credit Union Association and New Jersey's member-owner, not-for-profit credit unions support Governor Murphy's clean energy initiative. We look forward to exploring ways to partner with the state's utilities as they assume responsibility for core energy efficiency program offerings, along with additional utility initiatives and co-managed programs.

With best regards,

Patrick C. Conway

Patrick C. Conway
President/CEO

July 27, 2020

New Jersey Board of Public Utilities
44 South Clinton Avenue, 9th Floor
Post Office Box 350
Trenton, NJ 08625-0350

Submitted via email: EnergyEfficiency@bpu.nj.gov

Re: Energy Efficiency Utility Core Program Comments, Docket No. QO17091004

To Whom It May Concern:

The Energy Efficiency Alliance of New Jersey submits these comments in response to the Energy Efficiency Utility Core Programs adopted by the New Jersey Board of Public Utilities ("BPU" or "Board") that was the subject of the presentation by both the electric and gas utilities ("Utilities") on July 13, 2020.

With these comments, the sign-on letter submitted with organizations from across the State, and the individual comments of our member companies and partners, EEA-NJ hopes to provide the Board of Public Utilities and the Utilities in New Jersey with the information required to create innovative and thriving energy efficiency programs in New Jersey.

The Energy Efficiency Alliance of New Jersey ("EEA-NJ") is a trade association for the energy efficiency industry, which is composed of a diverse range of professions—from contractors and manufacturers to engineers, architects, and software developers—and a local workforce that cannot be outsourced. Together with its sister organization, the Keystone Energy Efficiency Alliance ("KEEA"), EEA-NJ represents 70 business members who provide energy efficiency products and services in support of an industry that accounts for more than 30,000 New Jersey jobs. Our membership is large and diverse, with experience designing and implementing a variety of demand side management solutions and energy efficiency programs across the globe. Our aim is to guarantee the success of energy efficiency programs for both the businesses and the ratepayers of New Jersey—because our members' livelihoods depend on it.

First, EEA-NJ would like to thank the Board of Public Utilities ("BPU" or "Board") for their tireless dedication to ensuring that the energy efficiency programs continue as planned even through these unpredictable times. The recent Board order establishing the Energy Efficiency and Peak Demand Reduction Programs Framework created a robust framework for utility energy efficiency programs, which will result in numerous economic and environmental benefits across the state.

While the Utility Core Programs presented by the gas and electric utilities lay a strong foundation, EEA-NJ has additional suggestions for program design that can help respond to the

current crisis and ensure that the state does not delay in providing economic relief to businesses and the unemployed.

1. EEA-NJ suggests that BPU involve implementers in stakeholder meetings now to aid in program design and consistency discussions.

In addition to continued coordination between Utilities and BPU staff around energy efficiency programs, EEA-NJ would like to suggest incorporating energy efficiency implementers in these development conversations as well. EEA-NJ businesses have implemented energy efficiency programs in numerous other states and could provide valuable insight on best practices for design and implementation. Involving implementers now can help save money by providing business input right away instead of on the backend, and identify opportunities for pilot programs to fill in gaps in the core program design.

From experience in other markets, we have learned that a balance between consistency and innovation in the market place is critical, and would like to caution against an overreliance on consistency. While consistency for core programs can be beneficial, programs should allow for some flexibility in order to prevent arbitrary barriers to otherwise successful programs. For example, programs may need to make modifications in consideration of housing and building stock as it varies across utility territories. The size, type, and density of multifamily buildings and office buildings in different areas of the state require potentially different solutions and delivery flexibility. There is no-one-size-fits-all approach to program design, but with innovation and flexibility, programs can be made to meet consumer needs.

EEA-NJ cautions that, as BPU and Utilities look to ensure consistency, they do not stifle the market. Consistency in rebate levels or incentive tiers, standards for programs, and income and sector brackets are important, but the market for energy efficiency flourishes when implementers can allow demographics to guide program design. For example, in the presentation, it was referenced that not all Utilities may have the financial capability to provide for on-bill repayment as an option to pay for energy efficiency measures, but that does not mean that the state should rule out this opportunity. Allowing utilities to offer similar incentive levels in varying forms allows for equal access while accommodating for demographic and territory needs.

2. EEA-NJ suggests that additional steps be taken to account for the impact of the coronavirus on the energy efficiency sector.

Before the pandemic, the energy efficiency workforce was growing faster than any other sector of the energy industry; over the last four months, the energy efficiency industry has lost 70% of its workforce. These staggering losses served as the backdrop for the release of the ambitious and forward-thinking BPU 2020 Order to Establish Energy Efficiency and Peak Demand Reduction Programs ("EE Order"). Without policies designed to jumpstart and sustain this industry during these uncertain economic times, many businesses, and consequently programs, may not be able to succeed, and these massive job losses may become permanent.

a. As statewide programs are started, the BPU should take additional steps to protect the energy efficiency industry and help it rebuild.

EEA-NJ encourages the BPU to consider the following steps in the next few months to protect the energy efficiency industry in New Jersey:

- Working with the Utilities, **establish workforce needs, requirements, and training opportunities to help unemployed workers now to ensure that there is a truly shovel-ready workforce for July 2021**. Utility energy efficiency programs will create thousands of skilled, well-paid jobs. In the face of unprecedented unemployment numbers and work stoppages, now is the time to train the local workforce these programs will require. The BPU and other stakeholders involved in workforce development could start virtual worker training programs in January of 2021 to begin the process. This will allow workers to be trained and ready to work by July 2021 and provide much-needed economic relief and job security.

- Consider ways to **commence utility filings earlier to allow dollars to flow to the industry and work to start again**. The current timeframe allows for the BPU to review filings from September 2020 to May 2021 giving Utilities only a two-month implementation period prior to the start date of July 2021. Staggering some filings to start earlier can help businesses begin to regrow, while creating jobs and providing much-needed economic stimulus that much sooner.

- Finally, the BPU can **classify certain energy efficiency work as an essential business**. Such a classification allowed solar work to continue in the state while energy efficiency existed in an administrative limbo. Similar to solar projects, energy efficiency is also a "growing contributor to energy, notably clean energy in the state."[1] While some energy efficiency operations need to be scaled back in order to follow recommended health and safety guidelines, it is possible to allow other work to continue.

b. Program design, by both Utilities and NJCEP, should account for impacts of covid-19 on the energy efficiency industry and ratepayers.

As the Utilities and NJCEP design their energy efficiency portfolios it is important to consider adaptations to program design to accommodate additional social distancing measures. Other states have instituted modifications to program deployment and funding to help mitigate the current economic crisis. Such adjustments would be beneficial for the NJCEP and Utilities to adopt in case stay-at-home orders continue. These modifications include:

[1] Tom Johnson, BPU Has Good New for Sola Developers: If Its Solar, It's Essential, NJ Spotlight, May 5, 2020, available at https://www.njspotlight.com/2020/05/bpu-has-good-news-for-solar-developers-if-its-solar-its-essential/#:~:text=It%20turns%20out%20putting%20up,at%20least%20in%20New%20Jersey.&text=The%20clarification%20from%20the%20state,residential%20projects%2C%20can%20move%20forward. (quoting President Fiordaliso).

- Allowing for advance payments for projects in case businesses are unable to provide up-front capital; this is especially important for small businesses that have lost savings due to the crisis.
- Allow for modifications to incentives and rebates for consumers in the event that economic factors outside of the EE space drive down purchases. Many New Jersey residents are facing starkly different economic realities than they were before the crisis.
- Ensure implementers and contractors have flexibility in how they can perform their obligations in the case of another lockdown. This can be done through simple program modifications such as flexibility in whether energy audits can be done virtually, modifying signature requirements, and implementing contactless pickup and delivery protocols, such as appliance recycling.

3. As Utilities and the State design core programs and initiatives, now is the time to invest in energy efficiency.

Utility and state NJCEP programs should look to invest more in energy efficiency to help aid in recession recovery and create cleaner, healthier buildings. While most residential and in-person energy efficiency work has come to a halt due to COVID-19, Commercial & Industrial work has continued as these buildings stand empty while businesses find ways to accommodate for new public health measures. Energy efficiency can help with a pandemic-conscious rebuild as it provides measures that lower electric bills and improve indoor air quality. As Utilities and NJCEP programs are designed, both parties should consider ways to retrofit currently empty commercial, industrial, and educational buildings with energy efficiency measures that will improve air quality and lower electric bills, allowing citizens to return to work and school in a safer, healthier environment.

Thank you for the opportunity to comment on the plans and we look forward to next steps.

Erin Cosgrove, esq.
Policy Counsel
Energy Efficiency Alliance of New Jersey

July 27, 2020

New Jersey Board of Public Utilities
44 South Clinton Avenue, 9th Floor
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Submitted via email: EnergyEfficiency@bpu.nj.gov

Re: Energy Efficiency Utility Core Program Comments, Docket No. QO17091004

To Whom It May Concern:

The signed-on organizations ("Commenters") are pleased to submit these comments in response to the Energy Efficiency Utility Core Programs adopted by the New Jersey Board of Public Utilities ("BPU" or "Board") that was the subject of the presentation by both the electric and gas utilities ("Utilities") on July 13, 2020.

First, Commenters would like to thank the BPU and all New Jersey gas and electric utilities for their continuing hard work and dedication to get the energy efficiency programs started and for the opportunity to provide feedback at this point in the process.

The June 10, 2020 Board Order Directing the Utilities to Establish Energy Efficiency and Peak Demand Reduction Programs ("EE Order") established a framework that can lead the nation in energy efficiency. While the approach to implementing the Utility Core Programs put forth by the Utilities thus far shows a commitment to developing strong programs, there are a few areas that Commenters would like to see expanded, by both the BPU and Utilities, in order to enhance the impact and success of the first round of programs. In addition, we ask the BPU to consider barriers we have identified, which are preventing the state from meeting the new framework requirements and following through on policy priorities.

Equity

The EE Order has objectives to both "decrease energy burdens for all ratepayers with a specific focus on increasing affordability for lower income customers and those living in environmental justice communities," and "ensure that low- and moderate-income communities share the same level of access to the benefits associated with EE investments as wealthier communities."[1]

[1] Order Directing the Utilities to Establish Energy Efficiency and Peak Demand Reduction Programs, New Jersey Board of Public Utilities, June 10, 2020, Docket Nos. QO19010040, QO19060748, & QO17091004, page 3. [hereinafter "EE Order"]

Despite this strong language, Commenters believe that these concerns have not yet been fully addressed in both the EE Order and the approach presented by the Utilities for the current Utility Core Programs. Therefore, Commenters propose the following changes be enacted by both the Utilities and the BPU to ensure equity concerns are addressed in the first round of energy efficiency programs.

1. Begin implementation of the whole home approach with a focus on a community approach.

New Jersey's answer to the inequities that have become clear during the Covid-19 pandemic must address the glaring environmental justice issues that have been exacerbated by the public health crisis and economic downturn. Health problems in so many communities stem from housing that is inefficient, has been poorly maintained by building owners, or is located in unhealthy industrial environments. These conditions affect health outcomes and economic ability for large swaths of the population. New Jersey cannot ever truly meet energy efficiency, or other climate and public health goals, if it continues to leave these communities behind.

Commenters ask that the BPU take additional steps to incorporate a whole home approach with communities at the center. Committing to a community-based whole home approach invests in communities, spurs economic growth, and brings the entire state to a new level of economic and environmental wellbeing. Programs that remove administrative barriers and prioritize healthy and energy efficient homes (lead removal, WAP, etc.) will increase participation by qualified residents. Additionally, sourcing, hiring, and training a local workforce can create trust along with economic stability. Commenters believe the BPU should take the following concrete steps to ensure that this approach achieves successful implementation:

- Create a Multi-Agency Task Force with representatives from all government low-income programs that offer health, lead mitigation, efficiency, and clean energy benefits. This task force can establish concrete plans to coordinate all low-income programs under one roof so that prospective participants will no longer need to navigate multiple agencies to access these benefits.
- In the short term, take steps to bring together siloed solar and energy efficiency programs within the BPU. This can be done through simply requiring that every Comfort Partners home checkup includes a baseline solar evaluation and every new solar evaluation conducts a minor energy efficiency evaluation as well.[2] These two cross-checks can create pipeline projects and dismantle arbitrary barriers between programs, which will streamline long-term program delivery.

[2] These evaluations can be a simple 4 -6 questions. For reference, see https://ctgreenbank.com/wp-content/uploads/2019/11/Contractor-RFQ_112019_Final.pdf, page 16.

- Fully fund the Comfort Partners Program and protect it, along with other state administered programs, from any raids that may come as a result of the budget shortfall. Now more than ever, it is important to keep energy efficiency and the Clean Energy Fund secure as the state works to achieve air and carbon pollution emissions reductions, create more resilient communities and housing, and improve public health.

2. In addition to the priorities outlined, the Utilities can look to additional initiatives to ensure a more equitable portfolio, specifically around Low- and Moderate- Income and Multifamily Programs.

Commenters would like to ask that the Utilities consider additional measures to enhance equitable access to the portfolio of Core Programs. Following the guidelines below will provide better safeguards so that low- and moderate-income (LMI) communities and multifamily residencies will have equal access to program benefits:

- Offer a mix of long-term and short-term measures for LMI programs so that some measures can target more participants while others can make meaningful changes in smaller sectors.
- Address the split incentive that prevents landlords and renters in single and multi-family units from participating in energy efficiency programs by prioritizing innovative projects that achieve performance levels approaching true net zero energy or "zero utility bill" housing.[3]
- Make certain data and metrics to track programs accessible to the Equity Working Group and the general public through the online web portal so that stakeholders can monitor program effectiveness.

3. If Comfort Partners is to remain the only avenue for a comprehensive low-income whole home program, the BPU should make near-term adjustments to the program and employ other policies to prioritize low- and moderate- income communities.

While Comfort Partners is successful when it engages participants, it is limited in its reach. During the stakeholder meeting, it became clear that the Comfort Partners program will remain the sole low-income, whole-home focused program, although the utility core programs will offer additional incentives for low-income customers. Commenters are concerned that without some immediate near-term changes, this vital program will miss portions of the New Jersey residents it is meant to help. Therefore, Commenters ask that the BPU:

[3] One sample of such a program exists in Connecticut. In partnership with the state Department of Housing and its Housing Finance Authority, the Connecticut Green Bank now requires low-income multifamily property owners to apply for energy efficiency incentives before seeking low-income tax credits. The state reports that the program has been transformative in the multifamily market with funded projects achieving energy savings of up to almost 40%.
.

- Immediately convene an Equity Working Group or Energy Efficiency Stakeholder meeting focused on near-term adjustments to Comfort Partners with input from multiple stakeholders, most importantly representatives of the communities that need such programs but have been historically unable to participate.
- Remove income qualifiers for all LMI energy efficiency programs and other LMI-focused programs and replace them with census tracts to qualify households. Currently, income qualifications are overly burdensome and invasive, and prevent households that desperately need remediation from accessing programs. By replacing income requirements with census tracts and opportunity zones, the state can increase services to more residents and direct funding to the communities that need it the most.
- Institute a savings carveout for low- and moderate- income and multifamily sector programs. The calculation can be based on the percentage of consumers served in the utility's territory. While low-income programs are a performance metric, the BPU has decided to waive penalties and incentives for the first 5 years of energy efficiency programs. Therefore, adding a carveout requirement for portfolios can guarantee LMI- and multifamily-focused programs.

Climate Change and Beneficial Electrification

New Jersey statute, executive orders, and the 2019 Energy Master Plan (EMP) make clear that climate change mitigation and GHG emissions reduction are top priorities for the state. As written in the EMP, the state is moving toward a clean energy future, with plans to have zero emissions by 2050 by electrifying buildings and transportation.[4] Robust energy efficiency programs can help achieve these climate goals. However, none of these goals were incorporated into the Utility Core Program presentation nor have they been in any programs designs presented thus far.

As noted in the 2019 Energy Master Plan, "maximum electrification" of the building sector is a key component of the 100% clean energy vision. Beneficial electrification will take time and planning, which is why Commenters believe that it is important to take concrete steps now. Additionally, launching beneficial electrification programs now will encourage businesses to enter and grow in the market, establishing a stable supply chain for the moment New Jersey pivots to scaling the beneficial electrification resource. In order to prepare for "maximum electrification", the EMP notes that electrification technologies like electric heat pumps are efficiency measures and are "more efficient than direct combustion of fossil fuels for heat."[5]

[4] 2019 New Jersey Energy Master Plan: Pathway to 2050, available at https://www.nj.gov/emp/docs/pdf/2020_NJBPU_EMP.pdf.
[5] 2019 New Jersey Energy Master Plan: Pathway to 2050, available at https://www.nj.gov/emp/docs/pdf/2020_NJBPU_EMP.pdf.

To guarantee that beneficial electrification policies are not delayed for the first three years, Commenters suggest the following modifications to currently-anticipated program design:

- Both NJCEP and Utilities include programs that offer high-performing air source and ground source heat pumps for heating and cooling, assuming that the full benefits of the measures are able to be captured in the pending TRC test.
- Utilities prioritize beneficial electrification in measures where it is most cost-effective, such as upgrades in buildings heated with older and inefficient electric technologies like baseboard heating.
- Utilities create an additional utility subcommittee focused on identifying best practices and policies to pursue beneficial electrification across the state. This process can also be aided by the Statewide System Coordinator for the Dual Fuels described in the presentation.

To secure the advance of beneficial electrification policies in the next phase of plans, Commenters suggest the BPU observe the following:

- Require every Utility to introduce a heat pump initiative, similar to the existing requirement for demand response initiatives, in the second round of plans.
- Initiate a benchmarking study, funded by the BPU or Utilities, to take inventory of what needs to be done to transform the market for building electrification in the state. This will inform policy decisions and next steps for the second round of programs.

Equitable Access to Workforce Development and Economic Benefits

Another hallmark of equitable energy efficiency program administration is equal investment in local economies and workforce opportunities. It is important that, as New Jersey expands its energy efficiency and clean energy programs, opportunities to participate in the new economy are available to all residents of the state. Given the statewide impacts of the Covid-19 crisis and high unemployment rates, job training should start as soon as possible to aid in New Jersey's economic recovery. Therefore, to create equitable access to the economic benefits and workforce opportunities offered by energy efficiency and clean energy programs, Commenters ask that the BPU and Utilities coordinate to execute the following suggestions:

- Achieve diversity among suppliers and contractors by reviewing procurement policies and addressing barriers to participation, targeting diverse suppliers for training efforts, and providing application assistance to those seeking to serve as utility and state-led program implementers.

- Collaborate with other agencies or private organizations to make job openings, certifications, and other trainings available in a cohesive manner so workers can easily access employment opportunities, pathways to career advancement, and other methods to enhance their skill sets.
- Offer a diverse array of workforce training opportunities that target all levels of experience with free courses, incentivized or required. Where possible, ensure that training opportunities or internships are paid and lead to permanent employment opportunities.
- Provide health and safety training specific to the work of these professionals to avoid confusion, maintain consistency in protocol, and safeguard the health of the workforce and community.
- Immediately coordinate Workforce Development Working Group meetings with key stakeholders, including program implementers, community centers, high schools, and community and state colleges. Strive to launch training programs quickly, as a large workforce will be required to ensure the success of the first round of energy efficiency programs.

Stakeholder Involvement and Working Groups

As highlighted in the presentation by the Utilities, the EE Order outlined multiple Working Groups, but the BPU has not yet provided any direction regarding the timeline for their establishment and meeting schedule. Commenters are concerned that without a timeline, these groups will not be able to have a meaningful impact on program design, development, and implementation. Moreover, promptly convening these working groups will generate valuable input for program design. Therefore, commenters propose that the BPU begin all Working Group meetings as soon as possible and establish a central advisory or working group to create a more formal hierarchy and streamline communication and requests for input.

1. Launch Working Groups as soon as possible to incorporate better stakeholder feedback.

Commenters propose that the BPU commence the Working Groups for EM&V, workforce development, equity policy, and multifamily as soon as possible, as they could provide valuable feedback on the development decisions happening now and immediately after Utilities have submitted filings. These groups will be better equipped to highlight program concerns that staff and Utilities may not consider. Additionally, groups can help develop new and effective programs, such as multifamily, and identify how to enhance old offerings, such as Comfort Partners, to broaden participation.

Secondly, Commenters recommend the BPU convene Work Group meetings on a regular basis, such as monthly or quarterly. Regular meetings can create an agile feedback loop that will help

staff, utilities, and implementers with the development, design, and deployment of programs by providing additional frames of reference. Additionally, through this process it will become obvious what working groups would provide the most appropriate input for certain policy decisions. Each of the additional working groups should consist of a group of stakeholders who specialize in that area and also solicit input from the public on key issues so that all interested parties are able to participate in decision-making.

2. The BPU should better define the hierarchy of the numerous working groups by creating a core advisory group/working group.

In order to get meaningful stakeholder involvement in the design of programs and goals, Commenters continue to assert that it would be best to institute a core Working Group that includes key stakeholders. Yet the Order has removed the EEAG without provisions for such an advisory group. Without such a coordinating group, we fear that the time and efforts of these working groups could be wasted.

Therefore, Commenters propose the BPU take the following actions:

- Create a core advisory or working group through regulations which clearly define the working groups' roles and expectations. These regulations should define a core group of stakeholders responsible for making sure all interests in these programs are represented, creating mandates for the frequency of group meetings, and deciding when their respective input or approval will be sought throughout the energy efficiency filing process. For additional guidance on what these groups look like, BPU can reference states such as Massachusetts, Illinois, and Connecticut for additional information.[6]
- Delegate some decision-making authority to the core advisory group/working group so that stakeholders can truly collaborate with Utilities and BPU. This process can coordinate questions and inquiries among staff, Utilities, and stakeholders in the other working groups by streamlining a hierarchy for public input and decision-making. In particular, Commenters recommend this format as it will offer opportunities for stakeholders to inform decisions, enhance collaboration, and share the decision-making and idea generation (e.g., through delegation to subcommittees, input on decision-making criteria, etc.).

[6] Look to the CT Advisory Board guidelines for parameters on how to establish a New Jersey system: https://www.energizect.com/sites/default/files/EEB%20Operating%20Procedures_adopted%20Dec.%202013_revised%2011.13.19.pdf.

Commenters thank you for the opportunity to participate in this process and hope that you will consider our suggestions as we believe that they will put New Jersey on the path to meet and exceed its energy efficiency, clean energy, and environmental justice goals.

Thank you for your time and consideration.

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Debra Coyle McFadden
New Jersey Work Environment Council

COMMENTS OF GOOGLE RE: CORE PROGRAMS (July 27, 2020)

Google appreciates this opportunity to provide comments on the utilities' design of energy efficiency core programs in response to the Board's July 2, 2020, stakeholder notice. Google is a multinational technology company and developer of the Google Nest Learning Thermostat and the Google Nest Thermostat E, two of the leading smart home thermostats available in the United States. Google is currently a participant in both the PSE&G Clean Energy Future – Energy Efficiency proceeding and the PSE&G Clean Energy Future – Energy Cloud (AMI meters) proceeding before the New Jersey Board of Public Utilities. Google is interested in energy efficiency programs in New Jersey because its smart thermostats are very effective tools for achieving reductions in the use of electricity and/or gas for heating and cooling of residential homes and businesses.

Google Nest smart thermostats save users on average up to 15% on cooling costs and up to 12% on heating costs, according to the results of independent studies that analyzed the energy bills of real people in 41 states before and after they installed a Google Nest smart thermostat.[1] Based on typical energy usage, this translates to an estimated average savings of $131 - $145 each year, which means a Google Nest smart thermostat paid for itself in under two years. A Google Nest smart thermostat automatically programs itself and creates a schedule based on the user's habits and preferences. The Nest Leaf icon appears on the thermostat device, or app, to indicate when energy-saving temperatures are selected.

In addition, Google offers cloud-based services to the utility industry that utilize the unique capabilities of the Google Nest Learning Thermostat and the Google Nest Thermostat E. These services include Seasonal Savings (an energy efficiency program) as well as Rush Hour Rewards (a demand response program to help maintain system reliability through peak demand reduction). Customers participating in Rush Hour Rewards agree to let their household temperature rise or fall a few degrees on selected days when their utility is concerned about system reliability, in exchange for a payment or bill credit to the customer. Today, dozens of electric and gas utilities across North America provide financial incentives to their customers for smart thermostats in order to meet their energy efficiency and demand response goals.

[1] https://nest.com/thermostats/real-savings/?hl=en-US

Rebates for the purchase of Google Nest smart thermostats are currently offered by three New Jersey utilities – PSE&G, New Jersey Natural Gas, and South Jersey Gas.[2] These rebate programs have been offered since 2018. Google and NJNG also recently partnered to offer a Nest Thermostat E to every NJNG customer at no cost, leveraging EE incentives and additional contributions, as part of an initiative to help engage customers by reducing their energy cost burden during the COVID-19 pandemic.[3] Based on the success of these existing rebate programs, Google recommends that rebates for residential customers to purchase smart thermostats be expanded to all of the electric and gas utility service territories in New Jersey as part of the utilities' Residential Efficiency Products core program. Google further recommends that smart thermostat rebates be included in the Multi-Family core program as well as the Commercial Direct Install program.

Moreover, since the Board's June 10th Energy Efficiency order directs the utilities to include in their residential core programs "enhanced incentives" for low and moderate income customers to access energy efficiency products, Google recommends including a higher rebate for LMI customers to purchase smart thermostats. This could include covering the cost of direct installation for the LMI customer, either as an expansion of the Comfort Partners program or as a separate program. When paired with a demand response or peak demand reduction program, a Nest thermostat not only helps LMI customers save energy and money through EE, but it also helps them earn money for participation in their utility's DR program. Google has found that expansion of direct installation programs has accelerated LMI customer engagement for smart thermostats around the country, and particularly in California, Illinois, and Michigan[4].

PSE&G's current smart thermostat rebate program for its residential gas and electric customers includes a low-income pilot program to install smart thermostats in low-income multi-

[2] South Jersey Gas: https://southjerseygasmarketplace.com/; NJ Natural Gas: https://www.poweredbyefi.org/njng; PSE&G: https://marketplace.pseg.com/.

[3] https://www.njresources.com/news/releases/2020/njng/20-21njnggooglethermostat.aspx

[4] https://www.sce.com/residential/assistance/energy-saving-program; https://amerenillinoissavings.com/portals/0/home/forms/residential-smart-thermostat-fact-sheet.pdf; https://www.cmsenergy.com/investor-relations/news-releases/news-release-details/2018/Consumers-Energy-Nest-Announce-Goal-to-Provide-10000-Free-Thermostats-to-Michigan-Households/default.aspx

family buildings.[5] Google recommends that every electric and gas utility in New Jersey include a similar program in their core programs proposals.

PSE&G, in its CEF-EE Petition that is currently pending before the Board, proposed a Smart Home Pilot Subprogram to "test new and innovative smart home concepts"; this program would involve homeowners on an individual and customized basis. Google is one of the industry leaders in smart home technology and strongly supports inclusion of a Smart Home subprogram in the core programs of every electric and gas utility in New Jersey.

Regarding all utility core programs involving energy efficiency products, Google recommends a longer program life of at least five years.

During the recent stakeholder meeting, BPU Staff explained that the existing staterun programs through BPU Clean Energy Program, etc., will continue *through* July 2021. But the Board's June 10th EE Order has directed the utilities to take on a more robust role going forward, with the plan to implement those utility core programs *in* July 2021. It was left unclear during the stakeholder meeting as to whether utility run programs would also be continued through July 2021. **Google strongly recommends that existing utility rebate programs should be allowed to continue between now and July 2021** to minimize customer disruption, including the PSE&G, NJNG, and SJ Gas energy efficiency products marketplaces through which rebates for Google Nest smart thermostats are currently being offered. Google respectfully requests that the Board provide more details regarding plans for a "single statewide online marketplace with utility-specific interfaces". Google recommends that this approach should allow each utility the flexibility to run their own specific campaigns for customer outreach, in coordination with the marketplace provider and product or service manufacturers. This is the only way to ensure that each utility has the tools and levers at their disposal to achieve their individual program goals. For example, if Utility A needs to recruit more smart thermostats into their EE program before year's end, it should have the flexibility to run specific campaigns and promotions, even if Utility B does not participate. The implementation plan should carefully balance the benefits of scale and branding from a statewide marketplace so that it does not unintentionally stifle individual

[5] I/M/O the Petition of Public Service Electric and Gas Company for Approval of its Energy Efficiency 2017 Program and Recovery of Associated Costs ("EE 17 Program"), Order Adopting Stipulation, Docket No. EO17030196, August 23, 2017.

flexibility for each utility to achieve their own specific customer engagement, EE, and DR goals. Google also recommends that the utilities be allowed to modify their incentives and rebates for consumers in response to economic factors.

Google understands that the MassSave program is being considered by the Board as a model. Implementation of a program like MassSave in New Jersey would only be appropriate if everyone in the state were starting from scratch. However, since there are already a few utility energy efficiency product marketplaces that have been launched, including PSE&G, NJNG, and SJ Gas, Google feels strongly that it is better for the state to allow those existing programs to continue. It is better to allow the utilities to work together to identify the best way to deliver energy efficiency products to customers without having to mandate a single solution. The key is flexibility. Smart thermostat rebates for utilities will differ by a few factors – for example, whether they are an electric or gas utility, or whether or not they have demand response – so this is better managed at the utility level. It would be too much for a central statewide administrator to manage all of these complexities efficiently across all utility service territories. Utilities are also better suited to managing against their own marketing and promotional calendars, and utilities can leverage product promotions to amplify specific, individual utility goals, such as NJNG's campaign to offer no-cost Google Nest thermostats to customers during the COVID-19 pandemic

Finally, Google strongly recommends that the Board encourage deployment of advanced metering infrastructure ("AMI"), which will provide customers with the data and tools to understand their energy usage and impact on the grid, and provide utilities with critical data that will facilitate achievement of the energy efficiency targets set by the Board's June 10th order.

Thank you for the opportunity to submit these comments. Google is willing to participate in further discussions with the utilities and Board Staff to explain how its technology can assist the utilities and the state in reaching their energy efficiency goals.

July 27, 2020

Aida Camacho-Welch
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Submitted via email: EnergyEfficiency@bpu.nj.gov

Re: Comments on Energy Efficiency Utility Core Programs

Health Care Without Harm is pleased to submit these comments on Energy Efficiency Utility Core Programs to the Board of Public Utilities. Health Care Without Harm supports New Jersey's health care systems in reducing their carbon footprints, building climate-smart and resilient hospitals, and mobilizing health care's ethical and economic influence to advance the transition to a low-carbon future.

Protecting the Well-Being of New Jersey's Residents

The World Health Organization has declared climate change and air pollution to be "*the greatest threat to global health in the 21st century*".[1] More than 110 US medical and health organizations, including the American College of Emergency Physicians, American Medical Association, American College of Physicians, American Academy of Pediatrics, and American Academy of Family Physicians, have declared climate change to be "*a true public health emergency*".[2] The work of the Center for Disease Control and Prevention (CDC) vividly illustrates why medical and health professionals are so worried.[3] The increasing frequency and intensity of weather events experienced in New Jersey - from Hurricane Sandy and to this summer's heat waves – demonstrate that the health impacts of climate change hit vulnerable populations first and hardest. And, as recently noted by the Department of Environmental Protection, "*New Jersey is warming faster than the rest of the Northeast region and the world.*"[4] Governor Murphy's comments on the Energy Master Plan demonstrate that the Administration is aligned with these concerns, as well as recognizing the economic opportunities that the emerging new energy economy provides.

As a general point underpinning our comments, we argue there are unique reasons why increased attention should be paid to the health care sector under the Core Programs:

1. Compared to other sectors, hospitals consume vast amounts of energy due to their unique activities, stringent code requirements, and 24/7 operations. Many highly energy intensive activities occur in these buildings - spanning operating rooms, medical imaging, labs, laundry, sterilization, computer/server use, food service, and refrigeration. Hospitals use 2.5 times more energy per square foot (or more) than typical office buildings.[5] As such, hospitals are an

[1] See www.who.int/globalchange/global-campaign/cop21/en/
[2] See climatehealthaction.org/cta/climate-health-equity-policy/
[3] See www.cdc.gov/climateandhealth/effects/default.htm
[4] See www.nj.gov/dep/climatechange/docs/nj-scientific-report-2020.pdf
[5] See www.eia.gov/consumption/commercial/reports/2007/large-hospital.php

efficient and effective way to spend program funds, from both an economic and an environmental perspective.

2. Hospital energy efficiency investments offer an unusual opportunity to accelerate the state's climate and clean energy goals. The health care sector makes up 7.5% of the state's GDP and contributes more than $40 billion annually to the state's economy.[6] Nationally, the health care sector's greenhouse gas emissions makes up 10% percent of the U.S. total. It is reasonable to assume that the health care sector is a similarly major contributor to New Jersey's emissions.[7]

3. As with the COVID pandemic, the health care sector is on the frontline of climate change. This sector will bear the initial impact of the massive societal cost of increased illnesses, diseases, injuries, early death - and all the other health impacts the CDC has identified. The challenges of COVID-19 have made clear the urgency of investing in mitigating climate change as quickly as possible, as well as the need to stabilize health care systems in financial crisis. If implemented, these recommendations will save far more money than expended while protecting the health of New Jersey communities.[8]

4. During extreme weather events, New Jersey's hospitals must remain operational - providing high quality care while responding to increased medical needs and injuries. Energy-efficient operations enable hospital resilience, as lower energy consumption means health care facilities can provide essential services for longer periods when facilities are forced to switch to on-site back-up power systems.

5. Prioritizing health care projects has the added benefit of helping reduce on-going operating costs for hospitals. As demonstrated by the COVID-19 crisis, hospital operating margins make it particularly challenging to weather unpredictable economic events. Every $1 a health care organization saves on energy is equivalent to generating $20 in new revenue.[9] Given that the health care sector employees more than 400,000 people in the state, the health of this industry also impacts the financial health of those employees and their families. (160,000 and 240,000 people are employed by hospitals and by ambulatory services, respectively.)[6]

Comments:

In order to best leverage the many health care sector opportunities available to the Core Program, our recommendations are as follows:

1. Per the June 10 Board Order, we recommend that the maximum allowed increases, not requiring Board approval, be added to the hospital program. This program is consistently oversubscribed while, for the reasons noted above, the benefits of hospital projects exceed the benefits of spending in virtually every other sector of the economy. Hospital energy efficiency projects will lower operating costs for decades, freeing up those funds to be reinvested into patient care and the resiliency of the health care system. Furthermore, given the financial pressures of COVID-19 on the health care systems, access to capital for energy projects has become even more challenging.

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[6] As reported by the NJ Dept of Labor: //nj.gov/labor/lpa/pub/empecon/healthcare.pdf

[7] The New Jersey Department of Environmental Protection does not break out its greenhouse gas inventory data by industry sector. See www.state.nj.us/dep/aqes/pdf/GHG%20Inventory%20Update%20Report%202018_Final.pdf

[8] See noharm-uscanada.org/documents/health-care-climate-change-opportunity-transformative-leadership

[9] Assumes a 5% operating margin in a non-profit hospital. Hospitals with even lower margins derive even more value.

2. In alignment with the BPU attention to low-income communities, we recommend that the Core Program require increased spending on hospitals that serve these communities. Those living in these cities and towns are often unable to afford adequate medical insurance, exacerbating the enormous financial pressure on hospitals serving their communities. Again, COVID-19 has exacerbated that challenge to an extreme degree. The qualification process could be the same as, or modeled on, the NJ Department of Health's Charity Care program, or the Department of Community Affairs Enterprise Zone programs. The latter would not be unprecedented given that the Clean Energy Program has an existing program targeted at Enterprise Zones under the Home Performance with ENERGY STAR work.

3. As health care is increasingly provided in outpatient facilities, the Core Program should reflect this dynamic. The hospital program should be changed to be the "health care sector" program, and should include including all energy-intensive health care services (e.g., ambulatory surgical centers, imaging centers, and the like).

4. The Marketing Working Group should work with Governor's Office and the Department of Health to develop community outreach that highlights energy efficiency programs in health care systems. Given the multiple high-impact economic and health benefits of programmatic spending on this sector and its overarching prominence in the fight against COVID-19, this is an entry point for educating New Jersey residents about the myriad benefits of the Core Program overall. More importantly, this would provide an avenue for the Department of Health to begin to educate the public about the full impact of climate change on residents' health - especially the impacts on vulnerable populations.

5. Hospitals are complex facilities that include a wide variety of systems and equipment that consume vast amounts of energy. Increasingly, building systems are operated via software management systems designed to ensure minimize energy consumption while adhering to strict patient safety requirements. As such, we recommend that the Core Program funding should be increased such that utilities (or other entities) are able to provide technical expertise and/or training to hospital facility staff, like Building Operator Certification training. Such a program will help ensure that efficiency projects are operated and maintained effectively over time, thereby maximizing the return on investment. (Alternatively, the Core Program could provide rebates or similar financial incentives to health care entities who create training programs for the appropriate building facility employees.)

6. Longer term, the Core Program should set hospital-specific energy performance targets for major renovations or expansions of existing hospitals. One approach would be to set an Energy Use Intensity (EUI) requirement. An alternative proposal to require major renovations meet LEED standards meet Leadership in Energy and Environmental Design (LEED) Gold or Platinum level design standards.

Thank you for the opportunity to provide these comments. We believe our recommendations are consistent with the aggressive climate change and clean energy goals put forward by Governor Murphy and the Legislature, and are essential to protecting the health and well-being of New Jersey's residents.

Sincerely,
Dan Quinlan, Senior Consultant
dquinlan@hcwh.org

Dear Secretary Camacho,

- My comments are limited to areas of which I have some knowledge and is in line with my earlier comments submitted in April. As I remarked previously, I am relieved that NJCEP will offer the significant EE programs to the entire state. So, again, thank you for that mandate. I also commend the Board and staff because, based upon the given legislative mandates, your actions are reasonable. I will restate a few major earlier comments but they are less detailed here.

- While staff suggests that the utilities "should design core programs that assess whole building structures and systems and encourage customers to consider a holistic approach to EE," this permits the customers to actually do only one Energy Efficiency (EE) action. That would allow them to take the low hanging fruit," e.g. only lighting. If EE solutions are economically viable, customers should be more than "encouraged" to do more EE. I urge that the Board require each utility to establish a whole building pilot. At a minimum, the BPU should establish at least one such pilot.

- I continue to recommend that an energy audit be done and EE measures be taken before solar is sized/installed and that the whole building approach become an integral part of the Successor CEP Solar Program. In that vein, the utilities should be required to - at least in a whole building pilot - evaluate and present to each customer their solar PV and/or Community Solar options.

- Similarly, I am very concerned that there appears to be no specific requirement for the utilities to include lead paint and asbestos remediation. As I did in my EE Transition Equity Workgroup comments, I once again urge the Board to order staff to work with DEP to establish a coordinated procedure to efficiently coordinate a joint EE/lead paint remediation program. In addition, asbestos remediation is needed in

many LMI households so that a coordinated program should also be established. When one is installing EE actions, e.g insulation, remediating lead paint and asbestos at the same time is much more efficient and eliminates these constant health threats.

- I thank the Board for ordering that utilities collaborate for consistent implementation of their core programs. I suggest that all forms and protocols be identical unless the Board or its staff, for acceptable reasons, decide otherwise.

- Based upon the June 10th Board's Order (page 11 footnote), I'm uncertain how the BPU will place **energy storage** into the utilities Peak Demand Reduction efforts but it must to so. I recommend that the Board clarify by more specifically stating that the Board expects the utilities to use energy storage to reduce the peak.

- As I recommended in my comments regarding the EE Transition Equity Workgroup, census tracts should be used to more easily & efficiently identify areas for Comfort Partners & other LMI EE programs. Comfort Partners should also evaluate and present to the customer their solar PV and/or Community Solar options. Comfort Partners should be prioritized.

- I found no mention of the **Credit Unions** Green Loan Program which should be continued and even strengthened. They are independent of utilities and provide a low cost option for people. Utilities should not be the only source of funding for customers EE. And, Credit Unions are more likely to succeed in LMI neighborhoods. The Green Loan Program is a model for EE programs and helps LMI extend their home equity. This should be in addition to utilities' "Pay as You Save" EE programs whereby the customer can pay off their EE costs via their EDC/Natural Gas utility monthly bill. Customers should be given EE options.

- I again urge that the utility EE programs be initially targeted to the **most congested areas** of the State. This would help reduce electricity costs for every customer in that congestion zone by cutting the expensive peak load. The EDCs should be directed to do so - quite possibly as a pilot - and also to identify their most congested locations.

- I more briefly repeat my April comments regarding **Cost Recovery.** The Clean Energy Act states that **Cost Recovery** must be reasonable and prudent. I believe that the fairest cost recovery mechanism for customers would be completely based upon

what loss was caused by the EE programs and nothing more. Also, you should consider as ACEEE pointed out, that good quantitative indicators exist and should be the basis for saving and performance - not expenses. Having said that, if the Board decides to go forward with the program (recoup expenditures, amortization, lost revenues and incentives/disincentives), an Electric Conservation Incentive Program (ECIP) seems to be the reasonable way to go in that the Natural Gas CIP has been quite successful for years now.

I agree with staff's original view that " decoupling" proposals are best reviewed and tested in the context of a base rate case, where all the relevant data is subject to the appropriate review. I concur with the opinion expressed by Rate Counsel and AARP that these BPU actions result in a much lower level of risk to the utilities because of the contemporaneous recovery. I also note that shareholders invest in the parent holding company and not directly in the utility so there is less risk involved overall.

Again, thank you for another opportunity to comment on this important topic.

Sincerely,

Jeanne Fox

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PHIL MURPHY
Governor

SHEILA OLIVER
Lt. Governor

STEFANIE A. BRAND
Director

July 27, 2020

VIA ELECTRONIC MAIL
Honorable Aida Camacho-Welch, Secretary
NJ Board of Public Utilities
44 South Clinton Avenue
9th Floor, P.O. Box 350
Trenton, NJ 08625-0350

RE: New Jersey Energy Efficiency Transition – Energy Efficiency Utility Core Programs
BPU Docket No. QO17091004

Dear Secretary Camacho-Welch:

Please accept this letter as the Comments of the New Jersey Division of Rate Counsel ("Rate Counsel") regarding the above-referenced matter. Pursuant to the New Jersey Board of Public Utilities' ("the Board" or "BPU") amended filing procedures as a result of the COVID-19 pandemic, these comments are being filed electronically only. Please acknowledge receipt of these comments. Thank you for your consideration and attention to this matter.

COMMENTS

Rate Counsel appreciates the opportunity to comment on the July 13, 2020 presentation by the New Jersey electric and gas utilities on their Energy Efficiency ("EE") Core Programs, coordination, and implementation. As the process of developing and modifying EE programs pursuant to the 2108 Clean Energy Act ("CEA") has progressed, Rate Counsel has raised numerous issues that we believe to be of significance in ensuring ratepayers are protected from

undue costs and that utilities are fairly compensated for providing this essential part of their franchise as regulated local monopolies. The fact that those comments are not reiterated here should not be taken as an indication that Rate Counsel's position on any of those matters has changed.

The July 13th presentation by New Jersey's electric and gas utilities represented a significant step forward in the process of clarifying the utility role and coordination among utilities, and with the Division of Clean Energy ("DCE") in future New Jersey EE programs under the CEA. The utilities are to be commended for this effort and for considering Board Staff's recommendations and the direction of the BPU's June 10, 2020 Order in Docket Nos. QO1901040, QO19060748 and QO17091004 ("June 10th Order").

Utilities with pending EE cases before the Board that are inconsistent with the structure proposed at the July 13th stakeholder meeting should amend such filings and direct their efforts to designing and proposing programs that are compliant with the June 10th Order and consistent with the July 13th presentation. The September 25, 2020 deadline adopted by the Board for utilities to file their initial three-year programs is quite ambitious, as are the deadlines of May 1, 2021 for Board approval and July 1, 2021 for program implementation.[1] Stakeholders have limited resources to intervene and review utility filings, while at the same time participating in other aspects of the CEA implementation process. There is simply no justification for duplicative filings that could undermine the effectiveness of these programs.

[1] June 10th Order, page 38.

UTILITY COORDINATION

Coordination among New Jersey's electric and gas utilities will be crucial to ensuring consistent and universally available core program offerings, clarity for consumers, efficiency in program delivery, and workable allocation of program costs and credit for energy savings among gas and electric utilities with overlapping service territories. The utilities' proposal points in the right direction in many of these areas, although there are numerous remaining unanswered questions.

In particular, the role of the Statewide Coordinator ("SC") for Dual-Fuel Programs[2] remains largely undefined. It is unclear, for example, what the SC's authority will be, where that authority derives, and how disputes among utilities would be resolved, among other matters. In addition, as part of its overall responsibility to ensure consistency and transparency in Evaluation, Measurement and Verification ("EM&V"), DCE was directed under the Board's June 10th Order to procure a Statewide Evaluator "to facilitate the EM&V Working Group, review utility and state EM&V methods and assumptions, and perform other activities, as defined by Board Staff and the EM&V Working Group[]."[3] The division of responsibilities between the utility's Statewide Coordinator and the Board's Statewide Evaluator should be made clear to avoid duplication or disputes.

These issues will be important to resolve prior to program initiation, when the allocation of costs for programs with overlapping savings benefits will have to be determined. They will only be more impactful and potentially contentious in future program years when utility incentives and penalties will depend on the allocation of program savings. Yet according to the

[2] July 13th Presentation, slide 7.
[3] BPU June 10, 2020 Order, Page 42. This is also addressed in the July 15, 2020 Comprehensive Resource Analysis (CRA) FY20 Extension Request for Comments, page 12.

utilities' July 13th presentation, the utilities' Statewide Coordinator is not scheduled to begin work until February 2021, over four months *after* the utilities are required to submit their program filings. The utilities should be required to clearly define this role and its relationship to the statewide evaluator in their petitions to be filed by September 25th, and to ensure consistency and transparency in their plans for managing EM&V and dual fuel issues. Doing so will not only facilitate the review and approval process for this initial set of program filings under the CEA, it will also minimize the risk of future conflicts, inconsistencies, and possible litigation.

PROGRAM OFFERINGS AND SCHEDULE

Rate Counsel is generally supportive of the specific program offerings proposed by the utilities on July 13th, and believes that the division of programs among "core" utility programs, optional additional programs, co-managed programs, and state initiatives is reasonable and consistent with the June 10th Order. Rate Counsel also believes that the emphasis on consistent core programs for initial filings is crucial given the short timeframe and the need to minimize the complexity of program review. In general, the level of detail provided in the utility presentation was not sufficient to support detailed comments on program offerings. However, we are able to provide limited feedback on a few of the items proposed.

For Residential Programs, the utilities have proposed a no-cost Quick Home Energy Checkup ("QHEC") which is proposed for both homeowners and renters, can serve as an energy efficiency measure that can provide immediate benefits and as a point of entry into other, more comprehensive EE programs.[4] Rate Counsel is supportive of this 'audit-type'approach both to realize immediate savings and as a mechanism to engage customers in deeper gas and electric savings opportunities. The emphasis of this process should be to use this opportunity to

[4] July 13th presentation, slide 11.

maximize the savings and other benefits for each customer, and to ensure that the opportunity afforded by this customer interaction is not squandered by "cherry-picking" only the most cost-effective measures. This is consistent with the concern previously raised by Rate Counsel that an over-emphasis on achieving high Utility Cost Test ("UCT") scores could impede realization of a high level of savings. While overall cost-effectiveness is an important priority, utilities should be cognizant that missed opportunities to capture potential savings for individual program participants may not be recovered for a decade or more, if ever.

With regard to blanket incentives in Low and Moderate-Income ("LMI") communities, Rate Counsel supports ideas that other stakeholders have presented such as "weatherizing communities" instead of requiring burdensome income documentation from individuals to qualify. Rate Counsel echoes other commenters at the July 13th meeting who emphasized that the Board and the utilities should work closely with community partners such as municipalities and/or non-profit organizations (such as those organizations that facilitate the LIHEAP application in the state) that have personal connections to LMI community leaders and members. Relationships already forged by these organizations will build trust and encourage greater participation in energy efficiency in LMI neighborhoods. The Board and the utilities should begin with cultivating relationships with organizations and municipalities in LMI communities and urban centers i to identify the housing stock which would benefit from free and low-cost energy efficiency measures. Once these relationships are established, the utilities can then expand their outreach to harder-to-reach pockets of rural and suburban LMI customers. Rate Counsel is also supportive of the coordinated marketplace for energy efficient products, and understands that the utilities are still working out details of how to "brand" the marketplace for each utility and offer utility-specific financing options. Rate Counsel believes it will be essential

to ensure that similar options and incentives are available to all customers to the greatest extent possible, and to minimize opportunities for confusion.

Rate Counsel is also generally supportive of the Commercial and Industrial programs proposed to the extent that details have been provided. It appears that the utilities have identified a wide range of proven, cost-effective programs. However, a more thorough analysis of the programs in the separate utility EE filings will be necessary to determine cost-effectiveness. In addition, the attention to urban enterprise zones ("UEZs"), LMI communities, and municipal facilities is welcome as a way to ensure the maximum benefits for struggling ratepayers and New Jersey communities. Finally, the role of the SC in coordinating gas and electric savings will be crucial, although as noted above it has yet to be fully defined.

In terms of EM&V, much still needs to be defined. Rate Counsel urges the EM&V Working Group mentioned in the presentation to keep in mind the need for EM&V methods and benefit-cost analysis to be based on consistent assumptions and methods, and for these to be consistent across gas and electric utilities. This will be important for numerous reasons, including facilitating program review and approval, public confidence, and allocation of costs and credit for savings among utilities.

Rate Counsel's primary concern is the need for extensive additional program development, including definition of the SC role and coordination among utilities, given the limited timeframe The filing and review period for all of the utilities will occur over the same seven-month timeframe, which will be burdensome for Rate Counsel and all stakeholders even with very similar program offerings. In the future, as additional and pilot programs are proposed, Rate Counsel strongly urges that utility filings be staggered in time to allow efficient allocation of stakeholder resources and adequate opportunity for the necessary review.

CONCLUSION

For all the foregoing reasons, Rate Counsel generally supports the utility Core EE programs to the extent that details have been provided, but respectfully requests that the Board and DCE consider the need for more clarity and specificity in the coordination of the Board's Statewide Evaluator and the utilities' Statewide Coordinator.

Respectfully submitted,

Stefanie A. Brand, Esq.
Director, Division of Rate Counsel

By: */s/ Felicia Thomas-Friel*
Felicia Thomas -Friel, Esq.
Deputy Rate Counsel

FTF

cc: EnergyEfficiency@bpu.nj.gov
Kelly Mooij – BPU
Sherri Jones – BPU
Abe Silverman, Esq. – BPU
Pamela Owen, SDAG

Re: Energy Efficiency Core Programs Public Stakeholder Comments

A more rapid deployment of Heat Pumps is needed to speed the adoption and effectiveness of Energy Efficiency measures. However, according to the following website, various rebates for heat pumps have EXPIRED, though the web continues to show June 30, 2020 expiration dates. See reference link below.

https://www.njcleanenergy.com/residential/programs/cooladvantage/heat-pumps

Please extend the rebate program by a significant period in order to continue to encourage deployment of Heat Pumps.

Please continue the financial incentives for Energy Efficiency audits ($49 audit). Explicitly include an option/recommendation as appropriate to replace Furnace/HVAC with heat pump with the objective of taking advantage of future clean electricity to significantly lower GHG emissions and lower exposure to price increases from future carbon pricing legislation.

In addition, please consider increasing the amount of the rebates for Heat Pumps. They may not be sufficient to encourage a consumer to choose a Heat Pump over conventional fossil fuel based equipment, especially in the case where a consumer might consider a Heat Pump to replace conventional fossil fuel equipment whose lifetime is not yet expired.

Please consider adopting a new program that closes the gap for the customer between the cost of operating a Heat Pump in New Jersey and conventional natural gas, oil and propane heating equipment including even high efficiency heating equipment. In my view, Heat Pump installations are necessary and need to be both quickly and widely deployed in order to electrify New Jersey heating and thereby meet New Jersey clean energy goals and reduce carbon emissions.

Until this operational cost gap is closed, the average consumer might very well just continue to select the cheapest immediate alternative, i.e. NO heat pump given the combined higher cost of heat pump and current operational costs compared to no heat pump. And since every year conventional air conditioning and furnace units are installed in both new and replacement applications in New Jersey, this means installation of legacy fossil fuel dependent conventional equipment that could easily last 20 to 30 years instead of in Heat Pumps. Furthermore, some residences may continue to choose to convert from oil or even electricity to natural gas, thus further defeating the essential need to eliminate fossil fuel use quickly, when instead using electricity from clean renewable sources (solar, wind) is necessary.

From a recent reference document, a recent limited study calculated that the ongoing current cost of heating with a heat efficiency heat pump (HSPF 9.7) was 19% higher compared to the cost of heating with a 95% efficient natural gas furnace using recent cost data from both a NJ BGS electric utility and a NJ BGS natural gas utility serving the same area. (Of course, this higher cost may vary depending on the properties of the heat pump, gas furnace, and the current varying BGS electric and BGS gas rates.

Since the thrust of the above is that electrification (using clean energy) is essential, please also consider not renewing any rebates for any oil or gas equipment. These are currently shown on your website, but also with expiration having already occurred in June 2020.

Please develop a program so that BGS suppliers, HVAC sales and installation companies, and affiliated

marketing retailers, are encouraged to place Heat Pumps as the #1 recommended installation alternative in all energy efficiency, marketing literature, media, and sales activities compared to conventional fossil fuel based equipment.

Finally, our distribution electrical grid is quite outdated and unreliable. As more of our energy is carried over this grid, it needs to be updated for reliability. At present, many are afraid to switch their home heating to electricity for fear of prolonged power outages.

Thank you for your consideration,
Pat Miller
Middletown, NJ

To: **Aida Camacho-Welch, Secretary of the New Jersey Board of Public Utilities (EnergyEfficiency@bpu.nj.gov)**
From: **Pearl Certification**
Re: **Core Programs**
Date: **July 27, 2020**

Thank you for the opportunity to submit these comments concerning the design of the utility core programs that will be implemented as part of New Jersey's current and next generation of energy efficiency and peak demand reduction programs.

Pearl Certification is a nationally recognized firm that third-party certifies high-performing homes across the country. Pearl's certification makes "value visible" in homes with upgraded energy efficient and renewable features. High-performing homes are healthy, comfortable, resilient, and energy efficient, and Pearl Certification drives demand for these improvements by capturing their value for resale and appraisal. With paying customers in over thirty states, Pearl has scored approximately 50,000 homes to date.

Pearl is the only market-based firm approved by U.S. EPA and U.S. Department of Energy to administer their Home Performance with ENERGY STAR® program for existing homes. Pearl was accepted into the 2017 National Association of REALTORS' (NAR) prestigious REach® Technology Accelerator. As a national leader in residential energy efficiency certification, we are pleased to offer the following comments on a subset of questions posed at the July 13 stakeholder meeting.

1. **What challenges exist under New Jersey's energy efficiency programs today?**

One of the key challenges for New Jersey's residential sector energy efficiency programs is the lack of mechanisms to highlight the value of energy efficiency upgrades and high-performance features in homes once that important work has been done. It can be difficult to differentiate between efficient and inefficient homes on the market: homebuyers have trouble finding high-performing homes and there is no assurance for homeowners that they will recoup the value of their investments when they sell their home or refinance.

Financing and rebates which are outlined in the core program proposals can help address the barrier of high upfront costs for efficiency measures; however, there remains a need for a program to help homeowners recoup their investment at the time of sale or refinance. Often the energy efficiency upgrades that result in the highest energy savings cost the most – costs that most homeowners simply cannot afford without some level of certainty that they will be able to get a return on their investment.

Pearl understands these challenges well. The Pearl Certification is designed to fill this gap by helping consumers find and sell high-performing homes with an easy-to-use, contractor- and real estate-friendly certification system based on building science principles. In the following sections, please find our recommendations for how New Jersey can support the proper valuation of energy efficient homes to strengthen the proposed residential sector core programs and drive more improvements and energy savings.

2. How could the challenges be addressed?

Studies from across the U.S. show that high-performing, energy efficient homes sell faster and for more money – but only if the buyers know these homes have special features.[1] It is vital that homeowners who already have efficient homes get a fair price for the energy investments they've made and homeowners needing energy improvements understand where they can get the biggest bang for the buck and can find qualified contractors to make those investments.

New Jersey could help ensure energy efficient homes are properly valuated and homeowners recoup their investment by adding a trusted third-party home certification to the proposed residential core programs, which consumers can leverage to provide the necessary information to properly understand and value the home's energy features. This would address homeowner uncertainty about opportunities to recapture the value of investments in upgrades at time of sale and drive demand for energy efficiency improvements, helping utilities and the state meet this next generation of energy savings goals.

Pearl Certification is a building science-based system that makes high-performing homes visible so that buyers looking for healthy, comfortable, efficient homes can find them, and sellers can get fair market value for the energy efficiency investments they have made. Pearl has a network of top-tier contractors who perform energy upgrades and certify their work, as well as a network of real estate agents who can market certified homes to ensure they receive full market value. Pearl Certification has partnered with other jurisdictions to provide voluntary home certification in order to help drive the residential market to meet energy savings goals. (See list of example programs included at the end of these comments.)

Advancing Whole-Home Programs with Third-Party Home Certification

Pearl strongly supports the core programs' focus on whole-home approaches and the inclusion of Home Performance with ENERGY STAR (HPwES) programs, which are an important strategy for advancing whole-home, building science-based approaches to improve energy efficiency. A typical HPwES upgrade will earn a home Pearl Silver, or possibly Pearl Gold if it includes HVAC.[2] Highlighting the value of HPwES improvements via a building-science based home certification which distinguishes high-performing homes will strengthen whole-home programs by increasing visibility within the market. We therefore urge New Jersey to look at opportunities to support the proper valuation, in appraisal and resale, of homes that have received efficiency retrofits by combining these whole-home programs with a third-party home certification in order to help drive program participation and demand for these improvements.

Pearl has two products that support whole-house approaches. The Pearl Home Investment Plan (HIP) can provide a homeowner with a roadmap for making comprehensive improvements over time. Our new homeowner-facing portal, Green Door, provides homeowners with a way to store and access their home certification and other documents, as well as ways to learn about improvements and find qualified contractors. These tools can complement utility whole-home retrofit programs like HPwES by

[1] An independent appraiser study found that Pearl certified homes sell on average for 5% more when marketed properly. https://3cwzd61saynq2nn0vs2b7w1i-wpengine.netdna-ssl.com/wp-content/uploads/2017/11/Valuation-Study-of-Pearl-Certified-Homes.pdf

[2] The Pearl system gives points for each high-performing asset in a home (things that make the home more healthy, comfortable and energy efficient). The performance of many features in a home depends on which, how much, and/or what type of assets are installed. The Pearl system is designed to recognize these differences, so that highly efficient equipment and high-quality installations earn more points than lower efficiency, low-quality models.

helping customers understand their home's unique characteristics and identify opportunities for improvement. The report that accompanies a Pearl certification includes detailed information on ways that the home's assets impact its comfort, indoor air quality, and energy consumption; and the Pearl certification system helps identify and showcase energy-saving features in a home (including air tightness, heating and cooling equipment efficiency, and quality installation) so that high-performing homes are properly valued in resale and appraisal.

Supporting Dual Fuel Goals and Coordination

Additionally, Pearl's certification system aligns with the dual fuel savings strategy outlined in the core programs presentation by identifying both electric and gas savings opportunities. The Pearl Home Investment Plan (HIP) looks at the home as a whole and helps homeowners select upgrades that will have the largest impact on energy efficiency, comfort, and indoor air quality, regardless of fuel type.

Pearl would be pleased to work with New Jersey utilities to bolster the proposed residential sector existing homes core programs through our certification system and help bridge the utility sector and energy efficiency programs with the real estate space to help ensure home performance improvements are properly valued in the residential market. Importantly, Pearl has industry expertise in residential energy efficiency and real estate and works in partnership with many of the nation's leading real estate, appraisal, contracting, and building science organizations.[3]

3. **What are the program services or elements that you believe are most important to help the program administrators address barriers to participation or meet their energy savings goals?**

The Pearl Certification system offers a number of key elements that could help program administrators drive increased program participation and meet energy savings goals in the residential sector:

- **Supporting proper valuation & visibility in the real estate transaction.** Before a home is sold, Pearl Certification sends an expert to the home to take an inventory of special features that make the home more comfortable, energy efficient, and improve indoor air quality. This information is presented in an easy-to-read Home Certification Report that provides the necessary documentation to help sellers get fair market value for these high performing features.
- **Educating homeowners.** Pearl Certification captures the value of efficiency and clean energy improvements in an accessible, engaging set of documents that detail the home's energy and other high-performing characteristics. Contractors also use the scoring system as an educational tool to help homeowners understand the benefits of high-performing equipment and services.
- **Driving home improvements.** The Pearl Home Investment Plan (HIP) provides customized recommendations to homeowners, detailing options for upgrading specific assets to make the home more comfortable and energy efficient and earn a higher Pearl score. The HIP helps homeowners plan short- and long-term improvements and prioritize investment that will make the largest impact and provide the biggest returns. (Note, new and existing homes can earn a Pearl certification, and the home's record and Pearl score can be updated as further

[3] Note, the Pearl Certification includes reports that meet specifications for the real estate market including an Appraisal Institute Residential Green and Energy Efficient Addendum for appraisers.

improvements are made.) Pearl's Green Door portal supports homeowner engagement by providing a single source of information about their home and potential improvements.

- **Helping homeowners find qualified professionals.** Pearl has created networks of elite contractors and real estate brokers, market leaders who provide high quality goods and services. Pearl-Approved Contractors have advanced training on using our building science-based certification system and are approved to collect investment-grade data to certify homes; and Pearl Partner Real Estate Agents have the know-how to market a Pearl-Certified home to its best advantage.

Example Programs

NYSERDA - In New York, NYSERDA last year launched a multi-year Home Energy Rating Pilot using the Pearl Home Certification. The pilot is designed to help homeowners who are ready to invest in their homes and are looking for independent, trustworthy energy performance information by providing free or reduced-cost certification.

Massachusetts – Pearl has partnered with MassEnergize and LAER Realty Partners for an initiative to offer free certification in two communities to encourage homeowners to take action on climate change by investing in home energy upgrades.

Chicago, IL – New partnership with Elevate Energy: offering certification to thousands of homeowners whose homes were upgraded through the Energy Impact Illinois program.

Phoenix, AZ – Pearl partnered with Arizona Public Service (APS) utility to certify 100 pre-market or active home listings in the City of Phoenix at no cost to the homeowner for an appraisal study evaluating how the certified features impacted the sale price.

Thank you again for the opportunity to provide comments to support the core program design for the residential sector. Please do not hesitate to contact us with any questions.

Contact Information
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