

\$7,250 in Connecticut Light and Power's program and \$8,000 in NYSERDA's program.²⁵ Rate Counsel recommends that the incentive levels for Tier 1 increase based on the current incentive structure for Tier 3, in which incentives increase by \$800 for every five points below a HERS score of 50. The additional incentives proposed for Tier 2 and Tier 3 appear reasonable (that is, \$1,000 and \$3,000 greater than a comparable HERS score in Tier 1). However, it is not clear whether the additional incremental incentive of \$3,000 for Tier 3 Plus is necessary, mainly because solar photovoltaic systems (which are the most popular renewable energy system for homes) already receive a significant amount of incentives in New Jersey, including the proceeds from the sale of Solar Renewable Energy Certificates ("SREC").

3. Energy Efficient Products Program

Honeywell proposes modifications to incentive levels and structures for lighting, clothes washers, refrigerators, advanced power strips, cable set top boxes, and refrigerator recycling. Most of the proposed changes appear reasonable, but Rate Counsel is concerned about the proposed incentives for advanced power strips and refrigerator recycling.

The current incentives for advanced power strips range from \$7 to \$10 for Tier 1, and are currently not provided to Tier 2 advanced power strips. The proposed incentives for advanced power strips are \$15 for Tier 1 and \$40 for Tier 2. Based on actual price data in the market, these proposed incentive levels appear excessive—the Tier 2 incentive especially so.²⁶ The price ranges for power strips are \$20 to \$30 for Tier 1 and \$40 to \$55 for Tier 2. The proposed incentives likely reduce the price of Tier 1 and Tier 2 power strips to an equal price, or could even make Tier 2 power strips cheaper than Tier 1 power strips. Rate Counsel recommends that

²⁵ ERS 2015. Review and Benchmarking all of New Jersey's Clean Energy Program, prepared for the New Jersey Board of Public Utilities, Page 47.

²⁶ <http://www.energyfederation.org/estarlights/default.php/cPath/5794>

NJCEP maintain the current incentive levels of \$7 to \$10 for Tier 1 and provide a lower incentive level for Tier 2 than the proposed \$40 incentive.²⁷ Rate Counsel recommends an incentive level of \$25 for Tier 2 power strips.

Honeywell also proposes to conduct a pilot project that would add primary refrigerators as eligible measures in the refrigerator recycling category, which currently focuses on secondary refrigerators. The current incentive for recycling secondary refrigerators is \$50 per unit. Honeywell proposes that participants who recycle primary refrigerators also receive this \$50 per unit incentive. Further, Honeywell proposes that participants who *buy* a new refrigerator receive either \$50 or \$75, depending on the model. This means that a household that buys a new refrigerator would likely receive an additional \$50 incentive on top of the proposed \$50 or \$75 incentive, because it is typical that a household recycles its old primary refrigerator when purchasing a new one. It is not clear to Rate Counsel that this proposed additional incentive is necessary. Rate Counsel recommends that Honeywell provide more rationale for proposing this pilot project and report how the additional incentive would change the economics of buying ENERGY STAR refrigerators.

Rate Counsel also recommends that the current incentive for recycling refrigerators (up to \$107 per unit) paid to the recycling implementation partner be reduced for the second unit, per a recommendation by an ERS benchmarking study. The ERS benchmarking study indicates that there is no significant extra cost for the partner to recycle another refrigerator at one site.²⁸

4. Commercial and Industrial Programs

²⁷ Based on the market data and incentive levels currently provided by program administrators in Massachusetts. <http://www.energyfederation.org/estarlights/default.php/cPath/5794>

²⁸ ERS 2015, Review and Benchmarking of New Jersey's Clean Energy Program, prepared for the New Jersey Board of Public Utilities, page 64.

TRC, the Market Manager for the Commercial and Industrial (“C&I”) EE programs proposes various modifications to the existing measure eligibility, customer eligibility and requirements, and incentive structures and levels of the C&I EE programs. Rate Counsel recommendations for some of the proposed modifications are described below:

- **Smart Start:** TRC proposes to reduce rebates for LED lighting, eliminate the Hurricane Sandy enhancement rebate, allow building shell improvements to be evaluated through custom path, and eliminate the IRR (Internal Rate of Return) requirement for Custom projects.
- **Direct Install:** TRC proposes to add series boilers for K12 schools, identify additional/enhanced incentives for distressed communities, and increase the capacity of boilers to be more in line with commercial and industrial facilities.
- **Pay for Performance:** TRC proposes to increase the minimum size eligible to participate from 100kW peak demand to 200kW to align with Direct Install, create incentive adders for savings over 4 percent up to the total incentive levels of \$0.11 per kWh and \$1.24 per therm, eliminate the IRR requirement, and allow TRC to conduct expedited pre-inspections without the OCE appeal/exemption process.
- **Local Government Energy Audit:** TRC proposes to increase the minimum size eligible to participate from 150kW peak demand to 200kW peak demand to align with the Direct Install and Pay for Performance programs, and increase the savings limit for lighting from 50 percent to a maximum of 70 percent.²⁹

²⁹ TRC 2015. New Jersey’s Clean Energy Program Fiscal Year 2016 Program Descriptions and Budget – Commercial & Industrial Energy Efficiency Programs Managed by TRC as C&I Market Manager, PDF page 1 – 5.

The majority of the proposed C&I EE program modifications appear reasonable. However, Rate Counsel requests that TRC provide more explanation for its proposal to eliminate the IRR requirement for custom projects under the Smart Start program, for new and existing buildings under the Pay for Performance program, and under the Large Energy Users program. Rate Counsel further requests that TRC explain why it proposes to increase the savings limit for lighting from the current 50 percent to a maximum of 70 percent.

RENEWABLE ENERGY BUDGETS AND PROGRAMS

A. SREC Registration Program

The CRA Straw Proposal notes that New Jersey's solar market remains strong, and that new registrations in OCE's Solar Renewable Energy Certificate ("SREC") Registration Program ("SRP") have exceeded expectations.³⁰ OCE is proposing a budget of approximately \$4 million for the SRP.³¹ Honeywell's compliance filing states that it has made changes to streamline the registration process, and that it is in the process of rolling out a web-based system to replace the current paper-based process.³² Rate Counsel supports the continuation of the SRP, and further supports efforts to streamline and automate the registration process.

B. Biopower Program

Staff proposes to allocate \$3 million, the same amount as in Fiscal Year 2015, for a biopower solicitation to be issued in Fiscal Year 2016.³³ The CRA Straw Proposal recognizes OCE's continuing difficulties in generating interest in its biopower program. Only 14 projects totaling 8.5 megawatts, have been installed since this program was initiated in 2013. Since this

³⁰ CRA Straw Proposal, p. 45-46.

³¹ CRA Straw Proposal, p. 46.

³² Honeywell Compliance Filing, p. 55.

³³ CRA Straw Proposal, p. 47.

program was changed from fixed to competitively determined rebates during Fiscal Year 2014, two solicitations have resulted in no qualified proposals.³⁴ Honeywell's compliance filing states that possible changes in the design and incentive structure for this program will be discussed within OCE's Biopower Technical Working Group, and that a Staff straw proposal will be circulated for comment following those discussions.³⁵ Rate Counsel will reserve any additional comment on the merits of the Biopower program for the upcoming stakeholder process.

C. Renewable Electric Storage Program

OCE is proposing to increase the budget for its Energy Storage Program, which is being re-named the "Renewable Electric Storage Program" from \$3 million to \$6 million.³⁶ In Fiscal Year 2015 the first competitive solicitation held under this program resulted in 22 applications requesting more than \$4.6 million in incentives, of which 13 applications requesting a total of \$2.9 million in incentives were approved by the Board in March of 2015.³⁷ On May 7, 2015, Staff issued a Straw Proposal that included a proposed transition of this program from a competitive process to an open enrollment process with administratively determined rebates.³⁸ Rate Counsel has concerns about this proposed change, which are detailed in separate comments being submitted in response to the May 7, 2015 Straw Proposal. The May 7, 2015 Straw Proposal also includes eligibility criteria, and data reporting requirements, to assure that this program focuses on storage projects that are integrated with, and used to support, existing renewable energy facilities in New Jersey. Rate Counsel supports these elements of the May 7, 2015 Straw Proposal, as explained in Rate Counsel's comments.

³⁴ CRA Straw Proposal, p. 46-47.

³⁵ Honeywell Compliance Filing, p. 57-58.

³⁶ CRA Straw Proposal, p. 48.

³⁷ CRA Straw Proposal, p. 48.

³⁸ FY2016 Renewable Electric Storage Incentive Program Straw Proposal, May 7, 2015.

II. COMBINED HEAT AND POWER (“CHP”) AND FUEL CELLS

In past comments, Rate Counsel has expressed concern about this program’s failure to expend available funds.³⁹ The TRC compliance filing proposes a budget of approximately \$20.6 million for the Combined Heat and Power (“CHP”) and Fuel Cell incentive program, consisting of approximately \$14.8 million in new funding and \$5.8 million carried over from Fiscal Year 2015.⁴⁰ This represents a significant decrease from the initially approved budget amount of approximately \$40.4 million for this program in Fiscal Year 2015.⁴¹ Rate Counsel supports this recommendation. In addition, the CRA Straw Proposal notes the past low levels of interest in this program, and proposes to initiate a stakeholder process to assess market barriers, review the relevant policies, and examine the relationship between this program and the State’s resiliency goals.⁴² Rate Counsel supports this recommendation.

CONCLUSION

For all the foregoing reasons, Rate Counsel recommends that the Board and the OCE adopt its suggestions to modify the Fiscal Year 2016 CRA budget and renewable energy and energy efficiency programs in the interests of more transparency and cost-effectiveness.

³⁹ I/M/O the Comprehensive Energy Efficiency and Renewable Energy Resource Analysis for Fiscal Years 2014-2017 and I/M/O the Clean Energy Program - Programs and Budgets for Fiscal Year 2015, BPU Dkt. Nos. EO11050324V and QO1400489, Rate Counsel Comments, p. 7-9 (June 12, 2014).

⁴⁰ TRC Compliance Filing, Appendix C; CRA Straw Proposal, p. 59..

⁴¹ I/M/O the Clean Energy Program - Programs and Budgets for Fiscal Year 2015, BPU Dkt No. QO14050489, Order, p. 13-14, 29 (June 30, 2014).

⁴² CRA Straw Proposal, p. 6.

May 29, 2015

VIA ELECTRONIC AND REGULAR MAIL

The Honorable Irene Kim Asbury
Secretary, New Jersey Board of Public Utilities
44 South Clinton Avenue, 9th Floor
Post Office Box 350
Trenton, NJ 08625-0350
publiccomments@njcleanenergy.com

Re: Comments on the Fiscal Year 2016 Draft NJCEP Programs

Dear Secretary Asbury:

On behalf of our client, Bloom Energy Corporation (“Bloom”), please accept these comments regarding the New Jersey Clean Energy Program (“NJCEP”) proposed Fiscal Year (“FY”) 2016 Program & Budget Filing (“Budget Filing”) issued by the Board of Public Utilities (“Board”) on May 7, 2015. For the reasons detailed below, Bloom requests that the Board modify the Budget Filing to: (1) significantly increase the overall funding level for the CHP/Fuel Cell Program; and (2) increase or eliminate the CHP/Fuel Cell program “entity cap.”

Bloom Energy is a provider of breakthrough solid oxide fuel cell technology that generates clean, reliable, and highly-efficient onsite power using an environmentally superior non-combustion process. Bloom Energy currently has over 160 megawatts (“MW”) of operating systems at over 200 locations across the United States and in Japan. In New Jersey, Bloom Energy is seeing significant interest from customers who desire a clean and reliable distributed power generation solution, but may not have the thermal requirements necessary to support a CHP solution.

As an active participant in the NJCEP Combined Heat and Power (“CHP”) and Fuel Cell Program (“CHP/Fuel Cell Program”), Bloom Energy is disappointed that the Board staff is now proposing to drastically reduce the CHP/Fuel Cell Program funding from approximately \$40.4 million¹ in FY 2015 to approximately \$14.4 million in FY 2016 - a reduction of nearly 65 percent. The \$40.4 million that the Board approved for the CHP/Fuel Cell Program in FY 2015 was already significantly less than the approximately \$65.6 million the Board approved for the Program in FY 2014.²

At the very moment that Fuel Cell and CHP developers and their customers are gearing up to invest in high-resiliency energy projects in New Jersey, this change will send exactly the wrong signal at exactly the wrong time. This signal will reverberate through the project development and investor communities, causing developers and their customers to hesitate before proceeding with New Jersey projects, potentially causing them to focus on other, more certain, markets instead.

Bloom Energy has relied on CHP/Fuel Cell funding levels in previous fiscal years in representing to potential New Jersey customers that the State is committed to promoting clean, efficient, reliable distributed generation energy resources through the implementation of a well-designed and appropriately-funded FY 2016 CHP/Fuel Cell Program. As a result of these representations, Bloom Energy has seen a significant increase in customer demand in the past year and several customers have recently filed or are in the process of filing incentive applications for the installation of fuel cell systems at various sites in New Jersey. The increasing adoption of fuel cells as a distributed generation solution by New Jersey customers indicates that the funding level from prior Fiscal Years should be increased, rather than reduced.

¹ The BPU approved an initial FY 2015 budget of \$40.4 million for the CHP/FC program on 6/18/14. By Order dated 12/17/14, the BPU reduced the FY 2015 CHP/FC budget to \$24.5 million.

² The BPU approved an initial FY 2014 budget of \$65.6 million for the CHP/FC program on 6/21/13. By Order dated 12/18/13, the BPU reduced the FY 2014 CHP/FC budget to \$38.0 million.

Bloom Energy acknowledges that FY 2015 participation in the CHP/Fuel Cell Program was below expectations. However, there is a long project development cycle and the significantly reduced Proposed Budget amount of \$14.4 million will erode participation and confidence in the program. The Board should be aware that a low number of submitted applications is not necessarily a reflection of the amount of activity actually occurring in the market, nor is it a forward indicator of the potential for high-value projects in FY 2016. The Board should also take careful note of the fact that the 30% federal investment tax credit for fuel cells is currently scheduled to expire on December 31, 2016. This impending deadline makes 2016 an opportunity to leverage significant federal investment into New Jersey energy infrastructure.

The success of the CHP/Fuel Cell program and the Board's plan to promote energy efficiency and distributed generation is dependent on the confidence that those developing or investing in CHP and fuel cell projects have in the stability of the regulatory process behind the incentive program. On-site power generation projects often have a long development cycle and uncertainty in the availability of incentives at any point in that development cycle will have the effect of chilling investment in New Jersey. Absent regulatory stability, CHP and fuel cell developers will be discouraged from participating in current and future CHP/Fuel Cell incentive programs and the viability of the program and the Board's policy objective to promote energy efficient distributed generation will be threatened. To combat this significant regulatory risk and promote CHP and fuel cell investor confidence in the integrity of the CHP-Fuel Cell Program, the Board should significantly increase the funding level from the amount proposed in the Budget Filing.

In addition to requesting that the Board modify the Budget Filing to significantly increase the overall funding level for the CHP/Fuel Cell Program, Bloom is also recommending that the Board significantly increase the entity cap. Other northeast states with incentive programs for fuel cell projects do not have entity caps, and Bloom is successfully implementing multiple projects in these states with the same customers that would like to develop projects in New Jersey. For example, Bloom actively participates in Connecticut's Low Emission

Hon. I. Asbury
May 29, 2015
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Renewable Energy Credit (“LREC”) Program and New York’s Renewable Portfolio Standard (“Main Tier”) Program, neither of which has entity caps. The entity cap restriction is forcing investments into other jurisdictions instead of New Jersey.

As the Board adopts its program budget for FY 2016, Bloom Energy urges the Board to significantly increase funding levels for the CHP/Fuel Cell programs and significantly increase or eliminate the CHP/FC program “entity cap.” Please do not hesitate to contact me should you have any questions or concerns.

Very truly yours,

A handwritten signature in black ink, appearing to read "M. E. Bevan". The signature is fluid and cursive, with a large initial "M" and a long, sweeping tail.

Murray E. Bevan



May 29, 2015

Via Electronic Mail

New Jersey Board of Public Utilities
44 South Clinton Avenue
Trenton, NJ 08625

RE: Comprehensive Resource Analysis – Staff Straw Proposal

Dear NJBPU Staff:

The Environmental Defense Fund (“EDF”) thanks New Jersey’s Office of Clean Energy (“OCE”) and Board of Public Utilities (“BPU”) for this opportunity to comment on the May 5, 2015 Comprehensive Resource Analysis – FY ’16 Staff Straw Proposal (“Straw Proposal”). EDF is a national non-profit membership organization engaged in linking science, economics and law to create innovative, equitable and cost-effective solutions to society’s most urgent environmental problems. EDF has more than one million members nationwide and over 56,000 in New Jersey. As an organization, EDF has been active in New Jersey on environmental issues since the 1970’s.

EDF appreciates OCE’s commitment to initiatives that ensure the adoption and implementation of the state’s energy efficiency and renewable energy programs. It is particularly timely given the expected July, 2015 release of the U.S. Environmental Protection Agency proposed carbon pollution rule for existing power plants that will require New Jersey to reduce carbon emissions from the power sector by forty-three percent. If the rule is enacted, states will have the flexibility to develop state-specific implementation plans that meet the prescribed emissions reductions. Energy efficiency and renewable energy present pathways for compliance and New Jersey’s leadership in these areas uniquely positions it to take advantage of these pathways.

Energy Resilience Bank

EDF supports the CRA’s recommendation that the SBC funds allocated to the ERB “will be used primarily for incentives and costs that are eligible for funding under the NJCEP but that may not be allowable under USHUD CDBG-DR provisions, such as micro-grid feasibility studies.” We also hope that allocating ERB’s SBC funds to energy efficiency retrofits at ERB-eligible projects continues to be a priority.

Private capital investment is key to establishing the large-scale, clean energy markets needed to protect and preserve ratepayer funds, increase grid resilience and reduce carbon emissions. With the Energy Resilience Bank, the state has already taken an enormous step in the right direction of

making critical facilities and infrastructure more resilient. With its initial focus upon strengthening the resilience of critical infrastructure, we are no longer merely focused on the need to engage private capital around climate change initiatives. With this first-of-its kind energy resilience bank we are now also underscoring the equally critical need for private capital engagement to finance resilience and adaptation projects and initiatives.

Moving forward, the state should begin laying the groundwork to leverage available public funds to access private capital to expand the market for technologies and further improve grid resilience. By leveraging limited public funds and seeking to harness the power of private capital markets, the Energy Resilience Bank could enhance its financing capacity, thus enabling it to expand its range of products and types of projects.

Speaking broadly, the New Jersey Energy Resilience Bank can and should seek to employ improved mechanisms to facilitate the aggregation, credit enhancement and securitization of energy resilience projects, thus improving the function and structure of clean energy markets in the state. We believe that the green bank construct is the appropriate platform from which to create these tools, leveraging the private financing necessary to drive innovation, fuel local and regional economic growth and job creation, protect taxpayers and public balance sheets and thus creating a resilient energy infrastructure.

Microgrids

EDF supports the Energy Resilience Bank's finance mechanisms that will enable microgrid development and the Board of Public Utilities decision to explore policies and incentives to enable microgrid development. We are pleased that renewables and the cleanest generation options for microgrids are prioritized and incentivized in the CRA.

Microgrids can provide resiliency to a facility, campus or community by allowing it to isolate from the grid using an alternate energy supply, usually in the form of an independent energy generation source. Additionally, microgrids encourage property owners, agencies, and other large energy users to examine their facilities holistically and evaluate the total energy needs with respect to their operations. When optimally implemented, microgrids can increase a facility's efficiency by identifying synergies across energy systems through heat recovery and other strategies of energy consumption management.

Microgrids have the potential to reduce wasted energy across the electric transmission and distribution system as heat-energy losses that occur as part of the delivery process are avoided by siting the sources of generation closer to where the energy is consumed. This can result in lower emissions due to the avoidance of excess electricity that is generated to offset these delivery losses.

Policies that the Board explores should ensure that project specifics including scope, technology selection, emission levels and other impacts will be carefully designed and that consideration is given to both widespread and local impacts of project components. Renewables and the cleanest generation option must be prioritized and incentivized.

There are other potential system and customer benefits derived from microgrids that the Board can consider. The system realizes benefits when microgrid development is incorporated into the broader grid planning process and is directed to vulnerable or constrained areas of the grid.

Additionally, the system benefits from customer-driven private capital investment in microgrids that will help relieve the pressure on utilities and rates by helping modernize the grid. Customers benefit by participating in a new two-way system that uses pricing mechanisms and provides the opportunity to make choices on how to manage energy risks and optimize costs.

Storage

EDF supports the renewable electric storage incentive program and is pleased that Staff has recommended \$6M in funding for a new energy storage solicitation in FY '16.

FY '14 Work Groups

The delay awarding the new Program Administrator contract for the Clean Energy Program has resulted in uncertainty and frustration in the market. However, we commend the leadership and staff of the Office of Clean Energy (OCE) for tirelessly working to maintain momentum and progress amidst difficult circumstances. Specifically, we commend the work of the OCE and other stakeholders through the Evaluation, Data and Utility Work Groups.

Our comments focus on the Data and Utility Work Group recommendations.

Data Work Group

EDF supports the leadership of the OCE and its recognition of the importance of standardized data to ensure cost effective programs that “streamlines and improves program reporting and evaluation, enables tracking of State’s progress against EMP goals and reduces the cost to ratepayers for program administration.” Standardized data is the key to unleashing the large scale New Jersey and national EE potential that will increase customer bill savings, create jobs and ensure a cleaner environment.

Standardized data and documentation is a necessary component to accessing private capital investment in the energy efficiency market, an Energy Master Plan goal. EDF has been pleased to work with the OCE, the Market Manager and the Program Coordinator to design an Investor Confidence Project pilot for the NJCEP P4P program. The Investor Confidence Project (ICP) defines a clear road-map from retrofit opportunity to reliable Investor Ready Energy Efficiency™. With a suite of Commercial and Multifamily Energy Efficiency Protocols in place, ICP reduces transaction costs by assembling existing standards and practices into a consistent and transparent process that promotes efficient markets by increasing confidence in energy efficiency as a demand-side resource. The P4P pilot positions New Jersey as a national leader through its recognition and commitment to building an investor ready energy efficiency market.

Utility Work Group

EDF recognizes the work of the Utility Work Group and its commitment to addressing the issues that exist in the energy efficiency program (NJCEP and utility programs) including contractor confusion, disaggregated data and duplicative administrative costs. We appreciate the comprehensive approach that identified programmatic structures and best practices from around the country and explored their relevance to New Jersey.

EDF believes that a utility energy efficiency program with performance-based goals and incentives will best serve the ratepayers of New Jersey and provide the largest greenhouse gas reductions for the least cost. We also believe that a performance-based energy efficiency program will provide the Board of Public Utilities the opportunity to observe the operations and

functions of a structure that will inform future proceedings to address a rapidly changing energy system.

Several of the Utility Work Group's findings and recommendations summarized in the CRA point to the benefits of a performance-based program including:

Utility Work Group FINDINGS:

8. Performance incentives provide an opportunity to align program administration and implementation efforts with State regulatory and policy goals and are a means to motivate the administrator by providing additional earnings opportunities

Utility Work Group RECOMMENDATIONS:

- 3. Set energy savings spending and other performance goals, and allow flexibility to meet those targets over the long term.
- 7. Remove the disincentives for utilities to deliver EE services.
- 9. Enable innovation.
- 10. Reward performance.

A well designed utility performance-based program that includes clearly defined metrics, third party evaluation and the right incentives will align the goals of customers, regulators and utilities by delivering value for all parties. The performance-based program will minimize costs, maximize efficiency and environmental performance and ensure enhanced customer service. Under this model, the Office of Clean Energy would continue to provide leadership by developing the policies that further market transformation.

Additionally, a utility performance-based system can incorporate and address utility data access issues that must be resolved in order to realize our 21st Century, low carbon, electricity future.

Outreach and Education

We recognize the need for outreach and education to further the goals of the Clean Energy Program and support Staff's recommendation to fund the three academic institution proposals.

Sustainable Jersey's work is crucial to engaging New Jersey's local governments and residents by providing the information and structure that promotes action. Their new "Sustainable Jersey for Schools Certification Program" promises to reap great energy efficiency and cost savings and EDF is pleased that three EDF Climate Corps Fellows are supporting the Schools Certification Program this summer.

The **NJIT's Center for Building Knowledge** proposal to establish the **New Jersey Clean Energy Learning Center** promises to provide much needed centralized and flexible training to the clean energy industry and other stakeholders. The NJ Clean Energy Learning Center could house the Investor Confidence Project (ICP) training units in support of the P4P ICP pilot. EDF looks forward to working with the Office of Clean Energy and the new NJ Clean Energy Learning Center to incorporate ICP into their training offerings.

Rutgers Laboratory for Energy Smart Systems (LESS)

EDF supports LESS’s proposal “to identify analytical methodologies that will be used to support and evaluate energy policy decisions affecting customers in the State of New Jersey.” We are pleased that “this framework will be geared towards behind-the-meter distributed energy resource (DER) investments that increase energy resiliency and sustainability and promote energy efficiency.” EDF believes that LESS’s analysis will significantly inform and impact New Jersey’s ongoing and future efforts on grid modernization that will ensure a reliable, resilient and clean energy system.

We urge the Board of Public Utilities to include funding in FY ’16 for the optional Distribution System Impact Analysis. DER and the distribution system are interconnected and incentive and policy decisions must be made with an understanding of the impacts on the entire energy system including DER end-users and the distribution system.

Respectfully submitted,

Mary Barber
New Jersey Director, Clean Energy
U.S. Climate and Energy



May 29, 2015

Re: Draft FY2016 CRA

VIA EMAIL TO: publiccomments@njcleanenergy.com

Irene Kim Asbury, Secretary of the Board
Board of Public Utilities
44 South Clinton Avenue
Post Office Box 350
Trenton, New Jersey 08625-0350

Dear Secretary Asbury:

Enclosed please find the Sierra Club and Environment New Jersey's joint comments on the above-referenced matter. Should the Board have any questions about the comments, our contact information is below.

Sincerely,

/s/ Christine Guhl-Sadovy

/s/ Doug O'Malley

Christine Guhl-Sadovy
Senior Campaign Organizing Representative
Sierra Club
(609)510-4684
christine.guhl@sierraclub.org

Doug O'Malley
Director
Environment New Jersey
(609)392-5151
domalley@environmentnewjersey.org

The Sierra Club and Environment New Jersey appreciate this opportunity to comment on the Comprehensive Renewable Energy and Energy Efficiency Resource Analysis for Fiscal Year 2016 (FY2016 CRA). We commend the Board of Public Utilities Staff's efforts to evaluate the state's energy efficiency programs to enhance their overall energy savings and cost-effectiveness. However, by not setting binding savings targets and not securing the funding for state programs, the FY2016 CRA misses the mark. It goes against well-established best practices adopted by the preponderance of states in the U.S., and all but guarantees that New Jersey will keep falling further behind other states on energy savings. In other words, we are wasting precious money and time.

I. The CRA is no substitute for an EERS

The Sierra Club and Environment New Jersey have consistently advocated for binding, long-term, fully-funded energy savings targets to be implemented by the utilities -- also known as an Energy Efficiency Resource/Portfolio Standard (EERS or EEPS). An EERS would create a regulatory framework for achieving ambitious energy savings and lowering costs per unit of savings. Further, an EERS would protect the state energy savings programs from the annual budgetary lapses that have made New Jersey fall behind other states on energy savings every year for six consecutive years¹.

Without an EERS, the budget problems continue under the FY2016 CRA. This year, state officials have proposed to divert \$153 million from the Clean Energy Fund to the General Fund. The FY2016 CRA provides for an additional 34% of the Societal Benefits Charge (SBC) to be diverted from the Clean Energy Fund--particularly from state energy efficiency programs that are among the main statutorily prescribed uses for the SBC per N.J.S.A. 48:3-60--to other, unidentified energy initiatives and state utility bills. Not only does this appear to be unlawful, it is also unwise because few investments come close to energy efficiency in terms of the projected financial returns.

Further, the amount collected through the SBC (without the diversions) should be enough for New Jersey to come close to, if not match, the leading rates of energy savings in

¹ 2014 ACEEE State Scorecard Fact Sheet for NJ, <http://aceee.org/files/pdf/state-sheet/new-jersey.pdf>

the nation. For example, leading states such as Massachusetts and Rhode Island are investing at levels comparable to the levels collected through the SBC and saving 4 to 5 times more (2-3% relative to annual retail sales) than New Jersey (0.6%). Rather than ramping down the SBC without an alternate stable funding stream for energy efficiency, the Board should ensure that SBC funds are invested according to the purpose of the statute.

Also, the FY2016 CRA's piecemeal approach to budgeting only for the next fiscal year fails to create the regulatory certainty that is needed for the cleantech industry to thrive in New Jersey. In particular, to make New Jersey an attractive place for efficiency providers to invest in capital and personnel training, the providers first need to see a robust commitment by the state to save energy and secure supporting regulatory infrastructure. At a minimum, BPU should be budgeting for four-year intervals pursuant to the plain command of N.J.S.A. 48:3-60(a)(3) ("every four years ... the board shall initiate a proceeding and cause to be undertaken a comprehensive resource analysis of energy programs, and within eight months of initiating such proceeding shall determine the appropriate level of funding for energy efficiency programs that provide environmental benefits above and beyond those provided by standard offer or similar programs in effect as of the effective date of this act.") And to be clear, BPU has the authority to budget for even longer intervals and to implement an EERS, as discussed below. The myriad states that have already done this have proven its merits--they are achieving nearly three times the annual energy savings as states like New Jersey without EERS policies in place.²

II. The Board should not delay EERS implementation any further

In January 2014, the Sierra Club filed a petition with the Board to establish an overdue EERS under its authorizing legislation, the 2007 Global Warming Response Act. The Board denied this petition and in doing so advised that Staff's efforts to streamline the Clean Energy Program and select a single administrator would address some of the funding and long-term planning issues.

² ACEEE State EERS Policy Brief, April 2015, <http://aceee.org/sites/default/files/eers-04072015.pdf>

The time is ripe to follow through on the Board's promise. The new single CEP administrator's contract presents one key opportunity to establish binding savings targets within the Clean Energy Program. The state could direct the administrator to address funding and long-term planning needs by including clearly-defined energy savings targets and financial incentives for meeting those targets in the administrator's contract. However, transitioning to single administrator alone does not solve the CEP's issue of insecure funding. Without a mechanism to ensure that CEP funds are protected, budgetary lapses will continue to be the biggest obstacle to achieving energy savings targets.

Therefore, in line with the Energy Master Plan goal of transitioning to alternative financing mechanisms for energy efficiency, the Board should evaluate performance-based ratemaking options. The current ratemaking structure in New Jersey creates a barrier to utility-led efficiency programs. It creates a throughput incentive for the utilities to sell more energy because their revenue is contingent on energy sales. Thus, the utilities have a disincentive to invest in energy efficiency because it reduces energy sales and revenue. Removing this disincentive helps create a pathway for establishing binding energy savings targets implemented by the utilities.

The Sierra Club and Environment New Jersey maintain that the Board should adopt binding, long-term energy efficiency targets consistent with N.J.S.A. 48:3-87(g), (h), and N.J.S.A, 48:3-98.1. This would secure funding for efficiency projects, attracting more private investment to the state, and enable a reduction of the SBC over time. By following the statute and setting binding, fully-funded savings targets, the Board would create the framework necessary for successful utility-run programs funded through rates. We look forward to continuing to work with the Board, Staff, and other stakeholders to achieve New Jersey's clean energy potential. In particular, the Sierra Club and Environment New Jersey are eager to participate in a redesign of the ratemaking structure to increase energy savings, utility performance and accountability. The remainder of our comments offer praise for the strengths of the Proposal and recommendations to improve its weaker parts.

Strengths of the Proposal

- Increasing spent or committed funds for energy efficiency
- Increasing evaluation budget to 2% from 0.5% approaching industry standard of 3-5%
- Following recommendations of the evaluation work group, setting an evaluation timeline and standardizing protocols for CEP and utility programs
- Evaluation of program portfolio based on benchmarking study

Weaknesses of the Proposal

- There is no accountability for the market managers to meet energy savings targets. There should be financial incentives and penalties associated with performance, and validated through enhanced EM&V procedures.
- The process used for setting FY2016 targets relies on past energy savings when Staff and the Board acknowledge that underperformance has been a consistent problem over the years. The CRA should establish targets that are based on previous analysis of achievable cost-effective energy efficiency and set funding levels that are appropriate to meet those targets.
- A significant portion (34%) of SBC funds are going toward state energy initiatives and utility bills. This is not the purpose of the SBC and it also lacks transparency. The CRA should break down what the energy initiatives are as it has done to some extent in previous years.
- Selecting a separate market manager to work with the program administrator for CEP is counterintuitive to the goal of streamlining CEP. One purpose of selecting a single administrator was to provide for better accountability. Separating out the marketing component allows each entity to pass the buck on poor performance or participation rates. If marketing expertise is needed, the program administrator should sub-contract and retain responsibility for that entity's performance. In addition, the

Sierra Club and Environment New Jersey Comments on Draft FY2016 CRA

marketing administrator should ensure that CEP has a robust advertising campaign with comprehensive educational programs to enhance CEP performance.

- The CRA does not address many of the findings of the data and utility work groups. Of particular concern, the utility work group was disbanded without formalizing recommendations. The work group's findings, as reported by Staff, underscore the need for funding stability and long-term planning which have not been addressed by this CRA. As was planned and indicated by Staff in 2015, there should have been a separate process for stakeholders to evaluate these recommendations and make comments. There should also be a clear process for BPU to implement or reject each of the recommendations.



May 29, 2015

Via Electronic Mail

New Jersey Board of Public Utilities
44 South Clinton Avenue
Trenton, NJ 08625

RE: FY '16 Draft Compliance Filings/2016 C & I Recommended Program Changes

Dear NJBPU Staff:

EDF has been pleased to work with the OCE, the Market Manager and the Program Coordinator to design an Investor Confidence Project pilot for the NJCEP P4P program. We look forward to continuing to provide assistance and ICP expertise in support of establishing the pilot ICP alternative compliance path.

Respectfully submitted,

Mary Barber
New Jersey Director, Clean Energy
U.S. Climate and Energy



VIA ELECTRONIC MAIL (publiccomments@njcleanenergy.com)

May 29, 2015

Hon. Irene Kim Asbury, Secretary
New Jersey Board of Public Utilities
44 So. Clinton Ave., 7th Floor
P.O. Box 350
Trenton, NJ 08625-0350

THE MATTER OF THE COMPREHENSIVE
ENERGY EFFICIENCY AND RENEWABLE ENERGY
RESOURCE ANALYSIS FOR FISCAL YEAR 2016
CLEAN ENERGY PROGRAM - DOCKET NO. QO15040476

IN THE MATTER OF THE CLEAN ENERGY
PROGRAMS AND BUDGET FOR THE
FISCAL YEAR 2016 - DOCKET NO. QO15040477

Dear Secretary Asbury:

New Jersey Natural Gas Company ("NJNG") has reviewed the Comprehensive Resource Analysis Staff Straw Proposal for New Jersey's Clean Energy Program ("NJCEP") Funding Levels for Fiscal Year 2016 ("CRA Straw Proposal"), which was released on May 5, 2015 by the Staff of the New Jersey Board of Public Utilities ("BPU" or "Board"), as well as the Draft Compliance Filings for the NJCEP Programs for Fiscal 2016 ("Compliance Filings"). Through this letter, NJNG hereby provides comments related to both the Straw Proposal and the Compliance Filings.

NJNG has had energy efficiency programs that complement NJCEP programs in place since 2009. These are generally marketed to our customers as the The SAVEGREEN Project® (SAVEGREEN). Our programs have always worked in partnership with New Jersey's Clean Energy Program and to date have reached more than 37,000 customers. Our experience running SAVEGREEN has helped us see the benefits of these energy efficiency programs firsthand- both for the participating customers and for many small to medium size contractors. We have more than 2,200 contractors that are participating in our programs. We keep them

engaged with a robust training program and supporting communication channels developed to help them grow their business. This direct knowledge of the marketplace influenced our perspective on both the Straw Proposal and the Compliance Plans.

As a general comment, NJNG would like to acknowledge the efforts of Office of Clean Energy (“OCE”) Staff and the NJCEP Program Coordinator and Market Manager teams. NJNG recognizes the extremely challenging working parallel paths for policy and programs, especially when there is a need to balance priorities and stakeholder interests. Collectively, they have done a great job of ensuring existing programs are continuing to serve the needs of participating customers while continuing to support OCE’s leadership in reviewing the full portfolio of programs and policies that influence clean energy investments in New Jersey.

CRA Straw Proposal

One Year Approach

NJNG supports staff’s proposal to develop a one-year funding level for Fiscal 2016 due to the pending transition to a new Program Administrator. Hopefully, by next year NJCEP will be able to shift back to multi-year funding cycles and establish some longer term signals regarding program structure and incentive levels. Even when program terms and conditions remain stable from year to year, the single year approval approach can affect the market by limiting marketing opportunities and it impacts both the quantity and the quality of interaction at outreach events. From first-hand knowledge we have learned that it can be difficult to engage a customer when there is uncertainty as to what incentives may be available in the next six to eight weeks. That impact is magnified on some of the larger commercial programs because of the timelines for internal approval. Longer term views help instill confidence in the market and allow trade allies to better plan for marketing, as well as make necessary investments in their business and workforce.

Work Group Efforts and Role of the Utility

NJNG actively participated in many Work Group efforts initiated by OCE over the past two years, including the Utility Work Group and the Program Portfolio Review Group. We support the recommendations of these groups.

Specific to the utility work group’s recommendations related to engaging utilities, NJNG can confirm from experience that a regulatory structure that addresses the inherent disincentive to promote energy efficiency makes a huge difference in the culture of an organization. In the nearly 10 years since our Conservation Incentive Program was first approved, NJNG has developed a strong corporate wide commitment to advancing energy

efficiency. This corporate level commitment allows NJNG to broadly engage employees, leverage traditional utility customer communication channels and get broad support for launching new program and outreach approaches. Since program inception, our Call Center employees have proactively suggested approximately 1.9 million conservation tips to our customers. NJNG offers E-tips, an opt-in email service, which provides energy saving tips to our customers through a monthly email, and just recently passed the 100,000 subscriber mark. That represents more than 20% of our residential customer base. We actively use these resources to help promote a broad range of NJCEP programs. Accomplishments like these would not have developed without the right regulatory foundation that the Conservation Incentive Program established.

NJNG's experience is consistent with the general findings of the nationwide look at successful EE programs that the American Council for an Energy Efficient Economy ("ACEEE") produces every year. Addressing the throughput disincentive and implementing other policies to engage utilities as partners is closer to the rule than the exception. The 2014 ACEEE report shows 39 states have structures in place to address that inherent disincentive from traditional ratemaking approaches.

NJNG is active in the [State and Local Energy Efficiency Action Network \("SEE Action"\)](#) at both the Executive Group and Working Group level. SEE Action has a robust collection of [resources](#), discussion forums, and [technical assistance](#) that can help the Board consider the benefits and implications of policy and program approaches that can help advance energy efficiency in New Jersey

Compliance Filings

Residential HVAC Programs

NJNG generally supports the proposed changes to the WARMAdvantage and COOLAdvantage programs. We recognize OCE's interest in advancing the market by increasing the minimum efficiencies for the Tier 2 levels. We appreciate OCE's recognition that it is important to maintain the Tier 1 offers to keep more customers and contractors interested in higher efficiency and because there may be limited product availability for efficiency proposed for the Tier 2 equipment.

In regard to the long term recommendation to consider moving to an upstream approach for water heater incentives, NJNG urges careful consideration of that proposal. While such a shift could potentially present an opportunity to reduce incentive processing costs, it is critical to ensure that the units receiving the incentive are installed in New Jersey, to develop controls

to avoid double counting of units installed as part of more comprehensive NJCEP whole house/whole building programs and minimize any disruption to the marketplace.

NJNG strongly supports longer term recommendations to develop synergies between this market and Home Performance with ENERGY STAR. NJNG's SAVEGREEN Project has been focused on that approach for more than five years and is happy to continue to share our experience and insights with NJCEP.

Home Performance with ENERGYSTAR ("HPwES")

NJNG recognizes NJCEP's interest in reviewing incentives provided under the HPwES program in an effort to make the program more cost effective. The reduced incentive levels and potential changes to the terms of the financing options area likely to lower participation rates. NJNG actively support the HPwES program in our territory by offering an On-Bill Repayment Program ("OBRP") and know that the payback period, driven by the interest rate and term, is a key factor in how contractors are selling the program to customers. We appreciate that NJCEP's proposal keeps a 0% financing option available to customers. However establishing a repayment period that is less than 10 years, may make the monthly payments greater than the monthly savings and therefore create a negative cash flow for customers. Customers react strongly to the current financing option. The 0% APR for a 10 year term translates to less than a \$100 per month repayment feature. The repayment value is especially important because we are encouraging these customers to take action on whole house improvements proactively before they need to address failing equipment.

NJNG strongly supports NJCEP's proposal to expand the eligibility of Tier 2 projects by moving the threshold for participation to 5% Total Energy Savings ("TES"). Many customers who are interested in taking the extra steps to have the seal-up and insulation work done are challenged to participate within HPwES and participating HPwES contractors reluctant to pursue these customers because they can't achieve the current 10% TES threshold since their HVAC equipment has already been addressed.

From a longer term perspective, we believe one of the most important challenges for the HPwES program is to get more seal-up and insulation contractors engaged. Increasing participating contractors is crucial to getting whole house work done on a broader scale. The seal-up and insulation work represents the real opportunity for green job growth since most of that work would not be performed in the absence of the program. NJCEP's proposal to reimburse contractors for a portion of their Building Performance Institute Gold Star fees is a good initial step but NJCEP should consider more aggressive incentives for newer HPwES contractors to help eliminate a potential barrier to new entrants.

General Commercial

NJCEP should be applauded for their consideration of feedback from Commercial and Industrial (“C&I”) customers and contractors regarding administrative burdens. The C&I compliance filing proposes to eliminate some of the pre-inspection and pre-approval requirements as well as the Internal Rate of Return (“IRR”) requirement. Market input definitely supported this change and the proposal appears to be a great opportunity to reduce administrative elements and costs without compromising the integrity of the program.

Direct Install

NJNG strongly supports the proposed changes to the Direct Install program to accommodate more boilers. The proposal to increase the size of boilers qualified to be installed and the allowance for series boilers in schools should be a huge help to schools, houses of worship and even some municipal facilities that are interested in participating in the program. NJCEP has already invested a lot of time and money into engaging these customers but when equipment falls outside of the program, it is not likely to be addressed, so potential energy savings get missed. Additionally, the proposal to allow customers to downsize a furnace or boiler is a great improvement that should increase energy savings for some projects.

Combined Heat and Power (“CHP”)

In regard to the CHP program, the proposal to modify the incentives for the small-scale fixed systems to a tiered structure is also a great improvement. It allows the CHP developers to work with a customer to design the best system fit for that specific location, rather than potentially split what could have been a single system installation into two smaller systems in an effort to maximize incentive values. NJNG also strongly supports NJCEP’s proposal to comprehensively evaluate the CHP market. There are many factors beyond the incentive level structure and program design that can influence a customer’s installation decision, so it is beneficial to engage an independent perspective on market realities so the Board has an accurate picture of what the barriers to this market really are and can consider what initiatives and/or policy/program modifications can provide meaningful support for this market. This effort should consider other states that have recently been successful in this market, including Connecticut and Massachusetts.

Marketing and Evaluation

NJNG strongly supports the proposed increase in the NJCEP marketing budgets. Despite aggressive outreach in our own service territory, we frequently meet customers who are not aware of the programs or mistakenly believe that they may not be eligible for any programs. Given the detailed nature of some programs, changing codes and standards, and

longer payback periods for some investments, a well thought-out marketing approach is critical to growing the market and transitioning program delivery approaches and incentive levels.

Similar to the sentiments expressed by many other stakeholders at the public hearing, NJNG supports the increased emphasis on evaluation. The absence of a strong evaluation component over the past few years definitely has presented some challenges for the program. OCE's renewed commitment to exploring the effectiveness of the programs and understanding the marketplace can definitely help inform what direction to take to improve the programs. NJNG recommends that NJCEP provide an opportunity for stakeholder feedback prior to evaluation reports being deemed final. This should allow for robust input from industry stakeholders that may share insights relevant to particular conclusions or potentially identify errors in particular data sets.

Memberships

In regard to the proposed memberships for NJCEP, we support the proposed membership in the National Association of State Energy Officials ("NASEO"). We also strongly encourage NJCEP to consider maintaining a membership in the Consortium for Energy Efficiency ("CEE") as well. NASEO's primary membership is state energy officials so it is a great resource for keeping informed of policy trends and regulatory oversight of clean energy programs. However, since most states do not run their own programs, it can be a significantly different resource and perspective than that from CEE. CEE's membership is limited to program administrators so it is an additional excellent source to:

- Help NJCEP maintain listings for qualified equipment and provide a robust resource for summaries of program design approaches in other jurisdictions;
- Learn about new technologies and the impact of code and standard changes; and
- Provide practical input about program design and delivery approaches from an implementers' perspective. Hearing the successes and missteps of other program implementers can help NJCEP with their interest in continuing to refine program approaches to improve cost effectiveness. Dues for membership represent less 5 hundredths of a percent of NJCEP's budget. It is always cheaper to learn from someone else's mistakes in gaining insights that can make NJCEP programs more effective.

Serving Low Income Customers

As a final note, NJNG would like to thank the Board and its Staff for its continued commitment to the Comfort Partners programs. In addition to providing energy savings, comfort and safety benefits to the participants, this program also has the potential to reduce future costs for all customers by reducing the costs associated with the Universal Service Fund

program as the work performed, i.e. energy efficiency measures installed, through the Comfort Partners program directly reduces the energy burden of participating customers.

NJNG appreciates the opportunity to provide comments on these topics. Please feel free to contact me if you need any additional information regarding these issues.

Respectfully submitted,

A handwritten signature in cursive script that reads "Anne Marie Peracchio".

Anne-Marie Peracchio

Director- Conservation and Clean Energy Policy



Fuel Cell &
Hydrogen Energy
Association

VIA ELECTRONIC AND REGULAR MAIL
The Honorable Irene Kim Asbury
Secretary, New Jersey Board of Public Utilities
44 South Clinton Avenue, 9th Floor
Post Office Box 350
Trenton, NJ 08625-0350
publiccomments@njcleanenergy.com

Re: *Comments on the Fiscal Year 2016 Draft NJCEP Programs*

Dear Secretary Asbury:

On behalf of the Fuel Cell and Hydrogen Energy Association (FCHEA), please accept the following comments regarding the New Jersey Clean Energy Program (NJCEP) proposed Fiscal Year 2016 Program & Budget Filing issued by the Board of Public Utilities (Board) on May 7, 2015.

As the only national trade association dedicated to the commercialization of fuel cells, FCHEA requests that the Board modify the Budget Filing to increase the overall funding level for the CHP/Fuel Cell Program.

Fuel cells are a unique set of clean, efficient, and resilient energy technologies being placed in service for stationary power generation, backup power, material handling equipment, and on-road vehicles. Stationary fuel cells are a valuable contributor to a comprehensive clean energy strategy, providing continuous, efficient electricity generation, playing "*a critical role*" in resilient power.

Our members are confident that there is tremendous opportunity for all distributed energy technologies to compete in the state, and that the number of submitted applications in the past does not accurately reflect current market conditions. Nor should it warrant an exceedingly low funding ceiling for next year.

Staff recommends that the stakeholder process, in addition to assessing all barriers to CHP/FC development, also review Board and NJCEP policies in light of the State's resiliency goals. Our members recommend an accelerated effort to correct the programmatic issues already identified by the current working group that included:

- Single Source Program
- Increasing Incentive levels/caps
- Extend performance period to 2 years (or more) for systems over 1 MW
- Consider a "re-build" incentive for systems out of commission
- Consider a "resiliency bonus" for black start/islanding operation
- Consider establishing feasibility study incentive for systems over 1 MW
- Micro grid program
- Working with NYSERDA to align program offerings
- Combine budget with REIP CHP program
- Multi-year budget
- Interconnection issues.



We agree with Staff that additional issues should be rapidly identified and corrected as they are identified. Our members have identified potential projects and are looking to invest in high-resiliency clean energy projects in New Jersey. These changes will enable good projects to proceed and show progress toward New Jersey's Resiliency and Energy Master Plan goals.

Because our stationary fuel cell developers are participants in the NJCEP Combined Heat and Power and Fuel Cell Program (CHP/Fuel Cell Program), we are disappointed to see continually decreasing budgets for these technologies while the program is not materially advancing toward the Clean / CHP target goals of 1500 MW in Governor Christie's Energy Master Plan. For FY 2014, the Board approved \$65 million, followed by a budget of \$40.4 million for FY 2015.

The continued reduction in the proposed FY 2016 budget to \$14.4 million further undermines the Staff's own conclusion that one of the major issues in the low participation rate was the "*lack of stable source of funding*". This continued reduction would effectively eviscerate the role that fuel cells can contribute to clean, resilient, energy projects a time when the State's mandate is to substantially increase the number of high-resiliency energy projects in New Jersey. Continued program funding reduction without addressing the identified fundamental programmatic issues does not support New Jersey's Master Plan and Energy Resiliency Goals.

Approval of a \$14 million budget would also send a negative message that minimal funding will be available even though the Master Plan has a 1500MW goal to investors, developers and most importantly customers who are interested in using the technology to shield against power outages and extreme weather events.

Our members understand that past participation in the CHP/Fuel Cell Program for FY 2015 was below expectations as a result of programmatic issues, however, the combination of long project development times, combined with a significantly reduced budget of \$14.4 million will further erode participation in the program.

Our members also feel the Board should address project and entity caps. Practical increases in both of these areas will allow economic efficiencies associated with large volume deals to lower costs and incentivize more customers to employ the clean energy technologies that best meet their needs.

Separately, but related to the issue of demand for these technologies, we note that the federal investment tax credit for solar and fuel cell technology is due to expire at the end of 2016. Given that this deadline is fast approaching, we believe there will be a rush to complete more projects next fiscal year as the long-term certainty of this incentive is unknown. Limiting state funding now will only put our technology at a significant disadvantage.

In closing, our association urges the Board to make the programmatic changes already identified and restore funding levels for the CHP/Fuel Cell program. Doing so will provide customers with a suite of technologies to increase their access to resilient power, while decreasing their impact on the environment and move New Jersey in the direction mandated in the Energy Master Plan.

Thank you for your consideration.

Bud DeFlaviis
Director of Government Affairs
Fuel Cell and Hydrogen Energy Association



Fuel Cell &
Hydrogen Energy
Association

1211 Connecticut Ave., NW, Suite 650
Washington DC, 20036
Office: 202-261-1335 bdeflaviis@fchea.org



2015 Home Performance Contractor Coalition Program Changes

May 18, 2015

Ms. Elizabeth Ackerman
Director
Office of Clean Energy - NJBPU

To Whom It May Concern,

We have thoroughly reviewed the Home Performance with ENERGY STAR section of the New Jersey Board of Public Utilities New Jersey Clean Energy Program (NJCEP) Fiscal Year 2016 (FY16) filings. We share the proposal's opinion, outlined in the introduction, to increase homeowner awareness and education, while creating a robust contractor network. While we agree with parts of the proposed changes in the Straw Proposal, our concern is such that many of the recommended program changes will not accomplish the intended goals but will however have an inverse affect.

After careful collaboration and conscientious deliberation, we have created the below list of comments which we believe will best address the needs of the program: customer enlightenment; consumer's health and safety; State job growth; Program short-term viability and long-term sustainability; and, contractor participation growth.

Please accept the following suggestions which follow the Straw Proposals sequence:

- **Program Incentives:**

- a. **Insulation** (bullet 1) – The proposal to enforce a standard which dictates the inclusion of an insulation measure into every project appears to be in direct conflict with the core strength of our NJ HPwES program, stated in the last sentence of the first paragraph of "Program Implementation," to wit, "... Program incentives and financing incentives based upon the total energy savings (TES). . ." This freedom of choice allows each individual homeowner, when properly educated by highly-trained and responsible contractors, to choose the project which is best for their family, their home, and their future.

This requirement, along with the added financial burden, will force a negative economic shift in our market away from quality and towards commodity. Projects featuring "minimum standard" efficient equipment, as well as, an abandonment of focus on Indoor Air Quality ("IAQ") shall become the norm. This forces one to ask, "What is the true target?" Further, it is patently unfair to chastise projects which do not include insulation measures for missed opportunities while ignoring the missed opportunities on project which do not include any of the following:

- i. AIR CONDITIONER VS. HYBRID/HEAT PUMP – project with hybrid/heat pumps average a 3% TES increase over air conditioners (Carrier's "Greenspeed" as high as 8%). The added cost tends to be less than the financial burden of the insulation measure.
- ii. ON DEMAND VS "MINIMUM STANDARD" POWER VENT DWH – Once again, an examination of price difference versus efficiency versus longevity shows that an on-demand water heater provides a substantially higher ROI.
- iii. REAL HOME ANALYZER (RHA) – Limitations in formatting equipment efficiencies within the current Program software, Real Home Analyzer ("RHA") prevents an accurate accounting of TES opportunities. Specifically, furnaces and on-demand water heaters, if RHA accepted the AFUE as listed on AHRI the additional TES calculated in RHA could be up to 3% greater.
- iv. ECONOMIC SHIFT – To repeat, the enforcement of an artificial program demand will cause a homeowner shift away from quality to commodity. Single stage, 95% AFUE furnaces coupled with 12 EER/14.5 SEER with .67EF Domestic Water Heater ("DWH") will become the standard to accommodate the required insulation expense. Although this might appear good on paper (more measures > less measures) the actual effect may be to lower overall program TES. The money spent

on insulation measures, even if it achieves the 3-4% you wish, could instead be used on the upgraded measures mentioned above which would yield 7-15% TES.

- v. **EQUIPMENT RATINGS AND FUNCTIONALITY** – Industry data supports that, while posted rated efficiencies of both single-stage and multi-stage furnaces, at full capacity, show similar rated efficiencies there does exist a substantial and recognizable efficiency and IAQ improvement associated with the multi-stage furnace. With potential increases to TES as great as 3.5%, failure to recognize this advancement in our industry gives credence to low-end providers and contractors who fail to properly inform and educate consumers. By effectively accounting for these additional savings opportunities the program will successfully achieve all three of their stated goals, namely: increase per project TES; increase ROI of individual project; and, increase customer education and enlightenment. Further, this will simultaneously reward the contractors who DO truly commit to the ‘whole home approach’ professed by this program.

When reading Honeywell’s summary of the Straw Proposal, it suggests that near 30% of past projects did not include insulation measures. It has been previously purported, on several occasions the percentage is nearer to 10%. If the latter is truly the case then the suggestions recommended above will result in greater savings than this suggested change. Furthermore, if the number is nearer to 10% and caused by a handful of contractors who are manipulating the Tool for their personal benefit, the more prudent approach is to use the remediation process rather than penalize the rate-payer.

- b. **Tier 3 Financial Incentives** (bullet 5) – New Jersey’s Home Performance with Energy Star, following BPI standards, with their emphasis on health and safety, we believe, is the best pathway for most homeowners in the State. The reduction, however, of Tier 3, Level 1 and 2 incentives, particularly in multiple system homes, will drive a disproportionate number of homeowners to the Warm/Cool Advantage. This issue is compounded by the nature of many of the Straw Proposal comments regarding Customer’s inability to differentiate value between good & poor HVAC installations. Indeed, by making the incentive levels close, without neither a thorough inspection process nor education policy whereas the homeowner must be presented with all available NJ OCE Residential offers before making their decision, will lead to a decline in the short-term viability of this program.
 - i. Financial Incentive – The following NJCE Residential Incentive table displays the varying incentives for users of HPwES and Warm & Cool Advantage programs
 - 1. The “per system” rebates of WARM/COOL ADVANTAGE will force multi-system homes out of HPwES. This is doubly punitive because due to their size, it is these types of homes which can experience some of the largest gross energy reductions.
 - 2. This issue becomes especially concerning when considering combing those changes from #1 coupled with a TIER 2 HPwES project. Not only will equipment now be excessively oversized but in SJG and NJNG territories the rebates will exceed a 20% TIER III HPwES job.

Current FY15 vs. Proposed FY16 Single System Home Example(s)						
	Warm/Cool Advantage - Single System			Home Performance w/ ENERGY STAR		
	2016 w/ Utility Rebate Single System	2015 w/ Utility Rebate Single System	2016 Versus 2015	2016 (Tier 3 - 25%) Single System	2015 (Tier 3 - 25%) Single System	2016 Versus 2015
Furnace	6,000	6,000	-	6,000	6,000	-
AC	4,000	4,000	-	4,000	4,000	-
DWH	1,600	1,600	-	1,600	1,600	-
Air Sealing	-	-	-	1,500	1,500	-
Insulate	-	-	-	2,000	2,000	-
Misc Health & Safety/Admin	-	-	-	800	800	-
Project Cost Total	11,600	11,600	-	15,900	15,900	-
Warm	(500)	(400)	100	-	-	-
Cool	(500)	(300)	200	-	-	-
DWH (claimed separately)	(500)	(500)	-	-	-	-
Gas Utility Enhanced	(500)	(500)	-	-	-	-
Warm/Cool Total	(2,000)	(1,700)	300	-	-	-
HPwES (Tier 2 or 3)	-	-	-	(4,000)	(5,000)	(1,000)
HPwES Furnace	-	-	-	-	-	-
HPwES AC/HP	-	-	-	-	-	-
HPwES Total	-	-	-	(4,000)	(5,000)	(1,000)
Total OCE/Utility Incentives	(2,000)	(1,700)	300	(4,000)	(5,000)	(1,000)
Approx Energy Savings	± 10%	± 10%	± 10%	≥ 25%	≥ 25%	± 10%

Current FY15 vs. Proposed FY16 Single System Home Example(s)							
	Warm/Cool Advantage - Single System			Home Performance w/ ENERGY STAR			
	2016 w/ Utility Rebate Single System	2015 w/ Utility Rebate Single System	2016 Versus 2015	2016 (Tier 3 - 25%) Single System	2015 (Tier 3 - 25%) Single System	2016 Versus 2015	
Furnace	12,000	12,000	-	12,000	12,000	-	
AC	8,000	8,000	-	8,000	8,000	-	
DWH	1,600	1,600	-	1,600	1,600	-	
Air Sealing	-	-	-	1,500	1,500	-	
Insulate	-	-	-	2,000	2,000	-	
Misc Health & Safety/Admin	-	-	-	800	800	-	
Project Cost Total	21,600	21,600	-	25,900	25,900	-	
Warm	(1,000)	(800)	200	-	-	-	
Cool	(1,000)	(600)	400	-	-	-	
DWH (claimed separately)	(500)	(500)	-	-	-	-	
Gas Utility Enhanced	(500)	(500)	-	-	-	-	
Warm/Cool Total	(3,000)	(2,400)	600	-	-	-	
HPwES (Tier 2 or 3)	-	-	-	(4,000)	(5,000)	(1,000)	
HPwES Furnace	-	-	-	-	-	-	
HPwES AC/HP	-	-	-	-	-	-	
HPwES Total	-	-	-	(4,000)	(5,000)	(1,000)	
Total OCE/Utility Incentives	(3,000)	(2,400)	600	(4,000)	(5,000)	(1,000)	
Approx Energy Savings	± 10%	± 10%	± 10%	≥ 25%	≥ 25%	± 10%	
Net Project cost	18,600	19,200	600	21,900	20,900	(1,000)	
Additional HPwES Cost				3,300	1,700		
Loan Amount/AFR				\$10k, 0%	\$10k, 0%		

s across all programs commensurate with "Real Energy Savings"

c. **Production Incentive** (bullet 6) – Lowering the production incentive while increasing contractor workload and simultaneously expecting increased contractor participation is, at best, axiomatically flawed. Despite the intent of some recommendations in the Straw Proposal to increase program marketing at the State level, contractor recommendations to consumers continue to be the lifeblood of this program; as such, if contractors do not believe it is in their best interest to participate in this program then consumers will not believe it is in their best interest. The program, therefore has an imperative to provide changes which will serve to re-energized and re-engaged Contractors back to (in) the HPwES Program:

- i. Payment Timelines – For HPwES to regain traction with the contractors the timeline must get closer to the 30 day pay cycle, which is 30 days greater than a Warm/Cool project.
- ii. Decouple contractor loan payments from the QA/QC Process – Contractors not offering HPwES with the loan are paid for the project by the homeowner upon installation. The production incentive remains the motivation to correct any QC issues.
- iii. Incentivize Contractor Sales Performance
 1. Increase Contractor Incentive to \$837. This figure more accurately reflects the financial burden associated with banking finance charges and administration of an individual project within this program, which would not be borne with a non-Energy Star project.
 2. As program changes occur, increased training of administrative and individual sales forces are required to properly train and promote HPwES. As mentioned, contractor referrals are the main source of HPwES customers: as soon as the program loses its financial viability with contractors "the well will run dry."
 3. Create a production incentive bonus structure in order to encourage contractors to actively promote HPwES rather than passively respond to homeowner inquiry. This would be the stimulus required for Contractors to invest heavily in HPwES, despite the added costs associated with the program.

# of Completed Projects	Production Bonus (Per Project)
25-49	\$100
50-75	\$200
75+	\$300

iv. QC Failure Penalty and Incentivize Contractor Technical Performance:

1. Reward Contractors who have demonstrated technical knowhow and therefore have been a lower administrative burden to the Program(s); correlate QA Penalties with overall failure rate.
2. When initially introduced, Contractor's were informed the production penalty would not be assessed unless a return trip was required by the Market Manager. What happened?
3. Consistency and Communication - There are occasions when a QC inspection resulted in failure, however, contractor supplies evidence to the contrary; a review and resolution process is required.
4. Incentive should be revoked only for gross deficiencies, such as: incorrect equipment; insulation being >10% short; repetitive mistakes; or, when a picture will not provide clear evidence that the failures have been remediated. To quote W.S. Gilbert, "Let the punishment fit the crime."

Success %	Fine
100-90%	\$100
89-75%	\$250
74-50%	\$837
Greater than 50%	\$837 and suspension from Program
Note: Remove contractors that continually abuse program technical and procedure guidelines, these contractors, while infinitesimal, give all of the Programs a bad name and require a disproportionate amount of program administrative resources.	

- v. Reduce barriers to HPwES – We must streamline software input to reduce administration data with program jobs. Work with financial institutions to streamline the financing application approval timeline and loan process: increased internet processing, allowing for digital signature, etc. Also, allow for increased modeling, including swimming pools (which could offset the above issues with multiple system homes).

d. Financing Options (bullet 7) –

- i. One of the primary short falls of the existing Straw Proposal are the vagaries regarding changes to the state sponsored loans achieved thru HPwES. Given the existing 10 year 0%, \$10,000 loan has become a key component of consumer's perceived value of our program, any changes must serve to further enhance the program, rather than detract. Regarding the ideas mentioned:

1. Additions to Loan Options: To that end, a 10 year, 2.99% or 4.99% loan offering with a cap of \$15,000, would move us in the proper direction for the growth of our program as it would allow for more comprehensive projects. However, the challenge for the homeowner will be justifying the added \$60.95 for 2.99% or \$75.69 for the 4.99% interest rate payment on a \$15,000 for a more comprehensive project. While this would be appealing for some, the fact is, during these uncertain economic times, homeowner have continually opted for minimum monthly payments. When considering the following table, it seems certain that a homeowner will continue to choose the 10 year, 0%, \$10,000 loan and not to seek a more comprehensive project. Further, when considered in conjunction with the other proposed changes pushing our

Interest	0.00%	0.99%	1.99%	2.99%	3.99%	4.99%
Term	120	120	120	120	120	120
Loan Amount	10,000	10,000	10,000	15,000	15,000	15,000
Payment	83.33	87.56	91.97	144.77	151.80	159.02

m towards a "commodity" mentality, this addition would not enhance the Program.

- ii. Reduction to Loan Option: The Straw Proposal is less clear on this end, however, it is our understanding that the HPwES loan may be reduced from the 0%, \$10,000, 10 year term (120 months) financing to a 7 year term (84 months). Should that in fact occur there will be a negative impact to the homeowner buying decision. As the following chart demonstrates:

Interest	0.00%	0.99%	1.99%	2.99%	3.99%	4.99%
Term	84	120	120	120	120	120
Loan Amount	10,000	10,000	10,000	15,000	15,000	15,000
Payment	119.05	87.56	91.97	144.77	151.80	159.02

- iii. Tier 2 TES Percentage and Loan: It has long been advocated that the last change to the Tier 2, which was to include a DWH, was to address homeowners who chose HVAC incentives, for one reason or another, and now wish to make further energy reductions. More importantly Tier 2 addresses the Health and Safety concern caused by orphaned water heaters. The contracting community is getting up to speed, implementing sales programs, with success that respond to these goals. While reducing the TES to 5% will significantly aid these efforts, lowering the current 10 year term (120 months) to a 5 year term (60 months) will thwart these efforts as the following chart demonstrates:

Interest	0.00%	0.00%
Term	120	60
Loan Amount	5,000	5,000
Payment	41.67	83.33
VS. 120 mnth		(41.67)

The success in single family Tier 2 projects is when the energy savings is equal to less than the monthly payment. This typically has been \$41 loan vs. \$38 when using the average TES with the average utility as supplied to the contractor by OCE. It is suggested the variance between \$38 and \$83 will be too great to reap the desired goals, therefore leaving the orphaned DWHs in many WARM/COL ADVANTAGE projects”

iv. Addition Financing Recommendations

1. Offer a cash incentive to homeowner to not take the financing option
2. “On-Bill Financing” – Encourage and work with all utilities to offer On-Bill Financing in support of HPwES Program, this could allow greater flexibility as listed above, faster financing approval times, and allows for energy savings to offset the payment on the same bill.

• **Tables 7 and 8 NJ HPwES Incentives and Requirements Notes:**

- a. CO-OP Advertising (#8):
 - i. Increase Co-Op
 - ii. Reduce NJ OCE included language and logos
 - iii. Digital ads should be excused from the above restraints entirely if the landing pages they are direct have required language and logos, if any
- b. Contract expiration dates (#9) – There will be many projects that will be under contract and committed in FE15 that may, for very valid reasons exceed the 120 expiration date in FE16. In these cases the homeowner must be assured they will receive the incentives and be managed by Program FE15.
- c. Contractor Incentive Fee (#10) – Please refer to our comments in section one “Program Incentives, letter “c”.
Note: Contractor Locator - List only contractors that actively participate in any given program’s dealer locator and provide them with CO-OP Advertising funds, especially HPwES, as some take leads from the website and then talk homeowners out of utilizing HPwES.

• **Planned Program Implementation Activities for FY2016**

- a. Education and Training – While there has been undisputed progress, training must be more frequent AND must be held during off-peak hours. Training must include:
 - i. RHA Training – On-site and Webinars

- ii. Technical Training – On-site and Webinars
- iii. Financing Options Process Training / Webinars
- iv. Sales Training – State sponsored support materials, and contractor/consumer process “packets” that will walk consumers through the entire process.
- v. Contractor “Best Practices” - We are willing and available to assist.

- **Quality Control Provisions**

- a. **Raise the bar on other programs where appropriate; i.e.:**

- i. Use the same criteria to approve Manual J, S & D as HPwES current method(s)
- ii. Permit & Contractor licensing requirements
- iii. Minimum technical standards - i.e. passing combustion testing on Enhanced Rebate audits to ensure water heaters are not spilling

- **Additional Comments Not Addressed in the Straw Proposal**

- a. Make All Programs Stand on Equal Ground and Ensure a Minimum Contractor Qualifications
- b. Ensure ratepayers are aware of all of the NJCE's program offerings.
 - i. Post “Decision Tree” on NJCEP Website to help navigate customers through the programs to assist them in selecting the best program option.
 - ii. Require contractors participating in any NJCE program to inform and educate ratepayers on all of the BPU's NJCE residential offerings by using a “Homeowner Program Choice Application” (**Exhibit A**)
- c. Require contractor's to list all required state license number(s) that are mandatory to complete a project on all Program(s) application forms (WARM/COOL/HPwES) in order to be eligible for incentives (i.e. Home Improvement Contractor License #, Plumbing Lic#, etc...)
- d. Require permit numbers on all NJCEP Program Applications (WARM/COOL/HPwES). This will protect the BPU from liability of incentivizing work that is not done up to code or safely and will ensure all NJCEP Program projects are inspected by code officials, at a minimum.
 - i. Proof of inspection should not be required; Municipalities and DCA will ensure inspection after permits are applied for.
 - ii. Ensuring DCA inspects ALL HPwES, WARM Advantage, and COOL Advantage projects will place all programs on equal ground, as well as alleviating liability from all parties.

We would like to thank you for taking the time to read and consider our proposal. While some of these recommendations are significant, they will also have substantial results in program participation both by contractors and homeowners, with minor budgetary implications. We look forward to discussing this further with all interested parties.

Sincerely,



Peter R. Sanders

Exhibit A:



New Jersey's Board of Public Utilities Working Hard to Help You to Save Energy

CONGRATULATIONS, on your decision to reduce your energy consumption. Your Board of Public Utilities is here to help you with your decision to reduce your utility bill by **SAVING ENERGY**. Your Board has created a variety of exciting programs, which are delivered by the Board's New Jersey Clean Energy that'll assist you with your purchase decision for **ENERGY SAVINGS**. Knowing no one Program will fit everyone the following outlines the options available to New Jersey Homeowners.

Home Performance with ENERGY Star

HPwES- Home Performance with Energy Star offers comprehensive solutions to improve energy efficiency and home comfort, while helping to protect the environment. Homeowners enjoy benefits like, fewer drafts, consistent temperatures across rooms, better ventilation and humidity control, and lowering their heating and cooling utility bills up to 30%.

WARMAdvantage

The WARMAdvantage Program provides rebates for high efficiency home heating systems and/or water heaters. You must purchase a heating system and/or water heater that meets all applicable efficiency requirements

COOLAdvantage

The COOLAdvantage Program provides rebates for energy efficient central air conditioners or heat pumps as well as proper system sizing and installation "best practices" that affect operating efficiency.

Dear NJ Clean Energy Program – Thank for the information you provided and the fantastic ENERGY SAVING incentives to help us become ENERGY EFFICIENT. After a thorough explanation by our contractor of the benefits of each program I/we have decided to participate in:

<input type="checkbox"/> Home Performance with ENERGY STAR The Whole Home Approach	<input type="checkbox"/> WARMAdvantage Upgrading to a High Efficiency Heating System	<input type="checkbox"/> COOLAdvantage Upgrading to High Efficiency Cooling System
<input type="checkbox"/> – Tier 2 – 50% up to \$1,000 . I/we're reducing ENERGY use between 10% to 19.9% by: <input type="checkbox"/> Air Sealing <input type="checkbox"/> Enhanced insulation <input type="checkbox"/> New Hi-eff domestic water heater	<input type="checkbox"/> – WarmAdvantage option to save up to 10% of heating energy for \$400 rebate – System 1	<input type="checkbox"/> – CoolAdvantage option to save up to 5% cooling energy for \$500 rebate - System 1
<input type="checkbox"/> – Tier 3 – Option 1 – 50% up to \$3,000 I/we're reducing ENERGY use by 20% to 24.9% by: <input type="checkbox"/> Air Sealing <input type="checkbox"/> Enhanced insulation <input type="checkbox"/> Install hi-eff heating system(s) <input type="checkbox"/> Install hi-eff cooling system(s) <input type="checkbox"/> Install Hi-eff domestic water heater	<input type="checkbox"/> – WarmAdvantage option to save up to 10% of heating energy for \$400 rebate – System 2	<input type="checkbox"/> – CoolAdvantage option to save up to 5% cooling energy for \$500 rebate – System 2
<input type="checkbox"/> – Tier 3 – Option 2 – 50% up to \$5,000 I/we're reducing ENERGY use by greater than 25% by: <input type="checkbox"/> Air Sealing <input type="checkbox"/> Enhanced insulation <input type="checkbox"/> Install hi-eff heating system(s) <input type="checkbox"/> Install hi-eff cooling system(s) <input type="checkbox"/> Install Hi-eff domestic water heater	<input type="checkbox"/> – I/we will also be taking advantage of our Utility companies \$900 "Enhanced Incentive"	

Homeowner	Contractor
Name:	Name:
Address:	Address:
Town:	Town:
Zip Code:	Zip Code:
Date:	Date:
Phone:	Phone:
	HVAC Lic #:



May 29, 2015

Irene Kim Asbury
Secretary of the Board
Board of Public Utilities
44 South Clinton Ave. 9th Floor
Trenton, NJ 08625-0350

Dear Ms. Asbury,

Direct Energy Solar appreciates the opportunity to provide feedback on the Straw Proposal for NJ's Clean Energy Program ("CEP") Comprehensive Resource Analysis ("CRA") released by the New Jersey Board of Public Utilities (BPU) on May 5, 2015.

In September 2013, Direct Energy Business entered into a partnership with SolarCity to provide commercial and industrial customers with solar power through an investment fund that can finance "behind the meter" solar energy projects. Through this partnership, Direct Energy Business and SolarCity have completed and financed a total of forty-two projects, including two in New Jersey with BJ's Wholesale Club. Additionally, Direct Energy acquired Astrum Solar in July 2014 and announced the company's new name, Direct Energy Solar, in April 2015. Direct Energy Solar serves both residential and commercial customers, and has installed more than 300 systems in New Jersey, including customers in Atlantic City, Bridgewater, Clifton, Freehold, Gloucester, Newark, Parsippany, Princeton, Somerset, Trenton, and Vineland, among others. Last month, Direct Energy Solar opened an Operations Center in Pennsauken, NJ and looks forward to continuing to grow its presence in the state.

Direct Energy largely supports the CRA straw proposal to extend the current CEP funding to help residents, businesses, and local governments reduce energy usage, save money, and improve the environment. Based on our experience in New Jersey, Direct Energy submits the following comments and recommendations to the CRA: 1) the proposal should allow Energy Resilience Bank funding to be used for residential solar projects that include storage capabilities on both new and existing facilities; 2) CEMF/EJGGF funding should be redirected to include additional programs, such as solar and storage; 3) Staff's proposal to develop an online portal for SREC registrations should be implemented as soon as practicable; and 4) the Board should reject Staff's recommendation that large, customer-sited solar facilities be required to choose between participating in either the net metering program or the SREC program.

Direct Energy recommends that the CRA proposal allow Energy Resilience Bank ("ERB") funding to be used for residential solar projects that include storage capabilities on both new and existing facilities. Staff recommends that ERB funding be specifically allocated to several different types of facilities or customers, including hospitals, transportation/transit,



and education/campus projects.¹ However, while there is a category for “other” projects, there is no specific allocation for residential customers. Direct Energy recommends the proposal be modified to include a specific allocation of funds for residential customers. In addition, Staff recommends that “energy storage incentives be limited to projects where renewable energy systems already exist.”² Direct Energy opposes this proposal and urges the Board to allow both new and existing facilities to be eligible to receive funding for projects that include solar and storage capabilities.

Direct Energy supports use of Clean Energy Manufacturing (“CEMF”) and Edison Innovation Green Growth Funds (“EIGGF”) to include additional programs, such as projects that utilize solar and storage technologies. Staff’s proposal to limit incentives to existing solar installations would similarly effect CEMF and EIGGF funding, therefore, Direct Energy recommends that the Board allow more flexibility in the types of programs that qualify for these funds, including solar and storage technologies.

Direct Energy strongly supports Staff’s proposal to develop an online portal for SREC registrations. Staff notes that the volume of new registrations in the SREC Registration Program (SRP) has been tremendous and that Market Managers are currently developing an online registration portal that should streamline the registration process and reduce transaction costs for developers and administrative costs for ratepayers.³ Direct Energy strongly supports this proposal and urges Staff to work with stakeholders to get feedback and test the portal before it is fully launched to ensure a smooth transition to the online registration portal.

Staff recommends that “facilities seeking to install large, customer-sited solar facilities be given the choice of participating in either the net metering program or the SREC program, but not both.”⁴ While Direct Energy fully supports the objective of reducing solar market volatility by managing the growth of large scale solar projects and committing a specific portion of funds to smaller scale solar projects and residential solar, we are concerned that this proposal as an overly broad and ineffective approach that will negatively impact larger scale solar projects. Instead of forcing large projects to choose participation in the net metering program or the SREC program, the Board should continue to permit large scale projects to access both net metering and the SREC program, but also consider ways to provide increased incentives to residential or smaller commercial systems or create a residential carve out in the SREC program.

¹ CRA – Staff Straw Proposal at 19.

² Id. at 46.

³ Id. at 45-46.

⁴ Id. at 46.



Again, Direct Energy Solar appreciates the opportunity to provide feedback on Staff's CRA straw proposal. We look forward to continuing to work with other stakeholders to support New Jersey's Clean Energy Programs. If you have any questions or would like additional information from Direct Energy, please do not hesitate to contact us.

Your's truly,

Rob Gibbs and Jennifer Spinosi
Direct Energy

Rob Gibbs
Director, Gov't and Regulatory Affairs
1 Hess Plaza
Woodbridge, NJ 07095
732-750-6427
Robert.Gibbs@directenergy.com

Jennifer Spinosi
Manager, Gov't and Regulatory Affairs
21 E. State St.
Columbus, OH 43215
614-506-8594
Jennifer.Spinosi@directenergy.com

May 29, 2015

Irene Kim Asbury, Secretary of the Board
Board of Public Utilities
44 South Clinton Avenue, 9th Floor
Post Office Box 350
Trenton, New Jersey 08625-0350

Comments on the Comprehensive Resource Assessment straw proposal

MSEIA opposes language appearing in several paragraphs on page 46 of the straw proposal.

Staff recommends in the second paragraph on page 46 that commercial customers installing a “large” solar system be denied the right to the benefits that all other solar electric ratepayers enjoy, that of earning SRECs and participating in the state’s net metering program. Staff justifies this position by claiming there is the potential threat that the development of large commercial solar systems (what “large” means is undefined) could oversupply the SREC market and somehow harm the interests of residential and small commercial solar customers.

This position is a marked departure from past staff positions, which was generally to let the market self-correct from oversupply or under supply of SRECs through the natural competition in a competitive solar market.

To deny one class of ratepayers benefits that all other ratepayers enjoy is discriminatory and would likely be deemed a “taking of monetary value” and thus illegal under the constitution. Such discrimination is also in conflict with New Jersey law that clearly states any ratepayer hosted solar system is able to participate in Net Metering and earn SRECs from the production of electricity by their solar system.

In the following paragraph on page 46 Staff recommends that energy storage incentives be restricted to only those renewable energy systems already in existence. Staff justifies this position by claiming that by allowing newly developed solar generation to participate in storage incentive programs, the development of the new solar and storage integrated systems will somehow contribute to “an already oversupplied SREC market”. To our knowledge there has been no formal finding that the SREC market is “oversupplied”. Such a statement is speculation and may never come about. The SREC market has flexibility in supply and demand and the extended five year life of SRECs allows the SREC market to be in short term oversupply or undersupply without dramatic impacts on the pace of solar development. Recent SREC prices have been relatively stable, indicating a SREC market that is in relative balance. The fact that spot market SREC prices are the highest in several years would seem to indicate that market participants believe the market is more

likely to be in “undersupply” for some period of time, and not in “oversupply”.

Staff’s position on this issue ignores the fact that most solar system inverters in place today do not have the control capability to work with electric storage. These inverters were designed before battery storage was an option and are not designed to work with electric storage. It is only the new generation of inverters that have recently entered the market that have advanced control and reporting capabilities, and are designed to coordinate with electric storage. These more advanced solar inverters will further the integration of solar and electric storage and result in a more stable electric grid.

The state should instead encourage the development and installation of the most advanced integration of new solar inverter technology with electric storage. It is only by rapidly learning how solar and storage can work optimally with the electric grid will we move from a grid designed many decades ago to one that is bi-directional and provides enhanced reliability and power quality.



Via electronic mail - [05/29/2015]

**Northeast Energy Efficiency Partnerships (NEEP)
Letter of Support for Sierra Club Comment
On Docket No. QO15040476
Comprehensive Energy Efficiency and Renewable Energy Resource Analysis for
Fiscal Year 2016**

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

Dear Secretary Asbury,

On behalf of Northeast Energy Efficiency Partnerships (NEEP),¹ please accept this letter of support for the Sierra Club's comments in response to The Board of Public Utilities' ("The Board") request for comment regarding Docket No. QO15040476, the Comprehensive Energy Efficiency and Renewable Resource Analysis for Fiscal Year 2016. NEEP is a non-profit organization, established in 1996, whose mission is to accelerate energy efficiency in homes, buildings and industry across the Northeast and Mid-Atlantic region. NEEP is one of six Regional Energy Efficiency Organizations (REEOs), as designated by the U.S. Department of Energy, which works in cooperation with the DOE to support states in, among other things, establishing comprehensive energy efficiency programs.

Introduction

In its notice dated May 5, 2015, The Board requested public input on its initial Comprehensive Energy Efficiency and Renewable Energy Resource Analysis for Fiscal Year 2016 ("2016 CRA"). We applaud The Board for providing this opportunity to comment on the proposed 2016 CRA and lend our support to the comments filed by the Sierra Club, which expound on their backing of an Energy Efficiency Resource Standard (EERS).

Support for an Energy Efficiency Resource Standard

As noted by the Sierra Club, an Energy Efficiency Resource Standard would create a regulatory framework for achieving reasonable and prudent energy savings targets and lower costs per unit of energy savings. Indeed, targets driven through regulatory mandate would provide certainty for businesses and consumers considering investment in energy efficiency, allowing programs in New Jersey to capture economies of scale that have proven to enhance program cost-effectiveness throughout the region, thereby returning broad benefits to ratepayers. For an overview of similar policies in surrounding states, see the chart below.

¹ These comments are offered by NEEP staff and do not necessarily represent the view of NEEP's Board of Directors, sponsors or underwriters.



Energy Efficiency Resource Standards in the Mid-Atlantic Region			
State	Policy Type	Program Administrator	Energy Savings Goals
Maryland	Energy Efficiency Resource Standard	Electric Utilities	15% of per capita electric use by 2015
Pennsylvania	Energy Efficiency Resource Standard	Electric Utilities	0.75% of electric sales annually through 2015
New York	Energy Efficiency Portfolio Standard	NYSERDA + Utilities	15% of electric & natural gas sales by 2015
Delaware	All Cost-Effective Energy Efficiency	Utilities+ Sustainable Energy Utility	<i>In Progress</i>
New Jersey	<i>Efficiency Funding Only</i>	Office of Clean Energy + Utilities	<i>No mandated savings goals</i>

Furthermore, an Energy Efficiency Resource Standard that allows utilities to recover investments in energy efficiency regardless of system benefit charge funding stability would insulate New Jersey’s efficiency programs from economic tides that currently render them unstable. As the US Department of Energy’s *State and Local Energy Efficiency Action Network* notes, “Utilities need to be allowed to recover approved program costs from ratepayers in a timely and assured manner, just as they can recover prudent investments in new power plants, transmission lines, or distribution system upgrades.”²

Energy Efficiency as the Least-Cost Energy Resource

Public utility commissions in a number of states have come to recognize the value of energy efficiency as the least-cost energy resource within their statutory requirement to deliver “just and reasonable rates”.³ Indeed, many commissions—including neighboring New York—

² US Department of Energy’s State and Local Energy Efficiency Action Network. *Driving Ratepayer-Funded Efficiency through Regulatory Policies Working Group: Setting Energy Savings Targets for Utilities*. (September 2011) Page iii. Available at: https://www4.eere.energy.gov/seeaction/system/files/documents/ratepayer_efficiency_targets.pdf

³ Fed. Power Comm’n v. Hope Natural Gas Co., 320 U.S. 591, 601, 64 S. Ct. 281, 287, 88 L. Ed. 333 (1944)



have established energy efficiency program targets “based entirely on their broad, non-specific authority to regulate utilities in a manner that serves the public interest.”⁴

For example, Applied Energy Group’s Evaluation of New Jersey’s Clean Energy Program notes that for every dollar invested in energy efficiency between \$1.30 and \$1.40 is returned to ratepayers.⁵ It further notes that the levelized cost of saved electricity in the state was less than \$0.027/kWh.⁶ This contrasts sharply with the cost of energy supply in the state, which can be between \$0.10/kWh and \$0.13/kWh.⁷ This contrast between the cost of energy efficiency as an “avoided supply” resource and the average cost of electric supply in New Jersey lends itself to a scaling-up of targets under the justification of providing just and reasonable rates for New Jersey’s ratepayers.

Conclusion

NEEP commends The Board for its consideration and analysis of cost-effective energy efficiency resources within the Comprehensive Energy Efficiency and Renewable Resource Analysis for Fiscal Year 2016. We support the Sierra’s Club’s recommendation that The Board reconsider establishment of an Energy Efficiency Resource Standard and suggest that The Board consider energy efficiency’s potential to deliver more value than similarly situated energy supply resources to the ratepayers of New Jersey.

Please accept these comments in the spirit they are intended: to aid The Board, and, ultimately, the people of New Jersey, in securing a more affordable, reliable, cleaner and sustainable energy future.

Contact information:

Brian Buckley
Policy Research and Analysis Associate
Northeast Energy Efficiency Partnerships (NEEP)
91 Hartwell Avenue
Lexington, Mass. 02421
1-(781)-860-9177 ext. 152
E-mail: BBuckley@NEEP.org

⁴ *Supra*, at note 2. Page 8.

⁵ New Jersey Office of Clean Energy. *Evaluation of New Jersey’s Clean Energy Programs*. (September 2012) Page 3. Available at: <http://www.njcleanenergy.com/files/file/NJ%20Program%20Analysis%20Final%20Report%209-4-12.pdf>

⁶ *id.*

⁷ See generally, www.NJElectricity.org for electric supply pricing for customers in the service areas of Public Service Electric and Gas, Jersey City Power and Light, Atlantic City Electric, and Rockland Electric.

May 29, 2015

Irene Kim Asbury

Secretary of the Board
Board of Public Utilities
44 South Clinton Avenue, 9th Floor
P.O. Box 350
Trenton, NJ 08625

Reference: Comments on NJCEP FY 2016 Straw Proposal – CRA & Compliance Filing

Dear Ms. Asbury:

Thank you for providing the opportunity for input into the proposed changes to the requirements and rebate structure of Residential New Construction (hereinafter “RNC”) portion of the NJ Clean Energy Program (hereinafter “NJCEP”). My colleagues at ReVireo and I are very appreciative of the efforts that the BPU continually undertakes to respond to the suggestions of the participating companies as it works to improve the NJCEP. In response to the Comprehensive Resource Analysis (hereinafter “CRA”) and Compliance Filing Straw Proposal for FY 2016, my colleagues and I have prepared the comments below.

ENERGY STAR Multifamily High Rise Program

- a. The ENERGY STAR Multifamily High Rise (hereinafter “MFHR”) Program is designed to certify residential buildings of sufficient size and characteristics to be permitted under commercial construction code. Accordingly, these buildings are subject to commercial energy code – which is based on the ASHRAE 90.1 standard.
- b. The certification requirement of 15% reduction vs. ASHRAE 90.1 baseline is exactly the same requirement of the Pay for Performance (hereinafter “P4P”) New Construction Program.
- c. ENERGY STAR MFHR does not limit the number of stories that a building can have to be eligible for certification. As the name suggests, it is intended for high-rise buildings.
- d. The NJCEP arbitrarily caps the number of stories for its associated rebate program at 6, because buildings over that size are eligible for P4P. This is seemingly a result of the fact that the NJ P4P program existed prior to the ENERGY STAR MFHR program, and so the NJCEP only uses the ENERGY STAR MFHR program to “fill



the gap” between the size maximum for the ENERGY STAR Homes program and the size minimum for the P4P program.

- e. We believe that this is a mistake that should be corrected. The NJCEP consistently relies on the power of the ENERGY STAR label and all of the federal resources behind to incentive participation in its programs. So why would it arbitrarily deny, for example, a 10-story building that wanted to do ENERGY STAR MFHR from earning a rebate through its associated program?
- f. The fact is that in new residential construction, where marketability is much more important than in an existing commercial building, the ENERGY STAR label is so much more valuable. No developer is going to see any marketing value in that his/her new apartment building achieved P4P requirements.
- g. Accordingly, the NJCEP should not limit the size of high-rise apartment building that can receive a rebate for ENERGY MFHR certification. It should also align the rebate structure for ENERGY MFHR with that of P4P New Construction since the standards and certification processes are almost identical (especially with the pending removal of the IRR requirement from P4P).
- h. The incremental cost of certification for P4P and ENERGY STAR MFHR are also almost identical because they both have the same technical requirements and both require the involvement of a Licensed Professional Engineer or Registered Architect to verify certification,
- i. For these above reasons, we feel that that the rebate structures for ENERGY STAR MFHR and P4P should be brought into alignment since they both operate under the NJCEP umbrella. We are unaware of any other type of building that qualifies for multiple NJCEP options except for MFHR projects. This dual eligibility is a function of the fact that P4P was already a successful program in NJ prior to the EPA rolling out its MFHR program. The NJCEP was correct in adopting a rebate structure to incentive MFHR, but its participation has been depressed by the fact that the rebates for P4P are so much higher for the same performance levels. This is a shame because the ENERGY STAR label is a much more powerful marketing tool than the P4P name, and so the MFHR RNC rebate program would be so much more attractive if the rebate levels were aligned with those for P4P, or at least made to be somewhat close.
- j. It might also make sense to move the administration of the ENERGY STAR MFHR program from the Residential section of the NJCEP to the Commercial and Industrial section. These buildings are permitted and built as commercial structures, and their energy usage is determined at the whole-building level (as opposed to the per unit method for low-rise residential construction). We are not even sure that the Residential program administrator team has the technical capability to correctly review the compliance of buildings with the ENERGY STAR MFHR requirements.

Prescriptive NJ Prerequisites

For Tier 2 and Tier 3, where EPA and DOE set standards, there should be no special mandatory program requirements. It complicates the process and sows confusion, especially for builders working in multiple states. We strongly believe that there should not be any additional NJ requirements for ENERGY STAR or DOE Zero Energy rebates. Also, for NJ RREM homes that are being required to, at minimum, ensure the home complies with the “Designed for ENERGY STAR” checklist, the additional NJ requirements are one of the main barriers stopping more of those projects from enrolling in Tier 2.

Nomenclature & Outreach Efforts

- a. The RNC portion of the NJCEP should not continue to call its entire operation the “NJ ENERGY STAR Homes Program” and then have that term also apply specifically to Tier 2.
- b. There shouldn’t be any tiers at all.
- c. There is also no reason for NJ *ENERGY*Efficient Homes to be one long word with half of it italicized.
- d. The entire program should be called something simple and accurate such as the “NJ Clean Energy Residential New Construction Program,” and rather than confusing tier numbers, each program should just be called by its name:
 - NJ *ENERGY*Efficient Homes
 - ENERGY STAR
 - DOE Zero Energy Ready
 - DOE Zero Energy Ready w/100% Renewable
 - i. Don’t create another NJ specific program name (“NJ Zero Net Energy Homes” just for adding 100% renewables to DOE program. Should avoid creating NJ specific names wherever possible to avoid confusion.
- e. If comment above about removing NJ specific prescriptive requirements is accepted, then this simple change in nomenclature will alleviate the confusion among builders about the difference between ENERGY STAR and NJ ENERGY STAR, specifically the fact that ENERGY STAR v3 is Tier 2 of NJ ENERGY STAR and they are the same but have different requirements.
- f. Under this suggestion, the only program that is specific to the state of NJ would be the NJ ENERGY Efficient Homes Program and thus would be named accordingly.
- g. The current structure limits NJCEP participation in the program because its’ confusing to builders and they accordingly don’t know how to communicate the benefits of the program to their customers. It also creates endless complications when dealing with NJHMFA and NJEDA projects, or any other project where the state agency uses NJCEP participation as a requirement.

k. We do not believe that builders are ever going to market any NJ program certification. We feel they are always going to market the labels and certifications from EPA/DOE that have much better recognition and credibility. For ENERGY STAR and DOE programs, any marketing resources/effort should be directed to helping builders leverage those labels. When it comes to marketing NJ Energy Efficient Homes, we feel the HERS Index Rating is a much more powerful marketing tool than any logo or marketing collateral for NJ Energy Efficient Homes. We do not feel any resources should be invested in promoting this name, but rather that marketing support efforts for this program should be centered on the HERS Index Rating. Many national homebuilders have signed up with RESNET as Energy Smart Builders and invested resources in marketing the HERS Index of their home. It only makes sense the NJ program would work in conjunction with this effort, rather than invest resources to marketing a program that only exists within NJ, has little to no name recognition, and which may change or be phased out in the future.

Respectfully submitted,

ReVireo

A handwritten signature in black ink, appearing to read 'Matthew Kaplan', with a long horizontal flourish extending to the right.

Matthew Kaplan, LEED AP
CEO



2015 Home Performance Contractor Coalition Program Changes

May 29, 2015

Ms. Elizabeth Ackerman
Director
Office of Clean Energy - NJBPU

To Whom It May Concern,

Our organization has thoroughly reviewed the Home Performance with ENERGY STAR section of the New Jersey Board of Public Utilities New Jersey Clean Energy Program (NJCEP) Fiscal Year 2016 (FY16) filings. We share the proposal's opinion, outlined in the introduction, to increase homeowner awareness and education, while creating a robust contractor network. While we agree with parts of the proposed changes in the Straw Proposal, our concern is such that many of the recommended program changes will not accomplish the intended goals but will however have an inverse affect.

After careful collaboration and conscientious deliberation, we have created the below list of comments which we believe will best address the needs of the program: customer enlightenment; consumer's health and safety; State job growth; Program short-term viability and long-term sustainability; and, contractor participation growth.

Please accept the following suggestions which follow the Straw Proposals sequence:

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- a. **Insulation** (bullet 1) – The proposal to enforce a standard which dictates the inclusion of an insulation measure into every project appears to be in direct conflict with the core strength of our NJ HPwES program, stated in the last sentence of the first paragraph of "Program Implementation," to wit, "... Program incentives and financing incentives based upon the total energy savings (TES). . ." This freedom of choice allows each individual homeowner, when properly educated by highly-trained and responsible contractors, to choose the project which is best for their family, their home, and their future.

This requirement, along with the added financial burden, will force a negative economic shift in our market away from quality and towards commodity. Projects featuring "minimum standard" efficient equipment, as well as, an abandonment of focus on Indoor Air Quality (IAQ) shall become the norm. This forces one to ask, "What is the true target?" Further, it is patently unfair to chastise projects which do not include insulation measures for missed opportunities while ignoring the missed opportunities on project which do not include any of the following:

- i. **AIR CONDITIONER VS. HYBRID/HEAT PUMP** – Projects with hybrid/heat pumps average a 3% TES increase over air conditioners (Carrier's "Greenspeed" as high as 8%). The added cost tends to be less than the financial burden of the insulation measure.
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- i. Financial Incentive – The following NJCE Residential Incentive table displays the varying incentives for users of HPwES and Warm & Cool Advantage programs
 1. The “per system” rebates of WARM/COOL ADVANTAGE will force multi-system homes out of HPwES. This is doubly punitive because due to their size, it is these types of homes which can experience some of the largest gross energy reductions.
 2. This issue becomes especially concerning when considering combing those changes from #1 coupled with a TIER 2 HPwES project. Not only will equipment now be excessively oversized but in SJG and NJNG territories the rebates will exceed a 20% TIER III HPwES job.

Current FY15 vs. Proposed FY16 Single System Home Example(s)						
	Warm/Cool Advantage - Single System			Home Performance w/ ENERGY STAR		
	2016	2015	2016	2016	2015	2016
	w/ Utility Rebate Single System	w/ Utility Rebate Single System	Versus 2015	(Tier 3 - 25%) Single System	(Tier 3 - 25%) Single System	Versus 2015
Furnace	6,000	6,000	-	6,000	6,000	-
AC	4,000	4,000	-	4,000	4,000	-
DWH	1,600	1,600	-	1,600	1,600	-
Air Sealing	-	-	-	1,500	1,500	-
Insulate	-	-	-	2,000	2,000	-
Misc Health & Safety/Admin	-	-	-	800	800	-
Project Cost Total	11,600	11,600	-	15,900	15,900	-
Warm	(500)	(400)	100	-	-	-
Cool	(500)	(300)	200	-	-	-
DWH (claimed separately)	(500)	(500)	-	-	-	-
Gas Utility Enhanced	(500)	(500)	-	-	-	-
Warm/Cool Total	(2,000)	(1,700)	300	-	-	-
HPwES (Tier 2 or 3)	-	-	-	(4,000)	(5,000)	(1,000)
HPwES Furnace	-	-	-	-	-	-
HPwES AC/HP	-	-	-	-	-	-
HPwES Total	-	-	-	(4,000)	(5,000)	(1,000)
Total OCE/Utility Incentives	(2,000)	(1,700)	300	(4,000)	(5,000)	(1,000)
Approx Energy Savings	± 10%	± 10%	± 10%	≥ 25%	≥ 25%	± 10%
Net Project cost	9,600	9,900	300	11,900	10,900	(1,000)
Additional HPwES Cost			-	2,300	1,000	
Loan Amount/APR	-	-	-	\$10k, 0%	\$10k, 0%	

Current FY15 vs. Proposed FY16 Dual System Home Example(s)						
	Warm/Cool Advantage - Dual System			Home Performance w/ ENERGY STAR		
	2016 w/ Utility Rebate Dual System	2015 w/ Utility Rebate Dual System	2016 Versus 2015	2016 (Tier 3 - 25%) Dual System	2015 (Tier 3 - 25%) Dual System	2016 Versus 2015
Furnaces	12,000	12,000	-	12,000	12,000	-
ACs	8,000	8,000	-	8,000	8,000	-
DWH	1,600	1,600	-	1,600	1,600	-
Air Sealing	-	-	-	1,500	1,500	-
Insulate	-	-	-	2,000	2,000	-
Misc Health & Safety/Admin	-	-	-	800	800	-
Project Cost Total	21,600	21,600	-	25,900	25,900	-
Warm	(1,000)	(800)	200	-	-	-
Cool	(1,000)	(600)	400	-	-	-
DWH (claimed separately)	(500)	(500)	-	-	-	-
Gas Utility Enhanced	(500)	(500)	-	-	-	-
Warm/Cool Total	(3,000)	(2,400)	600	-	-	-
HPwES (Tier 2 or 3)	-	-	-	(4,000)	(5,000)	(1,000)
HPwES Furnace	-	-	-	-	-	-
HPwES AC/HP	-	-	-	-	-	-
HPwES Total	-	-	-	(4,000)	(5,000)	(1,000)
Total OCE/Utility Incentives	(3,000)	(2,400)	600	(4,000)	(5,000)	(1,000)
Approx Energy Savings	± 10%	± 10%	± 10%	≥ 25%	≥ 25%	± 10%
Net Project cost	18,600	19,200	600	21,900	20,900	(1,000)
Additional HPwES Cost			-	3,300	1,700	
Loan Amount/APR	-	-	-	\$10k, 0%	\$10k, 0%	

ii. Model incentive levels across all programs commensurate with “Real Energy Savings”

c. **Production Incentive** (bullet 6) – Lowering the production incentive while increasing contractor workload and simultaneously expecting increased contractor participation is, at best, axiomatically flawed. Despite the intent of some recommendations in the Straw Proposal to increase program marketing at the State level, contractor recommendations to consumers continue to be the lifeblood of this program; as such, if contractors do not believe it is in their best interest to participate in this program then consumers will not believe it is in their best interest. The program, therefore has an imperative to provide changes which will serve to re-energized and re-engaged Contractors back to (in) the HPwES Program:

- i. Payment Timelines – For HPwES to regain traction with the contractors the timeline must get closer to the 30 day pay cycle, which is 30 days greater than a Warm/Cool project.
- ii. Decouple contractor loan payments from the QA/QC Process – Contractors not offering HPwES with the loan are paid for the project by the homeowner upon installation. The production incentive remains the motivation to correct any QC issues.
- iii. Incentivize Contractor Sales Performance
 1. Increase Contractor Incentive to \$837. This figure more accurately reflects the financial burden associated with banking finance charges and administration of an individual project within this program, which would not be borne with a non-Energy Star project.
 2. As program changes occur, increased training of administrative and individual sales forces are required to properly train and promote HPwES. As mentioned, contractor referrals are the main source of HPwES customers: as soon as the program loses its financial viability with contractors “the well will run dry.”
 3. Create a production incentive bonus structure in order to encourage contractors to actively promote HPwES rather than passively respond to homeowner inquiry. This would be the stimulus required for Contractors to invest heavily in HPwES, despite the added costs associated with the program.

# of Completed Projects	Production Bonus (Per Project)
25-49	\$100
50-75	\$200
75+	\$300

iv. QC Failure Penalty and Incentivize Contractor Technical Performance:

1. Reward Contractors who have demonstrated technical knowhow and therefore have been a lower administrative burden to the Program(s); correlate QA Penalties with overall failure rate.
2. When initially introduced, Contractor's were informed the production penalty would not be assessed unless a return trip was required by the Market Manager. What happened?
3. Consistency and Communication - There are occasions when a QC inspection resulted in failure, however, contractor supplies evidence to the contrary; a review and resolution process is required.
4. Incentive should be revoked only for gross deficiencies, such as: incorrect equipment; insulation being >10% short; repetitive mistakes; or, when a picture will not provide clear evidence that the failures have been remediated. To quote W.S. Gilbert, "Let the punishment fit the crime."

QA Pass %	Fine
100-90%	\$100
89-75%	\$250
74-50%	\$837
Greater than 50%	\$837 and suspension from Program
Note: Remove contractors that continually abuse program technical and procedure guidelines, these contractors, while infinitesimal, give all of the Programs a bad name and require a disproportionate amount of program administrative resources.	

- v. Reduce barriers to HPwES – We must streamline software input to reduce administration data with program jobs. Work with financial institutions to streamline the financing application approval timeline and loan process: increased internet processing, allowing for digital signature, etc. Also, allow for increased modeling, including swimming pools (which could offset the above issues with multiple system homes).

d. **Financing Options** (bullet 7)

- i. One of the primary short falls of the existing Straw Proposal are the vagaries regarding changes to the state sponsored loans achieved thru HPwES. Given the existing 10 year 0%, \$10,000 loan has become a key component of consumer's perceived value of our program, any changes must serve to further enhance the program, rather than detract. Regarding the ideas mentioned:

1. Additions to Loan Options: To that end, a 10 year, 2.99% or 4.99% loan offering with a cap of \$15,000, would move us in the proper direction for the growth of our program as it would allow for more comprehensive projects. However, the challenge for the homeowner will be justifying the added \$60.95 for 2.99% or \$75.69 for the 4.99% interest rate payment on a \$15,000 for a more comprehensive project. While this would be appealing for some, the fact is, during these uncertain economic times, homeowner have continually opted for minimum monthly payments. When considering the following table, it seems certain that a homeowner will continue to choose the 10 year, 0%, \$10,000 loan and not to seek a more comprehensive project. Further, when considered in conjunction with the other proposed changes pushing our program towards a "commodity" mentality, this addition would not enhance the Program.

Interest	0.00%	0.99%	1.99%	2.99%	3.99%	4.99%
Term	120	120	120	120	120	120
Loan Amount	10,000	10,000	10,000	15,000	15,000	15,000
Payment	83.33	87.56	91.97	144.77	151.80	159.02

- ii. Reduction to Loan Option: The Straw Proposal is less clear on this end, however, it is our understanding that the HPwES loan may be reduced from the 0%, \$10,000, 10 year term (120 months) financing to a 7 year term (84 months). Should that in fact occur there will be a negative impact to the homeowner buying decision. As the following chart demonstrates:

Interest	0.00%	0.99%	1.99%	2.99%	3.99%	4.99%
Term	84	120	120	120	120	120
Loan Amount	10,000	10,000	10,000	15,000	15,000	15,000
Payment	119.05	87.56	91.97	144.77	151.80	159.02

- iii. Tier 2 TES Percentage and Loan: It has long been advocated that the last change to the Tier 2, which was to include a DWH, was to address homeowners who chose HVAC incentives, for one reason or another, and now wish to make further energy reductions. More importantly Tier 2 addresses the Health and Safety concern caused by orphaned water heaters. The contracting community is getting up to speed, implementing sales programs, with success that respond to these goals. While reducing the TES to 5% will significantly aid these efforts, lowering the current 10 year term (120 months) to a 5 year term (60 months) will thwart these efforts as the following chart demonstrates:

Interest	0.00%	0.00%
Term	120	60
Loan Amount	5,000	5,000
Payment	41.67	83.33
VS. 120 mnth		(41.67)

The success in single family Tier 2 projects is when the energy savings is equal to less than the monthly payment. This typically has been \$41 loan vs. \$38 when using the average TES with the average utility as supplied to the contractor by OCE. It is suggested the variance between \$38 and \$83 will be too great to reap the desired goals, therefore leaving the orphaned DWHs in many WARM/COL ADVANTAGE projects”

- iv. Addition Financing Recommendations
 1. Offer a cash incentive to homeowner to not take the financing option
 2. “On-Bill Financing” – Encourage and work with all utilities to offer On-Bill Financing in support of HPwES Program, this could allow greater flexibility as listed above, faster financing approval times, and allows for energy savings to offset the payment on the same bill.

• **Tables 7 and 8 NJ HPwES Incentives and Requirements Notes:**

- a. CO-OP Advertising (#8):
 - i. Increase Co-Op
 - ii. Reduce NJ OCE included language and logos
 - iii. Digital ads should be excused from the above restraints entirely if the landing pages they are direct have required language and logos, if any
- b. Contract expiration dates (#9) – There will be many projects that will be under contract and committed in FE15 that may, for very valid reasons exceed the 120 expiration date in FE16. In these cases the homeowner must be assured they will receive the incentives and be managed by Program FE15.
- c. Contractor Incentive Fee (#10) – Please refer to our comments in section one “Program Incentives, letter “c”.
Note: Contractor Locator - List only contractors that actively participate in any given program’s dealer locator and provide them with CO-OP Advertising funds, especially HPwES, as some take leads from the website and then talk homeowners out of utilizing HPwES.

• **Planned Program Implementation Activities for FY2016**

- a. Education and Training – While there has been undisputed progress, training must be more frequent AND must be held during off-peak hours. Training must include:
 - i. RHA Training – On-site and Webinars
 - ii. Technical Training – On-site and Webinars

- iii. Financing Options Process Training / Webinars
- iv. Sales Training – State sponsored support materials, and contractor/consumer process “packets” that will walk consumers through the entire process.
- v. Contractor “Best Practices” - We are willing and available to assist.

- **Quality Control Provisions**

- a. Raise the bar on other programs where appropriate; i.e.:
 - i. Use the same criteria to approve Manual J, S & D as HPwES current method(s)
 - ii. Permit & Contractor licensing requirements
 - iii. Minimum technical standards - i.e. passing combustion testing on Enhanced Rebate audits to ensure water heaters are not spilling

- **Additional Comments Not Addressed in the Straw Proposal**

- a. Make All Programs Stand on Equal Ground and Ensure a Minimum Contractor Qualifications
- b. Ensure ratepayers are aware of all of the NJCE’s program offerings.
 - i. Post “Decision Tree” on NJCEP Website to help navigate customers through the programs to assist them in selecting the best program option.
 - ii. Require contractors participating in any NJCE program to inform and educate ratepayers on all of the BPU’s NJCE residential offerings by using a “Homeowner Program Choice Application” **(Exhibit A)**
- c. Require contractor’s to list all required state license number(s) that are mandatory to complete a project on all Program(s) application forms (WARM/COOL/HPwES) in order to be eligible for incentives (i.e. Home Improvement Contractor License #, Plumbing Lic#, etc...)
- d. Require permit numbers on all NJCEP Program Applications (WARM/COOL/HPwES). This will protect the BPU from liability of incentivizing work that is not done up to code or safely and will ensure all NJCEP Program projects are inspected by code officials, at a minimum.
 - i. Proof of inspection should not be required; Municipalities and DCA will ensure inspection after permits are applied for.
 - ii. Ensuring DCA inspects ALL HPwES, WARM Advantage, and COOL Advantage projects will place all programs on equal ground, as well as alleviating liability from all parties.

We would like to thank you for taking the time to read and consider our proposal. While some of these recommendations are significant, they will also have substantial results in program participation both by contractors and homeowners, with minor budgetary implications. We look forward to discussing this further with all interested parties.

Sincerely,

Brian J. Bovio
 New Jersey Air Conditioning Contractors Association
 President

Angela Hines
 New Jersey Air Conditioning Contractors Association
 1st Vice President

Robert McAllister
 New Jersey Air Conditioning Contractors Association
 Board Member

Fred Hutchinson
 New Jersey Air Conditioning Contractors Association
 Board Member

Exhibit A:



New Jersey's Board of Public Utilities Working Hard to Help You to Save Energy

CONGRATULATIONS, on your decision to reduce your energy consumption. Your Board of Public Utilities is here to help you with you decision to reduce your utility bill by **SAVING ENERGY**. Your Board has created a variety of exciting programs, which are delivered by the Board's New Jersey Clean Energy that'll assist you with your purchase decision for **ENERGY SAVINGS**. Knowing no one Program will fit everyone the following outlines the options available to New Jersey Homeowners.

Home Performance with ENERGY Star

HPWES- Home Performance with Energy Star offers comprehensive solutions to improve energy efficiency and home comfort, while helping to protect the environment. Homeowners enjoy benefits like, fewer drafts, consistent temperatures across rooms, better ventilation and humidity control, and lowering their heating and cooling utility bills up to 30%.

WARMAdvantage

The WARMAdvantage Program provides rebates for high efficiency home heating systems and/or water heaters. You must purchase a heating system and/or water heater that meets all applicable efficiency requirements

COOLAdvantage

The COOLAdvantage Program provides rebates for energy efficient central air conditioners or heat pumps as well as proper system sizing and installation "best practices" that affect operating efficiency.

Dear NJ Clean Energy Program – Thank for the information you provided and the fantastic ENERGY SAVING incentives to help us become ENERGY EFFICIENT. After a thorough explanation by our contractor of the benefits of each program I/we have decided to participate in:

<input type="checkbox"/> Home Performance with ENERGY STAR The Whole Home Approach	<input type="checkbox"/> WARMAdvantage Upgrading to a High Efficiency Heating System	<input type="checkbox"/> COOLAdvantage Upgrading to High Efficiency Cooling System
<input type="checkbox"/> – Tier 2 – 50% up to \$1,000 . I/we're reducing ENERGY use between 10% to 19.9% by: <input type="checkbox"/> Air Sealing <input type="checkbox"/> Enhanced insulation <input type="checkbox"/> New Hi-eff domestic water heater	<input type="checkbox"/> – WarmAdvantage option to save up to 10% of heating energy for \$400 rebate – System 1	<input type="checkbox"/> – CoolAdvantage option to save up to 5% cooling energy for \$500 rebate - System 1
<input type="checkbox"/> – Tier 3 – Option 1 – 50% up to \$3,000 I/we're reducing ENERGY use by 20% to 24.9% by: <input type="checkbox"/> Air Sealing <input type="checkbox"/> Enhanced insulation <input type="checkbox"/> Install hi-eff heating system(s) <input type="checkbox"/> Install hi-eff cooling system(s) <input type="checkbox"/> Install Hi-eff domestic water heater	<input type="checkbox"/> – WarmAdvantage option to save up to 10% of heating energy for \$400 rebate – System 2	<input type="checkbox"/> – CoolAdvantage option to save up to 5% cooling energy for \$500 rebate – System 2
<input type="checkbox"/> – Tier 3 – Option 2 – 50% up to \$5,000 I/we're reducing ENERGY use by greater than 25% by: <input type="checkbox"/> Air Sealing <input type="checkbox"/> Enhanced insulation <input type="checkbox"/> Install hi-eff heating system(s) <input type="checkbox"/> Install hi-eff cooling system(s) <input type="checkbox"/> Install Hi-eff domestic water heater	<input type="checkbox"/> – I/we will also be taking advantage of our Utility companies \$900 "Enhanced Incentive"	

Homeowner	Contractor
Name:	Name:
Address:	Address:
Town:	Town:
Zip Code:	Zip Code:
Date:	Date:
Phone:	Phone:
	HVAC Lic #:



2015 Home Performance Contractor Coalition Program Changes

May 29, 2015

Ms. Elizabeth Ackerman
Director
Office of Clean Energy - NJBPU

To Whom It May Concern,

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When reading Honeywell's summary of the Straw Proposal, it suggests that near 30% of past projects did not include insulation measures. It has been previous purported, on several occasions the percentage is nearer to 10%. If the latter is truly the case then the suggestions recommended above will result in greater savings than this suggested change. Furthermore, if the number is nearer to 10% and caused by a handful of contractors who are manipulating the Tool for their personal benefit, the more prudent approach is to use the remediation process rather than penalize the rate-payer.

- b. **Tier 3 Financial Incentives** (bullet 5) – New Jersey’s Home Performance with Energy Star, following BPI standards, with their emphasis on health and safety, we believe, is the best pathway for most homeowners in the State. The reduction, however, of Tier 3, Level 1 and 2 incentives, particularly in multiple system homes, will drive a disproportionate number of homeowners to the Warm/Cool Advantage. This issue is compounded by the nature of many of the Straw Proposal comments regarding Customer’s inability to differentiate value between good & poor HVAC installations. Indeed, by making the incentive levels close, without neither a thorough inspection process nor education policy whereas the homeowner must be presented with all available NJ OCE Residential offers before making their decision, will lead to a decline in the short-term viability of this program.

- i. Financial Incentive – The following NJCE Residential Incentive table displays the varying incentives for users of HPwES and Warm & Cool Advantage programs
 1. The “per system” rebates of WARM/COOL ADVANTAGE will force multi-system homes out of HPwES. This is doubly punitive because due to their size, it is these types of homes which can experience some of the largest gross energy reductions.
 2. This issue becomes especially concerning when considering combing those changes from #1 coupled with a TIER 2 HPwES project. Not only will equipment now be excessively oversized but in SJG and NJNG territories the rebates will exceed a 20% TIER III HPwES job.

Current FY15 vs. Proposed FY16 Single System Home Example(s)						
	Warm/Cool Advantage - Single System			Home Performance w/ ENERGY STAR		
	2016 w/ Utility Rebate Single System	2015 w/ Utility Rebate Single System	2016 Versus 2015	2016 (Tier 3 - 25%) Single System	2015 (Tier 3 - 25%) Single System	2016 Versus 2015
Furnace	6,000	6,000	-	6,000	6,000	-
AC	4,000	4,000	-	4,000	4,000	-
DWH	1,600	1,600	-	1,600	1,600	-
Air Sealing	-	-	-	1,500	1,500	-
Insulate	-	-	-	2,000	2,000	-
Misc Health & Safety/Admin	-	-	-	800	800	-
Project Cost Total	11,600	11,600	-	15,900	15,900	-
Warm	(500)	(400)	100	-	-	-
Cool	(500)	(300)	200	-	-	-
DWH (claimed separately)	(500)	(500)	-	-	-	-
Gas Utility Enhanced	(500)	(500)	-	-	-	-
Warm/Cool Total	(2,000)	(1,700)	300	-	-	-
HPwES (Tier 2 or 3)	-	-	-	(4,000)	(5,000)	(1,000)
HPwES Furnace	-	-	-	-	-	-
HPwES AC/HP	-	-	-	-	-	-
HPwES Total	-	-	-	(4,000)	(5,000)	(1,000)
Total OCE/Utility Incentives	(2,000)	(1,700)	300	(4,000)	(5,000)	(1,000)
Approx Energy Savings	± 10%	± 10%	± 10%	≥ 25%	≥ 25%	± 10%
Net Project cost	9,600	9,900	300	11,900	10,900	(1,000)
Additional HPwES Cost			-	2,300	1,000	
Loan Amount/APR	-	-	-	\$10k, 0%	\$10k, 0%	

Current FY15 vs. Proposed FY16 Dual System Home Example(s)						
	Warm/Cool Advantage - Dual System			Home Performance w/ ENERGY STAR		
	2016 w/ Utility Rebate Dual System	2015 w/ Utility Rebate Dual System	2016 Versus 2015	2016 (Tier 3 - 25%) Dual System	2015 (Tier 3 - 25%) Dual System	2016 Versus 2015
Furnaces	12,000	12,000	-	12,000	12,000	-
ACs	8,000	8,000	-	8,000	8,000	-
DWH	1,600	1,600	-	1,600	1,600	-
Air Sealing	-	-	-	1,500	1,500	-
Insulate	-	-	-	2,000	2,000	-
Misc Health & Safety/Admin	-	-	-	800	800	-
Project Cost Total	21,600	21,600	-	25,900	25,900	-
Warm	(1,000)	(800)	200	-	-	-
Cool	(1,000)	(600)	400	-	-	-
DWH (claimed separately)	(500)	(500)	-	-	-	-
Gas Utility Enhanced	(500)	(500)	-	-	-	-
Warm/Cool Total	(3,000)	(2,400)	600	-	-	-
HPwES (Tier 2 or 3)	-	-	-	(4,000)	(5,000)	(1,000)
HPwES Furnace	-	-	-	-	-	-
HPwES AC/HP	-	-	-	-	-	-
HPwES Total	-	-	-	(4,000)	(5,000)	(1,000)
Total OCE/Utility Incentives	(3,000)	(2,400)	600	(4,000)	(5,000)	(1,000)
Approx Energy Savings	± 10%	± 10%	± 10%	≥ 25%	≥ 25%	± 10%
Net Project cost	18,600	19,200	600	21,900	20,900	(1,000)
Additional HPwES Cost			-	3,300	1,700	
Loan Amount/APR	-	-	-	\$10k, 0%	\$10k, 0%	

ii. Model incentive levels across all programs commensurate with “Real Energy Savings”

c. **Production Incentive** (bullet 6) – Lowering the production incentive while increasing contractor workload and simultaneously expecting increased contractor participation is, at best, axiomatically flawed. Despite the intent of some recommendations in the Straw Proposal to increase program marketing at the State level, contractor recommendations to consumers continue to be the lifeblood of this program; as such, if contractors do not believe it is in their best interest to participate in this program then consumers will not believe it is in their best interest. The program, therefore has an imperative to provide changes which will serve to re-energized and re-engaged Contractors back to (in) the HPwES Program:

- i. Payment Timelines – For HPwES to regain traction with the contractors the timeline must get closer to the 30 day pay cycle, which is 30 days greater than a Warm/Cool project.
- ii. Decouple contractor loan payments from the QA/QC Process – Contractors not offering HPwES with the loan are paid for the project by the homeowner upon installation. The production incentive remains the motivation to correct any QC issues.
- iii. Incentivize Contractor Sales Performance
 1. Increase Contractor Incentive to \$837. This figure more accurately reflects the financial burden associated with banking finance charges and administration of an individual project within this program, which would not be borne with a non-Energy Star project.
 2. As program changes occur, increased training of administrative and individual sales forces are required to properly train and promote HPwES. As mentioned, contractor referrals are the main source of HPwES customers: as soon as the program loses its financial viability with contractors “the well will run dry.”
 3. Create a production incentive bonus structure in order to encourage contractors to actively promote HPwES rather than passively respond to homeowner inquiry. This would be the stimulus required for Contractors to invest heavily in HPwES, despite the added costs associated with the program.

# of Completed Projects	Production Bonus (Per Project)
25-49	\$100
50-75	\$200
75+	\$300

iv. QC Failure Penalty and Incentivize Contractor Technical Performance:

1. Reward Contractors who have demonstrated technical knowhow and therefore have been a lower administrative burden to the Program(s); correlate QA Penalties with overall failure rate.
2. When initially introduced, Contractor's were informed the production penalty would not be assessed unless a return trip was required by the Market Manager. What happened?
3. Consistency and Communication - There are occasions when a QC inspection resulted in failure, however, contractor supplies evidence to the contrary; a review and resolution process is required.
4. Incentive should be revoked only for gross deficiencies, such as: incorrect equipment; insulation being >10% short; repetitive mistakes; or, when a picture will not provide clear evidence that the failures have been remediated. To quote W.S. Gilbert, "Let the punishment fit the crime."

QA Pass %	Fine
100-90%	\$100
89-75%	\$250
74-50%	\$837
Greater than 50%	\$837 and suspension from Program
Note: Remove contractors that continually abuse program technical and procedure guidelines, these contractors, while infinitesimal, give all of the Programs a bad name and require a disproportionate amount of program administrative resources.	

- v. Reduce barriers to HPwES – We must streamline software input to reduce administration data with program jobs. Work with financial institutions to streamline the financing application approval timeline and loan process: increased internet processing, allowing for digital signature, etc. Also, allow for increased modeling, including swimming pools (which could offset the above issues with multiple system homes).

d. **Financing Options** (bullet 7)

- i. One of the primary short falls of the existing Straw Proposal are the vagaries regarding changes to the state sponsored loans achieved thru HPwES. Given the existing 10 year 0%, \$10,000 loan has become a key component of consumer's perceived value of our program, any changes must serve to further enhance the program, rather than detract. Regarding the ideas mentioned:

1. Additions to Loan Options: To that end, a 10 year, 2.99% or 4.99% loan offering with a cap of \$15,000, would move us in the proper direction for the growth of our program as it would allow for more comprehensive projects. However, the challenge for the homeowner will be justifying the added \$60.95 for 2.99% or \$75.69 for the 4.99% interest rate payment on a \$15,000 for a more comprehensive project. While this would be appealing for some, the fact is, during these uncertain economic times, homeowner have continually opted for minimum monthly payments. When considering the following table, it seems certain that a homeowner will continue to choose the 10 year, 0%, \$10,000 loan and not to seek a more comprehensive project. Further, when considered in conjunction with the other proposed changes pushing our program towards a "commodity" mentality, this addition would not enhance the Program.

Interest	0.00%	0.99%	1.99%	2.99%	3.99%	4.99%
Term	120	120	120	120	120	120
Loan Amount	10,000	10,000	10,000	15,000	15,000	15,000
Payment	83.33	87.56	91.97	144.77	151.80	159.02

- ii. Reduction to Loan Option: The Straw Proposal is less clear on this end, however, it is our understanding that the HPwES loan may be reduced from the 0%, \$10,000, 10 year term (120 months) financing to a 7 year term (84 months). Should that in fact occur there will be a negative impact to the homeowner buying decision. As the following chart demonstrates:

Interest	0.00%	0.99%	1.99%	2.99%	3.99%	4.99%
Term	84	120	120	120	120	120
Loan Amount	10,000	10,000	10,000	15,000	15,000	15,000
Payment	119.05	87.56	91.97	144.77	151.80	159.02

- iii. Tier 2 TES Percentage and Loan: It has long been advocated that the last change to the Tier 2, which was to include a DWH, was to address homeowners who chose HVAC incentives, for one reason or another, and now wish to make further energy reductions. More importantly Tier 2 addresses the Health and Safety concern caused by orphaned water heaters. The contracting community is getting up to speed, implementing sales programs, with success that respond to these goals. While reducing the TES to 5% will significantly aid these efforts, lowering the current 10 year term (120 months) to a 5 year term (60 months) will thwart these efforts as the following chart demonstrates:

Interest	0.00%	0.00%
Term	120	60
Loan Amount	5,000	5,000
Payment	41.67	83.33
VS. 120 mnth		(41.67)

The success in single family Tier 2 projects is when the energy savings is equal to less than the monthly payment. This typically has been \$41 loan vs. \$38 when using the average TES with the average utility as supplied to the contractor by OCE. It is suggested the variance between \$38 and \$83 will be too great to reap the desired goals, therefore leaving the orphaned DWHs in many WARM/COL ADVANTAGE projects”

- iv. Addition Financing Recommendations
 1. Offer a cash incentive to homeowner to not take the financing option
 2. “On-Bill Financing” – Encourage and work with all utilities to offer On-Bill Financing in support of HPwES Program, this could allow greater flexibility as listed above, faster financing approval times, and allows for energy savings to offset the payment on the same bill.

• **Tables 7 and 8 NJ HPwES Incentives and Requirements Notes:**

- a. CO-OP Advertising (#8):
 - i. Increase Co-Op
 - ii. Reduce NJ OCE included language and logos
 - iii. Digital ads should be excused from the above restraints entirely if the landing pages they are direct have required language and logos, if any
- b. Contract expiration dates (#9) – There will be many projects that will be under contract and committed in FE15 that may, for very valid reasons exceed the 120 expiration date in FE16. In these cases the homeowner must be assured they will receive the incentives and be managed by Program FE15.
- c. Contractor Incentive Fee (#10) – Please refer to our comments in section one “Program Incentives, letter “c”.
Note: Contractor Locator - List only contractors that actively participate in any given program’s dealer locator and provide them with CO-OP Advertising funds, especially HPwES, as some take leads from the website and then talk homeowners out of utilizing HPwES.

• **Planned Program Implementation Activities for FY2016**

- a. Education and Training – While there has been undisputed progress, training must be more frequent AND must be held during off-peak hours. Training must include:
 - i. RHA Training – On-site and Webinars
 - ii. Technical Training – On-site and Webinars

- iii. Financing Options Process Training / Webinars
- iv. Sales Training – State sponsored support materials, and contractor/consumer process “packets” that will walk consumers through the entire process.
- v. Contractor “Best Practices” - We are willing and available to assist.

- **Quality Control Provisions**

- a. Raise the bar on other programs where appropriate; i.e.:
 - i. Use the same criteria to approve Manual J, S & D as HPwES current method(s)
 - ii. Permit & Contractor licensing requirements
 - iii. Minimum technical standards - i.e. passing combustion testing on Enhanced Rebate audits to ensure water heaters are not spilling

- **Additional Comments Not Addressed in the Straw Proposal**

- a. Make All Programs Stand on Equal Ground and Ensure a Minimum Contractor Qualifications
- b. Ensure ratepayers are aware of all of the NJCE's program offerings.
 - i. Post “Decision Tree” on NJCEP Website to help navigate customers through the programs to assist them in selecting the best program option.
 - ii. Require contractors participating in any NJCE program to inform and educate ratepayers on all of the BPU's NJCE residential offerings by using a “Homeowner Program Choice Application” (**Exhibit A**)
- c. Require contractor's to list all required state license number(s) that are mandatory to complete a project on all Program(s) application forms (WARM/COOL/HPwES) in order to be eligible for incentives (i.e. Home Improvement Contractor License #, Plumbing Lic#, etc...)
- d. Require permit numbers on all NJCEP Program Applications (WARM/COOL/HPwES). This will protect the BPU from liability of incentivizing work that is not done up to code or safely and will ensure all NJCEP Program projects are inspected by code officials, at a minimum.
 - i. Proof of inspection should not be required; Municipalities and DCA will ensure inspection after permits are applied for.
 - ii. Ensuring DCA inspects ALL HPwES, WARM Advantage, and COOL Advantage projects will place all programs on equal ground, as well as alleviating liability from all parties.

We would like to thank you for taking the time to read and consider our proposal. While some of these recommendations are significant, they will also have substantial results in program participation both by contractors and homeowners, with minor budgetary implications. We look forward to discussing this further with all interested parties.

Sincerely,

Brian J. Bovio

President/CEO

Bovio Heating Plumbing Cooling Insulation

Exhibit A:



New Jersey's Board of Public Utilities Working Hard to Help You to Save Energy

CONGRATULATIONS, on your decision to reduce your energy consumption. Your Board of Public Utilities is here to help you with you decision to reduce your utility bill by **SAVING ENERGY**. Your Board has created a variety of exciting programs, which are delivered by the Board's New Jersey Clean Energy that'll assist you with your purchase decision for **ENERGY SAVINGS**. Knowing no one Program will fit everyone the following outlines the options available to New Jersey Homeowners.

Home Performance with ENERGY Star

HPWES- Home Performance with Energy Star offers comprehensive solutions to improve energy efficiency and home comfort, while helping to protect the environment. Homeowners enjoy benefits like, fewer drafts, consistent temperatures across rooms, better ventilation and humidity control, and lowering their heating and cooling utility bills up to 30%.

WARMAdvantage

The WARMAdvantage Program provides rebates for high efficiency home heating systems and/or water heaters. You must purchase a heating system and/or water heater that meets all applicable efficiency requirements

COOLAdvantage

The COOLAdvantage Program provides rebates for energy efficient central air conditioners or heat pumps as well as proper system sizing and installation "best practices" that affect operating efficiency.

Dear NJ Clean Energy Program – Thank for the information you provided and the fantastic ENERGY SAVING incentives to help us become ENERGY EFFICIENT. After a thorough explanation by our contractor of the benefits of each program I/we have decided to participate in:

<input type="checkbox"/> Home Performance with ENERGY STAR The Whole Home Approach	<input type="checkbox"/> WARMAdvantage Upgrading to a High Efficiency Heating System	<input type="checkbox"/> COOLAdvantage Upgrading to High Efficiency Cooling System
<input type="checkbox"/> – Tier 2 – 50% up to \$1,000 . I/we're reducing ENERGY use between 10% to 19.9% by: <input type="checkbox"/> Air Sealing <input type="checkbox"/> Enhanced insulation <input type="checkbox"/> New Hi-eff domestic water heater	<input type="checkbox"/> – WarmAdvantage option to save up to 10% of heating energy for \$400 rebate – System 1	<input type="checkbox"/> – CoolAdvantage option to save up to 5% cooling energy for \$500 rebate - System 1
<input type="checkbox"/> – Tier 3 – Option 1 – 50% up to \$3,000 I/we're reducing ENERGY use by 20% to 24.9% by: <input type="checkbox"/> Air Sealing <input type="checkbox"/> Enhanced insulation <input type="checkbox"/> Install hi-eff heating system(s) <input type="checkbox"/> Install hi-eff cooling system(s) <input type="checkbox"/> Install Hi-eff domestic water heater	<input type="checkbox"/> – WarmAdvantage option to save up to 10% of heating energy for \$400 rebate – System 2	<input type="checkbox"/> – CoolAdvantage option to save up to 5% cooling energy for \$500 rebate – System 2
<input type="checkbox"/> – Tier 3 – Option 2 – 50% up to \$5,000 I/we're reducing ENERGY use by greater than 25% by: <input type="checkbox"/> Air Sealing <input type="checkbox"/> Enhanced insulation <input type="checkbox"/> Install hi-eff heating system(s) <input type="checkbox"/> Install hi-eff cooling system(s) <input type="checkbox"/> Install Hi-eff domestic water heater	<input type="checkbox"/> – I/we will also be taking advantage of our Utility companies \$900 "Enhanced Incentive"	

Homeowner	Contractor
Name:	Name:
Address:	Address:
Town:	Town:
Zip Code:	Zip Code:
Date:	Date:
Phone:	Phone:
	HVAC Lic #:



HOBOKEN DEPARTMENT OF TRANSPORTATION & PARKING

94 Washington Street | Hoboken | New Jersey | 07030 | 201.653.1919 | www.hobokennj.org

May 27, 2015

VIA HAND DELIVERY AND ELECTRONIC MAIL

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

Re: Comments of the City of Hoboken
Revised Comprehensive Resource Analysis – Staff Straw Proposal
New Jersey’s Clean Energy Program Proposed Funding Levels FY 16

Dear Secretary Asbury :

The City of Hoboken would like to thank the Board of Public Utilities (“BPU” or “Board”) for the opportunity to present the within comments on the proposed modifications to New Jersey’s Clean Energy Program funding which was submitted to stakeholders for comment by the Office of Clean Energy (“OCE”) on May 6, 2015.

Background

Super-storm Sandy hit the East Coast in 2012 and changed the outlook of people of all demographics. For five days after Hurricane Sandy hit on October 29th, 2012, large swathes of Hoboken remained underwater and in darkness. The City hosts three substations for the regional electric grid, all of which were knocked out of service by flooding. Some residents had no electricity for as long as 15 days after the storm. Hoboken saw the need to redesign and develop the city to be more resilient. The U.S. Department of Energy (DOE) sponsored Sandia National Labs (SNL) to design a microgrid to keep Hoboken powered during crisis. SNL interweaved their Energy Surety Design Methodology (ESDM) approach to design a microgrid that would ensure critical buildings stayed powered during any future catastrophic event. Sandia, which has deep experience designing microgrids for U.S. military bases, was already working on a 100-MW microgrid design for New Jersey Transit. Sandia’s extensive study designed the architecture of the system, which links 55 separate facilities, and identified its parameters, costs, and constraints. Due to additional regulatory and financial challenges that were encountered, additional support was needed to re-imagine the design. Particularly, a municipal microgrid needs to operate for non-emergency purposes as well as monetize some of the resiliency benefits. The original design did not have a revenue stream to assist in the anticipated \$60 million in project costs. To speed up the process of tackling these issues, the MOU participants turned to Rocky Mountain Institutes’ (RMI) second annual Electricity Innovation Lab (eLab) Accelerator at Sundance Mountain Resort in Utah. eLab Accelerator is an intensive, invitation-only, four-day boot camp for electricity innovation. The Hoboken team joined eleven other diverse project team’s intent on making change at the electric grid’s distribution edge. Each team spent their days in intense working sessions alongside industry-expert faculty, and benefitted from experienced facilitators from RMI and Reos Partners. The team that traveled to Accelerator included Stratton, from the City of Hoboken; Guttromson, from DOE’s Sandia lab; Winka, from the NJBPU; Adam Zellner, president of Greener by Design; Alex Magallon, from PSE&G; and Joe Sullivan, from Concord Engineering. Coming out of Accelerator, an actionable design and some clearly defined questions were ready to be taken to the boards and elected leaders of the team participants.

Summary of Proposed Actions Regarding Microgrids

In May of 2015, the New Jersey Board of Public Utilities (BPU) released a Comprehensive Resource Analysis (CRA) as part of the Clean Energy Program (CEP). Within this report the BPU acknowledges that large, upfront costs are one of the major barriers to a Combined Heat and Power/Fuel Cell micro grid project. As a result the Energy Resiliency Bank (ERB) was established and provided financial assistance for energy efficient, and renewable energy projects that addressed critical infrastructure such as water treatment facilities, schools, public housing, and hospitals.

Maintaining funding levels for the CEP is a vital aspect of improving the resiliency of New Jersey communities going forward. By providing funding, CEP allows small to large businesses the chance to improve their energy efficiency while reducing costs, and support job creation. As a result, the CEP improves the competitiveness of New Jersey's economy.

The ERB was developed based on the findings of USDOE's National Renewable Energy lab report of November 2013 titled "Alternative Energy Generation Opportunities in Critical Infrastructure, New Jersey". The report included the development of micro-grids at critical facilities. To that end, the ERB will provide grants and low-interest loans for EE and RE projects that include resilient technologies at wastewater and water treatment facilities, schools, public housing, hospitals and other critical infrastructure.

The first ERB Program Guide and Financial Product for wastewater and water treatment was approved by the Board in its October 27, 2014 Order. The Program Guide and Financial Products for the other markets should be available in the FY 15 Q4. SBC funds for the ERB will be used primarily for incentives and costs that are eligible for funding under the NJCEP but that may not be allowable under USHUD CDBG-DR provisions, such as micro-grid feasibility studies.

The Board is also exploring policies and incentives intended to promote the development of micro-grids, which allow a facility to remain operational when utility systems experience outages. One of the major barriers to CHP/FC project development is the large, upfront costs. Both the US Environmental Protection Agency (EPA) and US Department of Energy's District Energy Technical Assistance Program have identified these costs as a major barrier to CHP microgrid development.

Recommendations

The City strongly supports the establishment of a microgrid pilot program that will allow for the use of unused funds from the societal benefits charge imposed pursuant to section 12 of P.L.1999, c.23 (C.48:3-60), to establish a grant program to fund the microgrid pilot program.

Thank you for your consideration of the within comments.



Caleb D. Stratton, AICP

Principal Planner

City of Hoboken

May 29, 2015

The Honorable Irene Kim Asbury
Secretary, New Jersey Board of Public Utilities
44 South Clinton Avenue, 9th Floor
Post Office Box 350
Trenton, NJ 08625-0350
publiccomments@njcleanenergy.com

Re: Comments on the Fiscal Year 2016 Draft NJCEP Programs

Dear Secretary Asbury:

On behalf of IGS Generation (“IGS”), please accept these comments regarding the New Jersey Clean Energy Program (“NJCEP”) proposed Fiscal Year (“FY”) 2016 Program & Budget Filing (“Budget Filing”) issued by the Board of Public Utilities (“Board”) on May 7, 2015. For the reasons detailed below, IGS requests that the Board significantly increase the overall funding level for the Combined Heat and Power (“CHP”)/Fuel Cell (“FC”) Program.

IGS provides CHP systems to customers in New Jersey and nationally that are seeking to install on-site energy-efficient electric solutions. By generating power near the point of consumption, capturing waste heat, and taking advantage of renewable resources, IGS’s CHP systems use energy in a smarter, more sustainable way than conventional energy sources. Although it does not currently have any CHP systems in commercial operation in New Jersey, IGS is actively developing CHP projects in New Jersey. In connection with these projects, IGS and its customers plan to file applications to receive funding under the CHP/FC Program. Indeed, the economics of these projects depends on incentives from the CHP/FC Program.

As IGS actively develops these projects in New Jersey, it is disappointed that the Budget Filing proposes to cut CHP/FC Program funding from approximately \$40.4 million¹ in FY 2015 to approximately \$14.4 million in FY 2016. IGS recommends that that Board increase this amount, or, in the very least, provide that additional funding will be made available to the CHP/FC Program when inevitably existing funds are exhausted in this Fiscal Year. Without such assurances, IGS believes that the projects it seeks to develop in New Jersey may not happen.

As the result of appropriate CHP/FC funding levels in previous fiscal years, IGS has seen a significant increase in customer demand for CHP projects in New Jersey. Even though participation in the CHP/FC Program may have been below expectations in recent years, a low number of submitted applications is not necessarily a reflection of the amount of activity actually occurring in the market, since these projects generally have a long project development cycle. Neither, is it a forward indicator of the potential for projects in FY 2016. Nevertheless, the success of the CHP/FC program and the Board's plan to promote energy efficiency and distributed generation is dependent on the confidence that those developing or investing in CHP projects have in the stability of the program. Absent regulatory stability through consistent funding levels from year-to-year, developers will be discouraged from participating in current and future CHP/FC Programs. As a result, the viability of the CHP/FC Program and the Board's policy objective to promote energy efficient distributed generation will deteriorate. Moreover, the New Jersey Energy Master Plan's goal of achieving 1500

¹ The BPU approved an initial FY 2015 budget of \$40.4 million for the CHP/FC program on 6/18/14. By Order dated 12/17/14, the BPU reduced the FY 2015 CHP/FC budget to \$24.5 million.

megawatts of CHP projects by 2021 will be severely threatened at the current proposed CHP/FC FY 2016 funding level.²

As the Board adopts its program budget for FY 2016, IGS urges the Board to significantly increase funding levels for the CHP/FC Program, or, at the very least, specifically provide that additional funding will be made available to the CHP/FC Program when the existing funds are exhausted. Please do not hesitate to contact me should you have any questions or concerns.

Respectfully submitted,

A handwritten signature in blue ink that reads "Anthony Cusati, III". The signature is written in a cursive style with a long horizontal line extending from the end.

Anthony Cusati, III
Director of Regulatory Affairs-Eastern Division

² See *New Jersey Energy Master Plan*, December 6, 2011.

LAURY

Heating | Cooling | Plumbing

511 Plum Street
PO Box 727
Vineland, NJ 08362-0727
LauryHeating.com

856-692-3861
Toll Free: 800-341-3861
Fax: 856-692-0330
E-Mail: office@lauryheating.com

2015 Home Performance Contractor Coalition Program Changes

June 1, 2015

Ms. Elizabeth Ackerman
Director
Office of Clean Energy - NJBPU

To Whom It May Concern,

Below is the response provided by ACCA. Laury Heating Cooling LLC requests that it be reviewed and the changes considered.

Our organizations have thoroughly the Home Performance with ENERGY STAR section of the New Jersey Board of Public Utilities New Jersey Clean Energy Program (NJCEP) Fiscal Year 2016 (FY16) filings. We share the proposal's opinion, outlined in the introduction, to increase homeowner awareness and education, while creating a robust contractor network. While we agree with parts of the proposed changes in the Straw Proposal, our concern is such that many of the recommended program changes will not accomplish the intended goals but will however have an inverse affect.

After careful collaboration and conscientious deliberation, we have created the below list of comments which we believe will best address the needs of the program: customer enlightenment; consumer's health and safety; State job growth; Program short-term viability and long-term sustainability; and, contractor participation growth.

Please accept the following suggestions which follow the Straw Proposals sequence:

- **Program Incentives:**

- a. **Insulation** (bullet 1) – The proposal to enforce a standard which dictates the inclusion of an insulation measure into every project appears to be in direct conflict with the core strength of our NJ HPwES program, stated in the last sentence of the first paragraph of "Program Implementation," to wit, "... Program incentives and financing incentives based upon the total energy savings (TES). . ." This freedom of choice allows each individual homeowner, when properly educated by highly-trained and responsible contractors, to choose the project which is best for their family, their home, and their future.

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Insulate	-	-	-	2,000	2,000	-
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HPwES (Tier 2 or 3)	- 12,000	- 12,000	=	(4,000)	(5,000)	- (1,000)
HPwES Furnace	- 8,000	- 8,000	=	- 8,000	- 8,000	=
HPwES AC/HP	- 1,600	- 1,600	=	- 1,600	- 1,600	=
HPwES Total	=	=	=	(4,000)	(5,000)	- (1,000)
Total OCE/Utility Incentives	(2,000)	(1,700)	300	(4,000)	(5,000)	- (1,000)
Approx Energy Savings	± 10%	± 10%	± 10%	≥ 25% 800	≥ 25% 800	± 10%
Project Cost Total	21,600	21,600	-	25,900	25,900	-
Additional HPwES Cost	(1,000)	(800)	- 200	2,300	1,000	-
Loan Amount/APR	(1,000)	(600)	- 400	\$10k, 0%	\$10k, 0%	-
DWH (claimed separately)	(500)	(500)	-	-	-	-
Gas Utility Enhanced	(500)	(500)	-	-	-	-
Warm/Cool Total	(3,000)	(2,400)	600	-	-	-
HPwES (Tier 2 or 3)	-	-	-	(4,000)	(5,000)	(1,000)
HPwES Furnace	-	-	-	-	-	-
HPwES AC/HP	-	-	-	-	-	-
HPwES Total	-	-	-	(4,000)	(5,000)	(1,000)
Total OCE/Utility Incentives	(3,000)	(2,400)	600	(4,000)	(5,000)	(1,000)
Approx Energy Savings	± 10%	± 10%	± 10%	≥ 25%	≥ 25%	± 10%
Net Project cost	18,600	19,200	600	21,900	20,900	(1,000)
Additional HPwES Cost	-	-	-	3,300	1,700	-
Loan Amount/APR	-	-	-	\$10k, 0%	\$10k, 0%	-

s across all programs commensurate with "Real Energy Savings"

c. **Production Incentive** (bullet 6) – Lowering the production incentive while increasing contractor workload and simultaneously expecting increased contractor participation is, at best, axiomatically flawed. Despite the intent of some recommendations in the Straw Proposal to increase program marketing at the State level, contractor recommendations to consumers continue to be the lifeblood of this program; as such, if contractors do not believe it is in their best interest to participate in this program then consumers will not believe it is in their best interest. The program, therefore has an imperative to provide changes which will serve to re-energized and re-engaged Contractors back to (in) the HPwES Program:

- i. Payment Timelines – For HPwES to regain traction with the contractors the timeline must get closer to the 30 day pay cycle, which is 30 days greater than a Warm/Cool project.
- ii. Decouple contractor loan payments from the QA/QC Process – Contractors not offering HPwES with the loan are paid for the project by the homeowner upon installation. The production incentive remains the motivation to correct any QC issues.
- iii. Incentivize Contractor Sales Performance
 1. Increase Contractor Incentive to \$837. This figure more accurately reflects the financial burden associated with banking finance charges and administration of an individual project within this program, which would not be borne with a non-Energy Star project.
 2. As program changes occur, increased training of administrative and individual sales forces are required to properly train and promote HPwES. As mentioned, contractor referrals are the main source of HPwES customers: as soon as the program loses its financial viability with contractors "the well will run dry."
 3. Create a production incentive bonus structure in order to encourage contractors to actively promote HPwES rather than passively respond to homeowner inquiry. This would be the stimulus required for Contractors to invest heavily in HPwES, despite the added costs associated with the program.

# of Completed Projects	Production Bonus (Per Project)
25-49	\$100
50-75	\$200
75+	\$300

iv. QC Failure Penalty and Incentivize Contractor Technical Performance:

1. Reward Contractors who have demonstrated technical knowhow and therefore have been a lower administrative burden to the Program(s); correlate QA Penalties with overall failure rate.
2. When initially introduced, Contractor's were informed the production penalty would not be assessed unless a return trip was required by the Market Manager. What happened?
3. Consistency and Communication - There are occasions when a QC inspection resulted in failure, however, contractor supplies evidence to the contrary; a review and resolution process is required.
4. Incentive should be revoked only for gross deficiencies, such as: incorrect equipment; insulation being >10% short; repetitive mistakes; or, when a picture will not provide clear evidence that the failures have been remediated. To quote W.S. Gilbert, "Let the punishment fit the crime."

QA Pass %	Fine
100-90%	\$100
89-75%	\$250
74-50%	\$837
Greater than 50%	\$837 and suspension from Program
Note: Remove contractors that continually abuse program technical and procedure guidelines, these contractors, while infinitesimal, give all of the Programs a bad name and require a disproportionate amount of program administrative resources.	

- v. Reduce barriers to HPwES – We must streamline software input to reduce administration data with program jobs. Work with financial institutions to streamline the financing application approval timeline and loan process: increased internet processing, allowing for digital signature, etc. Also, allow for increased modeling, including swimming pools (which could offset the above issues with multiple system homes).

d. Financing Options (bullet 7) –

- i. One of the primary short falls of the existing Straw Proposal are the vagaries regarding changes to the state sponsored loans achieved thru HPwES. Given the existing 10 year 0%, \$10,000 loan has become a key component of consumer's perceived value of our program, any changes must serve to further enhance the program, rather than detract. Regarding the ideas mentioned:

1. Additions to Loan Options: To that end, a 10 year, 2.99% or 4.99% loan offering with a cap of \$15,000, would move us in the proper direction for the growth of our program as it would allow for more comprehensive projects. However, the challenge for the homeowner will be justifying the added \$60.95 for 2.99% or \$75.69 for the 4.99% interest rate payment on a \$15,000 for a more comprehensive project. While this would be appealing for some, the fact is, during these uncertain economic times, homeowner have continually opted for minimum monthly payments. When considering the following table, it seems certain that a homeowner will continue to choose the 10 year, 0%, \$10,000 loan and not to seek a more comprehensive project. Further, when considered in conjunction with the other proposed changes pushing our p

Interest	0.00%	0.99%	1.99%	2.99%	3.99%	4.99%
Term	120	120	120	120	120	120
Loan Amount	10,000	10,000	10,000	15,000	15,000	15,000
Payment	83.33	87.56	91.97	144.77	151.80	159.02

m towards a "commodity" mentality, this addition would not enhance the Program.

- ii. Reduction to Loan Option: The Straw Proposal is less clear on this end, however, it is our understanding that the HPwES loan may be reduced from the 0%, \$10,000, 10 year term (120 months) financing to a 7 year term (84 months). Should that in fact occur there will be a negative impact to the homeowner buying decision. As the following chart demonstrates:

Interest	0.00%	0.99%	1.99%	2.99%	3.99%	4.99%
Term	84	120	120	120	120	120
Loan Amount	10,000	10,000	10,000	15,000	15,000	15,000
Payment	119.05	87.56	91.97	144.77	151.80	159.02

- iii. Tier 2 TES Percentage and Loan: It has long been advocated that the last change to the Tier 2, which was to include a DWH, was to address homeowners who chose HVAC incentives, for one reason or another, and now wish to make further energy reductions. More importantly Tier 2 addresses the Health and Safety concern caused by orphaned water heaters. The contracting community is getting up to speed, implementing sales programs, with success that respond to these goals. While reducing the TES to 5% will significantly aid these efforts, lowering the current 10 year term (120 months) to a 5 year term (60 months) will thwart these efforts as the following chart demonstrates:

Interest	0.00%	0.00%
Term	120	60
Loan Amount	5,000	5,000
Payment	41.67	83.33
VS. 120 mnth		(41.67)

The success in single family Tier 2 projects is when the energy savings is equal to less than the monthly payment. This typically has been \$41 loan vs. \$38 when using the average TES with the average utility as supplied to the contractor by OCE. It is suggested the variance between \$38 and \$83 will be too great to reap the desired goals, therefore leaving the orphaned DWHs in many WARM/COL ADVANTAGE projects”

iv. Addition Financing Recommendations

1. Offer a cash incentive to homeowner to not take the financing option
2. “On-Bill Financing” – Encourage and work with all utilities to offer On-Bill Financing in support of HPwES Program, this could allow greater flexibility as listed above, faster financing approval times, and allows for energy savings to offset the payment on the same bill.

• **Tables 7 and 8 NJ HPwES Incentives and Requirements Notes:**

a. CO-OP Advertising (#8):

- i. Increase Co-Op
- ii. Reduce NJ OCE included language and logos
- iii. Digital ads should be excused from the above restraints entirely if the landing pages they are direct have required language and logos, if any

b. Contract expiration dates (#9) – There will be many projects that will be under contract and committed in FE15 that may, for very valid reasons exceed the 120 expiration date in FE16. In these cases the homeowner must be assured they will receive the incentives and be managed by Program FE15.

c. Contractor Incentive Fee (#10) – Please refer to our comments in section one “Program Incentives, letter “c”.

Note: Contractor Locator - List only contractors that actively participate in any given program’s dealer locator and provide them with CO-OP Advertising funds, especially HPwES, as some take leads from the website and then talk homeowners out of utilizing HPwES.

• **Planned Program Implementation Activities for FY2016**

a. Education and Training – While there has been undisputed progress, training must be more frequent AND must be held during off-peak hours. Training must include:

- i. RHA Training – On-site and Webinars

- ii. Technical Training – On-site and Webinars
- iii. Financing Options Process Training / Webinars
- iv. Sales Training – State sponsored support materials, and contractor/consumer process “packets” that will walk consumers through the entire process.
- v. Contractor “Best Practices” - We are willing and available to assist.

- **Quality Control Provisions**

- a. **Raise the bar on other programs where appropriate; i.e.:**

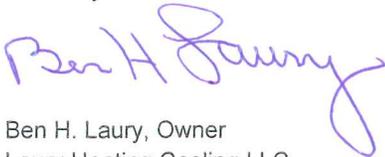
- i. Use the same criteria to approve Manual J, S & D as HPwES current method(s)
 - ii. Permit & Contractor licensing requirements
 - iii. Minimum technical standards - i.e. passing combustion testing on Enhanced Rebate audits to ensure water heaters are not spilling

- **Additional Comments Not Addressed in the Straw Proposal**

- a. Make All Programs Stand on Equal Ground and Ensure a Minimum Contractor Qualifications
- b. Ensure ratepayers are aware of all of the NJCE’s program offerings.
 - i. Post “Decision Tree” on NJCEP Website to help navigate customers through the programs to assist them in selecting the best program option.
 - ii. Require contractors participating in any NJCE program to inform and educate ratepayers on all of the BPU’s NJCE residential offerings by using a “Homeowner Program Choice Application” (**Exhibit A**)
- c. Require contractor’s to list all required state license number(s) that are mandatory to complete a project on all Program(s) application forms (WARM/COOL/HPwES) in order to be eligible for incentives (i.e. Home Improvement Contractor License #, Plumbing Lic#, etc...)
- d. Require permit numbers on all NJCEP Program Applications (WARM/COOL/HPwES). This will protect the BPU from liability of incentivizing work that is not done up to code or safely and will ensure all NJCEP Program projects are inspected by code officials, at a minimum.
 - i. Proof of inspection should not be required; Municipalities and DCA will ensure inspection after permits are applied for.
 - ii. Ensuring DCA inspects ALL HPwES, WARM Advantage, and COOL Advantage projects will place all programs on equal ground, as well as alleviating liability from all parties.

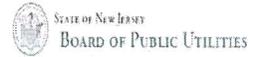
We would like to thank you for taking the time to read and consider our proposal. While some of these recommendations are significant, they will also have substantial results in program participation both by contractors and homeowners, with minor budgetary implications. We look forward to discussing this further with all interested parties.

Sincerely,



Ben H. Laury, Owner
 Laury Heating Cooling LLC
 511 Plum Street
 PO Box 727
 Vineland, NJ 08362-0727

Exhibit A:



New Jersey's Board of Public Utilities Working Hard to Help You to Save Energy

CONGRATULATIONS, on your decision to reduce your energy consumption. Your Board of Public Utilities is here to help you with you decision to reduce your utility bill by **SAVING ENERGY**. Your Board has created a variety of exciting programs, which are delivered by the Board's New Jersey Clean Energy that'll assist you with your purchase decision for **ENERGY SAVINGS**. Knowing no one Program will fit everyone the following outlines the options available to New Jersey Homeowners.

Home Performance with ENERGY Star

HPwES- Home Performance with Energy Star offers comprehensive solutions to improve energy efficiency and home comfort, while helping to protect the environment. Homeowners enjoy benefits like, fewer drafts, consistent temperatures across rooms, better ventilation and humidity control, and lowering their heating and cooling utility bills up to 30%.

WARMAdvantage

The WARMAdvantage Program provides rebates for high efficiency home heating systems and/or water heaters. You must purchase a heating system and/or water heater that meets all applicable efficiency requirements

COOLAdvantage

The COOLAdvantage Program provides rebates for energy efficient central air conditioners or heat pumps as well as proper system sizing and installation "best practices" that affect operating efficiency.

Dear NJ Clean Energy Program – Thank for the information you provided and the fantastic ENERGY SAVING incentives to help us become ENERGY EFFICIENT. After a thorough explanation by our contractor of the benefits of each program I/we have decided to participate in:

<input type="checkbox"/> Home Performance with ENERGY STAR The Whole Home Approach	<input type="checkbox"/> WARMAdvantage Upgrading to a High Efficiency Heating System	<input type="checkbox"/> COOLAdvantage Upgrading to High Efficiency Cooling System
<input type="checkbox"/> – Tier 2 – 50% up to \$1,000 . I/we're reducing ENERGY use between 10% to 19.9% by: <input type="checkbox"/> Air Sealing <input type="checkbox"/> Enhanced insulation <input type="checkbox"/> New Hi-eff domestic water heater	<input type="checkbox"/> – WarmAdvantage option to save up to 10% of heating energy for \$400 rebate – System 1	<input type="checkbox"/> – CoolAdvantage option to save up to 5% cooling energy for \$500 rebate - System 1
<input type="checkbox"/> – Tier 3 – Option 1 – 50% up to \$3,000 I/we're reducing ENERGY use by 20% to 24.9% by: <input type="checkbox"/> Air Sealing <input type="checkbox"/> Enhanced insulation <input type="checkbox"/> Install hi-eff heating system(s) <input type="checkbox"/> Install hi-eff cooling system(s) <input type="checkbox"/> Install Hi-eff domestic water heater	<input type="checkbox"/> – WarmAdvantage option to save up to 10% of heating energy for \$400 rebate – System 2	<input type="checkbox"/> – CoolAdvantage option to save up to 5% cooling energy for \$500 rebate – System 2
<input type="checkbox"/> – Tier 3 – Option 2 – 50% up to \$5,000 I/we're reducing ENERGY use by greater than 25% by: <input type="checkbox"/> Air Sealing <input type="checkbox"/> Enhanced insulation <input type="checkbox"/> Install hi-eff heating system(s) <input type="checkbox"/> Install hi-eff cooling system(s) <input type="checkbox"/> Install Hi-eff domestic water heater	<input type="checkbox"/> – I/we will also be taking advantage of our Utility companies \$900 "Enhanced Incentive"	

Homeowner	Contractor
Name:	Name:
Address:	Address:
Town:	Town:
Zip Code:	Zip Code:
Date:	Date:
Phone:	Phone:
	HVAC Lic #:



2015 Home Performance Contractor Coalition Program Changes

May 18, 2015

Irene Kim Asbury
Secretary of the Board
Office of Clean Energy - NJBPU

To Whom It May Concern,

We have thoroughly reviewed the Home Performance with ENERGY STAR section of the New Jersey Board of Public Utilities New Jersey Clean Energy Program (NJCEP) Fiscal Year 2016 (FY16) filings. We share the proposal's opinion, outlined in the introduction, to increase homeowner awareness and education, while creating a robust contractor network. While we agree with parts of the proposed changes in the Straw Proposal, our concern is such that many of the recommended program changes will not accomplish the intended goals but will however have an inverse affect.

After careful collaboration and conscientious deliberation, we have created the below list of comments which we believe will best address the needs of the program: customer enlightenment; consumer's health and safety; State job growth; Program short-term viability and long-term sustainability; and, contractor participation growth.

Please accept the following suggestions which follow the Straw Proposals sequence:

- **Program Incentives:**

- a. **Insulation** (bullet 1) – The proposal to enforce a standard which dictates the inclusion of an insulation measure into every project appears to be in direct conflict with the core strength of our NJ HPwES program, stated in the last sentence of the first paragraph of "Program Implementation," to wit, "... Program incentives and financing incentives based upon the total energy savings (TES). . ." This freedom of choice allows each individual homeowner, when properly educated by highly-trained and responsible contractors, to choose the project which is best for their family, their home, and their future.

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Furnace	12,000	12,000	-	12,000	12,000	-	
AC	8,000	8,000	-	8,000	8,000	-	
DWH	1,600	1,600	-	1,600	1,600	-	
Air Sealing	-	-	-	1,500	1,500	-	
Insulate	-	-	-	2,000	2,000	-	
Misc Health & Safety/Admin	-	-	-	800	800	-	
Project Cost Total	21,600	21,600	-	25,900	25,900	-	
Warm	(1,000)	(800)	200	-	-	-	
Cool	(1,000)	(600)	400	-	-	-	
DWH (claimed separately)	(500)	(500)	-	-	-	-	
Gas Utility Enhanced	(500)	(500)	-	-	-	-	
Warm/Cool Total	(3,000)	(2,400)	600	-	-	-	
HPwES (Tier 2 or 3)	-	-	-	(4,000)	(5,000)	(1,000)	
HPwES Furnace	-	-	-	-	-	-	
HPwES AC/HP	-	-	-	-	-	-	
HPwES Total	-	-	-	(4,000)	(5,000)	(1,000)	
Total OCE/Utility Incentives	(3,000)	(2,400)	600	(4,000)	(5,000)	(1,000)	
Approx Energy Savings	± 10%	± 10%	± 10%	≥ 25%	≥ 25%	± 10%	
Net Project cost	18,600	19,200	600	21,900	20,900	(1,000)	
Additional HPwES Cost				3,300	1,700		
Loan Amount/AFR				\$10k, 0%	\$10k, 0%		

s across all programs commensurate with “Real Energy Savings”

c. **Production Incentive** (bullet 6) – Lowering the production incentive while increasing contractor workload and simultaneously expecting increased contractor participation is, at best, axiomatically flawed. Despite the intent of some recommendations in the Straw Proposal to increase program marketing at the State level, contractor recommendations to consumers continue to be the lifeblood of this program; as such, if contractors do not believe it is in their best interest to participate in this program then consumers will not believe it is in their best interest. The program, therefore has an imperative to provide changes which will serve to re-energized and re-engaged Contractors back to (in) the HPwES Program:

- i. Payment Timelines – For HPwES to regain traction with the contractors the timeline must get closer to the 30 day pay cycle, which is 30 days greater than a Warm/Cool project.
- ii. Decouple contractor loan payments from the QA/QC Process – Contractors not offering HPwES with the loan are paid for the project by the homeowner upon installation. The production incentive remains the motivation to correct any QC issues.
- iii. Incentivize Contractor Sales Performance
 1. Increase Contractor Incentive to \$837. This figure more accurately reflects the financial burden associated with banking finance charges and administration of an individual project within this program, which would not be borne with a non-Energy Star project.
 2. As program changes occur, increased training of administrative and individual sales forces are required to properly train and promote HPwES. As mentioned, contractor referrals are the main source of HPwES customers: as soon as the program loses its financial viability with contractors “the well will run dry.”
 3. Create a production incentive bonus structure in order to encourage contractors to actively promote HPwES rather than passively respond to homeowner inquiry. This would be the stimulus required for Contractors to invest heavily in HPwES, despite the added costs associated with the program.

# of Completed Projects	Production Bonus (Per Project)
25-49	\$100
50-75	\$200
75+	\$300

- iv. QC Failure Penalty and Incentivize Contractor Technical Performance:

1. Reward Contractors who have demonstrated technical knowhow and therefore have been a lower administrative burden to the Program(s); correlate QA Penalties with overall failure rate.
2. When initially introduced, Contractor's were informed the production penalty would not be assessed unless a return trip was required by the Market Manager. What happened?
3. Consistency and Communication - There are occasions when a QC inspection resulted in failure, however, contractor supplies evidence to the contrary; a review and resolution process is required.
4. Incentive should be revoked only for gross deficiencies, such as: incorrect equipment; insulation being >10% short; repetitive mistakes; or, when a picture will not provide clear evidence that the failures have been remediated. To quote W.S. Gilbert, "Let the punishment fit the crime."

QA Pass %	Fine
100-90%	\$100
89-75%	\$250
74-50%	\$837
Greater than 50%	\$827 and suspension from Program
Note: Remove contractors that continually abuse program technical and procedure guidelines, these contractors, while infinitesimal, give all of the Programs a bad name and require a disproportionate amount of program administrative resources.	

- v. Reduce barriers to HPwES – We must streamline software input to reduce administration data with program jobs. Work with financial institutions to streamline the financing application approval timeline and loan process: increased internet processing, allowing for digital signature, etc. Also, allow for increased modeling, including swimming pools (which could offset the above issues with multiple system homes).

d. Financing Options (bullet 7) –

- i. One of the primary short falls of the existing Straw Proposal are the vagaries regarding changes to the state sponsored loans achieved thru HPwES. Given the existing 10 year 0%, \$10,000 loan has become a key component of consumer's perceived value of our program, any changes must serve to further enhance the program, rather than detract. Regarding the ideas mentioned:

1. Additions to Loan Options: To that end, a 10 year, 2.99% or 4.99% loan offering with a cap of \$15,000, would move us in the proper direction for the growth of our program as it would allow for more comprehensive projects. However, the challenge for the homeowner will be justifying the added \$60.95 for 2.99% or \$75.69 for the 4.99% interest rate payment on a \$15,000 for a more comprehensive project. While this would be appealing for some, the fact is, during these uncertain economic times, homeowner have continually opted for minimum monthly payments. When considering the following table, it seems certain that a homeowner will continue to choose the 10 year, 0%, \$10,000 loan and not to seek a more comprehensive project. Further, when considered in conjunction with the other proposed changes pushing our program towards a "commodity" mentality, this addition would not enhance the Program.

Interest	0.00%	0.99%	1.99%	2.99%	3.99%	4.99%
Term	120	120	120	120	120	120
Loan Amount	10,000	10,000	10,000	15,000	15,000	15,000
Payment	83.33	87.56	91.97	144.77	151.80	159.02

- ii. Reduction to Loan Option: The Straw Proposal is less clear on this end, however, it is our understanding that the HPwES loan may be reduced from the 0%, \$10,000, 10 year term (120 months) financing to a 7 year term (84 months). Should that in fact occur there will be a negative impact to the homeowner buying decision. As the following chart demonstrates:

Interest	0.00%	0.99%	1.99%	2.99%	3.99%	4.99%
Term	84	120	120	120	120	120
Loan Amount	10,000	10,000	10,000	15,000	15,000	15,000
Payment	119.05	87.56	91.97	144.77	151.80	159.02

- iii. Tier 2 TES Percentage and Loan: It has long been advocated that the last change to the Tier 2, which was to include a DWH, was to address homeowners who chose HVAC incentives, for one reason or another, and now wish to make further energy reductions. More importantly Tier 2 addresses the Health and Safety concern caused by orphaned water heaters. The contracting community is getting up to speed, implementing sales programs, with success that respond to these goals. While reducing the TES to 5% will significantly aid these efforts, lowering the current 10 year term (120 months) to a 5 year term (60 months) will thwart these efforts as the following chart demonstrates:

Interest	0.00%	0.00%
Term	120	60
Loan Amount	5,000	5,000
Payment	41.67	83.33
VS. 120 mnth		(41.67)

The success in single family Tier 2 projects is when the energy savings is equal to less than the monthly payment. This typically has been \$41 loan vs. \$38 when using the average TES with the average utility as supplied to the contractor by OCE. It is suggested the variance between \$38 and \$83 will be too great to reap the desired goals, therefore leaving the orphaned DWHs in many WARM/COL ADVANTAGE projects”

- iv. Addition Financing Recommendations
 1. Offer a cash incentive to homeowner to not take the financing option
 2. “On-Bill Financing” – Encourage and work with all utilities to offer On-Bill Financing in support of HPwES Program, this could allow greater flexibility as listed above, faster financing approval times, and allows for energy savings to offset the payment on the same bill.

- **Tables 7 and 8 NJ HPwES Incentives and Requirements Notes:**

- a. CO-OP Advertising (#8):
 - i. Increase Co-Op
 - ii. Reduce NJ OCE included language and logos
 - iii. Digital ads should be excused from the above restraints entirely if the landing pages they are direct have required language and logos, if any
- b. Contract expiration dates (#9) – There will be many projects that will be under contract and committed in FE15 that may, for very valid reasons exceed the 120 expiration date in FE16. In these cases the homeowner must be assured they will receive the incentives and be managed by Program FE15.
- c. Contractor Incentive Fee (#10) – Please refer to our comments in section one “Program Incentives, letter “c”.
Note: Contractor Locator - List only contractors that actively participate in any given program’s dealer locator and provide them with CO-OP Advertising funds, especially HPwES, as some take leads from the website and then talk homeowners out of utilizing HPwES.

- **Planned Program Implementation Activities for FY2016**

- a. Education and Training – While there has been undisputed progress, training must be more frequent AND must be held during off-peak hours. Training must include:
 - i. RHA Training – On-site and Webinars

- ii. Technical Training – On-site and Webinars
- iii. Financing Options Process Training / Webinars
- iv. Sales Training – State sponsored support materials, and contractor/consumer process “packets” that will walk consumers through the entire process.
- v. Contractor “Best Practices” - We are willing and available to assist.

- **Quality Control Provisions**

- a. **Raise the bar on other programs where appropriate; i.e.:**

- i. Use the same criteria to approve Manual J, S & D as HPwES current method(s)
 - ii. Permit & Contractor licensing requirements
 - iii. Minimum technical standards - i.e. passing combustion testing on Enhanced Rebate audits to ensure water heaters are not spilling

- **Additional Comments Not Addressed in the Straw Proposal**

- a. Make All Programs Stand on Equal Ground and Ensure a Minimum Contractor Qualifications
- b. Ensure ratepayers are aware of all of the NJCE’s program offerings.
 - i. Post “Decision Tree” on NJCEP Website to help navigate customers through the programs to assist them in selecting the best program option.
 - ii. Require contractors participating in any NJCE program to inform and educate ratepayers on all of the BPU’s NJCE residential offerings by using a “Homeowner Program Choice Application” (**Exhibit A**)
- c. Require contractor’s to list all required state license number(s) that are mandatory to complete a project on all Program(s) application forms (WARM/COOL/HPwES) in order to be eligible for incentives (i.e. Home Improvement Contractor License #, Plumbing Lic#, etc...)
- d. Require permit numbers on all NJCEP Program Applications (WARM/COOL/HPwES). This will protect the BPU from liability of incentivizing work that is not done up to code or safely and will ensure all NJCEP Program projects are inspected by code officials, at a minimum.
 - i. Proof of inspection should not be required; Municipalities and DCA will ensure inspection after permits are applied for.
 - ii. Ensuring DCA inspects ALL HPwES, WARM Advantage, and COOL Advantage projects will place all programs on equal ground, as well as alleviating liability from all parties.

We would like to thank you for taking the time to read and consider our proposal. While some of these recommendations are significant, they will also have substantial results in program participation both by contractors and homeowners, with minor budgetary implications. We look forward to discussing this further with all interested parties.

Sincerely,

Angela Hines
 R.S.C. of Voorhees, Inc
 T/A Rubino Service Company
 President

Exhibit A:



New Jersey's Board of Public Utilities Working Hard to Help You to Save Energy

CONGRATULATIONS, on your decision to reduce your energy consumption. Your Board of Public Utilities is here to help you with you decision to reduce your utility bill by **SAVING ENERGY**. Your Board has created a variety of exciting programs, which are delivered by the Board's New Jersey Clean Energy that'll assist you with your purchase decision for **ENERGY SAVINGS**. Knowing no one Program will fit everyone the following outlines the options available to New Jersey Homeowners.

Home Performance with ENERGY Star

HPWES- Home Performance with Energy Star offers comprehensive solutions to improve energy efficiency and home comfort, while helping to protect the environment. Homeowners enjoy benefits like, fewer drafts, consistent temperatures across rooms, better ventilation and humidity control, and lowering their heating and cooling utility bills up to 30%.

WARMAdvantage

The WARMAdvantage Program provides rebates for high efficiency home heating systems and/or water heaters. You must purchase a heating system and/or water heater that meets all applicable efficiency requirements

COOLAdvantage

The COOLAdvantage Program provides rebates for energy efficient central air conditioners or heat pumps as well as proper system sizing and installation "best practices" that affect operating efficiency.

Dear NJ Clean Energy Program – Thank for the information you provided and the fantastic ENERGY SAVING incentives to help us become ENERGY EFFICIENT. After a thorough explanation by our contractor of the benefits of each program I/we have decided to participate in:

<input type="checkbox"/> Home Performance with ENERGY STAR The Whole Home Approach	<input type="checkbox"/> WARMAdvantage Upgrading to a High Efficiency Heating System	<input type="checkbox"/> COOLAdvantage Upgrading to High Efficiency Cooling System
<input type="checkbox"/> – Tier 2 – 50% up to \$1,000 . I/we're reducing ENERGY use between 10% to 19.9% by: <input type="checkbox"/> Air Sealing <input type="checkbox"/> Enhanced insulation <input type="checkbox"/> New Hi-eff domestic water heater	<input type="checkbox"/> – WarmAdvantage option to save up to 10% of heating energy for \$400 rebate – System 1	<input type="checkbox"/> – CoolAdvantage option to save up to 5% cooling energy for \$500 rebate - System 1
<input type="checkbox"/> – Tier 3 – Option 1 – 50% up to \$3,000 I/we're reducing ENERGY use by 20% to 24.9% by: <input type="checkbox"/> Air Sealing <input type="checkbox"/> Enhanced insulation <input type="checkbox"/> Install hi-eff heating system(s) <input type="checkbox"/> Install hi-eff cooling system(s) <input type="checkbox"/> Install Hi-eff domestic water heater	<input type="checkbox"/> – WarmAdvantage option to save up to 10% of heating energy for \$400 rebate – System 2	<input type="checkbox"/> – CoolAdvantage option to save up to 5% cooling energy for \$500 rebate – System 2
<input type="checkbox"/> – Tier 3 – Option 2 – 50% up to \$5,000 I/we're reducing ENERGY use by greater than 25% by: <input type="checkbox"/> Air Sealing <input type="checkbox"/> Enhanced insulation <input type="checkbox"/> Install hi-eff heating system(s) <input type="checkbox"/> Install hi-eff cooling system(s) <input type="checkbox"/> Install Hi-eff domestic water heater	<input type="checkbox"/> – I/we will also be taking advantage of our Utility companies \$900 "Enhanced Incentive"	

Homeowner	Contractor
Name:	Name:
Address:	Address:
Town:	Town:
Zip Code:	Zip Code:
Date:	Date:
Phone:	Phone:
	HVAC Lic #:

From: [Donald Powell](#)
To: publiccomments@njcleanenergy.com
Subject: Straw proposal being considered
Date: Friday, May 22, 2015 12:13:39 PM

To whom it may concern:

I am **STRONGLY** opposed to two provisions in the proposal.

1. Commercial solar systems (assuming they are "behind the meter") should not to choose between SRECs and net metering. This is a further erosion of the intent of the solar program. While I understand the need to maintain stability in the SREC market, this is the wrong way to go about it. Either increase the RPS requirements or exclude grid supply projects. This is a slippery slope that will end up killing the solar program in NJ which is doing so well at the moment bringing jobs and a better, cleaner environment to all the residents.
2. Excluding systems with batteries from SRECs is just plain ridiculous and wrong headed. Through net metering a solar system can make as much electric as the facility size is capable of and can send it to the grid for credit. With batteries in a system the stability of the grid is enhanced, resilience is increased, there is still no net increase in electric produced. All that happens is that what was originally "dumped" on the grid during daylight hours can now be stored for later use and can act as a buffer resource for the EDC. Batteries are a win/win. Why on earth would you want to penalize a customer who spends the extra money to install a better, more stable system. If anything, you should be incentivising battery systems.

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[Click here to receive our monthly "Solar and Energy Saving Tips" Email newsletter](#)

Donald Powell LEED AP
Powell Energy and Solar, LLC
4308 Bridgeboro Road
Moorestown, NJ 08057
Donaldgpowell@gmail.com
856-380-0709 ph
856-380-0710 fax

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