New Jersey Natural Gas

VIA ELECTRONIC MAIL (publiccomments@njcleanenergy.com)

May 27, 2011

Ms. Kristi Izzo, Secretary
New Jersey Board of Public Utilities
Two Gateway Center
Newark, NJ 07102

RE: Request for Comments regarding the May 16, 2011 Concept Paper for a C&I Large Energy Users Pilot Incentive Program

Dear Ms. Izzo:

Please accept these comments on behalf of New Jersey Natural Gas ("NJNG") and Public Service Electric and Gas Company ("PSE&G") in response to the Summary of Proposed Program Plan Changes for the C&I Large Energy Users Pilot Incentive Program ("Proposal") in New Jersey's Clean Energy Program ("NJCEP") circulated by the Office of Clean Energy ("OCE") on May 17, 2011. NJNG and PSE&G look forward to continuing to work with OCE and other stakeholders to develop the pilot for eventual presentation by OCE to the Board As part of that process and in anticipation of continued discussions, please accept the following preliminary comments:

Eligibility and Pre-Qualification Section

- A clarification should be provided as to whether the contributions toward NJCEP are to be provided by interested entities on a pre- or post-sales tax basis. (Pages 1 and 2). Clearly stating the standard for providing contributions will mitigate any potential confusion or submission of incorrect information that could delay the review process.

Incentive Specifications Section

- The Proposal references that incentives will be reserved on a first come, first served basis. However, there is also a reference to a review process. Further clarification of this should be provided since there is a distinct possibility that the order in which the applications are received will not match the order they are approved. This is especially true in light of the focus on creative, custom projects. If proposals are completely reviewed and deemed acceptable, will the program manager have to hold those

proposals until all of those earlier in the queue have completed their review process? Is it intended to be first come, first served on submission or completion of acceptable review?

Submittal Requirement for Incentive Commitment Section

- Footnote 5 of the Proposal notes that prevailing wage rates apply. It is appropriate to reference that requirement for the cost data submitted in the Table of Energy Conservation Measures ('ECM').

- The bullet regarding Measurement & Verification ("M&V") should provide a supporting reference footnote for the "IPMVP Option A or B".

- The list of required Appendices for the Final Energy Efficiency Plan ("FEEP" should clarify what audit reports/results are required.

- To facilitate review, Board Staff frequently asks that tables and analyses be submitted in an electronic format with calculation fields intact. To the extent that either the Draft Energy Efficiency Plan ("DEEP") or the FEEP is not submitted on a standardized form, it would be appropriate to have such a requirement. In that way, potential applicants will be aware of that need in the event there are proprietary issues.

Terms and Conditions Section

- There is a disparity on the timeline for the submission of the FEEP. The text references ninety days but the parenthetical notation shows 120.

- ECMs must be fully installed within 12 months of the funding commitment. NJNG and PSE&G suggest that the timeline be reviewed to ensure sufficient time for the purchase, shipment, and installation of ECMs, especially those that are custom or unique. This clarification is important since the funding commitment is established upon submission of the DEEP (or approval of the DEEP –see earlier point). In the Review and Payment Framework Section, there are time requirements that severely lengthen the review process, leaving less time for actual ECM installation. For example, the incentives are only for ECMs approved in the FEEP which may be submitted up to 120 days later, the Program Manager then has an additional 60 days to review and provide comments, and the entity has another 15 days to respond. Only then is the incentive presented to the Board for approval. Depending upon the timing, it could potentially take more than half of the allowed year for the entity to receive official approval of their requested incentive, significantly reducing the time available for installation. To avoid that, an entity would have to move ahead at its own risk prior to approval. NJNG and PSE&G recognize that the proposal does provide for a six month extension but the current parameters either require that the customers bear any risks associated with obtaining the incentive or lead to a greater likelihood nearly all parties will need an extension. Further the need for a pre-inspection within 15 days of the FEEP submittal suggests that the time period for the installation might be more

appropriately triggered from the FEEP approval rather than from the date funding is committed.

Limitations and Restrictions Section

- OCE should clarify during which calendar year that opt-out must occur since it is highly likely that these projects will cross calendar years. Is this restriction intended to be limited to the year of the application or the year the incentive is received?

- PSE&G also notes that although the Standard Offer program is no longer accepting new applications, OCE should clarify that entities under contract with PSE&G or a third party to provide savings from energy efficiency measures under the Standard Offer program shall not participate in the LEU program if their participation impacts the equipment included in the Standard Offer contract OR the measurement and verification of energy savings under the contract.

Appendix B

- NJNG and PSE&G suggest that the minimum efficiency for gas water heating equipment less than or equal to 50 gallons should be 67%, rather than the stated 62%. Gas water heaters in this size range must carry at least 67% energy factor to earn an ENERGYSTAR label. It would not be appropriate to provide an incentive for equipment that is below an ENERGYSTAR standard.
    - NJNG and PSE&G proposes that additional product categories be considered, including:
        - Fuel cells with a minimum efficiency of 50%. Discussions at recent NJCEP Energy Efficiency committee meetings have demonstrated an interest in exploring the development of an appropriate incentive for this type of equipment. The inclusion of such equipment in the DEEP should be permitted since it would be still subject to the overall parameters for energy savings. Plus, the fact that this program necessitates an individual review of each entity's DEEP provides OCE with practical experience on the potential savings this equipment can provide and would only be reflected in a DEEP if a LEU deemed it to be a worthwhile project.
        - Ice storage units which provide substantial savings for certain projects and relieve pressure on peak usage should also be included. This technology is innovative, provides benefits to the grid and support overall energy savings.
        - Solar thermal applications should also be included as eligible projects. The Proposal references no renewable energy projects, but NJCEP has previously considered solar thermal applications for residential locations within the energy-efficiency budgets. As such, it is appropriate to allow this technology to be included, especially since the

larger commercial market may design beneficial projects in the solar thermal market.

NJNG and PSE&G appreciate the opportunity to provide comments on the Proposal.

Sincerely,

Anne Marie Peracchio

Anne-Marie Peracchio
Director- Conservation and Clean Energy Policy

Cc: Michael Winka, BPU
Michael Ambrosio, AEG
Mona Mosser, BPU
oce@bpu.state.nj.us
Alexander C. Stern, Esq.

BEVAN, MOSCA, GIUDITTA & ZARILLO, P.C.
ATTORNEYS AT LAW

222 Mount Airy Road, Suite 200
Basking Ridge, NJ 07920
Phone: (908) 753-8300
Fax: (908) 753-8301
www.bmgzlaw.com

MURRAY E. BEVAN
mbevan@bmgzlaw.com

May 27, 2011

VIA ELECTRONIC AND REGULAR MAIL

Michael Winka
Director, Office of Clean Energy
New Jersey Board of Public Utilities
44 South Clinton Street, 7th Floor
Trenton, NJ 08625
publiccomments@njcleanenergy.com

Re: Including Solid Oxide Fuel Cell Technology in Large Energy Users Pilot Incentive Program

Dear Director Winka:

On behalf of our client, Bloom Energy ("Bloom"), we want to commend the Board of Public Utilities ("BPU") for considering adoption of a Commercial & Industrial Large Energy User's Pilot Incentive Program ("LEU Pilot Program"). We believe that the LEU Pilot Program should have a significant impact in assisting New Jersey in reaching its energy efficiency and greenhouse gas reduction goals by encouraging large energy consumers to engage in more clean energy projects. Moreover, the program will directly incent those customers who are the largest contributors of funds to New Jersey's Clean Energy Program to invest in projects best tailored to their needs.

Although we are generally impressed with the variety and scope of project suggestions included in the LEU Pilot Program, we are concerned that it does not directly specify eligibility for solid oxide fuel cells (SOFC), which could concern large energy customers who plan to utilize this new technology for onsite, efficient electricity generation. Unlike traditional Combined Heat & Power (CHP) systems, which are directly specified in the LEU Pilot Program,

newer, more advanced SOFC systems, such as the Bloom Box, utilize waste heat internally to produce more electricity. It is ideal for customers who want clean electricity, but have limited thermal load requirements, such as many of the Commercial & Industrial customers who would participate in the LEU Pilot Program. Thus, the Bloom Box is precisely the type of energy efficiency measure which should be included in the program.

Specifically, we believe SOFC systems should be listed as one of the options in "Table B-1. Energy Efficiency Measure Opportunities." Its "Application or Energy End Use" may be described as "On Site Distributed Generation," and the "Possible Energy-Efficiency Improvements" may be described as "High Electrical Efficiency (>50% LHV net AC) Generation Systems that emit less than 0.07 lbs/MWh of NOx pollutants." This description would permit inclusion of the most electrically efficient SOFC technologies such as the Bloom Box, while also allowing for alternative on-site distributed generation in the future as technology advances. We believe this change will strengthen the LEU Pilot Program by encouraging more participation.

Once again, we want to express our whole-hearted support for the LEU Pilot Program concept and hope that it is implemented by the BPU at its next agenda meeting. However, before adoption, we urge the BPU to consider adding the most electrically efficient SOFC systems to the list of Energy Efficiency Measure Opportunities, because it promotes the energy efficiency and greenhouse gas reduction goals of the Program, while allowing large utility customers to choose projects that best fit their needs. Please do not hesitate to contact me should you have any questions or concerns.

Very truly yours,

Murray E. Bevan

In the Matter of Comprehensive Energy Efficiency and Renewable Energy Resource Analysis for 2009-2012 Clean Energy Program: 2011 Programs and Budgets: Compliance Filings Proposed Modifications to Previously Approved 2011 Budget BPU Docket Nos. EO07030203 and EO10110865

Comments of the New Jersey Division of Rate Counsel on the Concept Paper – Revised 05.16.11: C&I Large Energy Users Pilot Incentive Program Proposal

May 27, 2011

Introduction

The Division of Rate Counsel ("Rate Counsel") would like to thank the Board of Public Utilities ("BPU" or "Board") for the opportunity to present our comments on the proposal for a Large Energy Users ("LEU") Pilot Incentive Program ("LEU Pilot Proposal") submitted to stakeholders for comment by AEG, the Market Coordinator for the Clean Energy Programs ("CEP"), on May 18, 2011.

I. Incentive Specifications

In contrast to the incentives offered by the CEP's Pay for Performance program ("P4P"), the proposed maximum incentives per entity for the LEU Pilot Proposal appear to be excessive. P4P provides incentives, up to a maximum total incentive of $2 million (plus additional incentives for Combined Heat and Power applications), at satisfactory completion of three milestones:

1. Submittal of a complete Energy Reduction Plan ("ERP")
2. Installation of all recommended measures per the ERP

3. Completion of Post Construction Benchmarking Report

For the first milestone, the P4P incentive is structured as follows:

- Incentive Amount -. $0.10 per sq ft
- Minimum Incentive - $5,000
- Maximum Incentive - $50,000 or 50% of facility annual energy cost (whichever is less)

For the second and third milestones, P4P provides incentives of up to $0.22 per kWh saved annually and $2.50 per Therm saved annually. The total incentive for these two milestones is capped at 50% of total project cost.

P4P's incentive for completion of an ERP appears to be a very small portion of the entire P4P incentive. Assuming the maximum total incentive for the second and third milestones ($2 million), the maximum incentive for completion of the ERP ($50,000) is roughly 2% of the total project cost. The Commercial and Industrial ("C&I") Energy Efficiency ("EE") Market Manager reported that it does not have actual program data on what ERPs generally cost P4P participants but was able to inform us that P4P partner fees, largely comprised of costs to develop the ERP, make up 5% of total project cost on average.

In contrast to the P4P incentive structure, the LEU Pilot Proposal would not offer a separate incentive for completion of an ERP. As proposed in the 2nd bullet point under the Incentive Specifications section of the LEU Pilot Proposal (page 2), the pilot's maximum incentive per entity would be the lesser of:

- $1 million
- 75% of total project(s) cost
- 90% of total NJ CEP fund contribution in previous year
- $0.33 per projected annual kWh saved and $3.75 per projected Therm saved annually.

When compared to P4P incentives, two of the proposed thresholds appear to be excessive: 75% of total project cost and $0.33 per projected annual kWh saved and $3.75 per projected Therm saved annually. The lack of a separate incentive for completion of an ERP in the LEU Pilot Proposal does not justify increasing incentives to 75% of total project cost. The difference in incentive caps between the P4P and the LEU Pilot Proposal — 25% of project cost — is well above the average cost of P4P partner fees (as a proxy for ERP costs), which amount to 5% of total project cost.

The LEU Pilot Proposal's increase in incentive caps above P4P levels appears even more excessive when one considers that the LEU Pilot Proposal doesn't tie incentives to actual performance of the measure. While the LEU Pilot Proposal protects against giving full incentives for LEU projects that were not built as specified,[1] tying incentives to actual performance adds risk to the decision to engage in a project. That uncertainty has a financial cost, which implies that the LEU incentive does not need to be as high as the P4P incentive, as else equal.

Given these considerations, and in order to minimize free riders, we suggest an alternative incentive structure for the LEU Pilot Proposal as follows.

Maximum incentive per entity lesser of:

- $1 million;
- 100% of the incremental cost;
- project cost buy down to 1.5 years of simple payback;r
- 90% of total NJCEP fund contribution in previous year (i.e., from all entity facilities); or

[1] Per page 4 of the LEU Pilot Proposal under "Submittal Requirements and Incentive Payment", estimated LEU incentives based on the proposed project would be trued up to as built conditions: "in the event the scope of work, savings, and/or cost estimates do not match as built documentation, an incentive true-up will occur. The true-up is not to exceed the original incentive commitment." The actual performance will be measured and verified, but the monitoring and verification requirement is not tied to incentives.

- $0.22 per kWh annual savings and/or $2.5 per Therm annual savings.

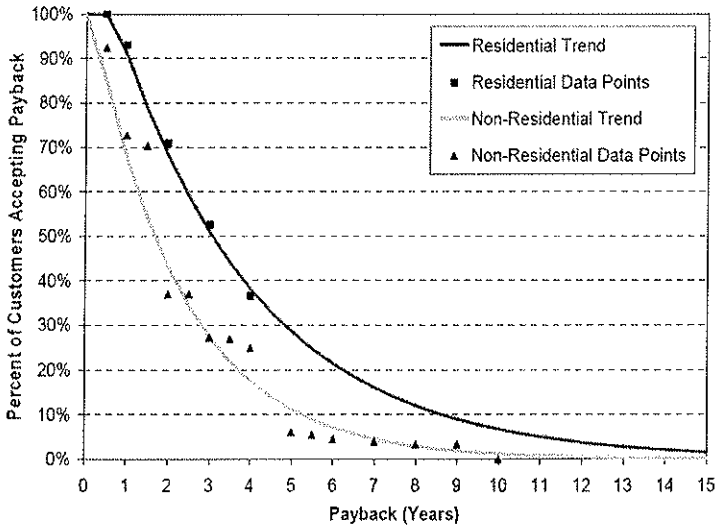
The incremental cost is the cost premium of an efficiency measure over the cost of a standard measure. Tying incentives to incremental cost is one of the most widely used approaches for establishing incentives for large commercial and industrial ("C&I") customers, according to a report by Quantum Consulting titled "Non-Residential Large Comprehensive Incentive Programs Best Practices Report."[2] The report reviewed several large C&I efficiency programs across the nation, and recommends to "use incremental costs to benchmark and limit payments."[3] The incentives identified in the report range from 50% to 100% of the incremental cost. We believe the incremental cost should be one of the factors determining the maximum incentive, to minimize free ridership. For example, the incentive for replacing an existing HVAC system with a new system should be capped at the cost of the energy efficient system in excess of the cost of a standard HVAC measure that meets the minimum efficiency level required by the Federal Appliance Energy Standard.

We also recommend the use of 1.5 payback years as one of the maximum incentive thresholds. This is another approach recommended by Quantum Consulting (2004) in order to maximize net savings and minimize free ridership. A payback term of 2 years is typical for reducing free riders. However, in consideration of supporting economic activity in the State, we propose 1.5 years instead. Rate Counsel contends that an investment with a 1.5 year payback term is a very attractive investment for large C&I customers. An analysis of payback acceptance curves used for Delmarva Power & Light Company's integrated resource planning, indicates that

[2] Quantum Consulting Inc. 2004. National Energy Efficiency Best Practices Study: Volume NR5 Non-Residential Large Comprehensive Incentive Programs Best Practices Report
[3] Quantum Consulting Inc. 2004, page NE5-49.

50% of non-residential customers would be willing to pursue an energy savings project at this level of payback (See TABLE below).[4]

TABLE: Payback Acceptance Analysis by DPL[5]



If desired, the pilot could also use cents per kWh or $ per Therm as one of the incentive caps. For this, we propose $0.22 per kWh saved annually and $2.50 per Therm saved annually, consistent with current P4P incentives. We do not see any particular reason that the proposed incentive found in the LEU Pilot Proposal should be higher than the incentive for the P4P given that participation in the LEU program is less risky than the P4P as discussed above.

Rate Counsel does not recommend the proposed incentive structure found in the LEU Pilot Proposal. However, if the Board adopts the LEU's proposed incentive structure, the Office of Clean Energy ("OCE"), AEG, or TRC, the C&I Market Manager, should justify a level of incentive that is 50% higher than the P4P incentive cap (i.e., why 75% of the total project cost, or

[4] Delmarva Power & Light Company (DPL) 2006. Delmarva Power & Light Company's Third Update to Its Integrated Resource Plan ("DPL 2006"), Appendix B - Demand Side Resources
[5] DPL 2006. Appendix B, page 10.

$0.33 per estimated annual kWh saved and $3.75 per estimated annual Therm saved should be the cap). If no justification is provided, the LEU pilot should use P4P limits.

II. Submittal Requirements for Incentive Reservation

For historical energy efficiency consumption data, it is proposed that participants provide historical consumption data for the previous 12 months. However, the previous 12 months may not be representative of baseline consumption for projecting future years' savings (e.g., if the previous year's consumption is lower than normal due to variation in weather, macroeconomic conditions, and/or unscheduled disruptions in operations). We suggest that applicants provide a minimum of 24 months of data. Exceptions could be made on a case by case basis for facilities with less than 24 months of consumption data.

For the projection of energy savings, we recommend applicants also submit projected lifetime energy savings in MWh and Therms and capacity reduction in kW in addition to projected annual savings. This information should be provided in the Executive Summary and the main body of a Draft Energy Efficiency Plan ("DEEP") as well as in the Final Energy Efficiency Plan ("FEEP").

For project cost, applicants should be required to submit information on the incremental cost per measure for each measure, in addition to the total project cost per measure—regardless of whether incremental cost used for determining maximum incentives per the recommendation in the previous section.

III. Eligibility and Pre-Qualification

Under the LEU Pilot Proposal, the 25 entities with the greatest contribution to NJ CEP funding in 2010 from eligible facilities (400kW annual peak demand or greater) would be eligible to submit a draft energy efficiency plan to participate in the program. These 25 entities could each receive up to $1 million in incentives. If there are more qualifying applications than the $20 million budget permits, proposals will be selected based on order in the queue (per Incentives Specifications, 5th bullet). We suggest retaining first come basis for selecting proposals. However, we have concerns that the eligibility requirement that an entity must be one of the 25 highest contributors to the CEP would screen out the projects with the deepest energy savings. Instead, we recommend that more stringent requirements for projects, as discussed in the following section of this document, serve to reduce the number of applications and thereby reduce administration costs relative to opening the field to all entities with 400 kW and greater peak demands. If the pre-qualification process proposed in the LEU Pilot Proposal is retained for the pilot, an administratively feasible merit based system should be implemented for any full-scale rollout of the program.

IV. Terms and Conditions

Given the large budget proposed for this pilot, it is reasonable to expect projects meet a high threshold. In addition to payback requirements, DEEPs should be required to demonstrate at least 15% energy savings. In addition, lighting should not be permitted to comprise more than 50% of the proposed measures. Both of these requirements are consistent with P4P requirements and would protect against cream skimming and lost opportunities.

The Minimum Performance Standards laid out in the 2nd bullet point on page 2 of the LEU Pilot Proposal, should be reconsidered and modified for the following reasons.

- It is our understanding that the state is in a three year cycle for updating building codes and that as a result of the most recent update in 2007 the state adopted ASHRAE 90.1-2004. If the state adopts ASHRAE 90.1-2007 in the near future, participants would be just meeting code. Program participants should be held to a higher standard than state code. OCE and the market manager should consider requiring ASHRAE 90.1-2010 instead of ASHRAE 90.1-2007.

- Proposed updates to the CEP Protocols to Measure Resource Savings were circulated to the Energy Efficiency subcommittee listserv on May 24, 2011 ("Draft protocols").[6] The draft revisions suggest modifying the baseline for Ground Source Heat Pumps to 16.2 EER. Draft Protocols, page 79. Rate Counsel suggests that the minimum performance standard for the LEU program for Ground Source Heat Pumps be increased to a level higher than 16.2 EER.

- On page 79 of the Draft Protocols[7], increases in the baseline efficiency of Electric Unitary HVAC/Split systems are recommended. Rate Counsel suggests that the LEU Pilot Proposal's minimum performance standards for Electric Unitary HVAC/Split systems be higher than those listed in table B-3 of the LEU Pilot Proposal. At a minimum, the standard for $\geq$5.4 to <11.25 tons should be increased to >12 EER. Higher efficiency levels should be considered for the other system capacities in table B-3 as well.

In the 3rd bullet point on page 2 of the LEU Pilot Proposal, "ninety" should be changed to "one hundred twenty", consistent with the number of days in parentheses.

V. Limitations and Restrictions

The LEU Pilot Proposal suggests allowing the total of federal, state, utility, and CEP funds for a project to equal up to 100% of the total project cost. Rate Counsel opposes the use of ratepayer funds for any incentive that pays 100% of the applicant's costs. Rate Counsel has consistently maintained that incentives should be less than 100% of costs, in the interest of fairness to ratepayers, and in order to maximize savings and minimize free riders as well as to

[6] Protocols to Measure Resource Savings - Revision to September 2010 Protocols - May 2011, NJ BPU CEP, circulated 5/24/11...
[7] Id.

assure that program participants have a stake in the successful implementation and ongoing operation of energy efficiency measures. See, e.g. I/M/O the Petition of New Jersey Natural Gas Company for Approval of Energy Efficiency Programs With an Associated Cost Recovery Mechanism, NJ BPU Dkt. Nos. EO09010056 and EO09100057 (Order dated June 17, 2009), Stipulation, par. 20 (provision that combined ARRA, CEP and utility-provided incentives will not fund 100% of a project's costs).

VI. Assurances

Provisions should be added to the LEU Pilot Proposal to ensure that program incentives are recoverable through some type of "claw-back" mechanism if the beneficiary ceases operations at the host facility(ies). Such measures would help protect ratepayers by ensuring that the projected energy savings continue into the future. Furthermore, such provisions would fairly treat applicants who intend to continue operations in New Jersey over the course of the projected lifespan of the approved EE measures.

Conclusions

Rate Counsel respectfully submits that the Board should adopt the modifications to the LEU Pilot Proposal set forth above. Rate Counsel submits its proposed modifications to the incentives, eligibility requirements, energy savings requirements, funding limits and assurance measures would help protect ratepayers and fairly treat program applicants.