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December 1, 2014

VIA ELECTRONIC AND REGULAR MAIL

The Honorable Kristi Izzo
Secretary, Board of Public Utilities
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Re: Bloom Energy Corporation's Comments on Proposed Changes to FY15 NJCEP programs and budgets

Dear Secretary Izzo:

On behalf of our client, Bloom Energy Corporation ("Bloom Energy"), please accept these comments regarding the Board of Public Utilities' ("Board's") Proposed Revisions to the Fiscal Year 2015 ("FY15") New Jersey Clean Energy Program ("NJCEP") Programs and Budget dated November 17, 2014 ("Proposed Revisions"). For the reasons detailed below, Bloom Energy has significant concerns with the Proposed Revisions and urges the Board to maintain the current Combined Heat & Power ("CHP")-Fuel Cell FY15 budget and program requirements which were previously approved by Board Order.

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 140 megawatts ("MW") of operating systems at over 120 locations across the United States and in Japan. In New Jersey, Bloom Energy is seeing growing interest from customers who desire a clean and reliable distributed power generation solution, but do not have the thermal requirements necessary to support a CHP solution.

As an active participant in the Board proceeding regarding establishment of the FY15 NJCEP budget which was memorialized by Board order on June 18, 2014 (“June 18 Board Order”), Bloom Energy is disappointed that the Board is now proposing to slash CHP-Fuel Cell program funding from approximately \$40.4 million to approximately \$24.5 million, which is by about 40 percent. Along with other parties to the proceeding, Bloom Energy supported the original FY15 CHP-Fuel Cell budget as a careful balance between ratepayer interests and the Board’s important policy objective to promote energy-efficient distributed generation in the state. Now, just a few months later, Board Staff has issued Proposed Revisions which propose to drastically cut funding. 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, Board Staff has sent exactly the wrong signal at exactly the wrong time – i.e., projects that rely on the NJ Clean Energy program may not happen. 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 markets instead.

Bloom Energy has relied on the June 18 Board Order 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 FY15 CHP-Fuel Cell Program. As a result of these representations, Bloom Energy has seen a significant increase in customer demand in recent months. Indeed, AT&T Services, Inc. recently applied for and just received approval for two incentive applications for the installation of fuel cell systems at two separate sites by Board Order dated September 30, 2014. The increasing adoption of fuel cells as a distributed generation solution by New Jersey customers indicates that the current funding should at least be maintained, not reduced.

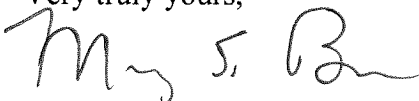
Bloom Energy concurs that FY 2014 participation in the CHP-Fuel Cell Program was below expectations. However, there is a long project development cycle and continuing budget lapses in the program will erode participation and confidence in the program. The Board

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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 FY15. In fact, this is a critical moment for New Jersey to stay the course, rather than slashing funding for the CHP-Fuel Cell Program as set forth in the Proposed Revisions.

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 maintain the incentive levels previously approved in the June 18 Board Order.

Bloom Energy appreciated the opportunity to assist in developing a well-designed CHP-Fuel Cell budget and program for FY15 that promotes the important policy objective of encouraging more energy efficient distributed generation projects in New Jersey. We now urge the Board not to change the terms of that budget less than halfway through the fiscal year and just as Bloom Energy and its fellow developers are preparing to realize the goals envisioned by the Board in developing the program. Please do not hesitate to contact me should you have any questions or need any further information. Thank you.

Very truly yours,

Murray E. Bevan



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December 1, 2014

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**Re: Comments of the New Jersey Large Energy Users Coalition
Regarding Proposed Revisions to FY15 Clean Energy Budget**

Dear Secretary Izzo:

The New Jersey Large Energy Users Coalition (“NJLEUC”) offers these comments regarding the proposed further revisions to the FY15 Clean Energy budget. NJLEUC members take no position regarding the specific revisions at issue, other than to state our continuing objection to any reduction in funding of the Large Energy Users (“LEU”) Program. We also observe that the significant reduction in grant money for cogeneration, fuel cell and resiliency projects is surprising given the State’s post-Sandy emphasis on improving the resiliency of the power grid through expanded implementation of these technologies, micro grids, and the Energy Resiliency Bank.

Instead, NJLEUC files these comments to address a broader concern: the budgetary processes for the Clean Energy Program (“CEP”) that have resulted in a series of significant and continuing Legislatively-mandated “lapses” of CEP funds to the State’s general funds. Since this practice began several years ago, approximately \$500 million of CEP funds have been diverted to the State budget, with over \$270 million lapsing in the past two years alone. It is the latest lapse of an additional \$28 million (which is only a portion of the \$98 million total lapse for FY15) that necessitates the current reallocations that are now under review.

These lapses result from the fact that the CEP, which is funded by the Societal Benefits Charge (“SBC”), has for years been chronically and significantly over-budgeted. During these years, the CEP has carried substantial unspent and uncommitted funds on its books that are

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carried over as surplus into subsequent budget years. These continuing surpluses have become a convenient annual target of the Legislature, and have resulted in these very significant losses of CEP funds to the State budget. Notwithstanding this now-common practice of the Legislature to appropriate surplus CEP funds, no changes of consequence have been made to the CEP budgetary processes to contain the surpluses or reduce the SBC.

The diversion of the CEP funds from their intended purpose to the State budget is of significant concern to NJLEUC members and ratepayers generally as it transforms the SBC into a form of stealth tax. This is of particular concern to large energy users as the SBC is a usage-based surcharge that falls heaviest on large businesses. The Board is well aware of NJLEUC's long-articulated concerns about the expansion of the SBC over the years and the heavy burden it places on large energy users, as well as ratepayers generally.

Since its inception in 1999, the SBC has grown from a modest surcharge used to fund the Universal Service Fund and certain remediation and market transition programs to a point where a number of NJLEUC members pay more than a million dollars annually in SBC charges. *In fact, at least one member reports that its SBC surcharge now exceeds its gas distribution charges.* The remaining NJLEUC members pay electric and gas SBC surcharges that are about 85- 90% of their distribution charges.

We acknowledge and appreciate that the Board has attempted to mitigate the impact of the SBC on large users in several ways, consistent with the Energy Master Plan's "overarching" goals to "drive down the cost of energy for all customers" and to "reward energy efficiency and energy conservation and reduce peak demand". The Board adopted the LEU Program to provide grants to large users that were otherwise ineligible to participate in many CEP programs. The SBC Credit Program, which was adopted pursuant to N.J.S.A. 48:3-60.3, allows businesses to claim a partial credit against current SBC obligations based upon prior investments in qualifying energy efficiency measures.

Some NJLEUC members have benefited from participation in the LEU Program, while others, for a variety of reasons, either have not participated in the program or have recouped only a fraction of their annual SBC payments from it. No NJLEUC member has participated in the SBC credit program because of the minimal benefit offered, particularly when compared with other CEP programs. NJLEUC continues to work with Board staff on an ongoing basis in an attempt to remedy issues with specific CEP programs as they arise.

However, the issues relating to the chronic over-budgeting of the CEP programs are far more serious and have significant, long term cost implications for all ratepayers. Unfortunately, the Board has yet to address these issues in a formal or comprehensive manner. The diversion of about \$500 million in CEP revenues to date underscores that the time has come to do so. NJLEUC suggests that given what has occurred in the last several years, it would be possible and appropriate to reduce the CEP budget by \$100 million annually. This reduction would, in turn,



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significantly reduce the size of the SBC, provide needed rate relief to all ratepayers, and assure that all future collections of the SBC are devoted to their intended purposes.

The concerns regarding the dramatic increase in the size of the SBC and the chronic over-budgeting of the CEP are not new. The Administration's 2012 Energy Master Plan included a "core goal" to consider new ways to provide capital to the CEP that could eliminate or limit the use of the SBC as a funding source. The 2011 Report of the Clean Energy Funding Work Group ("Report"), which issued as part of the EMP process, was prepared by a diverse cross-section of energy stakeholders that included two utilities, Rate Counsel, and representatives of the business and financial communities to advance the EMP's goal to reduce the CEP portion of the SBC. The Report, which is attached as an exhibit, addressed these issues at length and made several important recommendations to remedy them, including the following "primary recommendation" to modify the CEP budgeting process:

The Work Group recommends that efforts be made to improve the budgeting process to reduce annual surpluses because a more accurate budgeting process will provide the opportunity to reduce the SBC. Only the money necessary to fund the NJCEP programs should be collected through the SBC, rather than funding the programs together with budgeted, but unspent, surplus funds. The Work Group recommends that NJCEP budgets be based on realistic analyses of the actual funding requirements of programs in the following year, rather than funding projections, to avoid budget surpluses. Annual spending should not occur with a view to spending surplus funds as a means to justify similar funding levels in subsequent years. Included in the budgeting process should be an ongoing evaluation of incentives to determine if they are necessary, whether they are resulting in the largest take at the lowest cost, and whether they could be replaced with lower cost alternatives. The budgets for each program should be informed by more rigorous evaluations described above, including evaluations of cost, participation rates and energy savings....

Finally, to the extent that any funds are not spent or committed as of the end of a Reporting Year, the surplus should not be rolled over into the NJCEP budget for the subsequent year, but rather should be used to offset future payments from ratepayers. The overage could be reflected as an offset to the defined NJCEP payment schedule established for each utility from the prevailing CRA Funding Order. By allocating such surplus back to each utility's defined payment schedule in the same proportion to the funding obligation by the utility, each utility's next SBC rate filing that sets the appropriate recovery rate for the funding obligation



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would reflect this “over-collection” and result in a lower surcharge.
(Report at 49-51).

NJLEUC urges that the time has come to address the root cause of these lapses of CEP funds. The fact that significant budgetary surpluses continue unabated at a time when the SBC surcharge equals or exceeds utility distribution rates dictates that formal action be directed by the Board to address these issues. Consistent with the recommendations set forth in the Report, NJLEUC recommends that:

1) The budgeting and fiscal administration of the CEP by the Office of Clean Energy be improved. The budget process should begin with a realistic assessment of funds necessary to support specific programs that are first found to be meritorious and cost-effective, and the SBC surcharge should be based on this realistic assessment. Budgetary surpluses should be returned to ratepayers through reductions in the following year’s SBC. (See, Report at (iv)).

2) Energy efficiency and renewables program evaluations should be improved both before and after programs are implemented, and subject to viable market research, cost-benefit analysis, and a standard of review similar to the standards adopted for consideration of utility RGGI Section 13 filings. Uniform measurement and verification protocols should be adopted and consistently applied to CEP (and utility) programs to analyze whether the programs are effective and achieve their goals, whether incentive levels are properly set, and potential ways in which the programs may be improved. (see, Report at (iv)).

NJLEUC recommends that this analysis should be conducted by a qualified, independent third party expert who is not associated, directly or indirectly, with the CEP, under the supervision of the Office of Clean Energy. The analysis should then be presented for review and comment by interested stakeholders. The process should be conducted sufficiently in advance of the next Comprehensive Resource Analysis proceeding to enable the findings and recommendations of the analysis and stakeholder process to fully inform the CRA proceeding.

In closing, NJLEUC reiterates that the implementation of these EMP-related recommendations is long overdue and necessitated by the continuing lapses of substantial CEP surplus funds to the State budget each year. The Board should no longer limit its review to an analysis of specific budget reallocations necessitated by particular lapses, but should conduct a comprehensive analysis of the root cause of these annual surpluses and attendant lapses and direct the implementation of appropriate relief. The Board must assure that the SBC is only used for its intended purpose and that the surcharge is no larger each year than is necessary to fulfill these intended purposes.

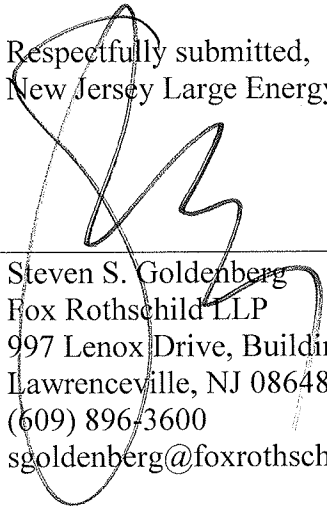
NJLEUC anticipates that it will actively participate in any Board processes that are convened to assure these outcomes. We thank the Board for the opportunity to present these comments and recommendations and urge that they be adopted.



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Respectfully submitted,
New Jersey Large Energy Users Coalition

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2011 DRAFT ENERGY MASTER PLAN

STATE OF NEW JERSEY

REPORT OF THE CLEAN ENERGY FUNDING WORK GROUP

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October 10, 2011

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EXECUTIVE SUMMARY

The Clean Energy Funding Work Group (“Work Group”) is comprised of a cross-section of energy stakeholders who have a range of experience with the New Jersey Clean Energy Program. The Work Group conducted a series of interviews, reviewed pertinent studies and drew upon their varied experience to reach consensus, where possible, regarding ways to optimize the delivery of energy efficiency programs and to fund these programs as cost-effectively as possible while maximizing energy savings. While suggestions and recommendations appear throughout this Report, the Work Group’s primary recommendations follow.

The Work Group supports transitioning to administration by a single third-party contracting entity as envisioned by the Board’s recent Request for Information. The Work Group believes that the multiple and overlapping layers of authority that are part of the current program structure lead to inefficiencies and added costs. The Office of Clean Energy’s (OCE) role should be limited to oversight of the Program Administrator and governance of the program, including budgeting, program development, fiscal administration and program evaluation. The Work Group believes this structure will improve and streamline the current structure in a manner that will improve program effectiveness and reduce costs.

The Work Group recommends that utilities that have developed energy efficiency programs as part of their business model be allowed to continue their programs, subject to Board approval, but does not recommend requiring utilities to develop such programs involuntarily. The Work Group also does not recommend creating an Energy Efficiency Utility (EEU), as the few differences between the EEU and the single third-party administrator model are not

sufficient to justify the additional implementation steps that would be required. The Work Group also does not recommend relying exclusively on OCE or inordinately on the utilities to deliver energy efficiency programs.

The Work Group strongly recommends improving NJCEP EE program evaluation both before and after programs are implemented. Before EE programs are approved, they should be analyzed via market research, subjected to a cost-benefit analysis and vetted through a review similar to that which is applied to utility EE programs under the Board's regulations. After program approval, measurement and verification protocols should be adopted and consistently applied to analyze the program's effectiveness, customer and contractor reactions to program requirements, the appropriate level of incentives, and whether changes could be implemented to improve program participation, energy savings and cost-effectiveness. Every program should have specific budgets, goals and metrics for evaluation. Program evaluation must be transparent, rigorous and ongoing.

The Work Group also recommends that OCE budgeting and fiscal administration be improved. The current process of carrying over substantial annual budgetary surpluses is costly and inefficient. The budgeting process should begin with a realistic estimate of funds necessary to support the programs in the coming budget period and the funds collected from ratepayers in a given year through the SBC should be based upon that realistic estimate. Any budgetary surpluses should be returned to ratepayers through reductions in the following year's SBC. The budgeting process should be transparent and the public should have full access to information regarding program budgets in a timely manner. The transition to a single program administrator should reduce some of the duplicative procedures that hinder the processing of payments under the NJCEP programs. The Work Group further recommends the establishment of a dedicated

unit at Treasury to process NJCEP invoices to facilitate payments to customers and the contractors responsible for implementing the programs.

The Work Group recommends greater use of the Energy Savings Improvement Law to allow government entities to finance and achieve energy savings. For commercial and industrial customers, the Work Group recommends analyzing ways to make the NJCEP Programs more market responsive, so that participation in these programs is more attractive to businesses. The Work Group also supports the NJCEP's plans to find additional ways to support CHP.

The Work Group considered alternative means to finance EE programs, including the use of revolving loan funds. The Work Group's review concluded that while revolving funding sources may be able to play a greater role in the future, they do not present a quick or easy means of reducing the need for other incentives. Revolving loan programs require a large upfront pool of money, and thus most of the revolving loan programs that presently exist were funded initially by ARRA money or other programs able to provide seed money. Developing a pool of money from which to provide the initial loans, either through borrowing or the imposition of a customer charge, may be problematic. Other logistical problems such as the length of payback periods and the costs of administration may have also led to the mixed results that have been experienced by revolving loan programs that currently exist. The Work Group notes that New Jersey has pilot financing programs for both residential and commercial customers that are currently ongoing. The Work Group recommends continuing those pilots and evaluating their results before making decisions whether to move towards more loan programs.

However, the Work Group Report addresses other methods to deliver more effective energy efficiency programs at lower costs, thereby making possible reductions in the amount required to be collected from ratepayers to support the NJCEP portion of the Societal Benefits

Charge. The recommendations in this Report regarding the streamlining of the administration and implementation of the NJCEP programs should result in cost savings that can be passed on to ratepayers. The recommendations in this Report regarding OCE budgeting practices and the elimination of the consistent NJCEP annual budget surpluses should also result in customer savings. Improving program performance and effectiveness should also ensure that SBC funds are spent on the programs that bring the greatest energy savings, thus benefitting all ratepayers through reduced costs and reduced demand.

With respect to Renewable Energy programs, the Work Group's charge was limited. The Work Group supports the continued transition to a market-based system for renewable energy programs. While ratepayer subsidies under the market-based system are still substantial, with ratepayers assuming the cost of renewable energy certificates (RECs) through their commodity rates, the transition to a market-based system reduces the amount needed to pay for these programs from funds collected via the SBC.

The Work Group was also asked for recommendations regarding whether and how the Board should address the recent reduction in SREC values. The Work Group did not reach consensus regarding whether the recent drop in SREC values is a short-term problem that the market will correct, or whether regulatory intervention is required. While the Work Group was unable to agree on a long term solution, a majority of the members of the Work Group did agree that if the Board elects to take action, a one-time acceleration of the annual solar RPS, from 596 Gwhs to 772 Gwhs, could provide short term relief while the Board determines whether a longer term solution is necessary and appropriate. The Work Group did agree that long term stability should be encouraged, that efforts to establish the long-term SACP schedule should proceed, and that other options, such as the development of a tranche for renewables or for longer-term

commitments in the BGS auction process, should be considered. Finally, the Work Group did not reach consensus on whether an SREC floor value should be established, but the majority did agree that determining the right number if a floor is to be established, would be extremely difficult and would transfer market risk to ratepayers.

The Work Group recognizes that the Board is now seeking more extensive stakeholder input regarding many of the policy areas addressed within this Report through the request for comment issued pursuant to the Procedural Order issued in *In the Matter of the Comprehensive Energy Efficiency and Renewable Energy Resource Analysis for the 2013-2016 Clean Energy Program*, Docket No. EO11050324V, that was released on October 7, 2011. As is evidenced throughout this Report, the Work Group strongly supports processes like these that encourage broad public input to foster the development of well-considered clean energy programming for the State.

The Work Group appreciates the opportunity to present its collective views to the Governor, the Board of Public Utilities, and interested stakeholders, and is optimistic that the views and recommendations set forth in this Report will assist the refinement and implementation of the 2011 Energy Master Plan.

I. INTRODUCTION

This Report has been prepared by the Clean Energy Funding Work Group which was formed at the request of the Board of Public Utilities (“Board” or “BPU”) to consider certain specified questions that have been posed to facilitate the Board’s consideration and implementation of the policy goals set forth in the 2011 Draft Energy Master Plan (“EMP”). The Work Group is comprised of a cross-section of energy stakeholders, including representatives of two utilities, the Division of Rate Counsel, and the business and financial communities, including energy efficiency and solar businesses, an engineering firm, and an expert on energy efficiency finance.

The questions that have been addressed to the Work Group for consideration and recommendations are:

(1) Delivery of energy efficiency services—does an energy efficiency utility make sense? What are the benefits and impediments of having an energy efficiency utility? What are the other options to consider regarding the structure and financing mechanisms?

(2) Given the funding coming into the Office of Clean Energy, how can we use this money more efficiently?

(3) The Board will be putting out a Request for Information regarding the contracting services used to deliver the various Office of Clean Energy programs. Once this document is available, this group can be involved in the process going forward, including development of the Request for Proposals.

(4) How can we move forward reducing or eliminating the Clean Energy portion of the Societal Benefits Charge?

In response to the Board’s request, the Work Group convened a series of meetings over a two month period to discuss the issues presented and to interview program stakeholders, including members of the Office of Clean Energy (“OCE”) staff, the Program Coordinator and

Market Managers for the New Jersey Clean Energy Program (“NJCEP”), and energy efficiency experts. The Work Group also examined a significant volume of documents contributed by the OCE, experts and members of the Work Group. In order to comprehensively address the issues that are the subject of this Report, the Work Group took certain liberties with the questions posed to engage in a more expansive analysis of the energy efficiency and renewable energy programs currently offered by the NJCEP and the State’s electric and natural gas utilities, and to make recommendations regarding the future provision of these programs.

As might be expected given the composition of the Work Group, its members were able to achieve consensus with regard to some, but not all, issues. Accordingly, this Report contains affirmative recommendations by a majority of Work Group members regarding only a portion of the issues discussed. In a number of instances, less than a majority was achieved regarding issues that the members considered to be important and worthy of consideration by the Board. In these instances, we indicate that the views expressed are those of some members, but less than a majority. We note that in several of these instances, members did not express opinions because they lacked personal knowledge regarding the issue. Members who differ with an expressed majority viewpoint have been afforded an opportunity to attach dissenting opinions. However, no member has elected to do so.

Certain historically contentious issues, such as the funding of the solar energy program and utility rate decoupling were not presented to the Work Group for consideration and we express no opinions as to these issues, other than limited discussion regarding the impact of certain solar programs on the Societal Benefits Charge (“SBC”). Nor have we been asked to address wind energy or biomass-related issues, although we note that another Work Group has addressed biomass issues. However, the Board recently requested that we make

recommendations regarding what, if any, action should be taken by the Board to address the current conditions in the Solar Renewable Energy Credit (“SREC”) market that have led to a significant decrease in SREC values. We offer limited commentary and a recommendation regarding this issue at the conclusion of the Report.

We have adopted the following philosophical approaches and goals to guide our analysis of the energy efficiency (“EE”) and renewable energy (“RE”) programs offered by the OCE and the utilities:

(i) To maximize EE and RE program energy and cost savings to the greatest extent possible;

(ii) To promote and improve EE and RE programs that achieve favorable results and can withstand cost-benefit analysis, and to modify or discontinue programs that are not deemed to be successful;

(iii) To develop appropriate metrics by which EE and RE programs may be evaluated to determine, among other things, whether they achieve program goals and are cost-effective vis-à-vis alternative program options;

(iv) To optimize delivery of EE and RE programs through the entities deemed most able to provide the programs reliably, efficiently, with minimal redundancy, and at lowest cost;

(v) To avoid unnecessary or overly prescriptive program requirements, regulation and administrative costs;

(vi) To best satisfy the needs of customers and trade allies.¹

The members of the Work Group are pleased to present for consideration by the Governor, the Board and stakeholders, the Work Group’s analysis of how the energy efficiency

¹“Trade allies” refers to the companies, including contractors, engineering firms, labor organizations and other similar trades that are responsible for implementing the NJCEP programs.

and renewable energy programs currently offered by the NJCEP have been designed, implemented, funded, delivered and evaluated, and our recommendations regarding how the programs may be offered in the future in a more efficient and cost-effective manner.

II. BACKGROUND: A BRIEF HISTORY OF THE BOARD'S ENERGY EFFICIENCY AND RENEWABLE ENERGY PROGRAMS.

The development of New Jersey's energy efficiency and renewable energy programs can be traced to the energy crisis of the 1970's. In an effort to make New Jersey and the country more energy self-sufficient and less dependent upon foreign oil, a number of State and federal laws were enacted in the mid-1970's that were designed to make buildings more energy efficient by promoting the use of insulation, programmable thermostats and other energy conservation measures. Beginning in 1982, the Board issued a series of orders requiring the State's electric and natural gas utilities to develop comprehensive conservation, cogeneration and load management plans. Thereafter, the 1985 New Jersey Energy Master Plan required each of the State's utilities to submit biennial conservation plans to the then-Department of Energy to foster the development of a more energy efficient building stock.

In 1991, the Board of Regulatory Commissioners, as the Board was then called, issued regulations that required the utilities to submit Demand Side Management Resource Plans and provided financial incentives to induce the utilities to promote energy conservation. It was recognized that financial incentives were required to enlist active utility participation because the goal of the demand side management plans was to reduce customer energy consumption and therefore had the potential to reduce utility profits that are tied to the level of sales achieved. The "Standard Offer Program" that was created compensated ratepayers and the utilities for reductions in energy consumption through the use of more energy efficient lighting and

equipment. The Standard Offer Program was the most significant program adopted during this period, but was controversial because of the significant costs that were associated with the program.

In 1999, the Electric Discount and Energy Competition Act, N.J.S.A. 48:3-49 et seq. (“EDECA”) was signed into law. EDECA directed the Board to initiate a comprehensive resource analysis (“CRA”) of energy programs to establish appropriate funding and cost recovery levels for energy efficiency and Class I renewable energy programs funded by the SBC, which was created by EDECA. EDECA set forth goals to establish programs that provided environmental and other benefits that exceeded those of the existing Standard Offer programs, to make energy service more affordable to low income customers, and to eliminate subsidies for programs that could be delivered without SBC funding. EDECA also prohibited the utilities from involvement in the regulated provision of energy efficiency and renewable energy services, although this prohibition was later lifted in 2008 with the enactment of Section 13 of the Regional Greenhouse Gas Initiative Law, N.J.S.A. 48:3-98.1, (“RGGI”) which permits utilities to provide such programs on a regulated basis.

The Board’s CRA Order issued in 2001 and required the utilities to submit compliance filings to create programs that were later called the “New Jersey Clean Energy Programs”. *I/M/O The Petition of the Filings of the Comprehensive Resource Analysis of Energy Programs Pursuant to Section 12 of the Electric Discount and Energy Competition Act of 1999*, BPU Docket Nos. EO99050347-EO99050354 (March 9, 2001). The Board’s CRA Order permitted the utilities to administer the Clean Energy programs for one year, as stakeholders debated whether it would be more cost-effective and advisable for the Board or the utilities to administer the program, weighing arguments by some that the utilities had an inherent conflict of interest in

administering such programs against the arguments of others regarding the advantages of utility administration, including the utilities' customer relationships and existing program delivery infrastructure. In January, 2003, the Board issued an Order that established the New Jersey Clean Energy Council to serve as advisers to the Board for planning assistance and administration of programs that would continue to be implemented by the utilities. *In the Matter of the New Jersey Clean Energy Program*, Docket No. EX99050347. The Clean Energy Council thereafter formed three committees—the Energy Efficiency, Renewable Energy and Outreach and Education Committees—to assist the accomplishment of the tasks directed by the Board and OCE.

In an Order entered in September 2003, the Board directed the OCE, rather than the utilities, to assume the role of administrator of the NJCEP and to contract for non-utility program management and implementation services through competitive solicitations. *In the Matter of the New Jersey Clean Energy Program-Recommendations for Administration and Fund Management*, Docket No. EO02120955. The Board also authorized OCE, rather than the utilities, to contract for the services of a fiscal agent to manage and disburse NJCEP funds, although the utilities were directed to continue to collect the funds through the SBC. The OCE thereafter retained, through a competitive solicitation, the services of Honeywell and TRC as Market Managers, and Applied Energy Group (“AEG”) as NJCEP Program Coordinator. Honeywell currently serves as Market Manager for the NJCEP renewable and residential energy efficiency programs, while TRC serves as Market Manager for the commercial and industrial energy efficiency programs. Honeywell and TRC also oversee a network of subcontractors that implement the NJCEP programs at the customer level.

The original contracts with Honeywell and TRC have expired and have been extended. The AEG contract has also been extended and will expire next July. The Board is in the process of drafting a Request for Proposals to procure new professional services to administer and implement the NJCEP. The Board is currently evaluating information received from prospective bidders that were requested to comment on the Board's proposal to procure these services from a single entity that would serve as Program Administrator of the NJCEP.

III. DELIVERY OF ENERGY EFFICIENCY SERVICES –OPTIONS REGARDING STRUCTURE

A. Allocation of Responsibilities for the Delivery of Energy Efficiency and Renewable Energy Programs

An examination of the appropriate methods to deliver EE and RE programs requires identification of the specific functions that need to be performed, as well as the general principles that should guide the exercise of those functions. The delivery of programs involves three basic functions:

- Implementation
- Administration
- Oversight/Governance

The Work Group has identified the following overarching principles that should guide the exercise of these functions, consistent with the goals of the EMP and sound policy:

- Regulatory certainty: Programs should provide certainty to investors, developers and customers that their arrangements will not be subject to shifts in policy and regulation unless absolutely required. While policy may evolve and market uncertainty may arise, participants should be comfortable that their financial transactions are not subject to the political winds or frequent regulatory changes. Regulatory and policy changes should therefore be sparingly imposed and prospectively applied, with notice to all interested parties. This will help attract investment and provide stability for customers and contractors implementing the programs.

- Longevity and Stability: Efforts should be made to provide options for longer-term transactions as a means to facilitate investment and reduce costs. The recent volatility in the solar market demonstrates the need for longer-term options. In the EE programs as well, longer-term stability will assist the contractors that implement the programs and enhance job creation and retention.
- Planning: Programs should be thoroughly evaluated before implementation to gauge their likely effectiveness. This can be done through the use of market research and focus groups to evaluate the sufficiency of incentives, consistency of program requirements with customer requirements and circumstances, and other program parameters in order to enhance their effectiveness. The utility-sponsored programs are subject to extensive review of their budgets and projected results before they are approved. The NJCEP programs do not receive the same scrutiny, relying instead on the general experience of the market managers. Modifying the NJCEP vetting process could lead to cost-savings and greater program success.
- Measurement and Verification: Evaluation of the EE and RE programs, as well as the performance of program managers, coordinators, administrators and implementers must be comprehensive and ongoing. The Work Group believes that the failure to formally evaluate NJCEP programs has led to inefficiencies. Performance metrics should be developed and applied on a consistent basis, and periodic measurement and verification of programs should occur to identify inefficiencies and determine how programs could be improved.
- Flexibility and Ease of Process: Program participants throughout the delivery chain have expressed frustration with procedural hurdles and an inability of the programs to demonstrate sufficient flexibility to keep up with changing markets and customer requirements. While it may not be possible to solve all of these concerns, efforts should be made to streamline program processes and enhance flexibility.
- Program Consistency and Accessibility: While some variations are inevitable, it is beneficial to try to maintain program consistency in different delivery areas. This assists contractors who work in different utility service territories and it may promote added efficiencies and attendant cost savings. In addition, while programs should be targeted to those customers and areas likely to yield the best results, efforts should be made to ensure that products are attractive to a mix of customers and are broadly accessible .
- Transparency and Accountability: It is absolutely essential that NJCEP programs be completely transparent in terms of funding and program development. The NJCEP Program Administrator and contractors hired by the State to implement the NJCEP programs must also be held accountable for their performance. These

principles are essential to secure and maintain public confidence in these programs.

1. The Current Structure

Under the current system, Oversight and Governance, which includes the planning, budgeting, oversight of program administration and implementation, and monitoring and verification functions, is performed by a combination of AEG, the Program Coordinator, and the OCE. Administration is performed by the Program Coordinator and the Market Managers, Honeywell and TRC. Honeywell and a team of supporting subcontractors manage the NJCEP Residential Energy Efficiency program and the renewable energy programs for all customer classes. TRC and a team of supporting subcontractors manage the NJCEP Commercial and Industrial Energy Efficiency Programs, other than those directly implemented by the Economic Development Authority (“EDA”).

With regard to the Oversight and Governance function, the RE and EE programs differ significantly. With respect to the RE programs, the Board’s 2008 Market Transition Order moved most of the administration and implementation functions out of the NJCEP/Market Manager structure to a market-based system. This is consistent with the mandate in EDECA that the Board administer the Clean Energy programs “with the objective of transforming markets, capturing lost opportunities, making energy services more affordable for low income customers and eliminating subsidies for programs that can be delivered in the marketplace without electric public utility and gas public utility customer funding.” N.J.S.A. 48:3-60. The few remaining RE rebate and grant programs are delivered through the current NJCEP structure described above. However, the RE rebate programs are, for the most part, being phased out of the NJCEP. The market-based RE programs that remain are administered and implemented by the utilities, with

oversight by NJCEP, except for the wind and biomass programs that have been retained by the NJCEP.

EE programs, however, retain the current structure described above. It was the consensus of the Work Group that the current structure is costly and contains many administrative layers that might be streamlined to reduce costs. This conclusion appears to be shared by the BPU, as evidenced by its recent Request for Information which sought information regarding a proposed model in which a single Program Administrator would perform the combined functions of the Market Managers and the Program Coordinator. This RFI is attached as Appendix "A" to this Report. The various comments received by the BPU in response to the RFI are posted at <http://www.njcleanenergy.com/main/njcep-policy-updates-request-comments/policy-updates-and-request-comments>.

2. The OCE's Role

It was the consensus of the Work Group that OCE's role should be limited to the Oversight/Governance role, and that requiring OCE to also perform an administrative role would not be advantageous. The simultaneous performance of these dual roles by OCE would, in our view, create confusion and potential conflicts, and overtax OCE's already burdened resources. The Work Group concluded that limiting OCE to the Oversight/Governance role, while restructuring the Administrative and Implementation functions to be performed by others, could streamline processes, reduce costs and foster the development of a more comprehensive perspective to guide the further development and evolution of the programs (e.g. evaluating and incorporating new technologies, adjusting programs in light of anticipated regulatory changes, reviewing successful program models in other jurisdictions, and considering how programs could coordinate to serve the needs of the marketplace).

Even if OCE's role is limited to the Oversight/Governance function, improvements are needed to enhance OCE's performance of this function. The Oversight/Governance function consists of the following tasks:

- Retention of program administrators;
- Development and assessment of proposed programs;
- Budgeting;
- Fiscal administration and processing; and
- Measurement, verification and evaluation of programs.

Third-party program administrators of the NJCEP, whether a single Program Administrator as contemplated by the RFI, or multiple contractors as utilized in the current model, are and will continue to be subject to the State's procurement laws and procedures. This requirement is rooted in well-established law and can be implemented without delay or adverse impact on programming. The contracts with program administrators should be sufficiently flexible, and of extended duration to the extent permitted by State contracting law, in order to provide greater predictability and consistency over time. The contracts should also include performance-based metrics and be sufficiently facile to accommodate corrective action if program goals or performance thresholds are not achieved.

With respect to the development and assessment of proposed NJCEP programs, OCE should provide a more formal and open process for public input, with sufficient notice and an opportunity for the exchange of information and comment, particularly by those customers that are the targeted beneficiaries of the proposed programs. The review of OCE funded programs should also be more rigorous, including market research and cost benefit analysis, before they are approved. This additional market intelligence should enhance the effectiveness of programs and could result in increased customer participation rates and cost savings. At present, the level of certain incentives offered in these programs has been established largely on the basis of the

general expertise of OCE staff and the Market Managers, rather than on market data and customer input . If the absence of market data results in an incentive being set at an amount that is higher than necessary to induce customer participation, this would result in a circumstance in which more ratepayer money is being spent on a program than is required. Conversely, if the absence of market data results in an incentive being set too low, customers could elect not to participate and the program could be undersubscribed. Other program improvements identified by up-front market analysis could also lead to greater efficiencies, more realistic program requirements and eligibility criteria and, therefore, enhanced customer participation.

The Work Group therefore recommends that greater emphasis be placed on the evaluation of NJCEP-funded programs prior to their approval. We note that when utilities propose to implement EE and RE programs under Section 13 of RGGI, they are required to participate in a formal petition process in which their proposals are subjected to review and discovery by the Division of Rate Counsel, Board Staff, and interested intervenors. Evidentiary hearings may be held if factual issues are presented. This process often leads to program modifications and improvements before the program is reviewed and approved by the Board.

The process for NJCEP-funded programs is far less rigorous, consisting of generalized “stakeholder” proceedings that afford only an opportunity to comment, but no opportunity to conduct discovery or participate in formal hearings. The information upon which NJCEP relies in these stakeholder proceedings is often generalized with few specifics to assist the review. The recent release of the proposal for the \$10 million NJCEP Multi-Family Financing Pilot Program serves as a vivid example of why NJCEP and stakeholders must collaborate more closely in program development to avoid situations in which insufficient information is available to the parties to conduct a meaningful review of the merits of a program. In that proceeding, several

stakeholders commented that it was not possible for them to evaluate the program because of the lack of information provided regarding the targeted number of participants, expected energy savings, and administrative expenses. While the Work Group recognizes that this pilot program addresses a market segment that is of particular interest to the Board, we believe it is critical that all new program proposals afford stakeholders with certain basic information to enable them to evaluate the merits of the programs and to offer meaningful comments about them.

The process by which new NJCEP programs are approved could also be substantially improved if the OCE were to require its third-party contract administrator to conduct market research as part of a proposal. Even if more formal administrative procedures are not employed, the OCE should provide greater transparency in its review process. This transparency should require, at a minimum, complete disclosure to interested parties of the administrator's proposal, market data and research, coupled with an opportunity for stakeholders to ask questions and propose program improvements, rather than merely provide passive comments. Some members of the Work Group also point to the Pay for Performance program as a good example of a well-intentioned program that proved to be out of step with the requirements of targeted customers, leading to program under-subscription. These members expressed frustration that this result could likely have been avoided by additional market research and customer evaluation and interaction.

As noted above, NJCEP's overall budgeting process was established by EDECA. However, the budgeting process could be improved, consistent with EDECA, through greater transparency and the application of basic budgeting principles. We recommend that essential background information regarding proposed program budgets should be made available to the public for review and comment in a timely manner to help assure that budgets are set at

appropriate levels. . This is important because the NJCEP has consistently carried substantial surpluses from year to year, which subjects the surplus funds to appropriation by the Legislature. NJCEP should spend what it collects and not collect what it cannot or will not spend. The natural tendency to find ways to spend surplus monies in an effort to justify similar budgets in future years should also be avoided. Proper budgeting and fiscal discipline could provide effective techniques that would avoid budget surpluses and thereby reduce the SBC each year.

The Work Group recognizes that no budgeting process is ever perfect and does not wish to advocate a structure that may lead to program stops and starts that would be disruptive to customers and the trade allies that implement the NJCEP programs. We recommend that the NJCEP should adopt better budgeting, spending and processing techniques and controls that will facilitate timely program launches, approvals of customer program applications, and payments of incentives to customers and compensation to trade allies. We further recommend that the Board and OCE evaluate whether the establishment of a multi-year budgeting process could help to address and resolve some of these recurring budget issues and better serve the interests of the customers and trade allies served by the programs.

Many of the programs in the current system are criticized for their fiscal administration and processing deficiencies. Participants complain that the paperwork is excessive or too cumbersome, the time taken to process payments is too long, and that the overall approach is out of synch with customer requirements and budget constraints. The procedures currently utilized, which require various levels of review by the market managers, AEG, NJCEP and Treasury are often cited as the reason for these burdens and delays. Because the current system has had discernable adverse affects on customer and contractor participation in, and satisfaction with the NJCEP programs, the Work Group recommends that these procedures be re-examined to find

ways to streamline the paperwork and review processes, reduce the time needed for application processing, and to make the payment process more customer and contractor friendly.

One way to streamline the process would be to eliminate one or more layers of review. For example, if as is presently being considered, a single Program Administrator is utilized to review the individual invoices of subcontractors, the Market Manager and AEG Program Coordinator functions could be combined. While OCE would need to review payments as part of its oversight role, its review could be tailored to that function and thus streamlined. Review by Treasury could also be streamlined and improved. A dedicated unit at Treasury to review invoices from these programs would also help address this problem. Although Treasury staff is currently assigned to this task and works diligently to process NJCEP payments, they are at times called upon to do other tasks which can slow down processing for NJCEP. Streamlining fiscal administration and processing with dedicated personnel would not only improve the programs for participants and contractors, it would be expected to reduce administrative costs as well.

One of the most important improvements that should be made to the current system is the institution of a comprehensive system of program evaluation. Through independent measurement and verification, programs can be consistently evaluated and improved. Formal evaluation of the NJCEP programs has been intermittent over the last decade. Some evaluation was performed in the early stages of the NJCEP programs and later in 2004 and 2005. Evaluations available from prior years can be reviewed at <http://www.njcleanenergy.com/public-reports-and-library/market-analysis-protocols/market-analysis-baseline-studies/market-an>.

However, since then little formal program evaluation has been conducted. The Rutgers Center for Energy, Economic and Environmental Policy (CEEPP) is under contract to perform some program evaluation. CEEPP performs cost-benefit analyses for many utility EE programs

before they are approved and establishes the basic format that utilities would use if preparing the information for their own purposes. The effectiveness of those programs is also evaluated as part of the annual proceedings to reconcile the charges for the programs. In January 2010, NJCEP, in conjunction with CEEEP, released a 2010-2011 Evaluation and Research Plan for the NJCEP programs. According to that Plan, CEEEP prepared evaluation plans setting forth proposed evaluation activities for 2005-2006. A plan was prepared for 2007 but was not released.

An Appendix to the 2010-2011 Plan lists a series of planned "evaluation studies". For energy efficiency programs, there appear to be periodic "market assessments" conducted by CEEEP, most recently in 2008, as well as energy impact evaluations and protocol reviews for certain individual programs conducted by KEMA, Inc., most recently in 2009. The Work Group has been informed by CEEEP that it is conducting cost-benefit analyses of the NJCEP programs and that those analyses, when completed, will be available on the CEEEP website. However, it does not appear that those analyses or any recent evaluations are disseminated by NJCEP or that any formal ongoing evaluation of the NJCEP energy efficiency programs is conducted to determine whether any modifications are needed.

In discussions with the Work Group, the Program Coordinator has indicated that a plan is now being developed to resume the evaluation of NJCEP programs. According to recent discussions at the monthly NJCEP Energy Efficiency Committee meetings, OCE has developed RFPs for a market potential study to support the recently-initiated CRA proceeding for the residential and commercial and industrial markets, and to conduct the evaluation studies proposed in the 2010 evaluation plan. The Work Group strongly recommends that program evaluations be resumed and conducted by independent entities based upon measurable and verifiable data. The evaluations should also be sufficiently transparent to enable all interested

parties to fully participate in a process that should ultimately determine the extent to which the NJCEP programs are efficient relative to the guidelines and goals established for targeted customers, as well as in relation to other, similarly situated programs. The evaluation process should be an ongoing one as it would be expected to lead to more informed decisions whether to continue, modify, or discontinue the programs evaluated.

Although formal program evaluation has been minimal to date, program implementation is now being evaluated, albeit in an inefficient manner. The Market Managers, Program Coordinator and OCE staff have advised the Work Group that a substantial duplication of effort occurs in the evaluation of certain programs and that such efforts could be streamlined. For example, under the current procedures for some programs, upon completion of a project, subcontractors hired by the Market Managers will inspect the work performed for a sample portion of the participating projects. The Market Manager will then check on a sample of the work of the subcontractors, and the Program Coordinator may check the Market Managers' work. NJCEP staff may also review project paperwork prior to approval of payment. A more efficient system of evaluation would reduce some of these layers, leading to cost savings and improving the perception of inefficiency by program participants, some of whom find themselves subject to multiple inspections of the same project.

Every program should have specific budgets, goals and metrics, which would provide the basis for a more efficient system of measurement and verification. The format followed by utilities submitting RGGI petitions can serve as a model for establishing an effective measurement and verification process. As with RGGI petitions, each proposed NJCEP EE program should be subjected to cost-benefit analysis that is predicated, in part, on a detailed analysis of pro forma financial statements and the specific goals established for the program.

Each program should also have a timeline for the delivery of program services with established project milestones and reasonable review periods that take into account customer timing and budgetary requirements. The entity responsible for implementing the program should be required to file specific data, and to respond to requests for information to further enable the reviewing entity, customers and other interested parties to assess the program, determine whether program goals and milestones have been achieved and, if not, to determine why they were not achieved.

The independent entity responsible for measurement and verification should issue a report to be available for public comment. The various recommendations and public comments would then be provided to the Board for review. If the program review demonstrates that the program is on budget and meeting its goals, the review would be straightforward and could be concluded. If the program is off budget or not achieving its goals, the review should continue to analyze why program goals are not being met and to consider whether remedial actions are appropriate or the program should be cancelled. By establishing appropriate metrics, the review process will be streamlined and made uniform, which should result in lower program costs and the more efficient delivery of program benefits.

Program evaluation could be conducted by OCE itself, aided by sufficient numbers of skilled staff, or it could be conducted with the assistance of an independent entity hired through a separate contract with OCE or the entity selected for the Program Administrator role. This choice should be made based upon an analysis of the costs and anticipated quality of each option. Under no circumstances should program evaluations be conducted by the entities being evaluated. The evaluation function should also be separated from the program planning function if both are to be performed within OCE. The evaluation data should be reviewed by OCE staff and other interested parties on an ongoing basis so that program changes suggested by the data

can be recommended to the Board in a timely fashion. NJCEP's contracts should include sufficient flexibility so that program improvements can be made without the need for time consuming and cumbersome contract modifications.

3. Analysis Of Alternative Models For The Administration And Implementation of Energy Efficiency And Renewable Energy Programs

A variety of options for reconfiguring the administrative and implementation functions for the NJCEP programs were discussed. The options consisted of:

- Utility delivery of services;
- OCE delivery of services;
- A single third-party contract entity under OCE oversight (i.e. streamlining of the current configuration);
- A single contract with an energy efficiency non-profit (i.e. an EE Utility).

Each option was found to have advantages and disadvantages. The options are discussed in the sections that follow.

A. Utility Delivery of Services:

The Draft EMP "recognizes the value" in having the utilities support the delivery of energy-efficiency and conservation programs. It references the frequent and unique access utilities have to customers through monthly bills, customer call center functions, on-line resources and web-sites, field offices, and field activities. Additionally, channels such as inserts placed in customer billing envelopes can be leveraged to highlight conservation and energy-efficiency programs at the time when customers are directly aware of the cost of energy in their homes or businesses. Further, nearly all prospective Program Administrator respondents to the Request for Information issued by the Treasury regarding the future management of the NJCEP (the RFI is attached as Appendix "A"), noted the potential benefits of working with utilities in the delivery of

such programs. Utility involvement in energy efficiency is also documented in a considerable number of national studies from government agencies, energy efficiency advocate organizations, and collaborative policy networks. (See studies listed in Appendix “B”).

B. Background and Current Role of the Utilities in Delivering EE and RE Programs

With the exception of Rockland Electric Company, the State’s utilities have collaboratively managed the NJCEP Comfort Partners Program for delivery of services to income-eligible customers since 2002. The Comfort Partners Program offers free energy-saving improvements and energy education for income-eligible residents that can lead to long term reductions of the SBC by reducing the energy burden covered under the Universal Service Fund Program. This nationally-recognized program has served more than 65,400 customers and provides a good example of utilities working together with regulators to deliver an energy efficiency program in a cost-effective manner.

Within the Global Warming Response Act² (“GWRA”), the Legislature mandated statewide reductions in greenhouse gas (“GHG”) emissions. Additionally, the GWRA acknowledged that energy-efficiency and conservation measures, together with an increased reliance upon renewable energy represent crucial components of the State’s energy future. The GWRA also contained the Legislative finding that “public utility involvement and competition in the renewable energy, conservation and energy efficiency industries are essential to maximize efficiencies and the use of renewable energy, and that the provisions of P.L.2007, c. 340 (C.26:2C-45 et al.) should be implemented to further competition.”

² N.J.S.A. 26:2C-37 et seq.

As previously noted, Section 13 of the Regional Greenhouse Gas Initiative Law, N.J.S.A. 48:3-98.1, permits energy utilities to invest in energy efficiency, conservation, renewable energy resources or renewable energy programs on a regulated basis. Section 13 represented a departure from prior law which had prohibited electric utility involvement in power generation and restricted utility involvement in the provision of competitive services on a regulated basis. Section 13 also allows utilities to obtain cost recovery and a return on investments through customer rates for RGGI programs approved by the Board. Thus, the costs associated with the various Section 13 programs are assumed by ratepayers. The utilities' return on investment is an added premium that may make these programs more costly than if they were administered by NJCEP or by a third-party contract entity, although a third-party would also add its costs and profit margin to program costs.

After the adoption of Section 13, on May 12, 2008, the BPU issued an Order in Docket No. EO08030164 (the "May 2008 Order") that established the procedures to be followed for an energy utility seeking Board approval of energy efficiency or renewable energy programs pursued under Section 13, including the designation of Minimum Filing Requirements ("MFRs"). The MFRs require that certain minimum information be provided in a Section 13 filing, including financial data, details regarding the proposed energy-efficiency and renewable energy programs, the proposed cost recovery methodology, a cost-benefit analysis, and details regarding the method by which the proposed programs support and/or complement existing offerings from the NJCEP and other utilities. As noted, the Section 13 programs have been subjected to a level of detailed review by the Board, Rate Counsel and other interested parties that exceeds the vetting afforded to proposed NJCEP programs.

Following the issuance of the May 2008 Order, all seven of the State's energy utilities made Section 13 filings for energy efficiency and renewable energy programs.. At this time, only five of the seven utilities³ have Board-approved energy efficiency programs in operation. The short period of time within which these filings were made largely precluded broader discussions regarding the development of an overall energy policy for New Jersey and how to address the variations among utility service territories and resources. Significant differences exist between the various utility-run energy efficiency and renewable energy programs currently being offered.

In response to Section 13, certain energy utilities modified their existing business models to include energy efficiency and conservation priorities, and retained dedicated personnel to support the enhancement and expansion of current NJCEP programs. Other utilities developed a business model that included staff focused on the development of new programs, independent of NJCEP, that would encompass underserved markets in an effort to augment the programs and resources available to "hard to reach" customers and help the State to test and learn from new approaches. Two utilities have not received BPU approval to implement new energy-efficiency programs and, as such, have no dedicated staff to manage or promote energy efficiency programs on their own.

For those energy companies with ongoing, active programs that complement and enhance NJCEP offerings, investments have been made in developing a business model supportive of those efforts. That effort includes, but is not limited to, such activities as the development of enhanced computer systems, establishment of expanded outreach and communication methods to engage customers and community groups, and linkages with an increased number of trade allies, including local contractors and energy efficiency equipment suppliers. These programs have

³ Elizabethtown Gas, New Jersey Natural Gas, Public Service Electric & Gas, Rockland Electric and South Jersey Gas all have active programs. Jersey Central Power & Light made a filing that was denied by the BPU and Atlantic City Electric made a filing that remains unresolved.

spurred job creation for incremental utility personnel and utility trade allies and are designed to create and sustain additional jobs in local markets, although these benefits are more difficult to quantify and were not evaluated by the Work Group.

The utilities have also had the opportunity to earn a return on investments made at the level approved by the BPU, as well as recovery of program expenses without a return component. All programs are subject to the Section 13 program review process described above and subsequent review and discovery through the annual rate recovery filing for such programs. Some utilities are interested in continuing, and possibly expanding, their role in the State's delivery of energy efficiency and conservation programs. Other utilities have a varied level of interest in the implementation of additional energy efficiency programs. At least one company has expressed no desire to be active in program implementation, and instead supports a statewide model of program implementation. In light of the diversity in utility program development and implementation, the utilities have not adopted unanimous positions concerning their roles in offering and managing energy efficiency and conservation programs on a prospective basis.

The utility programs have achieved varying levels of success in terms of promoting solar energy, energy efficiency, combined heat and power and energy conservation. The utility programs have ranged in costs and include direct incentives and loan programs. It is premature to make meaningful determinations regarding the value that ratepayers have derived from the utility Section 13 programs, whether the programs have been cost-justified and, in particular, how their program costs compare with NJCEP programs implemented by the Market Managers. We encourage the Board, Rate Counsel and other stakeholders to make these comparisons and to continue to closely monitor the utility programs to verify whether they actually achieve their projected benefits and are justified from a cost-benefit perspective. We also recommend that

uniform program evaluation metrics, such as data presented in cost-benefit analyses required by the MFRs, be developed to enable a viable cost comparison to be made between the Section 13 programs and the NJCEP programs.

Further, we recommend that the respective roles of the utilities and the NJCEP should be clearly established and subject to ongoing coordination so that a comprehensive energy efficiency framework can be established in New Jersey. It is important that a partnership approach be adopted with all stakeholders and that lesser emphasis be placed on programs that emphasize near term goals (such as lighting retrofits) to the exclusion of longer term, market transformational approaches that would be more beneficial and cost-effective in the long term.

Finally, as noted, uniform evaluation criteria should be established and consistently applied to determine what constitutes a “successful” program and how successful programs should be continued and coordinated Statewide. This approach could assure that the State benefits from good programs, regardless of whether a utility or other source provides it, but is not burdened by programs that fail to achieve projected results or are inordinately costly when compared with the benefits they deliver.

4. Pennsylvania Act 129 Approach to Utility Energy Efficiency Programs

The Work Group also reviewed Pennsylvania Act 129, 2008 Pa. Legis. Serv. Act 2008-129 (H.B. 2200) (Purdon’s) (“Act 129”), which represents an alternative approach adopted by Pennsylvania that mandates the manner in which the Commonwealth’s energy efficiency and conservation goals are to be achieved. Act 129, which was enacted in 2008, represents a significant departure from the manner in which New Jersey has approached utility energy efficiency and conservation programs over the years.

Act 129 required Pennsylvania's electric utilities to develop and implement cost-effective energy efficiency and conservation plans, including renewable energy, to achieve increasing, mandated reductions in peak demand and energy consumption within their service territories. The plans were required to include reductions in usage by governmental facilities and low income households, quality assurance and verification measures, estimates of the cost of implementation, and a proposed cost recovery mechanism. The utilities were required to demonstrate that their plans are cost-effective, using a total resource test adopted by the Public Utility Commission, and the utility plans are subject to annual independent evaluation of their cost-effectiveness, including the reasonableness of any administrative costs charged. If the Commission determines that the plan promulgated by a utility will not achieve its mandated reductions in a cost-effective manner, the Commission is authorized to direct the utility to modify the plan or require the submission of a revised plan.

It is noteworthy that Act 129 includes significant penalties to be assessed if a utility fails to submit a plan or revised plan (\$100,000 per day until filed) or to achieve the mandated reductions in peak demand and energy consumption (between \$1 million and \$20 million), and prohibits the utilities from recovering any such penalties from ratepayers. The utilities were permitted to subcontract their Act 129 responsibilities and a number of utilities apparently did so.

The costs associated with any utility plan were capped at 2% of the utilities' total annual revenues. The utilities were authorized to recover all reasonable and prudent costs incurred in the provision or management of a plan. However, decreased revenues caused by reduced energy consumption or demand could not be recovered through a reconcilable automatic adjustment clause (e.g. decoupled rates). Instead, the utilities were directed to seek relief through the filing of rate cases.

One criticism of Act 129 is that it does not promote and has not resulted in robust energy efficiency and conservation programs. Because the mandated reductions are scheduled to occur beginning this year, it is premature to evaluate whether the Act 129 approach has been successful in its initial stages, as measured by the metrics established by the Pennsylvania Public Utility Commission.

We suggest that the Board monitor the results achieved under the Pennsylvania program. However, it should be recognized that the Act 129 was a legislated “command and control” approach to energy efficiency and conservation that departs dramatically from the New Jersey model for such programs. This approach would be strongly resisted by the utilities since they would not have primary responsibility for overall EE programming. The utilities would likely object to being held accountable for the results of an Act 129-type program and subject to penalties for failure to achieve program goals.

5. On-going Role for Utilities

While there is currently some variation in utility involvement in the provision of energy efficiency and conservation programs, most utilities are interested in remaining part of New Jersey’s energy efficiency efforts. The Work Group recommends that the Board retain a structure that allows for companion utility energy efficiency programs in appropriate circumstances but not mandate participation requirements for all utilities. Keeping the utilities as part of the energy efficiency equation would enable the State to leverage utility strengths, including customer relationships, billing and messaging systems, and energy technologies to, among other things, conduct targeted energy efficiency programs in congested areas and for so-called “hard to reach” customers.

While utilities should remain part of the overall mix, because of the various drawbacks associated with utility provision of certain EE programs discussed below, the Work Group does not recommend a structure that relies exclusively or inordinately on utility-run programs. First, not all utilities are interested in becoming involved with energy efficiency programs. Several utilities have indicated that administering energy efficiency programs is not part of their business model and that they are not interested in creating such programs or hiring the staff to implement them. They would likely have to be ordered to do so over their objections. To the extent that ensuring statewide consistency of utility-based programs is a policy goal, it may be difficult to obtain if the utilities are responsible for developing their own programs.

The utilities have collectively provided their positions and shared concerns regarding energy-efficiency programs through comments submitted by the New Jersey Utilities Association (NJUA). On their behalf, NJUA has noted the potential for long-term shifts in energy policy to negatively impact the financial health of the utilities and requested that the policies be reconsidered or rate relief, such as rate decoupling, be afforded to the utilities.

Several members of the Work Group reject the use of rate decoupling as an incentive for utilities to foster EE programs as they assert, among other things, that decoupling would increase energy costs to ratepayers and deny customers the full measure of benefits associated with their energy conservation efforts. Accordingly, the Work Group takes no position regarding rate decoupling or similar rate treatments. To the extent that the State is willing to consider such rate treatments, there is guidance available regarding the merits of different policy approaches available through the U.S. Department of Energy's Technical Assistance Program.

The Work Group is satisfied that any administrative structure adopted by the Board should allow the utilities that have energy efficiency capabilities to continue to provide such

programs when found to be appropriate and cost-effective. Certain utilities have invested in these programs and relied in good-faith on RGGI Section 13, such that it would be unfair to deny them the ability to continue to invest in and offer meritorious EE programs. Thus, while the Work Group does not recommend that the State rely exclusively or inordinately on utilities for the future provision of energy efficiency programs, we recognize that utilities should be afforded an ongoing opportunity to promote energy efficiency programs that are determined to be beneficial and cost-effective and that complement NJCEP programs. Some Work Group members note that utility programs can potentially help Statewide programming by piloting different programming that could be considered by NJCEP for broader application in the future.

With respect to renewable energy programs, policy questions are presented regarding whether utility investment in renewable energy programs, other than as purchasers of SRECS, is necessary or appropriate.⁴ Renewable energy is a form of electric generation which was deregulated by EDECA and is now deemed a competitive service that is provided by utility generation affiliates. Accordingly, some members of the Work Group recommend that if utilities wish to promote solar renewable energy projects, they should do so through their unregulated generation affiliates, a move that would end ratepayer subsidies and transfer generation-related risk to the generation affiliates. Some Work Group members also believe that although utility-sponsored projects may have been beneficial in jump-starting the solar market, the market has matured to a point at which utility-sponsored investment is no longer required.

⁴This discussion is intended to apply to Section 13 utility programs that involve the generation of renewable energy, and not necessarily EDC solar financing programs.

6. OCE Delivery of Services

OCE's current dual role in performing oversight, administration and implementation of NJCEP programs is taxing OCE's limited resources. The dual role also risks the creation of conflicts and requires staff to perform functions that may be outside their areas of expertise. As noted above, NJCEP programs are not currently subject to extensive evaluation and true-up proceedings, and a system for the measurement and verification of the effectiveness of OCE programs needs to be developed.

In order for OCE to be able to deliver all of the State's clean energy programs, it would be necessary to hire a substantial amount of additional staff with expertise in implementing such programs. Funding for such staff would have to be included in the NJCEP budget. While hiring additional OCE staff may in fact be the least expensive option, we believe it is not the best option. As a governmental entity, OCE should perform the function it is best equipped to perform – oversight. Asking OCE staff to perform dual roles strains its resources and blurs its oversight function. For this reason, we do not recommend moving to a structure in which OCE would have full oversight, administrative and implementation responsibility for all programs.

7. Single Third Party Contracting Entity for Delivery of NJCEP Programs with OCE Oversight

The single third party Program Administrator is the structure contemplated by the RFI recently issued by the BPU. A streamlined version of the current structure, this option contemplates a single contract with a third-party that would administer and implement the clean energy programs. The single contracted Program Administrator could sub-contract with trade allies and others with specific market expertise as necessary to ensure efficient implementation of the programs. The OCE's function would be to monitor and oversee the programs and assess and verify the performance of the programs and the Program Administrator. A process for true-

ups and measurement and verification could be developed and might be accomplished faster than the formal process used for utility programs. Monies collected through the NJCEP portion of the SBC charge on ratepayers' bills would be used to pay the contract entity for the costs of the programs.

The proposal to move to a single Program Administrator could resolve several of the problems that have prevented New Jersey from achieving the full potential of its energy efficiency programs. One significant issue relates to the costs associated with administering the NJCEP programs. Based on presentations made to the Work Group, it appears that the costs associated with the administration of the various energy efficiency programs is a difficult metric to define. It does not appear that approved metrics exist to evaluate the cost of individual programs. Nor do metrics exist that would enable a detailed cost comparison to be made of the various energy efficiency programs that comprise the NJCEP portfolio of programs, or of those offered by the utilities under Section 13 or otherwise.

Thus, for example, the cost of the NJCEP programs (and utility programs) on a per energy unit saved basis has not been provided to the Work Group and it is unclear how much such data exists. It appears evident that if the success of a program, as measured by its cost-effectiveness, is to be properly measured, the Board must have available to it a common "overall cost" figure for the program, stated on a \$/kWh or \$/MMBTU basis or, in the case of on peak demand reduction, \$/KW saved. The requirement that all NJCEP and utility EE and RE programs be evaluated on the basis of the same "overall cost" metric is critical and should be developed. Once this metric is derived, it will enable the Board to determine, on an "overall cost per energy unit saved" basis, which programs in the overall suite of programs offered by the NJCEP and utilities are cost-effective and should be pursued. With such a metric, the single

Program Administrator could readily determine which programs to pursue, modify, or abandon, as well as the appropriate entity or entities to deliver meritorious programs.

Anecdotal evidence provided to the Work Group indicates that administrative costs for the NJCEP programs are considerable and suggests several reasons why this is so. First, based on information provided by the OCE, we understand that fixed management fees have been charged together with separate per application fees, apparently without consideration regarding whether a program has been successfully implemented. Consideration of performance-based contracting, which could include incentives or payment based upon the degree of market penetration achieved, together with a variable management fee that is tied to the actual number of applications processed, may be beneficial.

Next, some Work Group members suggest that in their experience there appears to be a lack of effective coordination and strategic planning regarding the appropriate scope and coverage of the NJCEP and certain utility programs. For example, NJCEP and PSE&G provide Direct Install and local government programs that are similar in name and concept. However, the programs have different program managers and differing eligibility and program requirements which, we are advised, has led to customer confusion and some degree of competition between the programs. A single Program Administrator structure would place the Board in the best position to determine which programs will best serve the customers they target and to actively promote the programs while avoiding any unnecessary redundancies and overlaps between the programs. To the extent that utility programs are determined to be cost-effective, the OCE should be responsible to assure that such programs complement the NJCEP programs and assure that customer education regarding the programs be effectively coordinated between the single Program Administrator and the utility.

We have also received anecdotal evidence from members of the Work Group that the NJCEP programs developed for commercial and industrial customers have been burdened by cumbersome eligibility requirements and approval processes, and rigid program guidelines that were not properly evaluated prior to program implementation. In some instances, the complexities of the processes delayed the implementation of projects, causing budgetary and other concerns that caused customers to conclude that the program incentives were not worth the effort to obtain them. One program cited for such problems was the Pay for Performance program, whose up-front application and eligibility and technical requirements are out of step with customer requirements and resulted in low subscription rates. Some members observe that the Large Energy Users Pilot Program, which was designed as a form of "light handed" regulation in contrast to the strict parameters and engineering analyses of the Pay for Performance program, was funded by surplus monies transferred from the Pay for Performance program budget.

Members of the Work Group who have been involved with the Direct Install program have reported that since its initial launch, Direct Install contractors were selected on an exclusive county or regional basis, which may create a windfall for the chosen contractors and has led to instances of poor service quality and slow delivery of services by the contractors. In this economy, with so many contractors out of work, other contractors should be added to satisfy the work load. The Work Group recognizes that discussions at recent EE Committee meetings indicate that the commercial Market Manager intends to re-bid the contracts for the Direct Install program to provide more flexibility and eliminate geographic restrictions. As of the drafting of this Report, the 2012 Draft Compliance Plan was not available to enable the Work Group to assess whether this action may be sufficient to address the issue.

A final area of concern relates to the ability of the NJCEP programs to adapt to customer needs and changing legislative and market conditions. This concern may be a reason for the Board's determination to move to a single Program Administrator model, which is viewed as potentially a more facile structure. We recommend that the Board consider enhancing the authority of the single Program Administrator, within the boundaries of the existing procurement laws, to modify programs and allow them to evolve in a timely and cost-effective manner, based upon market realities and the experience of customers and contractors. The Board should also explore the potential to establish a performance-based contractual relationship with the single Program Administrator based, in part, upon a system of incentives tied to market participation in the NJCEP programs and defined program "success" metrics in order to firmly align the interests of the Program Administrator with the performance of the NJCEP programs.

In sum, the single Program Administrator structure has the potential to provide more flexibility in the implementation of programs, as the single Program Administrator would be better able to respond to market conditions and to procure and pay for services more quickly. It would also ideally provide sufficient flexibility to incorporate some of the more successful features of the utility programs and to coordinate NJCEP programs with the utilities as appropriate in the circumstances. It could have a benefit over the current structure in that responsibility for the administration of the program, and ultimate accountability, would fall on a single entity. This should reduce the number of layers of oversight and thus the cost. It will also streamline OCE's duties so that the OCE can focus on monitoring and verification and oversight of a single contract entity. Finally, this structure could be implemented under the existing authority of the BPU. Given the number of responses to the RFI, it appears that there will be a

number of interested entities and thus procurement under an RFP pursuant to existing law would be possible.

8. Energy Efficiency Utility

This option is similar to the structure set forth above, except that the contracting entity is a non-profit entity awarded a contract to administer and implement the State's energy efficiency programs. This option has been implemented in some states under the existing authority of the utility regulator to contract for services. In other states, a statute has been promulgated. An energy efficiency "utility" can also be set up by awarding a state-wide franchise through a competitive process. This alternative would require legislation.

Funding for the EE utility would be collected as it is now through the SBC. In Vermont, the electric-only EE utility is funded through a per kwh charge that is collected by the utilities and then held by a "fiscal agent." The EE utility then submits vouchers to the fiscal agent for approved expenses. This model is apparently based on the model utilized by the federal government for the Telecommunications Universal Service Fund. This structure may address some of the fiscal administration concerns discussed above as the funds collected to support the EE utility would be controlled by the fiscal agent rather than held in the General Fund. This may allow for some streamlined procedures and additional resources to process payments.

A system for monitoring and verification and true-ups would have to be developed which could be performed by OCE. In Vermont, the Public Advocate, the state's equivalent of Rate Counsel, performs this function. In either event, there would be costs associated with developing staff to perform this vital function, although that cost may not be any different than under the third-party contract model discussed above.

The benefits of utilizing this structure include potential cost savings due to the EE utility's status as a non-profit. A detriment could result if it is determined that legislation would be required to implement this option, as developing and passing such legislation would take time. Otherwise, there is little difference between this option and the third-party administrator option discussed above.

IV. DELIVERY OF ENERGY EFFICIENCY AND RENEWABLE ENERGY TO GOVERNMENTAL, LARGE ENERGY USER AND RESIDENTIAL CUSTOMERS

The different classes of customers—governmental, residential, commercial, and large industrial customers—each have distinct attributes and program requirements. Within these generic classes are a broad diversity of customers with highly differentiated attributes and subsidiary markets. Accordingly, the programs promoted for each customer class, and the manner in which the programs are delivered to them, should be carefully tailored to address their unique needs and market penetration challenges. In each instance, we recommend that program delivery occur in the most efficient and cost-effective manner possible.

A. Governmental Entities

A core goal of the Energy Master Plan is for the State to “lead by example” by increasing the energy efficiency of buildings and facilities owned by governmental entities, reducing their energy consumption and greenhouse gas emissions, and enhancing the reliability and cost-effectiveness of the State's energy supply. The goal is a valid one as there appears to be a compelling and immediate need for State and local governments to upgrade critical infrastructure that has, with the passage of time, become inefficient, obsolete or outlived its expected useful

life. This equipment includes major equipment whose failure could endanger the reliable provision of energy services to critical governmental facilities. Although the State's energy infrastructure-related challenges are considerable and require immediate attention, critically needed upgrades have not occurred due, at least in part, to longstanding budgetary constraints that have only worsened as a consequence of the current economic downturn.

According to certain Work Group members, this situation has exacerbated the State's budgetary stresses because the State has resorted to short-term fixes to meet the State's immediate institutional needs. Rather than addressing the underlying infrastructure issues, the State has in certain instances implemented temporary measures such as the rental of boilers and chillers. However, these "temporary" solutions have continued for periods of years, thereby generating costs that actually exceed the cost that would have been incurred to permanently correct the underlying issues. It has been reported to us that the cost of replacement of deficient equipment with efficient equipment could have been recouped for a lesser amount than what continues to be paid in rentals. Certain institutions have also resorted to the use of refrigerated trailers and temporary facilities to avoid building permanent facilities. In these circumstances, and given the limited capital available to State, county and municipal governments in the current budget environment, the ability to pursue energy efficiency and other projects, including combined heat and power, through performance contracting and public private partnerships appears to represent the best available option to pursue for governmental entities.

Performance contracting is authorized by existing law and affords governmental entities the opportunity to pursue energy efficiency projects without capital contribution. It has been reported to some Work Group members by Board staff that in the past, the State has implemented performance contracts under the existing statutory authority of the Division of

Purchasing and Property on the basis that the procurement is for energy services rather than a conventional construction project. Performance contracting permits energy efficiency projects to be conducted on a self-funded basis, paid out of savings achieved by the energy conservation measures and highly efficient state-of-the-art technologies such as combined heat and power plants, and is funded through long term third party financing arrangements. Such projects have the additional benefit of creating significant numbers of well-paying construction and permanent jobs, thereby spurring economic development, another vital State priority.

The Energy Savings Improvement Programs (“ESIP”) Law, P.L. 2009, c.4, authorizes boards of education, public institutions of higher education and State contracting entities to enter into long-term energy savings services contracts with energy service companies (“ESCOs”). ESIP authorizes these governmental entities to finance energy savings programs through 15 year lease-purchase agreements for energy conservation measures or 20 year agreements for combined heat and power projects. ESIP establishes these programs as budget neutral and fully self-funded by the energy savings derived from the energy conservation measures implemented in ESIP projects, without requirement of up-front capital contribution by the contracting entities. The use of an ESCO also offers the option for the energy savings achieved by the ESIP project to be guaranteed by the ESCO that implements the project. The guarantee obligates an ESCO to reimburse the customer for all projected savings that are not actually realized, thereby eliminating the financial risk associated with an ESIP project. After an ESIP project has been completed, all energy conservation measures become the property of the governmental entity, in most instances at no cost.

Section 43 of the Economic Stimulus Act of 2009, P.L. 2008, c. 89, makes possible public-private partnerships that leverage the expertise and financial resources of the private

sector to further certain governmental infrastructure projects. The Economic Stimulus Act was enacted as an emergent measure to, among other things, enable a State or county college to enter into public-private partnership agreements that authorize private entities to assume financial and administrative responsibility for on-campus construction projects if the project is financed by the private entity and the college retains ownership of the land on which the project is developed. This provision enables colleges to outsource energy efficiency and infrastructure projects, including combined heat and power plants, to private entities that would be exempted from the public bidding requirements of applicable law. The relief afforded under the Economic Stimulus Act is limited in scope to colleges and is subject to a sunset date that will occur in January, 2012. It is believed that the Legislature will seek to renew and expand the scope of the Economic Stimulus Act prior to the sunset date. If such an extension is contemplated, we recommend consideration of including governmental entities generally and a broad array of energy-related projects within the scope of an expanded law.

While the opportunities and potential benefits presented by the ESIP Law are considerable, the actual results achieved to date have been modest at best. Although the Office of Energy Savings was created several years ago to foster ESIP and other energy efficiency projects and enable the State to lead by example—a goal shared by the 2008 Energy Master Plan—no ESIP procurements have yet occurred for State-owned buildings and facilities. Some Work Group members note that while numerous significant projects have been identified, they have become mired in unresolved procurement-related issues and have not yet been pursued. These impediments must be overcome or these projects will continue to represent a significant lost opportunity for the State to reduce its energy costs, enhance its energy infrastructure, reduce GHG emissions and, most importantly, create a significant number of well-paying jobs. It is

important to recognize that any ESIP project must produce energy savings equal to or greater than the costs incurred in connection with a project in order for a project to proceed. However, the imposition of any unnecessary additional administrative burdens or costs by a State agency or third parties will reduce the savings from viable projects and potentially disqualify projects that would otherwise have met the ESIP criteria. The State should avoid imposing unnecessary administrative impediments, procedures or fees that will further delay the implementation of these already overdue projects or reduce the projects' cost savings potential.

Similarly, some members of the Work Group and Board staff have reported that numerous ESIP procurements by local school boards have been plagued by the use of Requests for Proposals (RFPs) that create competitive advantages that favor certain ESCOs. Provisions exist in the ESIP Law that provide bidding advantages to ESCOs that are also controls manufacturers. In several instances, Board staff has suspended ESIP procurements in an effort to level the competitive playing field for ESCOs and enhance the transparency of the procurements to better enable the school boards to determine which ESCO proposals best serve the school boards' interests. In order to assure that school boards and other governmental entities receive the full measure of the many contemplated benefits of the ESIP Law, the State should continue to take all actions that are necessary and appropriate to assure that ESIP procurements occur on a competitively neutral playing field in a fully transparent manner to assure that robust competition occurs, leading to lower costs to implement ESIP projects and the best results for governmental customers.

It is essential to the success of this significant energy efficiency policy initiative that a systematic and effective oversight function be maintained by the State agencies responsible for the ESIP program. There is currently a shared responsibility for ESIP oversight between the

Board and the Department of Community Affairs. These agencies should continue to diligently perform their oversight functions and, when appropriate, take necessary remedial actions to assure that ESIP procurements are transparent, fully conform with the requirements of the ESIP law, and that customers receive the best value available in the marketplace for their projects. We note that certain members of Board staff have devoted considerable time and effort to ESIP oversight activities that will further the goals of the ESIP program. We commend their efforts and encourage the Board to support them with resources that are adequate for this task.

Given the tremendous advantages that could inure to State and local governments from the ESIP Law, we also recommend that the State assure that ESIP procurements are actively promoted through a broad energy audit program and comprehensive customer education. We recommend that the Local Government Energy Audit (LGEA) program be continued in its current form or as a cooperative purchasing initiative. We recommend that the State adopt uniform, competitively neutral RFPs for boards of education and municipalities that enable governmental entities to effectively evaluate and compare competing bids.

We note that the Board has currently assigned several staff members to develop and actively monitor and evaluate ESIP procurements and to generally further the goals of the ESIP program. We commend these staff members for their considerable efforts and encourage the Board to support them with resources that are adequate to their task. Given the expanding number of ESIP procurements, and the significant number of potential State-level ESIP projects, we recommend that the Board evaluate its staffing requirements and, if appropriate, consider retaining additional staff to assist the existing staff members perform these functions and to take all appropriate actions necessary to assure that the governmental entities that participate in the ESIP program achieve the full measure of benefits available to meet their needs. The Board

should also coordinate these monitoring and oversight functions with the Department of Community Affairs and Sustainable Jersey.

Given the compelling need to upgrade the State's energy infrastructure, we recommend that consideration be given to including ESIP projects in the Governor's "Tool Kit" for local government, in order to provide a further incentive for local governmental entities to pursue ESIP projects. We recommend that as a complement to the ESIP program, and as a further means for the State to leverage the expertise and financial resources of the private sector, the State should consider whether to renew and expand the scope of the Economic Stimulus Act of 2009 and 2010 to apply to a broader cross-section of energy projects and to an expanded eligible class of governmental clients. Energy-related infrastructure projects represent logical opportunities for the Administration to pursue as part of its stated goal to pursue public private partnerships, particularly if the projects are accomplished on a self-funded, performance basis. By leveraging performance contracting and public-private partnerships, governmental customers can pursue needed energy efficiency projects, including combined heat and power facilities, on a budget neutral basis. These programs would also benefit governmental entities by using the creativity and financial resources of the private sector to upgrade the State's energy infrastructure, create well-paying construction and permanent jobs, reduce the cost of energy procurement, peak demand and greenhouse gas emissions, and improve the reliability of energy transmission and distribution. These programs should therefore be the preferred alternative for governmental entities over programs that require capital contribution or ratepayer support.

B. Large Energy Users

It has long been recognized that properly designed energy efficiency and conservation projects pursued by large energy users consistently achieve high returns on investment, significant energy efficiency and conservation gains, and substantial reductions of system peak demands and greenhouse gas emissions. These projects also improve the financial stability and competitiveness of New Jersey's largest businesses in the local, regional, national and international markets in which they compete, and thereby foster economic development and business and job retention and expansion in a manner consistent with these important objectives of the State. In addition to benefitting large users, the projects reduce energy usage and peak demand, which provides a benefit to all customers by reducing congestion on the power grid, and deferring the need for new generation and transmission assets.

However, the delivery of energy efficiency and conservation programs to the State's largest businesses has been a vexing problem for a number of reasons. Many of the programs sponsored by the NJCEP are not designed for large energy users. Most energy efficiency programs have been developed under the umbrella of the Smart Start program, which evolved from building and commercial applications. These programs have not lent themselves well to the needs and requirements of expansive industrial facilities. Certain programs developed specifically for large users have included eligibility, programmatic and procedural hurdles that have discouraged participation in the programs or reduced the benefits they produce. As described in greater detail below, Work Group members having experience with programs such as Pay for Performance, observe that while the programs were initially viewed as promising and timely, they proved to be overly detailed and burdened with inordinate complexities, reporting

requirements and high energy savings thresholds that were out of step with the realities and needs of the businesses they were designed to serve.

Large businesses typically have in-house energy personnel that are responsible for developing energy-related opportunities based on projects being completed within a particular budget year and having accelerated payback periods. In several reported instances, the programs, and the Market Managers responsible for them, have not been adequately responsive to business requirements. Some Work Group members have reported that applications for benefits have languished without action taken for inordinate periods of time, sometimes resulting in the receipt of program benefits after an applicants' budget year had expired and the projects had been abandoned by the customer's management. As a consequence, such programs have not attracted a high level of interest from eligible customers and have been undersubscribed.

Funding of NJCEP programs has also been an area of concern to large energy users. Large users have made significant and increasing annual contributions-- some more than a million dollars each year-- to the usage-based SBC that funds NJCEP programs. However, there is disagreement within the Work Group whether large users receive a fair share of rebates and financial incentives that are proportionate to the SBC contribution that they make each year. Moreover, the incentives offered by the Board are typically not coordinated with Department of Environmental Protection permitting requirements or the financial incentives made available by the Economic Development Authority, although recent coordination efforts have occurred with respect to particular programs such as CHP and we encourage these efforts to continue.

The Board has recently increased the funding of programs for which commercial and industrial customers are eligible. This initiative has enhanced the scope and breadth of potential

financial benefits available to commercial and industrial users, although certain of these programs define commercial and industrial customers to include governmental entities.

The Board has also recently approved the Large Energy Users Pilot Program. The purpose of the pilot is to foster self-investment in energy efficiency, conservation, renewable energy, sustainability and combined heat and power projects that are generally consistent with the types of measures and projects currently funded by the NJCEP. The pilot, which has been given a \$20 million budget, will award grants to customers that satisfy the program's eligibility and program requirements to invest in self-directed energy projects that are customized to meet the requirements of the customers' facilities, while advancing the State's energy and environmental goals. The grants available to eligible participants will be based on the size of the customers' contributions to the SBC in the preceding year and are subject to a million dollar per customer cap. The incentives awarded are intended to fund up to 75% of project costs to assure that customers have a stake in the outcome of a project by sharing project costs.

The pilot program, which is only in its incipient stages, is designed to demonstrate the ability of regulators to timely respond to the needs of the business community, assist the State achieve its energy, environmental and economic development goals, and to potentially pave the way for similar, permanent collaborative efforts in the future. By offering a more "light-handed" approach to program development, the pilot should avoid some of the existing barriers that have frustrated participation in current programs created for large users and make the program more market responsive.

The move towards more light-handed, less prescriptive large user programs appears to be a reasonable response to the problems encountered in the past and should do much to streamline the application process, and resolve the existing barriers to program participation and factors that

prevent programs from achieving their intended results. As structured, the pilot should stimulate increased investment in energy efficiency and combined heat and power projects by the State's largest businesses and should therefore be encouraged on a going forward basis. The Work Group has been advised that the pilot is currently undersubscribed. We therefore recommend that NJCEP immediately seek feedback from eligible customers that did not apply for the pilot regarding why they did not do so for purposes of program evaluation.

We recommend that the NJCEP also continue to make available to large energy users alternative programs for those businesses that do not qualify for the pilot program. We also encourage the trend towards more market-responsive programs for large users, assuming that program participants demonstrate they are worthy of such treatment. We also recognize that the preliminary NJCEP plans for 2012 include additional ways to support CHP implementation, including the potential to receive funding without mandatory participation in the Pay for Performance program. While the details have yet to be provided, the members of the Work Group are supportive of this approach in concept, as it would enable the many customers that are unable to achieve the minimum energy savings threshold requirement of Pay for Performance to obtain access to meaningful incentives designed to improve their energy efficiency through investments in CHP.

We also encourage the Board to evaluate how other jurisdictions fund large energy user programs. One such program that is worthy of study is the approach of National Grid and BC Hydro which establish multi-year energy efficiency plans and budgets with large energy users. This includes a collaborative development of an energy efficiency plan for such customers, including an investment commitment by participating large energy users, thereby creating what is essentially a "partnership" between regulators and the business community in program

management that provides a stimulus to the economy from the combined investments that are made. Given the sophistication of large energy users and their tendency to shop for products and services of third parties, we do not envision a meaningful role for utility-developed programs for this class of customers.

We further recommend that the Board collaborate with other departments and agencies of the State to provide further assistance to the business community. For example, the recent adoption of a general permit for combined heat and power plants that is now available from the DEP has been many years in coming and will greatly ease the regulatory burden of CHP developers. Further coordination among these agencies should occur as the EDA implements programs to expand CHP implementation and the Board seeks to encourage CHP projects through various NJCEP programs. We note that the EDA regularly conducts focus groups in advance of program implementation and continues a dialogue with stakeholders after program launch. The Board should consider using a similar approach and collaborating with others, including trade groups and entities like Choose New Jersey and the Business Action Center, to improve programming and make it more responsive to the needs of target audiences.

The Board could also work more aggressively with industry partners to better educate the business community regarding the benefits of energy efficiency and conservation and the availability of programs designed to benefit businesses by improving their energy performance. Not all commercial customers have energy managers and would benefit from an educational outreach program to enable businesses that compete for scarce resources to fully understand how they can benefit from Board programs and utilize energy audits customized to their facilities to identify ways in which the companies can operate in a more energy efficient manner and enhance their competitiveness in the markets they serve.

C. Residential Customers

While the majority of examples provided within this Report reference commercial and industrial programs, the Work Group notes that some of the concepts regarding the streamlining of processes and meeting the needs of trade allies and customers also apply to certain NJCEP programs, such as Home Performance with ENERGYSTAR, that have pre-approval characteristics. The Work Group supports maintaining cost-effective NJCEP and utility programs to serve the residential market, and in particular residential market segments that require distinct programming treatment like low income customers.

V. FUNDING OF CLEAN ENERGY PROGRAMS: OPTIONS FOR REDUCING COSTS AND THE LEVEL OF THE SOCIETAL BENEFITS CHARGE

One of the stated goals of the Draft Energy Master Plan is “consideration of a new way to provide capital for EE and renewable energy programs that can eliminate the need for cost incurrence through the SBC.” (EMP at 113). The Work Group has identified opportunities to reduce the NJCEP portion of the SBC, while still providing quality energy efficiency programs, and these are outlined below. Most of the opportunities to reduce the NJCEP portion of the SBC relate to the process by which the OCE, Program Coordinator and the Market Managers budget, allocate and evaluate the investment of NJCEP dollars.

Properly designed and executed revolving funding sources and incentives that address factors other than upfront costs may also be able to play a greater role going forward. However, it must be acknowledged that government-sponsored loan programs have had difficulty gaining traction and realizing significant energy savings. In addition, some programs, technologies and customer sectors will never be incentivized solely through loans. This is particularly true of residential and low income sectors. To the extent that it is desirable from a societal or energy

savings standpoint to provide these programs, they will need to be financed out of some other capital source, be it the SBC or another source.

In addition to transitioning to revolving funds, there may be other programmatic changes that have greater return on investment. To date, most of the OCE programs have been focused on providing incentives to overcome the first-cost barriers to energy efficiency. However, many of the most cost-effective opportunities for energy efficiency lie beyond first cost financing.

A. Analyze the Budgets and the Budget Process

One of the primary recommendations of the Work Group is that the Board (or other appropriate entity) perform an analysis of the past OCE budgets with a view towards modifying the NJCEP budgeting process. The NJCEP programs and oversight functions are funded through a portion of the SBC, which is collected by the electric and natural gas utilities on a usage basis on regulated sales of gas and electricity. The base amount for the annual funding level for the NJCEP is established through the Comprehensive Resource Analysis (CRA) funding process that is conducted on four year cycles. 2012 is the final year of the current cycle, and the Board has just initiated a proceeding to determine funding for the period 2013 through 2016.

The actual amount available each year for funding programs is established by the Board in annual proceedings that consider carryover funding from prior years, program commitments, and supplemental revenues, such as interest earned, in establishing the funding level. For the 2011 Reporting Year, the BPU-approved budget for the NJCEP was over \$506 million, as reflected in the 5th Revised Budget for 2011 as approved on September 21, 2011. The NJCEP funding was allocated as follows:

Energy Efficiency Programs	\$325.4 million
Renewable Energy Programs	\$90.1 million

EDA Programs	\$57.6 million
OCE Program Oversight	\$7.8 million
TRUE Grant ⁵	\$25 million

The NJCEP has generally carried over a surplus. For example, for Reporting year 2010, the BPU approved a budget of \$460.7 million, but only \$381.4 million was actually spent or committed in that year. In 2010, 47.6% of the budget was actually spent, and 78.4% was spent or committed. NJCEP has typically included the unspent funds in the budget for the next year, resulting in a continuing surplus that is subject to Legislative appropriation.

The Work Group recommends that efforts be made to improve the budgeting process to reduce annual surpluses because a more accurate budgeting process will provide the opportunity to reduce the SBC. Only the money necessary to fund the NJCEP programs should be collected through the SBC, rather than funding the programs together with budgeted, but unspent, surplus funds. The Work Group recommends that NJCEP budgets be based on realistic analyses of the actual funding requirements of programs in the following year, rather than funding projections, to avoid budget surpluses. Annual spending should not occur with a view to spending surplus funds as a means to justify similar funding levels in subsequent years. Included in the budgeting process should be an ongoing evaluation of incentives to determine if they are necessary, whether they are resulting in the largest take at the lowest cost, and whether they would be replaced with lower cost alternatives. The budgets for each program should be informed by the more rigorous evaluations described above, including evaluations of cost, participation rates and energy savings.

⁵In February 2011, the Board approved the establishment of the Temporary Relief for Utility Expenses (TRUE) Program. TRUE is a one-time assistance program is intended for those low to middle income New Jersey residents who, because of an economic hardship, are struggling to pay their electric and natural gas bills. The \$25 million budget for such a program was established by the legislature through S3604 and enacted in January 2010.

The budgeting process should also be more transparent and rigorous. The NJCEP budgeting process initially included input from the Clean Energy Council, a now largely defunct group established by the Board to provide input and advice to the BPU regarding Clean Energy Programs. As noted, the EE and RE Committees formerly associated with the Clean Energy Council continue to provide input and are open to all stakeholders. However, it has not been uncommon for stakeholders to be presented with volumes of new material the day before a committee meeting, thereby limiting stakeholders' opportunity to fully analyze the issues to be considered. A more formalized process that provides stakeholders with greater notice and a more meaningful opportunity to be heard would improve the budgeting process.

In addition, the NJCEP should provide more granular data regarding its proposed budgets and other pertinent issues to be decided. For example, the budget line for "OCE Administrative Costs" apparently includes only the administrative costs associated with OCE's activities and not those of the Market Managers or the EDA. Some costs within this heading also relate to OCE's program development functions such as evaluation and audits.

Nowhere is there a single data point that fully sets forth the total administrative costs associated with the NJCEP programs or the specific costs associated with the Market Manager and Program Coordinator. We note that the Work Group had to specifically request information from OCE regarding the costs associated with the Market Managers and Program Coordinator because the information was not otherwise publicly available. A better method should be devised to accumulate and make more transparent all of the administrative costs associated with the NJCEP programs. Better reporting of these considerable administrative costs would facilitate accurate cost-benefit analysis of these programs and provide a necessary metric for future program planning and comparison purposes.

Finally, to the extent that any funds are not spent or committed as of the end of a Reporting Year, the surplus should not be rolled over into the NJCEP budget for the subsequent year, but rather should be used to offset future payments from ratepayers. The overage could be reflected as an offset to the defined NJCEP payment schedule established for each utility from the prevailing CRA Funding Order. By allocating such surplus back to each utility's defined payment schedule in the same proportion to the funding obligation by the utility, each utility's next SBC rate filing that sets the appropriate recovery rate for the funding obligation would reflect this "over-collection" and result in a lower surcharge.

B. Consider Increasing the Use of Revolving Funds

There are essentially only two ways to financially incentivize private investment in energy efficiency: grants or loans. Both grants and loans are designed to overcome the "first cost" barriers to energy efficiency projects, which include reluctance to invest scarce capital in energy efficiency or lack of access to capital to finance energy efficiency investments.

Over the past ten years, most of the NJCEP programs have been designed to overcome the first cost barriers through grants and loans. NJCEP has provided rebates for purchase of energy efficient technologies, like light fixtures, appliances and HVAC equipment. NJCEP programs pay for a portion of comprehensive energy efficient upgrades to homes and businesses through the Home Performance with ENERGY STAR, Direct Install and Pay-for-Performance programs.

There are several current efforts underway at NJCEP and the Economic Development Authority to launch loan programs for different market sectors. The Energy Efficiency Revolving Loan fund from the EDA, launched in July 2011, provides supplemental loans for

commercial, institutional or industrial entities that are involved in the NJCEP Pay-for-Performance or Large Energy Users programs. The OCE recently released a proposal for a multi-family residential loan pilot program that is currently awaiting a BPU decision.

A complete listing of the current financing programs offered by the NJCEP is attached to this Report as Appendix "C".

The Draft Energy Master Plan and the Program Administrator RFI (Appendix "A") propose moving towards greater reliance on revolving loan structures for incentivizing energy efficiency. According to the Draft EMP, "The cost of the improvements, along with a reasonable return, would be repaid by the customer out of the energy savings, and the amount of the original loan would be repaid to the Clean Energy fund. Such a program would allow the fund to become self-sustaining."

Although revolving funding sources may be able to play a broader role in energy efficiency funding on a going forward basis, we caution that they should not be viewed as a quick, inexpensive or easy replacement for other incentives. Many government entities have attempted to deliver energy savings via revolving funds of various kinds. Current studies suggest that such revolving loan programs have had difficulty covering their own costs, getting participation from the eligible population, or realizing significant energy savings. For example:

- A May 2009 study by the California Institute for Energy and Environment at the University of California at Berkeley analyzed eighteen residential revolving loan programs and identified several limitations, including "limited applicability of the programs to households most in need, limited participation rates, difficulty assuring that savings will exceed payments, limited support for comprehensive energy retrofits, (and) the inability of most programs to cover

their costs...” “Enabling Investments in Energy Efficiency,” California Institute for Energy and Environment (May 21, 2009).

- A May 2010 study by the Center for Advanced Energy Studies and the Energy Policy Institute noted “If the revolving loan fund is administered by the state, program marketing and the ability to adapt to market changes are frequently limited...Furthermore, state legislators can re-appropriate the funds at any time.” Energy Efficiency Financing Mechanisms,” 24, Energy Policy Institute/Center for Advanced Energy Studies (May 2010).

- A May 2010 nationwide study of state, utility and municipal loan programs by the National Renewable Energy Laboratory concluded “Despite the advantages of state, utility and municipal loan programs, participation to date has been modest, and they appear to be incapable of driving a large scale transition to a clean energy future by themselves.” “State Clean Energy Policies Analysis: State, Utility and Municipal Loan Programs,” National Renewable Energy Laboratory (May 2010).

Respondents to the Board’s RFI⁶ expressed similar concerns that a focus on financing alone would not be sufficient to support the energy efficiency market. For example, the response from the American Council for an Energy Efficient Economy (ACEEE), a non-profit dedicated to advancing energy efficiency and a recognized expert, plainly stated “our research has found that energy efficiency financing will only reach a small minority of customers and a program that relies strictly on financing will not be very effective.” Similarly, the Vermont Energy Investment Corporation (VEIC) noted that “reliance on a “financing-only” approach, without addressing other market barriers is not a silver bullet and may create many lost opportunities..” Other RFI respondents shared experiences of low participation levels in other jurisdictions and urged

⁶RFI responses can be found on the NJCEP policy updates page at <http://www.njcleanenergy.com/main/njcep-policy-updates-request-comments/policy-updates-and-request-comments>.

caution and suggested further evaluation of which markets need financing before consideration of any transition toward financing programs

However, these findings should not be interpreted to suggest that loan programs are always ineffective or unnecessary, but rather if a revolving fund model is adopted the programs must be: (i) properly designed and executed, (ii) utilized in conjunction with other efforts, like credit support, grants, technical assistance, rebates and other programs, and, (iii) transitioned thoughtfully and gradually.

1. Capitalization Costs

Loan programs are not without costs for capitalization, debt service and administration. Therefore, prior to transitioning to a loan program, the costs of the proposed program must be weighed against the cost to provide grants or other incentives. Transitioning to loan programs would require amassing a large upfront pool of money from which loans can be made. As a result, a review conducted by a Work Group member found that most revolving fund programs that currently exist were capitalized with American Recovery and Reinvestment Act ("ARRA") funds or other programs that could provide an up-front pool of money.

Unless the NJCEP can utilize a currently existing revenue source, the NJCEP must consider the cost of borrowing the capital needed to fund the loan pool. Although theoretically most of the capital will be replenished through repayment of the loans, the difference between the interest on the money the State borrows to fund the loan pool and the interest paid by the participants will not.

Generally, to be attractive to customers, energy efficiency loans are made at a below market interest rate, frequently 0%. Capital is required to subsidize the interest paid by program

participants. This interest subsidy will not be repaid by program participants. In addition to the issue of the cost of capital, the timeframe for repayment of the loans would generally be longer than the timeframe for repayment of the State's borrowed money. One of the issues with accessing private loans is that the payback period for the loans is shorter than the payback period for the energy efficient technology.

For example, a typical consumer loan would need to be paid back in less than five years, and many energy efficient technologies (particularly those that generate the greatest energy savings) will not pay off for ten or more years. To address this issue, most government loans have a longer payback period than typical consumer loans. Thus, even if the capital is eventually repaid into the loan fund, the State may have to raise capital in the interim to pay off the bonds or other financing that capitalized the loan fund. It is also a fact that not all of the loans will be repaid. Most energy efficiency loan funds across the country have low default rates, but this is due in part to relatively low participation. If the loan programs are successful and have enough participation to generate significant energy savings, there will undoubtedly be defaults.

Although the capital provided to the consumer will be paid back in a loan fund, there are often significant costs associated with administering the program. The BPU will have to develop infrastructure or outsource (at a cost) marketing loans, evaluating credit, evaluating the proposed projects or technology, servicing the loans, etc. Many government loan programs have found that the administrative costs are quite high.

2. Program Design

Research has documented that creating an effective loan program requires addressing barriers to energy efficiency that go beyond capitalization costs. Rigorous market research,

customer outreach, stakeholder involvement and program development are necessary to appropriately address the considerations set forth below, to ensure success of the revolving fund programs.

- **Assessing customer appetite for loan products.** Different customer segments have different appetites for loans. Some segments may reject loan products altogether, or at this time. For example, residential customers are very reluctant to take on additional debt associated with their homes in the current economic environment when many mortgages are already under water. The Market Managers reported to the Work Group that many residential customers are reluctant to replace existing appliances or HVAC equipment before they break down simply to achieve greater energy efficiency. A loan, on its own, is unlikely to be a sufficient incentive to overcome this reluctance, especially for comprehensive upgrade programs like Home Performance with ENERGYSTAR.
- **Developing innovative loan products.** Straight loans to customers are not the only revolving fund type of product that can be offered. For example, instead of a traditional loan program, the NJCEP could evaluate the potential to offer loan guarantees for energy efficiency projects combined with energy audits and technical loan assistance for private lenders. Analysis could demonstrate that an innovative program could leverage private investment, require less up-front capital from the BPU, and reduce both financial and administrative barriers to implementation of energy efficiency projects.
- **Determining the appropriate channel for delivery.** (*e.g.* banks, energy services companies, government agencies and utilities)—Different customers will respond best to different delivery channels. For example, commercial and industrial customers may be disinclined to take loans from government agencies due to the additional paperwork, liens, and so on, but would be attracted by loans offered by their financial institution which could be borrowed as part of a larger loan for facility upgrades or tenant improvements. In addition, alternative delivery channels may have a better ability to market loans to customers than NJCEP, increasing participation.
- **Providing ease of access to the programs.** Regardless of the target market segment, loans must be easy for the customer to access and manage. A complicated, cumbersome or time consuming borrowing process significantly decreases the attractiveness of a lower interest rate. Most market loans provide online applications and quick approval turnaround times.
- **Minimizing customer transaction costs.** Many customers find that the time and effort required to decide to do an energy efficiency project, apply for financing and arrange for the work to be done is not worth the energy savings. To the

extent that the loan program can minimize these transaction costs, it will be more attractive and garner greater participation.

- **Addressing loan security concerns.** Banks and other delivery channels are not yet comfortable with relying on the promise of energy savings as collateral for loans. Similarly, residential customers may be reluctant to borrow money to invest in energy efficiency measures for fear that they will move, and still be liable for the debt even though they are not receiving the energy saving benefits.
- **Providing a desirable debt structure.** Residential, commercial and industrial customers have different preferred debt structures. For example, a commercial customer may want on-bill financing through a utility as opposed to a direct loan because it may not appear as bank debt on their balance sheet. Similarly, a residential customer may respond more favorably to a loan through a model in which the loan is attached to the utility meter as opposed to a personal loan to address their concerns about being liable for repaying a loan when they are no longer receiving the energy benefits.
- **Assisting with the technical aspects of the projects.** To address the loan security issues of customers and financial institutions (including any financial institutions financing the loan program as a whole), the programs need to ensure a rigorous assessment of the proposed energy efficiency measures to ensure that the energy savings are realized.

3. Transition to Loan Programs

As previously noted, any delivery mechanism for NJCEP must provide consistent programming which the market can rely upon. To the extent that the current programming may be replaced by loan-type programs, the transition must be thoughtful and gradual. In their presentation to the Work Group, the Market Managers highlighted the importance of avoiding a market shock. Trade allies and potential customers could be turned off not only by the change in incentive structure, but by the abruptness of the change itself.

As demonstrated by the programs listed in Appendix "C", pilot financing programs for both residential and commercial customers are currently ongoing. The effectiveness of these programs should be evaluated before making decisions regarding whether to move towards more loan programs, and the pace and process for doing so.

4. Explore Lower Cost, Broader Impact Programming Options

To date, most of the OCE programs have been focused on providing incentives to overcome the first-cost barriers to energy efficiency. However, many of the most cost-effective opportunities for energy efficiency lie beyond first cost financing. National studies appear to support this conclusion. (See, for example Appendix “B”, “The Right Measures” available at http://peci.org/documents/ashrae_102610.pdf and the 2010 study “Energy Efficiency Retrofits for Commercial and Public Buildings”, Pike Research, available at <https://www.pikeresearch.com/wordpress/wp-content/uploads/2010/07/EERF-10-Executive-Summary.pdf>.)

For 2012, the commercial Market Manager proposed a pilot program to provide an incentive for retro-commissioning existing buildings. It is our understanding that this program is seeking to leverage some of the lessons learned and structure from PSE&G’s fully subscribed \$2 million retro-commissioning pilot. The PSE&G program is currently in the measurement and verification stage and will be independently reviewed by NJIT’s Center for Building Knowledge. This type of program is a good first step in exploring other avenues for incentivizing energy efficiency.

Similarly, focusing on building and energy-code related efforts could yield major energy efficiency opportunities. New Jersey has a relatively up to date energy and building code for both commercial and residential properties. However, the actual energy savings is dependent on effective implementation and enforcement of existing building and energy codes. The Board could consider whether NJCEP funds could generate additional energy savings if used to increase the training and resources available to code officials, municipalities, design

professionals, builders and trades to enhance knowledge of and compliance with New Jersey energy and building codes.

VI. FORGE GREATER PARTNERSHIPS WITH OTHER GOVERNMENT ENTITIES, UTILITIES AND THE PRIVATE SECTOR

OCE should explore the opportunity to utilize other available resources and partner with other government entities, utilities and the private sector to maximize use of OCE resources, and potentially reduce costs through collaboration and resource sharing.

For example, there are opportunities to utilize Federal programs to ensure that New Jersey is getting the most energy savings overall from its rate structure. The State Energy Efficiency Action (SEE) Network has recently released an overview of technical assistance available to states for assessing bill impacts. Appendix "D" is the overview sheet for "Analyzing and Managing Bill Impacts of Energy Efficiency Programs". The Work Group recommends that the BPU consider requesting such assistance as it would be very helpful as the BPU considers setting the funding levels for the Comprehensive Resources Analysis program for the 2013 to 2016 period in the recently initiated docket.

In addition, there are local resources that could complement the OCE programs. For example, the Federal government has committed \$129 million to fund the Greater Philadelphia Innovation Cluster for Energy Efficiency (GPIC), located at the Philadelphia Navy Yard. GPIC is focused on increasing the energy efficiency of buildings in the ten county region surrounding Philadelphia, which includes Burlington County, Camden County, Gloucester County, Mercer County and Salem County in Southern New Jersey. GPIC is creating programs and conducting research to address the technical, business, public policy and workforce development issues

associated with energy efficiency. The GPIC work could inform or shape the OCE programming, and joint programming may be able to benefit both efforts.

VII. BPU REQUEST FOR RECOMMENDATION REGARDING SREC VALUES AND THE CURRENT SOLAR ENERGY MARKET STRUCTURE

The Work Group strongly supports the transition of renewable energy programs to a market-based system rather than one based on rebates and direct subsidies. We believe that the State's focus should be on nurturing the market and that the remaining rebate programs for renewable energy should continue to be phased out.

The market transition that has been occurring since the Board's Order in 2008 has led to a surge in the development of solar energy in this State and an associated growth in employment opportunities. The program has led to significant competition between solar developers which enables consumers to obtain increasingly advantageous terms and should continue to spark technological innovation. The transition of the market has also succeeded in substantially reducing reliance on funding for renewable energy from the NJCEP portion of the SBC.

It should be noted, however, that ratepayer subsidy of solar and other renewables is still quite substantial and will be for some time. Ratepayers pay an embedded subsidy in the form of Solar Renewable Energy Credits ("SRECs") through the price paid for electricity in the BGS auctions or from third party suppliers. The Work Group supports continuing with the market-based approach as it presents the greatest chance for technological advances that will reduce the cost of renewables and thus the cost to ratepayers. However, as the solar industry and solar markets move ahead, the "training wheels" provided by ratepayer subsidies should be reduced, and ultimately removed, so that the market will stand on its own. In time, the solar industry

should be sufficiently profitable and self-sustaining to obviate the need for any continuing ratepayer subsidies.

With respect to the market transition for renewable energy, the Work Group has been asked to review and comment on the current state of the SREC market and whether its current condition merits some type of near or longer term action or intervention by the BPU and/or the Legislature, or no action at all. Specifically, the Work Group was asked to consider whether it is desirable to support a one year acceleration of the solar Renewable Portfolio Standard (RPS), by applying the requirement currently applicable to Energy Year 2014 to Energy Year 2013. This would effectively increase the current SREC target from 596 Gwhrs to 772 Gwhrs in an effort to increase and stabilize SREC values. The Work Group was also requested to consider other alternatives, such as the implementation of an SREC floor price, and to make any other recommendations that would help to stabilize market conditions.

After considerable discussion, the Work Group was unable to reach agreement regarding many of the issues pertinent to the current state of the solar market, but was able to arrive at a majority position on several issues. First, while there was no agreement that any action by the State was needed to address the drop in SREC prices, the majority agreed that if any action is taken, the acceleration of the RPS from 596 Gwhrs to 772 Gwhrs on a one-time basis would be least disruptive to the market system and the interests of ratepayers.

Second, a majority of the Work Group agreed that market stability was advantageous and that extending the SACP schedule for 15 years, as the BPU has recently announced, and promoting other ways to encourage long term contracts for SRECS is desirable. Third, a majority of the Work Group agreed that setting an SREC "floor" price was not an option that should be pursued. Some members believe a floor price represents a form of "feed-in tariff", a financing

device previously rejected by the BPU, that inappropriately guarantees a particular return for solar developers to the detriment of ratepayers. Others believe that it is not feasible to determine what an appropriate floor price would be and thus was not a prudent alternative.

The historical and legislative context of the SREC issues was described and presented to stakeholders in a White Paper authored by NJCEP and distributed to stakeholders on September 9, 2011. The White Paper sets forth the following concise history of the development of the SREC market to date:

Almost 4 years ago on September 22, 2006, Board staff initiated the solar transition with a white paper series entitled "Solar Market Transition to a Market-Based REC Financing System". The initial papers were developed with the input from the Solar Transition Working Group, a sub-committee of the Renewable Energy Committee which included the four EDC, Suppliers and Providers, Rate Counsel, solar industry association, business associations and environmental organizations.

The key point of the solar transition white papers was to develop a more cost effective means for incentivizing solar than through rebates. The initial finding of the Solar Transition white paper was that with an increase in the annual solar RPS through Energy Year (EY) 2021 and with an expectation for increasing annual electricity usage, a solar rebate system funded on a capacity basis would cost ratepayers over \$10 billion through 2021 with a significant annual rate input. The clear statement of the staff's white paper was: it is not an option to simply "buy" our way with rebates to the solar RPS goals.

The white paper proposed that a more cost effective system was to transition to a market-based financing system through SRECs. The object of the solar transition was to increase the solar SREC value and reduce or eliminate solar rebates which would lower the annual rate impact related to solar incentives. That step in the solar transition to an SREC based incentive system has been achieved.

Having reached the high water mark of the transition from a rebate program to a market-based SREC system, the events of 2011 have created the apparent anomaly of a current debate

that poses the unlikely question "should we rescue the solar program from its own success"? We consider whether we are experiencing a crisis or merely the natural exuberance and overstimulation of a successful market place?

The Work Group members considered the apparent reasons why SREC values dropped in the summer of 2011. The combination of the 30% Federal tax grant, high SREC prices fostered by undersupply in 2010, and rapidly falling photovoltaic panel prices encouraged a surge of solar installations, principally commercial rooftop projects. As a result, New Jersey's solar installed capacity reached approximately 400 MW by July 2011, far beyond any projections that had been made at the beginning of the year.

The Work Group acknowledges reports by OCE and Market Manager staff that the market is poised to reach between 450 MW and 500 MW before the end of the 2011 calendar year. This level of development represents the targeted installed solar capacity for the end of Energy Year 2013, 1½ years ahead of schedule. The unexpectedly large amount of solar MWs installed in the last year has led to the first oversupply in the history of the New Jersey program. The rapid pace of this rise in installed capacity had not been anticipated, and when the 2012 SREC target was achieved within the first 2 months of Energy Year 2012, the price of SRECs dropped precipitously. SREC prices remain depressed relative to previous trading ranges. Having reached achieved the annual RPS , in-state generators have no obligation to purchase additional SRECs, and the absence of demand combined with an oversupply condition to cause the collapse of SREC prices from \$400 to the current rate below \$160 per SREC. It is argued by some Work Group members that the current SREC value does not support investment in projects of virtually any size, although that view is not shared by all of the Work Group members.

A majority of the members of the Work Group were not able to conclude that the industry is facing a crisis, as opposed to experiencing the natural consequences of oversupply that would self-correct over time. The Work Group is therefore evenly divided regarding the issue whether regulatory intervention is required at this time. Some members agree in principle that the current system will create "boom or bust cycles". The division of opinion arose regarding the perceived impact of such cycles and what, if anything, should be done by the State to address them.

Some members cite reports that the current cycle has stopped many projects in the pipeline and may have an impact on workers in all sectors of the industry. They argue that this bust cycle had not been expected or intended and that the decline in SREC values jeopardizes investment in the midst of the statewide and national economic downturn. The members argue that the decline is unnecessary and can be addressed by regulatory intervention. They further argue that without intervention, the boom and bust cycle will continue, adversely impact an otherwise successful solar industry, and erode confidence in the long-term viability of the New Jersey solar industry.

Conversely, other members of the Work Group argue that the drop in SREC values represents the operation of a free market and that stakeholders recognized that SREC values would decline when supply and demand reached equilibrium or an oversupply situation. These members believe that the industry has benefited from high SREC values, caused in part by high SACP values, and that the current prices reflect appropriate levels given the manner in which the market has developed. These members state that the market must necessarily contract and then self-correct over the next 12 to 24 months. Their opinion is that current conditions merely reflect the normal functioning of a market that experiences contractions when in overbuilt conditions only to return to normal when the surplus supply has been absorbed into the market place. They

also note that the current utility SREC financing programs and the PSE&G Solar Loan and Solar 4 All programs are either complete or in the final stages of implementation. They therefore caution that the market slow down is likely transitory at best and that the evidence regarding the absence of project development is preliminary, not well documented, and anecdotal at best.

The Work Group also discussed whether there were other ways to stabilize the SREC market, as a majority agree that stability is desirable. The Work Group believes that it would be worthwhile for the Board to explore possible changes to the BGS procurement process, to determine if it can be used to facilitate longer term SREC contracts. It was reported that in a 2006 review of the BGS auction, the Board's consultant, Boston Pacific, recommended that the Board review whether procurement of renewable resources should be "unbundled" from the full requirements auction product. This course may provide opportunities to foster longer-term arrangements, and may provide an added benefit of allowing interested parties to understand more clearly what they are paying for renewable supply. It may also enhance the ability of policy makers to bring about a desired resource mix. While the Work Group did not specifically review or analyze the Boston Pacific recommendations, the Work Group supports a review of whether options exist within the BGS procurement process that would assist in stabilizing the SREC markets.

The Work Group therefore makes the following recommendations:

1. The Board should continue the transition to a market-based structure for renewable energy programs. Ratepayer subsidies through the purchase of SRECs and other RECs are still substantial under this structure, but the market-based structure does reduce the need to fund these programs through the SBC.

2. Although the Work Group was not able to unanimously agree to any long term solution, should the Board wish to take action, a majority of the Work Group members endorse the concept of accelerating the near-term implementation of the RPS from 596 Gwhs to 772 Gwhs. This action would be expected to stabilize the market in the near term while the Board decides whether longer term solutions are necessary. Some members of the Work Group would argue for similar increases in subsequent years. Other members of the Work Group believe that the market should not be expanded beyond the original RPS and, accordingly, would only recommend a one time expansion to mitigate the impact of oversupply in the current market. One possible direction would be to include more rapid and flexible methods to adjust the annual RPS to meet unanticipated market conditions. The remaining members of the Work Group do not support any increase in the RPS and argue that the market is merely self-correcting.

3. A majority of the Work Group members endorse the concept of setting a long-term SACP schedule and to explore a framework for longer term SREC contracts. The Board has recently instituted a rulemaking proceeding to accomplish this. Some members suggested that the current BGS auction terms could be amended to allow a solar tranche or a mix of short and long term energy contracts to foster longer term SREC contracts.

4. Some Work Group members endorse the concept of setting a floor SREC price. They argue that such a mechanism will help eliminate the boom or bust cycle and will allow institutional debt to enter the market place to finance solar development. The Work Group is considerably divided on this point. A majority of the members oppose this recommendation on the grounds that (1) it is impossible to create such a floor price, as there are no accurate means to determine what an appropriate floor price would be, and that (2) ratepayers should not be required to guarantee the spread between the floor price and the SACP.

5. The Work Group recommends that the Board explore whether options exist to encourage the stability of the SREC market through modifications to the BGS auction process.

**STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES
OFFICE OF CLEAN ENERGY
REQUEST FOR INFORMATION
ON
PROFESSIONAL PROGRAM MANAGEMENT SERVICES FOR
NEW JERSEY'S CLEAN ENERGY PROGRAM**

Purpose

The New Jersey Board of Public Utilities (BPU) is in the process of drafting a *Request for Proposals (RFP)* to procure new professional services to administer and implement a suite of clean energy programs, including renewable energy and energy efficiency programs, collectively known as "New Jersey's Clean Energy Program" (NJCEP). The BPU is seeking information to assist it in developing requirements to procure services from a single entity that will serve as the Program Administrator of NJCEP.

The BPU seeks to obtain the full range of services presently procured through three (3) separate, existing contracts from a single contractor. The goal is to further develop, implement and administer the suite of Clean Energy Programs in the most cost efficient manner while providing greater management oversight, accountability and monitoring of program initiatives and incentives. The new Program Administrator will also be expected to transition from the current program incentives, that were supported by the Societal Benefit Charge (SBC), to a new financing model using a revolving loan fund or other type of long term financing and/or self-funding structure consistent with the goals of the Energy Master Plan (EMP).

This RFI seeks responses from entities that develop and administer Clean Energy programs, firms that consult on such programs, and other interested entities that may have information helpful to the procurement of these services. Information is sought concerning specific program development and administration services, incentive structuring and funding models, and pricing and/or payment methodologies. Respondents may be entities that provide some or all of the proposed services. Specifications and pricing information on the three (3) existing contracts are accessible by entering T2334 and T2412 at the following url: <http://www.state.nj.us/treasury/purchase/pricelists.shtml>.

This RFI provides a brief background, a listing of the proposed types of services expected to be provided by a Program Administrator and a list of questions to be answered by respondents. While the ideal response would include an answer to each question, a respondent may choose which questions to answer. Those entities that procure or provide program administration through other methods are encouraged to provide supplemental information regarding how the administration services are provided, what incentives are used and how the programs are funded in these alternate models.

Background

NJCEP, established on January 22, 2003, in accordance with the Electric Discount and Energy Competition Act (EDECA), provides approximately \$300 M a year in rebates and other financial incentives to the State's residential customers, businesses and schools that install high-efficiency or renewable energy technologies, thereby reducing energy usage, lowering customers' energy bills and reducing environmental impacts. The program is authorized and overseen by the New Jersey Board of

Public Utilities (NJBPJ), (Complete program descriptions are available on line 2011 Clean Energy Program Budget and Compliance Filings <http://www.njcleanenergy.com/filings>)

Currently, product-specific incentives are motivating consumers to make homes and businesses more energy efficient, thanks to rebates funded through the Societal Benefits Charge (SBC) and federal tax credits available through the *American Recovery and Reinvestment Act of 2009* (<http://www.irs.gov/newsroom/article/0..id=204335.00.html>). Most of the clean energy funds have taken this type of prescriptive path: if equipment is replaced, an incentive is provided for a portion of the incremental cost. However over the long term, federal and state governments are moving toward more sustainable financing models that return and revolve the funds *back through the program* using mechanisms such as a revolving loan funds or guaranteed loan programs. BPU's objective is to shift to performance-based incentives whereby the incentives are paid out in the form of low interest loans and based on verified energy performance and savings to provide ratepayers a more cost effective means of program delivery.

BPU presently manages the Clean Energy Program through two (2) Market Managers and one (1) Program Coordinator. BPU envisions one Program Administrator delivering the full suite of programs. This can be achieved through one (1) contractor or one (1) contractor with additional sub contractors including the Electric or Gas Utilities as contractors and / or subcontractors. The Program Administrator would manage all existing incentives and rebates approved and executed under the existing contracts. The new Program Administrator would also transition all existing incentives and rebates to a new funding mechanism such as a revolving loan fund within the term of the contract. In the current structure, the Market Manager contractors also perform quality control (QC) levels of inspections for the programs they manage and the Program Coordinator performs quality assurance (QA) level of inspections. BPU provides oversight to both of QC and QA processes. BPU envisions the Program Administrator performing the QC level of inspections with the QA level of inspections performed by either BPU or contracted out to a separate firm.

The new Program Administrator, in implementing these programs, must also ensure support of EMP and CEP objectives and program transition goals including, but not limited to, the following elements:

- Promotion and recognition of New Jersey as a national leader in support of new clean energy technologies and market transformation;
- Provision of CEP programs and services to all customer classes;
- Reduction of non-incentive costs associated with program delivery and administration compared to the most recent 2010/2011 budget;
- Streamlining, automating, and aggregating processes in order to increase effectiveness and reduce program transaction costs;
- Aggressively transitioning to upstream incentives and long-term financing solutions versus direct consumer incentives (e.g. rebates);
- Developing and fostering loan programs through interest rate buy downs to remove barriers to customer participation; and
- Transitioning program advertising to cooperative advertising incentives for contractors, retailers and program sponsors.

The 2011 EMP along with other additional information on BPU and New Jersey's Clean Energy Program may be accessed through the following links:

- New Jersey's Clean Energy Program
<http://www.njcleanenergy.com>

- 2011 Energy Master Plan
<http://www.nj.gov/emp/>.
- 2011 Clean Energy Program Budget and Compliance Filings
<http://www.njcleanenergy.com/filings>
- 2011 Clean Energy Board Order
<http://www.njcleanenergy.com/files/file/Board%20Orders/12-6-10-8C.pdf>
- NJCEP Program Results for the 2001 through 2009 program years
<http://www.njcleanenergy.com/main/public-reports-and-library/home>.

Questions

BPU requests your response and input to the following questions:

Program Implementation:

1. Are there firms that can provide the full suite of programs described? If subcontractors are required to meet the requirements, what programmatic areas would you envision subcontracting and with whom would you partner your services?
2. How would you provide professional services for the full suite of programs described?
3. Based upon your industry experience, what resources and expertise should bidders be required to provide to ensure the successful transition of CEP Programs to a single Program Administrator?
4. Is it industry practice to work with a utility partner to deliver these programs?
5. What ideas can you share on how BPU's goals may best be achieved by consolidating operations under a single Program Administrator?

Performance-based Contracting:

6. Does the industry recognize and use performance based contracts predicated on achieving an energy savings target where the bottom line is the performance measure of the program?
7. Based on the NJBPU's goals, what would be the industry standard for a performance based contract?
8. The existing three (3) contracts are structured to allow for numerous contract modifications due to the dynamic nature of the marketplace and to update and improve effectiveness and efficiency. Based on your industry experience, what structures exist that minimize or eliminate the need for periodic contract modifications required by changes within the industry or state-of-the-art developments?
9. What payment mechanisms exist within the industry to compensate firms serving as a Program Administrator with particular emphasis on those payment mechanisms that are based upon performance-based measures?

Financing Mechanism:

10. What is your firm's experience in developing/administering programs using performance-based incentives whereby the incentives are paid out in the form of low interest loans and based on verified energy performance and savings to provide ratepayers a more cost effective means of program delivery?
11. Is there an industry best-practice or model for establishing and administering a revolving loan fund? If so, please describe the best-practice or model and state the recommended time frame for the transition of the current incentives to this model.
12. Do industry firms have agreements/contracts with utilities to assist/develop bill financing and if so, please state the details regarding these arrangements.

Please email responses with the heading: **PROGRAM MANAGEMENT SERVICES FOR THE NEW JERSEY CLEAN ENERGY PROGRAM** to: roy.hambrecht@treas.state.nj.us. Responses are requested by August 11, 2011.

APPENDIX B

Summary of Resources Referenced

Note: This listing is not intended to imply that all working group members have reviewed and/or agree with the substance and findings of the reports listed. It is merely included as a reference point for several of the topics addressed in the report. Some Work Group members noted the relevance of these materials and believe that they may be useful to other stakeholders seeking information regarding these topics.

- Current NJCEP Market Manager Compliance Plans and Budgets
<http://www.njcleanenergy.com/filings>
- Office of Clean Energy's Request for Information on Professional Program Management Services (July 2011) and related responses (August 2011).
<http://www.njcleanenergy.com/files/file/Library/RFI.pdf>
- Who Should Deliver Ratepayer Funded Energy Efficiency? A 2010 Update. Prepared for the Colorado Public Utilities Commission by Rich Sedano, Regulatory Assistance Project
- Various studies and reports of the State Energy Efficiency Action Network. (SEE Action). The State and Local Energy Efficiency Action Network is a state and local effort facilitated by the federal government that helps states, utilities, and other local stakeholders take energy efficiency to scale and achieve all cost-effective energy efficiency by 2020. As described on its website, this initiative has engaged diverse stakeholders in the development and implementation of eight energy efficiency roadmaps across the residential, commercial, and industrial sectors, as well as key cross-cutting topics, including evaluation, measurement and verification; financing; building codes; consumer information and behavior; and utility motivation and energy efficiency. Much of the SEE Action effort is predicated upon previous reports from the National Action Plan for Energy Efficiency.
- "Enabling Investments in Energy Efficiency," California Institute for Energy and Environment (May 21, 2009).
- Energy Efficiency Financing Mechanisms," 24 Energy Policy Institute/Center for Advanced Energy Studies (May 2010).
- "State Clean Energy Policies Analysis: State, Utility and Municipal Loan Programs," National Renewable Energy Laboratory (May 2010).
- Energy Efficiency Retrofits for Commercial and Public Buildings, Pike Research, <https://www.pikeresearch.com/wordpress/wp-content/uploads/2010/07/EERF-10-Executive-Summary.pdf>
- "The Right Measures" available at http://www.peci.org/documents/ashrae_102610.pdf.

APPENDIX C

Current EE Financing Programs in NJ

Customers seeking to invest in significant energy efficiency improvements for their home or business currently have the option of applying for financing options within various approved NJCEP or utility EE programs. However, some programs have no companion financing options available and there may be features of the existing programs that could be enhanced to better serve the market. The following listing is intended to provide a high level overview of the existing financing options available as part of a regulated program. It is not intended to cover all of the financing options that may be available through the free market.

Program	Description
Home Performance with Energy Star	<p>Because this residential program involves comprehensive energy efficiency upgrades addressing HVAC equipment and the building shell, this is a significantly more expensive program for the consumer than traditional replacement programs. To make the program more accessible and to encourage customers to take a proactive approach to energy efficiency, a 10 year, zero percent financing option is available for a maximum loan of \$10,000.</p> <p>For the majority of the customers in the State, this financing option would be available as an unsecured loan that is originated by Energy Finance Solutions (EFS). EFS is a private, non-profit organization based in Wisconsin that specializes in residential energy efficiency programs and services. EFS is an authorized underwriter and originator for Fannie Mae and as such is subject to certain restrictions regarding the use of such funds. Because this financing option is subsidized, the cost of the subsidy is bought down by either NJCEP or a utility companion program available in the service territories of Elizabethtown Gas and South Jersey Gas.</p> <p>Since January 2011, New Jersey Natural Gas Customers (NJNG) are not served through EFS but can instead apply directly to NJNG for an On-Bill Repayment Program (OBRP) that allows essentially the same terms (10 year period for repayment with no interest component). Customers repay the value of the improvements through their natural gas bill. The aggregate value of the amount borrowed is considered a utility energy efficiency investment that declines as customers repay the original balance. Due to the fact that this program is less than a year old, it is not possible to adequately evaluate this approach at this time. However, at the monthly NJCEP EE Committee meetings, the Market Managers have repeatedly provided positive feedback regarding this model and encouraged other companies to consider filing to provide a similar program.</p> <p>While not currently available, NJCEP also partnered with the New Jersey Housing & Mortgage Financing Agency (HMFA) to use utilize ARRA funding to provide financing for customers not subject to the SBC for their heating usage and for customers that did not meet the minimum credit requirements established for the programs described above.</p>

<p>PSE&G Energy Efficiency Programs (including Whole House, Hospital, Small Business, and Data Center)</p>	<p>Through approved Section 13 programs, PSE&G offers On-Bill Repayment for several of its programs. This repayment plan feature is only available for customers that participate in the program and is limited to the non-incentive portion of the approved project costs. Terms of the repayment and interest rate varies by program. Customers repay the value of the improvements through their energy bill. The aggregate value of the amount borrowed is considered a utility energy efficiency investment that declines as customers repay the original balance.</p>
<p>South Jersey Gas Non-Residential Loan Program</p>	<p>This is a companion program to address financing needs for NJCEP's Smart Start Buildings, Direct Install and Pay for Performance Programs. It is an interest rate buy-down approach that provides zero percent financing for gas measures under the programs. The program uses local banks. Participation has been limited to date.</p>
<p>EDA Revolving Loan Fund</p>	<p>In July 2011, EDA announced a new revolving loan fund to serve as a companion for approved NJCEP Pay for Performance Program projects. The underlying funding to establish this program was NJCEP funds. Total funds awarded are subject to a minimum of \$250,000 and a maximum of \$2,500,000. In addition, these secured EE RLF loans cannot exceed 80% of total eligible project costs and the combined funding from the NJCEP Pay for Performance incentives (which includes incentive for installation of recommended measures and incentive upon delivery of approved post construction benchmarking report) and all other governmental funding sources cannot exceed 100% of total eligible project costs. The interest rates range from 2 to 4% and are tiered to the required amortization period for the project, which can be up to 7 years. This program can also be used a companion to the NJCEP Large Energy Users Pilot that was launched in August 2011. Because this program is only 3 months old, there are no approved applications reported and it is premature to evaluate the program.</p>
<p>Multi-Family Financing Pilot (pending BPU approval)</p>	<p>In August 2011, OCE staff released a proposal to launch a new \$10 million Multi-Family Financing Pilot Program, designed to provide multi-family building owners access to capital at competitive borrowing rates to perform energy efficiency upgrades to their facilities. The financing option will be in addition to program incentives currently available through the Pay for Performance Program. Rather than establish standard terms for loans, the proposal allows a building owner to negotiate loan terms with qualified lenders. Upon close of the loan, the NJCEP would pay 50% of the loan cost to the lender at 0% interest to reduce the risk incurred by the lender and incentivize the lender to participate. As the loan is paid back by the customer over time, the lender would provide monthly payments to the NJCEP to pay off the 50% portion of its loan. The approach was modeled closely after a similar program being offered by the New York State Energy Research Development Authority's (NYSERDA). No review was performed as the program has not yet been approved and some argue that the proposal does not include sufficient information to provide feedback regarding the approach.</p>



SEE Action
STATE & LOCAL ENERGY EFFICIENCY ACTION NETWORK

Analyzing and Managing Bill Impacts of Energy Efficiency Programs

Technical Assistance Available to Public Service Commissions

The State and Local Energy Efficiency Action Network (SEE Action) is sponsored by the U.S. Department of Energy (DOE) and the U.S. Environmental Protection Agency (EPA) as a follow-up to the National Action Plan for Energy Efficiency.

The goal of the SEE Action Network's Utility Motivation and Energy Efficiency Working Group is to provide assistance to key stakeholders as they identify and implement solutions to help motivate utilities to implement all cost-effective energy efficiency. It includes high-ranking members from public service commissions, consumer advocate offices, electric and gas utilities, efficiency advocates, and other industry stakeholders.

Energy efficiency programs offer a wide array of benefits to customers and energy utilities. When considering the rate impacts of efficiency programs, regulators should never lose sight of the many benefits of those programs, to both participants and non-participants (e.g., reduced energy costs, increased customer satisfaction, improved reliability, reduced need for transmission and distribution facilities, reduced use of fossil fuels, and environmental benefits).

The SEE Action Network is available to provide utility commissions and other stakeholders assistance in addressing rate impact concerns associated with customer-funded energy efficiency programs. Please note that there are no fees associated with this assistance and that it may significantly minimize the burden on your staff if you are currently exploring these issues.

This document provides an overview of the types of assistance that could be provided, as well as how they could be overseen and delivered by the SEE Action Network team.

Types of Assistance Available

Assistance can begin with a comprehensive assessment of your state's current circumstances with regard to energy efficiency development and rate impact issues. Assistance can be tailored to the needs of the commission and the state, both in terms of providing support for a regulatory process that might be underway, as well as addressing specific issues concerning rate and bill impacts.

The Utility Motivation and Energy Efficiency Working Group prepared a set of principles and recommendations regarding how to analyze and manage bill impacts of energy efficiency programs (see the section below "Related SEE Action Resources"). These principles and recommendations form the foundation for the substance of the technical assistance.

The types of assistance available include, but are not necessarily limited to, the following:

- **Policies to address rate and bill impact concerns.** One of the first steps to properly addressing rate and bill impact concerns is to clarify how these impacts will be quantified, and how the results could be used in overseeing energy efficiency plans and budgets.

Key Points

- Technical assistance is available through the SEE Action Network to public service commissions and their stakeholders on addressing rate impact concerns associated with ratepayer-funded energy efficiency programs.
- Services are tailored to the specific needs of the commission and state, and include policy and analytical support.
- See the technical report *Analyzing and Managing Bill Impacts of Energy Efficiency Programs: Principles and Recommendations*, available on the SEE

About SEE Action

The State and Local Energy Efficiency Action Network (SEE Action) is a state and local effort facilitated by the federal government that helps states, utilities, and other local stakeholders take energy efficiency to scale and achieve all cost-effective energy efficiency by 2020.

About the Working Group

The working group is comprised of representatives from a diverse set of stakeholders; its members are provided at www.seeaction.energy.gov.

- **Quantitative analyses of rate and bill impacts.**
This could include comprehensive, long-term estimates of rate and bill impacts associated with the specific efficiency budgets, efficiency savings and rates of the electric and gas utilities in your state.
- **Policies to support proper management of rate and bill impacts.** Once bill impacts have been properly quantified, it is important to identify the various options to evaluate, manage and mitigate them. Such options could be tailored to the specific efficiency programs offered in your state.

Oversight and Delivery of Assistance

Assistance will be overseen by DOE and EPA staff from the SEE Action Network.

Services will be provided by technical staff from DOE, EPA, the Regulatory Assistance Project, or consultants hired through the SEE Action Network.

Services provided include, but are not necessarily limited to: technical expert meetings with commissioners and staff to discuss relevant issues; attendance at working groups, technical sessions, or regulatory hearings; and drafting white papers, comments, testimony, or other relevant documents to support the commission and staff.

Related SEE Action Resources

National Action Plan for Energy Efficiency
www.epa.gov/cleanenergy/energy-programs/suca/resources.html

State and Local Energy Efficiency Action Network (SEE Action) www.seeaction.energy.gov

State and Local Energy Efficiency (SEE) Action Network
Utility Motivation and Energy Efficiency Working Group
www.seeaction.energy.gov/utility_motivation.html

Analyzing and Managing Bill Impacts of Energy Efficiency Programs: Principles and Recommendations
www.seeaction.energy.gov/seeaction/pdfs/utility_motivation_billimpacts.pdf

Other Resources

Regulatory Assistance Project
www.raonline.org/

For more information or to request assistance, contact:

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Disclaimer:

The Utility Motivation and Energy Efficiency Working Group of the State and Local Energy Efficiency Action Network is committed to taking action to increase investment in cost-effective energy efficiency. This document was developed under the guidance of and with input from the working group. The document does not necessarily represent an endorsement by the individuals or organizations of Utility Motivation and Energy Efficiency Working Group members or the federal government. However, the working group members do urge consideration of these materials as they believe that the information contained within will promote the deployment of cost-effective energy efficiency.

GLOSSARY AND DEFINITIONS OF FREQUENTLY USED TERMS

ARRA Programs The American Recovery and Reinvestment Act of 2009 provided several sources of funding that were administered by staff under contract to the State for the implementation of NJCEP. ARRA funding created similar programs for classes of customers or products and services not covered by NJCEP, but this funding is distinct from NJCEP funding and disbursement on many projects was subject to additional Federal requirements.

Basic Generation Service (BGS) The EDCs obtain wholesale power supplies to serve customers who do not shop for their own power through annual BGS auctions.

Board of Public Utilities (BPU or Board) The BPU regulates the EDCs and LDCs, participates in the PJM planning process, and advocates for New Jersey's interests before FERC. The BPU administers the BGS auctions; administers the Clean Energy Program, and approves ratepayer-supported utility programs.

Combined Heat and Power (CHP) CHP plants, also referred to as cogeneration, provide electric and thermal energy, thus obtaining high overall efficiency from the fuel.

Decoupling The disassociation of a utility's profits from its sales of the energy commodity in an effort to make a utility indifferent to the level of sales.

Demand Response Measures consumers take to minimize their demand for energy. It includes curtailment of energy or the use of on-site generation of electricity at critical times

Department of Environmental Protection (DEP) The DEP issues permits for air pollution control, water pollution control, land use, and the management of other environmental impacts. DEP administers New Jersey's auction and compliance program.

Distributed Generation Small-scale electricity production that is on-site or close to the primary users and is interconnected to the utility distribution system

Division of Rate Counsel The New Jersey Division of Rate Counsel (formerly called the New Jersey Division of the Ratepayer Advocate) represents the interests of consumers of electric, natural gas, water/sewer, telecommunications, cable TV service, and insurance (residential, small business, commercial and industrial customers).

Economic Development Authority (EDA) An independent State agency that serves as the State's "bank for business" by financing small and mid-sized businesses, administering tax incentives to retain and grow jobs, revitalizing communities through redevelopment initiatives, and supporting entrepreneurial development by providing access to training and mentoring programs. EDA also serves as administrator for several NJCEP programs.

Electric Discount and Energy Competition Act (EDECA) The Electric Discount and Energy Competition Act was enacted in 1999 and deregulated the State's electric and natural gas industries.

Electric Distribution Company (EDC) Atlantic City Electric (ACE), Jersey Central Power & Light (JCP&L), Public Service Electric & Gas Company (PSE&G), and Rockland Electric Company (RECO).

EDC Solar Financing Program BPU-approved programs that will provide for long-term contracts for SRECs that the EDCs will purchase from solar projects selected through a competitive bidding process in the EDC's service territories.

Energy Efficiency (EE) Abbreviation for energy efficiency efforts used throughout the report.

Energy Efficiency Committee A committee that routinely receives updates and presentations from NJCEP Market Managers and OCE staff on the status of NJCEP EE programs and other EE-related information. It generally meets monthly and is open to all stakeholders to provide informal input back to the program.

Energy Savings Improvement Plan (ESIP) A State law that allows government agencies to make self-funded energy related improvements to their facilities and pay for the costs using the value of energy savings that result from the improvements.

Local Distribution Company (LDC) Elizabethtown Natural Gas, New Jersey Natural Gas, Public Service Electric and Gas, and South Jersey Gas.

Market Manager Entity that currently oversees the daily implementation of NJCEP programs in a role that was awarded pursuant to competitive bid. These entities report directly to OCE staff and may utilize subcontractors for some supporting functions. Since October 2006, Honeywell has been engaged by as the Residential Energy Efficiency and Renewable Energy Market Manager and TRC Solutions has been engaged as the Commercial and Industrial Energy Efficiency Market Manager.

New Jersey's Clean Energy Program (NJCEP) A statewide program that offers financial incentives, programs and services for New Jersey residents, business owners and local governments. It is funded by a non-bypassable surcharge on regulated natural gas and electric sales in New Jersey.

Office of Clean Energy (OCE) A department within the BPU that oversees the NJCEP.

Program Coordinator Entity that assists the OCE in the administration and tracking of the NJCEP programs in a role that was awarded pursuant to competitive bid. Applied Energy Group has been serving as Program Administrator since 2007.

Renewable Energy (RE) Abbreviation for renewable energy efforts used throughout the report.

Renewable Energy Committee A committee that routinely receives updates and presentations from NJCEP Market Managers and OCE staff on the status of NJCEP RE programs and other RE-related information. It generally meets monthly and is open to all stakeholders to provide informal input back to the program. It has an additional 7 subgroups dedicated to supporting subject matter.

Renewable Portfolio Standard (RPS) A state regulation that requires the increased production of energy from renewable energy sources, such as wind, solar, biomass, and geothermal, to meet a specified goal for the State's EDCs and third party suppliers.

Section 13 Through language codified in N.J.S.A. 48:3-98.1 of the Regional Greenhouse Gas Initiative Law, the Legislature permitted energy utilities to invest in energy efficiency, conservation, renewable energy resources or renewable energy programs on a regulated basis.

Societal Benefits Charge (SBC) BPU-approved funding for programs that provide societal benefits such as low income programs, nuclear decommissioning, and funding for energy efficiency and renewable energy programs. NJCEP programs are supported by a portion of this surcharge.

Solar Alternative Compliance Payment (SACP) An alternative compliance payment specifically for SRECs.

Solar Renewable Energy Certificate (SREC) Each unit of energy (MWH) produced by a solar energy system is tagged with an SREC. Annual SREC quantities are established by New Jersey's RPS and SREC prices are set by the competitive market up to the SACP.