



Agenda Date: 6/21/13  
Agenda Item: 8A

**STATE OF NEW JERSEY**  
**Board of Public Utilities**  
44 South Clinton Avenue, 9<sup>th</sup> Floor  
Post Office Box 350  
Trenton, New Jersey 08625-0350  
[www.nj.gov/bpu/](http://www.nj.gov/bpu/)

ENERGY

IN THE MATTER OF THE COMPREHENSIVE )  
ENERGY EFFICIENCY AND RENEWABLE ) ORDER  
ENERGY RESOURCE ANALYSIS FOR FISCAL )  
YEARS 2014 – 2017 CLEAN ENERGY PROGRAM<sup>1</sup> ) DOCKET NO. EO11050324V

**Parties of Record:**

- Joe Gennello**, Honeywell Utility Solutions
- Diane Zukas**, TRC Energy Services
- Michael Ambrosio**, Applied Energy Group
- Mark Mader**, Jersey Central Power & Light
- Timothy White**, Atlantic City Electric
- Scott Markwood**, Orange & Rockland Utilities
- Bruce Grossman**, South Jersey Gas Company
- Susan Ringhof**, Public Service Electric & Gas Company
- Tracey Thayer**, New Jersey Natural Gas
- Mary Patricia Keefe**, Elizabethtown Gas Company
- Stefanie Brand**, Division of Rate Counsel

BY THE BOARD<sup>2</sup>:

This Order memorializes action taken by the Board of Public Utilities ("Board") at its June 21, 2013 public meeting, where the Board considered the funding level for New Jersey's Clean Energy Program for fiscal year 2014.<sup>3</sup>

<sup>1</sup> By Order dated October 7, 2011 the Board initiated its fourth CRA proceeding in Docket No. EO11050324V. The caption on the October 7, 2011 Order was "IN THE MATTER OF THE COMPREHENSIVE ENERGY EFFICIENCY AND RENEWABLE ENERGY RESOURCE ANALYSIS FOR THE 2013-2016 CLEAN ENERGY PROGRAM." By Order dated November 20, 2012 the Board modified the NJCEP to align with the state fiscal year and the CRA proceeding was modified to establish funding levels for state fiscal years 2014-2017 as opposed to calendar years 2013-2016. The caption on this Order was revised accordingly. The action taken by the Board through this Order is a continuation of the proceeding initiated through the October 7, 2011 Order.

<sup>2</sup> Commissioner Jeanne M. Fox abstained from voting on this matter.

<sup>3</sup> The budgets approved in this Order are subject to State appropriations law.

## **BACKGROUND**

On February 9, 1999, the Electric Discount and Energy Competition Act, N.J.S.A. 48:3-49 et seq. ("EDECA or the Act") was signed into law. The Act established requirements to advance energy efficiency and renewable energy in New Jersey through the societal benefits charge ("SBC"), at N.J.S.A. 48:3-60(a)(3). EDECA further empowered the Board to initiate a proceeding and to cause to be undertaken a Comprehensive Resource Analysis ("CRA") of energy programs, currently referred to as the comprehensive energy efficiency ("EE") and renewable energy ("RE") resource analysis. After notice, opportunity for public comment, public hearing, and consultation with the New Jersey Department of Environmental Protection ("NJDEP" or "DEP"), within eight months of initiating the proceeding and every four years thereafter, the Board would determine the appropriate level of funding for EE and Class I RE programs (now called New Jersey's Clean Energy Program or ("NJCEP")) that provide environmental benefits above and beyond those provided by standard offer or similar programs, in effect as of February 9, 1999.

As required by the Act, in 1999, the Board initiated its first comprehensive EE and RE resource analysis proceeding. At the conclusion of this proceeding, the Board issued its initial order, dated March 9, 2001, Docket Nos. EX99050347 et al. ("March 9th Order"). The March 9th Order set funding levels for the years 2001 through 2003, established the programs to be funded and budgets for those programs. The Board approved funding levels of \$115 million for 2001, \$119.326 million for 2002, and \$124.126 million for 2003. By Order dated July 27, 2004, Docket Nos. EX03110945 and EO02120955, the Board finalized the funding level for 2004 and established the programs to be funded and budgets for those programs. The Board approved a funding level of \$124.126 million for 2004.

By Order dated May 7, 2004, Docket Nos. EX03110946 and EX04040276, the Board initiated its second CRA proceeding and established a procedural schedule for the determination of the funding levels, allocations and programs for the years 2005 through 2008. By Order dated December 23, 2004, Docket No. EX04040276, the Board concluded its second CRA proceeding, set funding levels for the years 2005 through 2008, and approved 2005 programs and budgets. The Board approved funding levels of \$140 million for 2005, \$165 million for 2006, \$205 million for 2007, and \$235 million for 2008.

By Order dated April 27, 2007, Docket No. EO07030203, the Board directed the Office of Clean Energy ("OCE") to initiate a third CRA proceeding and to schedule public hearings on program funding and funding allocations for the years 2009 – 2012. By Order dated September 30, 2008, Docket No. EO07030203, the Board concluded its proceeding and set funding levels of \$245 million for 2009, \$269 million for 2010, \$319.5 million for 2011 and \$379.25 million for 2012.

In November 2012, the Board decided to change the NJCEP to a fiscal year, which had been established on a calendar year basis, to align with the State fiscal year, which runs July 1st – June 30<sup>th</sup> each year. Therefore, by Order dated November 20, 2012, Docket Nos. EO07030203 and EO11100631V, the Board approved a six-month funding level of \$194,804,019 for the period from January 1 through June 30, 2013 to transition the program to a fiscal year.

The table below summarizes the funding levels approved by the Board for the years 2001 – 2013 in the past three CRA proceedings:

### Annual CRA Funding Levels

Year	BPU Approved Funding Level
2001	\$115,000,000
2002	\$119,326,000
2003	\$124,126,000
2004	\$124,126,000
2005	\$140,000,000
2006	\$165,000,000
2007	\$205,000,000
2008	\$235,000,000
2009	\$245,000,000
2010	\$269,000,000
2011	\$319,500,000
2012	\$379,250,000
2013 (first six months)	\$194,804,019
<b>Total</b>	<b>\$2,635,132,019</b>

### Program Consultant Contracts

On August 19, 2005, the New Jersey Department of the Treasury, Division of Purchase and Property ("Treasury") issued, on behalf of the Board, Request for Proposal 06-X-38052 for New Jersey Clean Energy Program Management Services. The Board selected Honeywell International, Inc. ("Honeywell") as the Market Manager for residential energy efficiency and renewable energy programs and TRC Energy Services ("TRC") as the Market Manager for commercial and industrial energy efficiency programs. On October 19, 2006, Treasury issued a contract to Honeywell and to TRC to provide program management services.

On January 17, 2007, the Board approved the release of the Request for Proposal for the New Jersey Clean Energy Program - Program Coordinator – Docket No. EO05070640. After an extensive review of the proposals, the Board selected Applied Energy Group ("AEG") to provide program coordinator services. A contract for these services was issued by Treasury on July 10, 2007.

On June 22, 2012, Treasury issued, on behalf of the Board, RFP 13-X-22546 for a single NJCEP Program Administrator. The intent of the RFP was to streamline the administrative structure of the NJCEP by having a single contractor provide the services currently provided by Honeywell, TRC and AEG. Proposals were submitted in August 2012. By letter dated February 22, 2013, Treasury, Department of Purchase and Property ("DPP") issued a Notice of Intent to

Award the contract. DPP subsequently received challenges to the award. Due to the challenges, the DPP procurement process is ongoing and a contract has not been issued. The Board intends to maintain the current administrative structure of the NJCEP until a contract is awarded and the program is transitioned to the new program administrator.

### **Procedural History for the Fourth CRA**

Through this Order, the Board will set the level of new NJCEP funding to be collected by the utilities from ratepayers each year. The new funding levels are then allocated to specific programs and detailed budgets on an annual basis.<sup>4</sup>

As set forth at N.J.S.A. 48:3-60a(3), EDECA provides that after the eighth year, the Board shall make a determination as to the appropriate level of funding for energy efficiency and Class I renewable energy programs. Furthermore, EDECA provides that the Board shall determine, as a result of a comprehensive analysis, the programs to be funded by the SBC, the utilities' level of cost recovery, and performance incentives for existing and proposed programs.

Consistent with the requirements of EDECA, by Order dated October 7, 2011, Docket No. EO11050324V, (the "October 7<sup>th</sup> Order"), the Board directed the OCE to initiate a fourth CRA proceeding and to schedule public hearings on funding levels for the energy efficiency and renewable energy programs for calendar years 2013-2016.<sup>5</sup> The Order designated the Board President as the hearing officer and delegated authority to the President to manage the procedural requirements of the CRA proceeding.

The October 7<sup>th</sup> Order requested public comments regarding how the NJCEP can support the State's energy objectives and the changes to the NJCEP programs and funding levels needed to achieve these objectives. The Order included 18 questions related to the development of programs and funding levels, coordination with utility EE & RE programs, program evaluation and other issues related to improving the delivery of the NJCEP. The Order included 16 questions related to individual EE programs and 5 questions related to the RE programs. The Order also required the utilities to provide information concerning the amounts collected in rates related to the NJCEP and legacy programs as well as the amount collected from each utility rate class.

Responses to the questions were submitted by the New Jersey Division of Rate Counsel ("Rate Counsel"), New Jersey Natural Gas, Public Service Electric and Gas, Rockland Electric, South Jersey Gas, Elizabethtown Gas and Opower, Inc. The comments provided numerous recommendations regarding proposed modifications to programs and budgets as well as issues related to the administration of the programs. The comments were considered by the OCE in developing a straw proposal regarding proposed funding levels.

As required by EDECA, the OCE has consulted with the NJDEP throughout this process. Specifically, the CRA proceeding was discussed at monthly meetings of the EE and RE committees attended by representatives of the NJDEP and NJDEP representatives were sent a copy of each of the Staff CRA Straw Proposals discussed below. Comments received from the NJDEP were incorporated into the revised drafts of the Staff straw proposals. In addition, the

---

<sup>4</sup> The specific programs and budgets are addressed in a separate order, captioned In the Matter of the Clean Energy Programs and Budgets for Fiscal Year 2014, Docket No. EO13050376V.

<sup>5</sup> Subsequent to the issuance of the November 20<sup>th</sup> Order cited above which transitioned the NJCEP to a fiscal year, the CRA proceeding was modified to set funding levels for FY14-FY17.

OCE corresponded directly with the NJCEP via email on numerous occasions throughout the process soliciting input on the Staff straw proposals.

On December 6, 2011, Governor Christie released the 2011 New Jersey Energy Master Plan ("EMP"). The EMP includes a number of energy related goals and objectives and recommendations regarding EE and RE programs. The EMP is used as guidance by the Board in developing specific actions to achieve the goals and objectives set out in the EMP.

On or about August 21, 2012, the Office of Clean Energy ("OCE") issued a Draft Straw Proposal that set out proposed goals and funding levels for FY14-FY17 and requested comments on the proposal. The Draft Straw Proposal included specific funding levels for EE and RE as well as associated energy savings and renewable energy goals. The proposed funding levels included an allocation between traditional rebate programs and new financing programs. Comments on the Draft Straw Proposal were accepted through October 22, 2012.

Comments on the Draft Straw Proposal were submitted by The Association of Air Conditioning Contractors of America New Jersey Association, ("ACCA-NJ"), Source Group, Efficiency First, the New Jersey Utilities Association ("NJUA"), the New Jersey Large Energy Users Coalition ("NJLEUC"), the Sierra Club, the Chemistry Council of New Jersey ("CCNJ"), Mr. Steven Maranz and Rate Counsel. The following summarizes the comments on the Initial Staff Draft Straw Proposal dated August 21, 2012:

- Rate Counsel opined that the Draft Straw Proposal lacked the fundamental details and analytic support that are necessary to evaluate whether the proposal will promote the State's energy goals in a manner that is cost effective and just and reasonable to ratepayers. The OCE should develop revised, better supported, proposals with the assistance of the new Program Administrator, and the revised proposal should be made available for evaluation and comment by interested stakeholders. The OCE is proposing to establish the amounts to be collected from New Jersey's ratepayers for the next four years. This should be done based on proposals that clearly define the OCE's goals and priorities and clearly explain and document the basis for the proposed funding levels and budget allocations.
- ACCA-NJ and Efficiency First both stated that while they understood that incentives and programs need some changes due to changing energy codes and regulations, the shift to a predominantly financing-only model by FY17 is a too dramatic and rapid change. A dramatic shift to financing will completely undo all of the progress that has been made developing the EE industry in New Jersey.
- The NJUA proposed modifications to the current budgeting process and the treatment of unspent or uncommitted funds. The NJUA suggested that the Board should consider and evaluate whether financing and alternative financing mechanisms such as an Energy Efficiency Portfolio Standard ("EEPS") is likely to be a more cost effective approach before shifting policy in that direction. The NJUA noted that the Straw Proposal reflected an aggressive shift toward financing programs in a relatively short period of time. Given the relatively poor performance of energy efficiency financing programs across the country and feedback from numerous stakeholders, a record does not appear to exist supporting this approach. The NJUA also commented on the use of NJCEP funds for State energy costs, opportunities for utility programs, and the rate impacts of the proposed funding levels.
- NJLEUC urged the Board to reject the substitution of a revolving loan program for the current grant program in the manner suggested by the Straw Proposal. If a revolving

loan program is to be implemented it should be accomplished in a gradual and deliberate manner, supported by proper market research and the comprehensive analysis of the OCE and single program administrator, to assure that loan-based incentives will be implemented only in those circumstances in which a financing approach will be acceptable to customers. NJLEUC stated that the NJCEP budget process needs to be improved and that the Board should not substitute an EEPS or use of PJM capacity credits as an alternative funding mechanism for the NJCEP.

- The Sierra Club proposed the adoption of an EEPS. It argued that an EEPS saves rate payers money, cost less on a per MW basis than any form of new generation, and becomes more cost effective as targets are ramped up due to economies of scale. The Sierra Club encouraged the Board to reinstate its goal of a 20% energy reduction by 2020 and ensure that funding levels are realistic to achieve this level of savings.
- The CCNJ encouraged the promotion of EE in New Jersey. However, the CCNJ has serious concerns regarding the proposed move away from grants to a revolving loan fund. In its view, any revolving loan approach, if pursued at all, should be implemented slowly. Corporate financing realities in the current economy may not allow for the projects envisioned by a financing program to get off the ground.
- Mr. Maranz felt it is important to not only continue the NJCEP, but to add to the marketing of the NJCEP since very few homeowners are even aware that the program exists. Source Group requested that funds be identified to establish a carbon emissions inventory for each of the 64 institutions of higher education in New Jersey.

Based on the comments submitted regarding the initial staff straw proposal, the OCE determined that it would develop a revised straw proposal to address many of the comments set out above. Specifically, as proposed by Rate Counsel, Staff prepared a revised straw proposal that included additional analytical support for its recommended funding level and the basis for the proposed funding levels. The revised straw proposal was also drafted to address the numerous comments opposing the proposed transition to financing programs.

### **Revised Procedural Order**

By Order dated November 20, 2012, Docket No. EO11050324, (“the November 20<sup>th</sup> Order”), the Board established a revised procedural schedule for finalizing the fourth CRA proceeding. Specifically, the November 20<sup>th</sup> Order indicated that Staff would issue a final straw proposal by December 3, 2012, schedule a public hearing for January 14, 2013, and accept comments on the final straw proposal through the date of the hearing.

As a result of a unique set of implementation challenges subsequent to the issuance of the November 20<sup>th</sup> Order, and as discussed below, Staff requested and received additional time to develop a revised straw proposal. By Order dated February 28, 2013, the Board issued a revised procedural schedule. The revised procedural schedule rescheduled the public hearing for April 23, 2013, and allowed for public comments on the revised staff straw proposal through April 26, 2013.

### **Revised Staff Straw Proposal dated April 17, 2013**

On or about March 28, 2013, Staff circulated a “Revised CRA Straw Proposal” to the EE and RE listservs and posted the document on the NJCEP web site. A modified Revised CRA Straw Proposal dated April 17, 2013 was posted and circulated on or about April 18, 2013. The modified straw proposal corrected a table on page 55 that set out the monthly payments by utilities.

The Revised CRA Staff Straw Proposal dated April 17, 2013 is a comprehensive document that develops proposed funding levels based upon a market potential study, a benchmarking study, public policy objectives and other factors and sets out Staff's rationale for its recommendations. The Straw Proposal sets out a number of policy issues that require further assessment, identifies a number of implementation challenges, describes the methodology and approach used to establish proposed funding levels and includes a specific recommendation for a fiscal year 2014 ("FY14") funding level.

Staff believes that both the Board and ratepayers will benefit from awaiting the development of the Strategic Plan and from additional research into financing options prior to setting funding levels. Therefore, in the Revised CRA Staff Straw Proposal, staff proposed that the Board establish the funding levels for FY14 only and defer a decision on the funding levels for FY15-17 until the Strategic Plan is developed and additional program evaluation is performed.

The following summarizes the comments made at the April 23<sup>rd</sup> public hearing and written comments received on the April 17<sup>th</sup> Revised CRA Straw Proposal.

#### **Summary of Comments from Public Stakeholders on the Revised CRA Straw Proposal dated April 17, 2013**

The following persons testified at the April 23, 2013 public hearing: Patrick Stewart, on behalf of Air Conditioning Contractors of America ("ACCA"); Steven Nadel, on behalf of the American Council for an Energy-Efficient Economy ("ACEEE"); Jeff Tittel and Christine Guhl, on behalf of the Sierra Club; Anne-Marie Peracchio, on behalf of New Jersey Natural Gas; Douglas Wang, on behalf of BC Express, Inc. ("BC Express"); Gearoid Foley; Ray Montalvo on behalf of Consolidated Energy Design, Inc. ("Consolidated Energy"); and Steve Goldenberg, Esq., on behalf of the New Jersey Large Energy Users Coalition, Ameresco, and Fuel Cell Energy Inc.

In addition, written comments were received from New Jersey Natural Gas; Rate Counsel; ACCA, ACEEE, Consolidated Energy, the Sierra Club, the NJUA, ClearEdge Power; Murray E. Bevan, Esq., on behalf of Bloom Energy Corporation ("Bloom"); BC Express, Inc.; and Renu Energy.

The following summarizes the written comments received as well as the oral comments presented at the public hearing.

#### **General EE Comments**

**Comment:** Rate Counsel would like to see a more specific timeline for convening a working group focused on improving CEP coordination with utility EE programs. Rate Counsel also would like to see a more specific timeline for the review of the program evaluation plan. Rate Counsel supports a review of CEP's fund management activity to better coordinate the collection of funds with the payment of incentives. Rate Counsel agrees that the determination of funding levels for FY2015-2017 at a later date will allow time for the transition to a new Program Administrator, and possibly the development of a Strategic Plan.

**Response:** Staff appreciates Rate Counsel's support for the various components of the Revised CRA Straw Proposal summarized above. Regarding the timing, Staff anticipates that the work group that will focus on the role of utility programs will commence discussions in July 2013 and produce recommendations in January 2014. Staff also anticipates commencing the

development of a program evaluation plan in July 2013. The intent is to hold discussions with the various working groups in the July through October timeframe and to prepare further recommendations for consideration by the Board by the end of 2013.

**Comment:** Rate Counsel notes that the portfolio and sector level savings and expenditure forecasts developed and proposed for the entire energy efficiency programs for 2013 to 2016 need further refinement. In general, Rate Counsel notes that the projected savings levels for FY2013 are much higher than historical levels. Rate Counsel understands that the energy savings forecasts will be further refined after the new Program Administrator is in place, and evaluation and benchmarks studies are completed, among other tasks.

**Response:** Staff recognizes that the proposed savings levels would require increasing current savings levels. Staff noted in the Revised CRA Straw Proposal that additional research is required to determine why energy savings that result from NJCEP programs lag savings levels in other states and that there are a number of factors that could cause this result. The Revised CRA Straw Proposal sets savings targets that would increase the NJCEP savings to levels achieved in other states. Staff believes this is a reasonable objective and will work with interested stakeholders to explore opportunities to increase NJCEP program savings.

**Comment:** While Rate Counsel agrees with limiting the CRA proposal to one year at this time, it would nonetheless be helpful to know what level of budget the OCE is expecting over the next four years, even if only for illustrative purposes. Thus, Rate Counsel recommends that the OCE present its preliminary, long-term budget forecast. Once the Program Administrator is in place, Rate Counsel recommends that the OCE should release for comment a draft budget proposal with more detail, as well as four-year projections going forward. Rate Counsel looks forward to a further review of the budget projections at that time. In the interim, the OCE should note that its future budget estimate is subject to change based on the progress made in FY14 and further studies.

**Response:** Staff has not yet developed a preliminary long-term budget forecast. Staff will consider additional input from the various work groups proposed in the Revised CRA Straw Proposal as well as the development of the Strategic Plan prior to developing long-term budget forecasts. The funding levels proposed for FY15-FY17 will be circulated for comment prior to Staff presenting its further recommendations to the Board.

**Comment:** ACCA asserts that financing alone will not achieve the Energy Master Plan's goals, and believes some level of rebates to offset the cost of the upgrade should be part of any successful Residential EE program(s). Without a streamlined and rapid payment, many contractors will not be able to afford to embrace the program, and the ones that can afford it, simply won't want to. This is a major hindrance to the current HPwES program financing uptake.

Approval periods need to be more expedient, and financing paperwork streamlined as much as possible. Pre-approvals should be within 24 hours at maximum, if not instantaneous through a website. Full approval (time to be able to commence work) after loan application information has been verified must be less than a week. Documentation should be minimal as Fannie Mae is getting out of the EE loan process. Financing offerings need to have some versatility so even the credit challenged can receive the benefits of EE programs. This can be achieved by offering higher rates to those that fail the top level financing. Payment has to be made to the contractor for the work completed, not to the homeowner.



The financing offering across the state should be uniform, as well as the application/approval process. We agree with the Straw that in general utility program(s) should be complimentary, and not competing to the OCE Program(s), and that a more coordinated program filing process is advisable. Utility offerings should be as uniform across the state as reasonably possible. Competition between utility and OCE Programs is also of concern, although not as egregious as superseding an OCE Program. Some utility programs have competed against higher level OCE offerings (as have other OCE programs), a more coordinated effort (including the contractors) would help eliminate these largely unintentional consequences. All Residential and C&I Programs should be open market based, and not restricted to a certain group of contractors, based on labor affiliation, or restricted to anything other than required technical training/certifications.

**Response:** The NJCEP has implemented numerous modifications to its procedures to streamline the application process and to expedite incentive payments. Staff welcomes any suggestions on ways to improve the program and will continue to explore opportunities for further improvements to NJCEP processes. Staff concurs that financing offerings should be consistent across the state, to the extent practicable, and will continue to coordinate with the utilities to achieve this objective. Staff generally supports the concept that NJCEP programs should be open and market based. Details regarding future financing programs will be developed as part of the Strategic Plan which will be developed through an open public process.

**Comment:** The Sierra Club's position on the Comprehensive Resource Analysis is that proposed funding levels and energy savings are insufficient. The proposed measures for 2014 are inadequate to lower energy costs for residents or significantly reduce emissions in the electric sector.

The Sierra Club urges the Board to strive for the High Achievable Potential scenario from the EnerNOC study or better. The High Achievable Potential is a target, not a mandate, and there is no legitimate reason why the Board should limit funding levels to a median goal. By aiming for the highest level of cost-effective efficiency, New Jersey can achieve economies of scale which may not be met by benchmarking funding and targets to median levels. Not targeting the higher savings levels amounts to higher energy costs for residents, fewer jobs created, more polluting emissions and an economic disadvantage due to lost investment opportunities.

The Sierra Club urges the Board of Public Utilities to scale up efficiency funding levels and spending to meet those of other states in the region. Efficiency budgets in New Jersey are significantly lower than many Northeastern states and New Jersey's energy savings reflects that. Furthermore, New Jersey's actual efficiency expenditures are even less due to an annual legislative action that transfers money from the NJCEP to the general fund. Another concern is that when budget and expenditures are equivalent, New Jersey's energy savings are not. According to the Northeast Energy Efficiency Partnership Policy Snapshot, efficiency expenditures are comparable for New Jersey and Pennsylvania, but Pennsylvania is achieving much greater savings. The Sierra Club urges the Board to closely evaluate the single-administrator to ensure that the highest possible energy savings are achieved.

Climate disruption is undoubtedly affecting New Jersey and will continue to have serious implications for the state if action is not taken to reduce greenhouse gas emissions. The Sierra Club urges the BPU to require all reconstruction be completed in the most energy efficient way possible.

The Sierra Club urges New Jersey to adopt an Energy Efficiency Resource Standard ("EERS"). An EERS would provide the funding and investment security necessary to meet all cost-effective energy efficiency. Twenty-six states have set EERS mandates to reduce energy use by a designated year. Adopting an EERS would result in lower customer costs, lower emissions, job-creation and economic development for New Jersey.

The NJUA urges caution in the review of an EERS approach, and is pleased that Board Staff cites the need for the work group to evaluate whether an EERS is likely to be a more cost effective approach before shifting State policy in that direction. At least one previous New Jersey study concluded that such an approach was likely to be considerably more expensive than a rebate structure.

**Response:** Staff thanks the Sierra Club for its comments. Staff recognizes the need to efficiently and effectively implement energy efficiency programs that will benefit New Jersey.

Staff recognizes that adopting EnerNOC's High Achievable scenario would maximize the level of EE delivered by the NJCEP. In response to the comments received, additional discussions with stakeholders, updated information and issues raised at the public hearing, on or about June 6, 2013, Staff issued a 2<sup>nd</sup> Revised CRA Straw Proposal which is discussed further below. The 2<sup>nd</sup> Revised CRA Straw Proposal proposes to increase funding for EE.

Staff has proposed a number of working groups to further explore numerous issues prior to setting funding levels for FY15 - FY17. Staff will consider numerous objectives, including those proposed by the Sierra Club, in developing its recommendations for those years. Staff anticipates that the potential benefits of an EERS model will be further explored as part of the development of the Strategic Plan.

**Comment:** Consolidated Energy recommends that the Board develop a Smart Grid Program which will include incentives for the following: a. Enhanced Building Automation (15% - 20% annual energy savings from intelligent control); b. Fully Automated Demand Response; c. Frequency Regulation; d. Advanced Energy Storage; e. Advanced Data Mining, Monitoring and Fully Automated Energy Analysis sub metering; f. Smart Micro Grids (Large facilities, university and corporate campuses, municipalities and cities). Consolidated energy also recommends that the Board develop a Distributed Generation Program without CHP.

**Response:** Smart grid technologies could potentially provide benefits to ratepayers and support the State's clean energy goals. Staff will explore whether or not smart grid technologies should be supported through the NJCEP as part of the development of the Strategic Plan referenced above. Staff recommends that Consolidated Energy present its proposal at a meeting of the EE Committee to allow for further input and discussion with a broad array of interested stakeholders.

**Comment:** The NJUA does not oppose the recommendation that funding is initially established for a single year (FY 2014) only and that funding for FY15 - FY17 will be defined pending completion of the Strategic Plan. However, the NJUA notes that single-year State funding may create additional regulatory uncertainty regarding the continuity of energy efficiency and renewable energy programs. NJUA also expressed concern that the proposal reflected the use of funds for an "anticipated budget lapse."

The NJUA strongly suggests that the finalization of a Strategic Plan be informed by the working group efforts to ensure coordination and successful implementation going forward. Furthermore,

the development of the Strategic Plan and the work of working groups should not hold up the continuation of programs that are currently serving the needs of customers and supporting thousands of trade allies, including many small businesses.

**Response:** Staff appreciates NJUA's support for these recommendations. Staff fully intends to propose a CRA funding level for FY15-FY17 upon receipt of additional information from the various working groups. The proposed one year funding level is intended only to allow for additional time to further explore numerous outstanding issues and should in no way be interpreted as a lack of commitment to continue the programs beyond FY14. Staff fully supports the continuation of existing programs while potential changes are discussed in the various working group, i.e. Staff recognizes and supports the need for consistency. The 2<sup>nd</sup> Revised Draft Straw Proposal does not reflect the use of funds for an anticipated budget lapse.

**Comment:** The NJUA supports Board Staff's recommendation that it work with Treasury to develop procedures to better match the collection of funds to program needs. The NJUA believes that, as Board Staff moves forward with the development of a Strategic Plan, it is more important than ever to recognize the challenges faced in budgeting for the NJCEP programs since it is difficult to assess potential market response to any program, especially new programs.

The NJUA proposes that Board Staff consider structuring NJCEP cost recovery to operate more like a traditional utility rider. As the NJUA stated in its October 2012 comments, a NJCEP cost recovery rider would reflect the fact that it is not possible to budget to the exact level of spending for any specific year. To avoid inadvertently over-collecting from customers, the NJUA suggests that the NJCEP should be structured more like a traditional utility rider that establishes projected annual expense levels with provisions for true-up to reflect actual expenditures. To the extent that actual expenditures are below projected expense levels, any over-collection is automatically included in the calculation of the subsequent year's recovery rate for that rider.

Renu Energy commends the Office of Clean Energy in recognizing shortfalls in expected performance and in offering recommendations to improve future results. Renu Energy concurs that the OCE should collaborate with Treasury to more closely correlate program commitments and expenditures with budgets in order to minimize unallocated money from one year to the next.

**Response:** The Straw Proposal recommends that Staff further explore ways to better align budgets and the collection of funds from ratepayers with realistic estimates of expenses. Staff intends to include the utilities, Rate Counsel, Treasury and other stakeholders in these discussions. Staff will consider proposed solutions as part of these discussions prior to developing specific recommendations for consideration by the Board.

**Comment:** The NJUA believes that the Board has appropriately provided utilities with the flexibility to develop divergent programs, providing lessons about program effectiveness from which all participants can benefit. The NJUA notes that Board Staff has already established forums that provide both formal and informal opportunities for the companies, Board Staff, and others to share information about utility program implementation that can increase coordination between the utilities and Board Staff. Those forums include Program Coordinator meetings and the monthly Energy Efficiency Committee meetings. The Companies also question a statement about the level of confusion among vendors engendered by differences among utility programs.

The NJUA believes that it may be worthwhile to explore opportunities to better coordinate utility programs with the NJCEP as proposed by the Revised Straw Proposal. The NJUA urges the Board to ensure that any collaborative process it initiates to implement this recommendation not increase the time that the Companies, Board Staff and Rate Counsel already invest in reviewing energy efficiency and renewable filings beyond the current 180-day process. As suggested above, the NJUA also respectfully disputes the need for complete uniformity among the Companies either in terms of the timing or content of their energy efficiency and/or renewable program filings.

The NJUA also believes that its customers and the State benefit from utility programs that are customized to meet the needs of each utility's unique customer demographics. Furthermore, coordination of utility offerings, if attempted, should be accomplished in a manner that allows for the utility innovation and investment that the enabling legislation was intended to promote. Total uniformity might lead to a "lowest-common-denominator" approach to programming by utilities with varying interests and expertise.

Finally, the NJUA believes that any proposed programs must be judged on their own merits, but suggest that, in order to accomplish NJCEP goals as efficiently and cost-effectively as possible, such programs should be designed to align with available utility programs to the extent practicable.

NJNG understands Staff's desire to take some steps to align utility programs with the strategic plan that will be developed for the NJCEP. NJNG encourages guidance for that work group to continue to allow utilities to propose creative approaches for energy efficiency programs and to affirm that the alignment of utility programs should not mandate consistency statewide in every aspect. A forced consistency could slow the ability for new approaches to be tested, limit the availability of new features or program elements, and even result in higher administrative costs.

Renu Energy supports the recommendation to rationalize energy efficiency incentives through scheduled coordination of program submissions and selective program approvals which should result in the elimination of unnecessary program administrative expenses, confusion among the marketplace participants and possible duplicative reimbursements. Renu Energy believes that it is desirable to attract to and nurture within NJ a critical mass of intellectual and financial resources that might generate innovative renewable energy technologies and invest in manufacturing assets to commercialize equipment, software, services, etc.

**Response:** The Revised CRA Straw Proposal notes certain concerns with how the utility programs are currently administered. Staff does not suggest "complete uniformity among the Companies" nor has Staff predetermined the outcome of the working group. Alternatively, Staff recommends that a process be developed that would: "require utilities to coordinate collaboratively with other utilities, the OCE, the NJCEP, Rate Counsel and other stakeholders in developing proposed EE and RE programs, prior to submitting such programs to the Board for review." Staff anticipates working cooperatively with the utilities, Rate Counsel and other interested stakeholders to establish proposed guidelines for consideration by the Board related to the types of programs to be managed by the utilities and the procedures for review and approval of utility EE and RE programs. Staff's intent is to streamline the current procedures, not to impose additional regulatory burdens.

**Comment:** BC Express fully supports the Home Performance program, and notes that as a participating contractor, the program is helping customers save money on their energy bills.

**Response:** Staff appreciates BC Expresses support for this proposal.

**Comment:** Steven Goldenberg asserted in oral comments at the public hearing that there should be changes to the budgetary process and the elimination of surplus funding. Common metrics should be adopted to critique both OCE programs as well as utility programs in order to evaluate whether the state is getting a payback from the programs. The Large Energy Users Pilot program should no longer be a pilot.

**Response:** Staff concurs with these comments. The Revised CRA Straw Proposal anticipates a working group to address the issues related to budgeting and the collection of funds and welcomes any input regarding proposed solutions. The Revised CRA Straw Proposal also anticipates a working group to develop a proposed evaluation plan. The evaluation plan should include a discussion of appropriate metrics for assessing the costs and benefits of both NJCEP and utility programs. The draft FY14 programs and budgets that were circulated for comment on or about May 7, 2013 propose to continue the Large Energy Users program, but eliminate its status as a pilot program.

**Comment:** ACEEE noted in oral comments at the public hearing that the Straw Proposal contains some very useful analysis and information, but overall the level of funding and savings recommended falls significantly short of what would be a least-cost path for New Jersey ratepayers. ACEEE noted that New Jersey used to be a leader in energy efficiency programs but in recent years has fallen to the "middle of the pack." Energy savings targets need to be set at leadership levels, with a ramp-up to about 1.5% per year electric savings as a percent of sales, and about 1.0% per year natural gas savings. There is inadequate marketing of the programs. Marketing is as important as incentives for achieving high program participation rates. Substantial sums of money that are being collected from ratepayers to fund clean energy programs should not be returned to the general fund as surplus. In its view, if marketing were increased and programs for non-residential customers expanded, the budget could be fully spent. It recommended that the BPU work towards a three-year budget for the NJCEP. ACEEE also recommended that the BPU consider establishing an Energy Efficiency Resource Standard ("EERS") that establishes savings targets beyond three years.

**Response:** Staff thanks ACEEE for its comments. The Revised CRA Straw Proposal is intended to place New Jersey on a path for regaining its former leadership position related to EE programs. Staff notes that the proposed funding levels exclude the substantial investment New Jersey has made in support of the RE industry through the payment of RECs and SRECs, and notes that the ACEEE rankings do not take these expenses into consideration. Staff has proposed a significant increase in the savings goals as a percentage of retail sales and will coordinate with stakeholders to develop a plan for achieving this goal.

Staff concurs with ACEEE's conclusion that increased marketing can improve program results. Staff will coordinate with the Market Managers, Treasury and others to develop proposals for increasing marketing activities. An EERS is not needed at this time given that the EMP includes long-term energy savings goals.

In response to the comments received, additional discussions with stakeholders, updated information and issues raised at the public hearing, Staff issued a 2<sup>nd</sup> Revised CRA Straw Proposal on or about June 6, 2013. The 2<sup>nd</sup> Revised CRA Straw Proposal proposes to increase funding for EE and marketing, which is consistent with ACEEE's recommendation.

## Program Evaluation

**Comment:** Rate Counsel strongly supports the OCE's recommendation for an increased level of evaluation, as compared to past years. 2% of the total budget would be a reasonable budget level for evaluation. Rate Counsel recommends that the OCE devote resources to executing and completing planned evaluation activities in a timely manner in order to inform the budget process. Further, Rate Counsel recommends that, as presented in the 2010 evaluation plan, evaluation studies should be comprehensive and include impact evaluation, process evaluation, measure baseline evaluation, avoided costs, and protocol updates. Rate Counsel notes in particular that process evaluation is critical given that (a) the CEP has been underperforming, in terms of annual electric and gas savings, relative to savings achieved by other states and utilities over many years, and (b) the results of the evaluation would be very useful for re-designing the existing programs to be administered by a new program administrator starting next year.

Rate Counsel notes that while the 2010-2011 Evaluation Plan states that the "evaluation plan should be updated annually as part of the program and budget planning process" no such update was made in 2011 or 2012. Rate Counsel supports the OCE's recommendation that the most recent program evaluation plan be reviewed.

Renu Energy supports the allocation of more resources and the formation of a working group towards quantifying the benefits and costs of the NJCEP initiatives and benchmarking to other states as the pathway towards continuous improvement with program outcomes. Renu Energy concurs with the OCE that it is vital to quantify the creation of new jobs. It is also necessary to establish guidelines in terms of what is practical and affordable to spend towards creation of jobs. A distinction needs to be made between forecasting temporary jobs that exist throughout phases of a project with stable jobs that exist once the project has been completed and the system or facility becomes operational.

**Response:** Staff concurs with Rate Counsel's and Renu Energy's comments regarding program evaluation. Staff will coordinate with Rate Counsel and other stakeholders to develop a detailed evaluation plan that sets out the types of evaluations, the timing of performance of such evaluations, and anticipated costs. Going forward, Staff anticipates regularly updating evaluation plans and implementing the plans in a timely manner.

In response to the comments received, additional discussions with stakeholders, updated information and issues raised at the public hearing, on or about June 6, 2013, Staff issued a 2<sup>nd</sup> Revised CRA Straw Proposal which is discussed below. The 2<sup>nd</sup> Revised CRA Straw Proposal proposes to increase funding for evaluation, which is consistent with the recommendation above.

## Alignment with EMP Goals

**Comment:** Rate Counsel believes that the EMP goals should be translated into the energy reductions (and coincidence with peak energy levels) that are expected to result from the proposed funding levels for EE and demand response ("DR"), while taking into account the savings expected from programs outside of the CEP (i.e., utility RGGI-funded programs and the SBC Credit Program). While the EMP does not provide explicit annual goals, the budgeting process should be contextualized in terms of its contribution to the EMP goals, and provide discussion of the levels of reductions that will be needed in future years, during and beyond the current CRA planning period, to achieve the EMP goals. Rate Counsel argues that the OCE

should consider utility RGGI programs' cash flow impacts and energy savings contributions to state goals using a multiple scenario analysis.

**Response:** Staff concurs with this recommendation. Staff is coordinating with the Center for Energy, Economic, and Environmental Policy ("CEEEP") to develop the tools to collect data and track progress towards EMP goals. Staff will coordinate with the selected Program Administrator to align NJCEP goals with EMP goals and to track progress towards goals.

### **Bidding into the PJM Markets**

**Comment:** According to Rate Counsel, failing to bid energy reductions into the PJM capacity market negatively impacts ratepayers by denying ratepayers revenues that could be earned through PJM capacity credits.

**Response:** Staff concurs with this recommendation. The Program Administrator RFP requires the selected contractor to develop a plan for bidding energy reductions into PJM. Staff will coordinate with Rate Counsel and others in developing the details regarding how to best implement this recommendation.

### **RE Comments**

**Comment:** A single comprehensive study during FY14 assessing the performance of the Board's RE initiatives would be sufficient to gauge program performance. Based on experience with past the OCE studies, Rate Counsel believes that a reasonable budget for such an evaluation is no more than \$100,000.

Rate Counsel recommends that the Board should not add new funding for direct incentives for renewable energy technologies at this time until further program evaluations are completed. Rate Counsel recommends that the Board take a cautious approach to any potential incentives for New Jersey on-shore wind, biomass, or hydrokinetic resources. Any such incentive should be implemented only after careful study of their respective costs and benefits in light of the market conditions discussed above.

It is Rate Counsel's position that the OCE should provide additional supporting documentation for the proposed additional \$2.5 million for costs associated with administering the SREC program, and maintains that such a request for funding warrants greater justification than provided in the Revised Straw Proposal. The Revised Straw Proposal does not appear to give adequate consideration to the substantial ratepayer support given to renewable energy through the RPS and utility-sponsored programs. Rate Counsel has serious concerns about the continued level of ratepayer support for renewable energy through the CEP budget. Rate Counsel recognizes that the impacts of other RE programs will be given fuller consideration as part of the development of a Strategic Plan, after a new Program Administrator has been retained. Nonetheless, these impacts need to be better quantified by the OCE and should be considered in refining the budget for FY14.

**Response:** The proposed FY14 RE funding level represents a reduction from past years. However, Staff disagrees with Rate Counsel's recommendations to not add new funding for direct incentives for renewable energy until further evaluations are completed. Staff believes there is an ongoing need for RE funding, at least in the near term.

The initial proposal to include \$2.5 million to administer the SREC program is based, in part, on actual costs incurred in 2012 as well as estimated FY14 expenses. Specifically, non-rebate expenses for the REIP in 2012 were approximately \$3.2 million, the majority of which is for the SREC program component. Expenses will increase or decrease based upon the number of applications submitted and projects completed in FY14. Further, by email dated May 9, 2013 Honeywell submitted a request to increase its budget related to processing SREC registrations since the number of applications submitted to the REIP exceeded its estimates.

Staff has proposed to shift to a competitive process for establishing incentives for biomass projects which will exert downward pressure on the amount of the incentive paid to individual projects. However, Staff believes that direct incentives for biomass projects should continue in FY14. The NJCEP has invested a significant amount of time and effort in the development the market for biomass facilities and is just beginning to see the fruits of those efforts as demonstrated by the fact that 8 biomass projects have submitted applications for incentives in the past year and an additional three projects have submitted feasibility studies. Based on discussions with the RE Market Manager and project developers, Staff believes that continuing incentives in FY14 will lead to the development of several new biomass projects that may not proceed without incentives.

Staff is exploring potential program design options for energy storage devices. Staff will be soliciting input through a working group open to stakeholders regarding a solicitation for incentives for energy storage systems. Rate Counsel will have an opportunity to comment on any draft solicitation before it is submitted to the Board for consideration. Staff anticipates that a proposed solicitation will be submitted to the Board for review by the end of 2013 and released in early 2014. Financial incentives will be awarded to projects that result from the solicitation and therefore Staff recommends that the Board include funding for these technologies in the FY14 funding level. Staff concurs with Rate Counsel regarding on-shore wind and will withhold making a recommendation until the results of ongoing evaluations are completed and assessed.

### **CHP and Fuel Cells**

**Comment:** Rate Counsel stated that the problems that are motivating the OCE to consider changing CHP incentives and program structures have not been clearly articulated or prioritized. Rate Counsel recommends that the OCE should first step back and identify/define the problems associated with the current state of storm response strategies and system reliability, and secondly, identify and prioritize a range of potential solutions to the problems, including providing incentives to promote blackstart capability and/or microgrid. Rate Counsel recommends that as a part of any cost-benefit analysis, benefits to grid reliability and emergency response that are beneficial to all ratepayers should be isolated from individual customer benefits that result from the ability of customers with CHP to keep running during grid outages.

Rate Counsel supports inclusion of fuel cell technologies with heat recovery (i.e., a form of combined heat and power) as part of any CHP program, which should include a competitive solicitation element to attain a given MW level of the resource at lowest possible program cost. However, Rate Counsel does not support separate, stand-alone funding for fuel cell technologies that do not incorporate heat recovery mechanisms.

Rate Counsel has previously expressed its concerns about the OCE's reliance on carryover funds. Recent history has shown that incentives for CHP-FC have garnered very little support.



Rate Counsel suggests the Board revise the Straw Proposal's funding level to an amount significantly less than the \$30 million included within the proposal. Rate Counsel agrees with the proposed consolidation of the small and large CHP programs to reduce administrative redundancy. However, Rate Counsel notes that an emphasis on large CHP may undercut the OCE's goal of increasing implementation of CHP in emergency response if the OCE needs to provide additional incentives for equipment that allows for CHP black-start capability. The small and large CHP programs have left large amounts of budget unspent in the last two years. For this reason, Rate Counsel agrees that CHP should be allocated a smaller budget than in the past.

Bloom argues that the term "combined heat & power" is an exclusionary term, not only for Bloom's "all-electric" fuel cells, but also for all of those electric customers in New Jersey who do not happen to have a thermal load that matches their electric load.

A reduction in the program funding, according to Bloom, would send exactly the wrong signal at exactly the wrong time. The pre-Sandy experience in terms of subscription levels should not be used as a guidepost for post-Sandy funding decisions, according to Bloom. In the wake of the storm, the funding levels for the highest resiliency forms of on-site power generation should be increased rather than decreased.

Instead of merely gauging the value of a CHP or fuel cell project by measuring the number of megawatts of installed capacity that is installed per dollar of expenditure, Bloom encourages the Board to instead focus on the actual value created by the investment, taking into account the services the facility provides to the State of New Jersey and its citizens. This will require an evaluation process that takes into account not only project economics, but also the importance of the facility itself in terms of its contribution to resiliency and preparedness.

Bloom also urges the Board to reject the idea that funding should be evaluated exclusively on a "dollars per MW installed" basis, and instead acknowledge the emergency preparedness value and the true cost savings of an un-interrupted supply of electricity at high value facilities. The Board should also consider that solid oxide fuel cell projects produce fewer emissions than combustion technology CHP projects.

Bloom argues that the combination of the Small and Large CHP/Fuel Cell programs into one large program, in concert with the proposition that value should be measured simply on a dollar per kilowatt installed basis, will have the practical effect of driving all of the funding to the larger CHP projects and eliminating funding for all-electric fuel cells at smaller facilities that provide critical services to the people of New Jersey.

ClearEdge Power argues that the suggested \$30M plus 2012-2013 funding rollover seems sufficient for current market demand for both the small and large fuel cell programs combined. However, the suggested budget may not be adequate for future market demand given the anticipated timing for distributed generation projects in the pipeline. Distributed generation projects using fuel cell systems typically require between 12 and 18 months to properly qualify, develop and contract. Incentive funding stability is critical to early project phases, such as qualification and development. If drastic budget changes occur during initial project discussions, New Jersey energy consumers considering the use of fuel cell systems at their site may withdraw from an excellent project because they are unsure of the State's commitment to the program and the technology.

The FY14 solicitation for fuel cells and combined heat and power projects should include a tiered incentive, giving the largest amount of State funding to the projects at the most critical facilities operating on renewable fuels, such as anaerobic digester gas, on-site biogas or directed biogas. The tiered structure should start at the current funding level and an enhanced incentive, in addition to the base, should be given incrementally.

Steven Goldenberg stated that it is important to keep the CHP money on the table even if this second round doesn't get fully subscribed, which is possible. There are many projects in the pipeline.

**Response:** In 2012, the Board approved two new CHP-fuel cell programs, one for small projects and one for large projects. The new programs were intended, in part, to signal the Board's support for CHP and fuel cells as an important part of the State's energy mix. The proposed FY14 funding level for CHP and Fuel Cells is intended to send a signal to the marketplace that the Board is committed to the continued development of CHP and fuel cell projects in order to meet the objectives of the EMP.

Project developers have stated in the CHP working group meetings that CHP and fuel cell projects typically take 12 to 18 months to develop to the point where they are ready to submit an application for incentives to the NJCEP and that projects typically invest tens of thousands of dollars in developing a project to the point that it is ready to submit an application for incentives. Without a clear signal that incentives will be available when a project develops to the point it is ready to submit an application, customers will not make the investment needed to develop a project.

Projects that commenced development in response to the new CHP/fuel cell programs implemented in 2012 and early 2013 will be reaching the stage in development where they are ready to submit an application for incentives in FY14. In addition, the CHP/fuel cell industry has indicated that there are a number of projects in the development stage that will be submitting applications for rebates in the near term. Therefore, Staff anticipates that the number of applications that will be submitted in FY14 will exceed recent program activity levels.

The NJCEP currently has two programs, a program for small projects under 1 MW managed by TRC and a program for large projects 1 MW or greater managed by EDA. In the 16 months since the programs commenced in January 2012 the two programs have received applications for approximately \$26 million in incentives and the program managers have indicated that interest in the program has continued to increase. The CHP/fuel cell industry has repeatedly indicated the need for consistent program incentives given the long lead time for project development. Staff's initial proposal for \$30 million in new funding for CHP and fuel cells was based, in part, on recent activity levels as well as the expectation that activity levels will increase in FY14.

Staff concurs with the comments of Mr. Goldenberg, ClearEdge Power and others that it is important to send a clear signal to the marketplace that the Board remains committed to CHP and fuel cells. Given the time, effort, and expense associated with developing a CHP or fuel cell project to the point it is ready to submit an application for a rebate, Staff believes it is important that those making such an investment believe the funds will remain available at the time they submit a rebate application. Staff recommends that the proposed funding level for CHP and fuel cells be set high enough to support the State's post Superstorm Sandy rebuilding efforts, particularly with regard to critical facilities.

Staff's 2<sup>nd</sup> Revised CRA Straw Proposal recommends increasing the funding for CHP and fuel cell projects from \$30 million to \$50 million. Approximately \$20 million of this funding will support a collaborative initiative with the NJDEP and the New Jersey Environmental Infrastructure Trust ("NJEIT").

The 2<sup>nd</sup> Revised CRA Straw Proposal summarizes recent discussions between Staff and the NJDEP regarding the NJEIT. Specifically, in the aftermath of Superstorm Sandy, the NJDEP is eligible for federal funds for rebuilding infrastructure projects. In late 2012, Staff began discussions with the NJDEP and the NJEIT to explore the opportunity to leverage NJCEP funds as the source of the state match for the federal funds, to fund energy efficient upgrades and CHP/Fuel Cell projects for critical, water-related infrastructure projects. Staff is currently reviewing a draft MOU with DEP and anticipates that a proposal will be made available for public comment prior to consideration by the Board. Towards that end, Staff proposes earmarking \$30 million in FY14 funding for a new program with the NJEIT, which is the approximate level of state match required to fully leverage the available federal funds. Staff anticipates that approximately \$20 million of this funding will be from the CHP/fuel cell program budget for the CHP/fuel cell component of any infrastructure projects. The remaining funding would come from the EE budget for EE components of infrastructure projects.

Finally, as noted above, Staff has been convening working group meetings regarding alternative financing mechanisms for CHP projects. Based on discussions at these working group meetings Staff is convinced that CHP and fuel cells can play an important role in hardening the electric grid, particularly for critical infrastructure facilities. Staff believes that the CHP/fuel cell program has an important role to play in ensuring that critical facilities remain operational during times of emergency and grid outages by providing incentives for customers that provide critical services to remain operational during times of emergency.

Based on the above, including current CHP/fuel cell program activity levels and anticipated increases to current activity levels, Staff's proposal to add funding for NJEIT projects, and the need to fund CHP/fuel cell projects that support critical infrastructure facilities, Staff's proposed FY14 funding level is set at a level that reflects a realistic estimate of future program activity levels.

Several of the comments raise concerns regarding the program design and the impacts of combining the large and small CHP/fuel cell programs into one program. As noted above, the CHP/fuel cell industry has also repeatedly indicated the need for consistent program incentives.

Staff disagrees with Bloom's assertion that the combination of the Small and Large CHP/Fuel Cell programs into one large program will have the practical effect of driving all of the funding to the larger CHP projects and eliminating funding for all-electric fuel cells at smaller facilities. The proposal to combine the two programs is intended to facilitate savings in administrative costs and to streamline program and budget processes. It is Staff's intention to largely maintain the key elements of both programs in the new combined program.

Staff notes that it has not proposed that "value should be measured simply on a dollar per kilowatt installed basis" as asserted by Bloom. Alternatively, dollars per MW installed is a key metric that should be considered, but certainly not the only metric.

Staff has convened a CHP working group that is exploring alternative mechanisms for funding CHP incentives. Many of the comments above concern issues that are being debated within the

CHP-fuel cell working group. Staff will continue to facilitate working group discussions that will address many of these issues and will prepare recommendations for consideration by the Board regarding future funding for CHP and fuel cells. It is important to maintain a CHP-fuel cell program until such time as any new program or funding mechanism is approved by the Board.

**Comment:** Gearoid Foley recognizes that combined heat and power plays an important role in several areas in terms of reducing emissions and reducing energy costs as well as providing grid resiliency. There is another fairly significant issue that must be recognized in order to utilize these as what we can traditionally call emergency centers, we need to allow public access in the midst of a storm and that's simply not doable for a lot of private entities. If we require facilities, for example, to implement CHP, provide island mode and provide public access, you automatically lose a tremendous amount of CHP potential. There is a natural tendency to say let's make all CHP island mode capable and a place of refuge and we need to be careful with that issue.

**Response:** Mr. Foley's comments concern issues being discussed in the CHP working group. The Revised CRA Straw Proposal does not recommend any specific requirements related to islanding or the provision of public access in order to receive a rebate for a CHP or fuel cell system. These issues will be discussed further in the CHP working group and in the context of development of the FY14 program descriptions prior to Staff making any recommendations for consideration by the Board.

### **Streamline the Pay-for-Performance Program**

**Comment:** Consolidated Energy states that the existing Pay-for-Performance program was created with all the right intentions, but is hampered by the requirement of a computer model that is hotly contested by contractors (including highly qualified, experienced contractors). This computer model should no longer be required. Various advanced data mining, monitoring and fully automated energy analysis sub metering programs should be tested and approved to Measure & Verify energy savings with no need for human intervention.

The Market Manager should simply assess whether a proposed energy project has a "reasonable" chance of success. If it does, then the contractor should simply be given an approval to move forward with the project. The initial intent of the program will remain intact because the contractor will not get paid the full incentive for an energy project unless the aforementioned sub metering system proves an energy savings of at least 15%. Energy savings in excess of 15% shall be paid to the contractor in the form of a bonus to help pay down the project and incentivize the contractor to do a better job for the client.

The NJ government "Red Tape" commission should look into all complaints with respect to how the Market Manager is running the program and, where appropriate, make necessary changes to streamline the process.

**Response:** Pay-for-Performance ("P4P") is a market transformation program based on a comprehensive, whole building approach to energy savings. Incentive commitments and payments are linked directly to energy savings projected and realized by a project. The program has had strong participation from program partners (nearly 500 applications and over 200 ERP's received to date by the P4P Existing Buildings program) that have been successful in developing building energy simulations for their clients. The Market Manager has reported to the OCE that comments regarding building simulation requirements are not as widespread as indicated by Consolidated Energy, i.e., the vast majority of program partners readily comply with

this requirement. This feedback has not been received from P4P partners that are active and familiar with building energy simulation and program requirements.

The advanced data mining, monitoring, and automated energy analysis systems described by Consolidated Energy may be useful tools in identifying and measuring energy savings projects. However, relying on proprietary algorithms and software for savings calculations that are the basis for incentive payments creates challenges from a programmatic standpoint (are all analyses accurate, algorithms correct, and savings calculations adequate). The use of industry standard energy simulation tools helps establish a level playing field for all partners and eliminates some of the variability that can come from the use of proprietary programs that do not share similar analysis techniques and algorithms.

Program participation and incentive payments are committed based on the projected savings estimates in the Energy Reduction Plan that incorporate the building simulation requirements. It is important to evaluate the expected energy savings to identify project eligibility and establish expected incentive levels to allow for effective program management. This also provides a level of confidence in the expected incentive amount that the partner and customer can utilize in their financial analysis. Additionally, a simple "reasonableness" check of project success as suggested appears to remove any substantial evaluation of the proposed savings, essentially allowing program participants to establish the incentive levels based on their own savings calculations. This approach is not consistent with effective management of the budget and delivering confidence in the savings and incentive the customer can expect.

### **2<sup>nd</sup> Revised CRA Straw Proposal dated June 3, 2013**

On or about May 23, 2013, Staff circulated a revised straw proposal dated May 23, 2013 for comment. On or about June 6, 2013 Staff recalled the document dated May 23, 2013 and circulated a "2<sup>nd</sup> Revised CRA Straw Proposal."

In response to the comments received and issues raised at the public hearing as summarized above, additional discussions with stakeholders and updated NJCEP program information, Staff developed the 2<sup>nd</sup> Revised CRA Straw Proposal dated June 3, 2013. The 2<sup>nd</sup> Revised CRA Straw Proposal was circulated for comment and posted on the NJCEP and Board's respective web sites on or about June 6, 2013.

The following provides a high level summary of the 2<sup>nd</sup> Revised CRA Straw Proposal which provides the basis for Staff's recommendations set out below:

On December 6, 2011, Governor Christie released the New Jersey Energy Master Plan ("EMP"). The EMP included the following overarching goals (EMP, page 4):

1. Drive down the cost of energy for all customers.
2. Promote a diverse portfolio of new, clean, in-state generation.
3. Reward energy efficiency and energy conservation and reduce peak demand.
4. Capitalize on emerging technologies for transportation and power production.
5. Maintain support for the renewable energy portfolio standard of 22.5% of energy from renewable resources by 2021.

The EMP found that EE and CHP programs are the most cost effective way to reduce energy costs and that the best way to lower individual energy bills and collective energy rates is to use less energy. However, the EMP also noted that the Christie Administration is committed to a

top-down reassessment of program efficacy. The EMP stated that the reduction in the cost of natural gas prices and the drop in electric usage due to the economy since the 2008 EMP required that the 20% energy reduction goal be modified, and that cost effective programs reduce the State's energy use, thereby fostering economic development and promoting the State's environmental goals.

The EMP included the following objectives regarding the promotion of cost-effective conservation and energy efficiency:

- Promote energy efficiency and demand reduction in State government buildings
- Incorporate aggressive energy efficiency in building codes
- Redesign the delivery and financing of State energy efficiency programs
- Monitor PJM's demand response initiatives
- Improve natural gas energy efficiency
- Expand education and outreach

Although the EMP does not set specific energy savings goals or specific goals for the NJCEP, Staff used the EMP to develop guiding principles that would help to inform the CRA proposed funding levels. These guiding principles include:

- Energy efficiency is the most cost-effective way to lower energy costs.
- Energy efficiency programs should focus on reductions in peak demand in addition to reductions in energy usage, which can lower costs for all ratepayers.
- While energy efficiency programs are the cheapest source of energy, the impact of the level of funding collected from ratepayers on non-participating customers must be considered.
- Energy efficiency programs and renewable energy contribute to State's overall economic development and create in-state jobs.
- Energy efficiency and renewable energy programs deliver environmental and health benefits and lower peak energy costs, which benefit all ratepayers, including non-participating customers.
- Energy efficient and renewable energy programs must undergo regular and rigorous evaluation to confirm projected energy savings and economic benefits.
- The promotion of in-state renewable energy resources can reduce emissions while promoting economic development.
- Energy savings must be considered comprehensively, and those savings delivered by NJCEP programs should complement other non-NJCEP activities such as stricter building codes, higher appliance standards, utility programs and EE in state facilities.

### **Implementation Challenges**

The 2<sup>nd</sup> Revised CRA Straw Proposal identified a number of challenges to implementing the NJCEP. The challenges included:

- The status of the RFP for a new Program Administrator
- Transitioning to financing programs
- Management of the funds, and
- Coordinating with utility programs

The 2<sup>nd</sup> Revised CRA Straw Proposal calls for the establishment of several working groups to further explore these issues, to prepare a program evaluation plan, and to prepare additional recommendations for consideration by the Board at a future date.

### **NJCEP**

Numerous entities, within or external to the NJCEP, play a role in supporting the development of energy efficiency and renewable energy in the State including:

- Utilities: several utilities manage energy efficiency and renewable energy programs that supplement or compliment the NJCEP
- EDA: EDA currently manages a large scale CHP/Fuel cell program and two programs aimed at building the clean energy manufacturing base and/or bringing new products to market.
- The State Energy Office ("SEO"): the SEO which was established to assist the State in leading by example through the development of clean energy projects at State facilities.
- Third party suppliers that sell electricity and/or natural gas to customers and can play a role in promoting clean energy.

The 2<sup>nd</sup> Revised CRA Straw Proposal discusses the role of these entities and the costs of their programs.

### **Methodology and Approach**

The 2<sup>nd</sup> Revised CRA Straw Proposal sets out the methodology and approach utilized by Staff in developing proposed funding levels. Staff commenced the development of proposed funding levels and associated energy savings utilizing the results of a market potential study prepared by EnerNOC Utility Solutions ("EnerNOC"). AEG prepared a benchmarking study that compared NJCEP past results to programs in other states as well as the results of the EnerNOC study.

The results of the EnerNOC study and AEG benchmarking study, along with the comments received in response to the initial Revised CRA Straw Proposal dated April 17, 2013 summarized above, were then used by Staff to develop proposed FY14 funding levels. Staff also took into consideration past Board policy, recommendations included in the EMP, impacts on rates, and other factors in developing proposed funding levels.

### **Proposed Funding Levels**

Given the uncertainty regarding the timing of the transition to the new Program Administrator and the development of a Strategic Plan, and other issues that Staff believes require additional time to assess such as the role of utilities and alternative mechanisms for financing CHP/fuel cell incentives, Staff proposed a funding level for FY14 only and recommends that the Board defer consideration of funding levels for FY15-FY17. The 2<sup>nd</sup> Revised CRA Straw Proposal includes a number of processes for developing recommendations regarding outstanding issues and Staff will propose funding levels for FY15-FY17 pending the outcome of those processes.

For the reasons set out in detail in the 2<sup>nd</sup> Revised CRA Straw Proposal, Staff recommended the following funding level for FY14:

### Proposed FY14 Funding Level

Funding Category	Proposed FY14 Funding Level
EE	\$252,565,000
RE	\$17,500,000
CHP-Fuel Cells	\$50,000,000
EDA	\$7,500,000
NJCEP Administration	\$17,100,000
<b>Total NJCEP</b>	<b>\$344,665,000</b>

#### Summary of Staff Recommendations

Staff's 2<sup>nd</sup> Revised CRA Straw Proposal dated June 3, 2013 is attached hereto as Appendix A and incorporated into this Order by reference. Generally, Staff proposed ten goals for the NJCEP for FY14: 1) transition to a single program administrator; 2) perform key program evaluations; 3) promote NJCEP in storm response initiatives; 4) promote distributed generation; 5) convene a work group to evaluate utility programs; 6) assess the impact of EE and RE programs; 7) track additional program metrics; 8) promote emerging technologies; 9) coordinate with Treasury to develop appropriate procedures to better match the collection of funds from ratepayers to actual program needs; and 10) coordinate with DEP regarding projects with dual energy and environmental benefits.

#### Summary of Comments from Public Stakeholders on the 2<sup>nd</sup> Revised CRA Staff Straw Proposal dated June 3, 2013

On or about June 6, 2013, Staff circulated the 2<sup>nd</sup> Revised CRA Straw Proposal to the EE and RE listservs and posted it on the NJCEP web site. The Board held a public hearing on the 2<sup>nd</sup> Revised Straw Proposal on June 12, 2013 and accepted written comments through June 14, 2013. The following summarizes the comments received on the 2<sup>nd</sup> CRA Revised Straw Proposal:

The following persons testified at the June 12, 2013 public hearing<sup>6</sup>: Felicia Thomas-Friel, on behalf of Rate Counsel; Anne-Marie Peracchio, on behalf of New Jersey Natural Gas; Jeff Tittel, on behalf of the Sierra Club; Gearoid Foley, on behalf of the USDOE Mid-Atlantic Clean Energy Application Center; Steve Goldenberg, Esq., on behalf of the New Jersey Large Energy Users Coalition; Tom Dubos, on behalf of Strategic Energy Group; Charles Fox, on behalf of Bloom Energy; Fred Desanti, on behalf of DCO Energenics; Bruce Grossman, on behalf of South Jersey Gas Company; and Danielle Heise, on behalf of TechniArt.

In addition, written comments were received from: New Jersey Natural Gas; Rate Counsel; South Jersey Gas, Renu Energy, EAM Associates, DCO Energenics, ClearEdge Power; Strategic Energy Management, NAIOP, USEnergy Renovations, and the Paulsboro Refining Company.

---

<sup>6</sup> At the June 12, 2013 public hearing the Board heard comments on both the 2<sup>nd</sup> Revised CRA Straw Proposal and on proposed FY14 programs and budgets. Comments regarding the FY14 programs and budgets will be addressed in a separate Order.



The following summarizes the written comments received as well as the oral comments presented at the public hearing regarding the 2<sup>nd</sup> Revised CRA Straw Proposal.

**Comment:** Rate Counsel indicates that additional time should have been provided to allow comments on the 2<sup>nd</sup> Revised CRA.

**Response:** The opportunity for public comment for the 2<sup>nd</sup> Revised CRA was reasonable because the majority of Staff's proposal remained the same. The June 3, 2013, proposal incorporated prior comments from Rate Counsel, made limited revisions to the April 17, 2013 proposed funding levels, and reduced the overall FY14 funding level. The revised funding levels were memorialized in section 5.7 of the proposal, which provided reasonable justification for each modification. In addition, additional information has been provided to Rate Counsel as described throughout staff's responses.

**Comment:** The 2<sup>nd</sup> Revised CRA Straw Proposal increases "new funding" by \$117 million.

**Response:** Rate Counsel's comment is inaccurate. Staff's initial proposal dated August 21, 2012, proposed a funding level of \$320 million; the March 28, 2013, version revised on April 17, 2013, proposed a funding level of \$379.25 million; the CRA proposal dated June 3, 2013 recommends a level of \$344.665 million. The 2<sup>nd</sup> Revised CRA Straw proposed funding level is approximately \$34.5 million less than the funding level proposed in the April 17, 2013 Staff proposal. The 2<sup>nd</sup> Revised CRA Straw Proposal allocates 100% of the funding level to programs and administration.

**Comment:** The total NJCEP budget has increased "new funding" by \$127 million.

**Response:** It is not clear how Rate Counsel derived this estimate. The amount of new funding for FY14 is \$344.665 million. The amount of new funding is approximately \$34.5 million less than the amount proposed in the May 10, 2013 proposed budget.

**Comment:** Rate Counsel estimates that the 2<sup>nd</sup> Revised CRA represents a 51.4% increase in proposed collections from ratepayers in FY14.

**Response:** It is not clear how Rate Counsel derived this estimate. The amount of new funding for FY14 is \$344.665 million, which is approximately a 9% decrease from the amount proposed in the April 17, 2013, proposal and the amount collected from ratepayers in FY12-FY13.

**Comment:** During the public hearing and through their written comments, Rate Counsel requested additional supporting documentation to justify the modifications outlined in the 2<sup>nd</sup> Revised CRA.

**Response:** The Revised CRA Straw Proposal dated April 17, 2013 included a detailed breakdown of the methodology and information used to develop the proposed FY14 funding levels. The 2<sup>nd</sup> Revised CRA Straw Proposal used the proposed funding levels set out in the April 17, 2013, Revised CRA Straw proposal as the starting point and provided an explanation of the rationale used by Staff to adjust the funding levels.

**Comment:** Rate Counsel notes that Staff's proposal increases funding for NJCEP Administration, which includes evaluation funding. Rate Counsel urges Staff to expedite a draft evaluation plan to spend the entire evaluation budget during FY14.

**Response:** The costs related to program administration increased for two key reasons. The first is that \$5 million was added to recognize anticipated costs related to transitioning the management of the NJCEP to a new Program Administrator. Staff has provided Rate Counsel with additional information related to the derivation of the estimated cost of transition. The second is that Staff proposed to increase funding for program evaluation by \$7.1 million. This proposal was based on Rate Counsel's comment (dated April 26, 2013) to increase funding for program evaluation to about 2% of program budgets.

Staff thanks Rate Counsel for its support of increasing the Board's program evaluation efforts. Because Staff's goals for FY14 include performing key evaluations, assessing the impact of all EE and RE programs, and identifying and tracking additional metrics, a funding level of 2% of budgets is reasonable. Staff concurs with Rate Counsel's suggestion to expedite a draft evaluation plan to spend the entire evaluation budget during FY14. Staff anticipates that the evaluation working group proposed in the 2<sup>nd</sup> Revised CRA Straw will hold its initial meeting in July 2013 and prepare a draft evaluation plan by September 2013.

**Comment:** OCE is proposing a budget of over \$410 million for EE (\$252 million in new funding and \$138 million in carry-over and commitments). OCE justifies \$252 million in part on the EnerNOC market potential study and AEG's benchmarking study. However, it appears that EnerNOC's forecast is inclusive of all expenditures in each year, including commitments. Thus, it appears that \$252 million should be the level of expenditure in FY14 instead of the level of new funding.

**Response:** Rate Counsel is correct that the EnerNOC study would take into consideration commitments from a previous year in its proposed funding level. However, for budgeting purposes, existing Treasury and Board policy requires that the funding level be sufficient both to pay annual expenditures and to cover commitments. That is, if the OCE estimates that in FY14 the NJCEP will expend \$250 million and have \$150 million in commitments at year-end, a budget of \$400 million is required.

**Comment:** Rate Counsel questions allocating \$410 million to new programs and previous commitments, given historical annual spending level of approximately \$116 million.

**Response:** As discussed in the 2<sup>nd</sup> Revised CRA, the methodology to develop the funding level considers many factors. In part, Staff considers what level of funding is necessary to incent participation in RE and EE programs, and what level of funding will help move the state toward meeting environmental goals and Energy Master Plan Goals.

In addition, the destructive power of Superstorm Sandy left many residents with the need to rebuild or renovate residential and commercial properties. The cost to property owners is quite significant and the NJCEP funding level aims to ensure that adequate financial assistance is available to eligible program participants. The NJCEP has recently experienced growth in the number of applications submitted to the NJCEP, many of which are from customers impacted by Sandy that are replacing equipment damaged by the storm.

As has been generally reported, customers that must rebuild their homes or businesses have been delayed due to uncertainty with the "flood maps" being issued by FEMA. It appears that many of these issues may be resolved with the new flood maps issued by FEMA in early June 2013 and that many homeowners and businesses can begin the long process of rebuilding. The NJCEP is starting to see increases in the number of new construction applications submitted and anticipates that this trend will continue in the near future as more customers start rebuilding.

Further, Staff believes that recent program activity is a much better predictor of FY14 activity levels than use of "historic averages." Although Rate Counsel states that "the OCE has only spent \$116 million per year on EE on average," Staff notes that in calendar year 2012 approximately \$155 million was spent on EE and that recent trends show increasing levels of participation and expenditures. For example, in May 2013 the NJCEP incurred over \$17 million in EE expenditures which is the highest level realized in several years. The proposed EE funding level also includes funding for new programs not currently included in the portfolio, and reflects the level of rebate commitments estimated to exist as of June 30, 2013 which is \$121 million for EE, most of which will be paid in FY14 when projects are completed. Based on the above, Staff believes that the proposed FY14 budgets for EE are reasonable.

**Comment:** Rate Counsel disagrees with increasing the proposed FY14 budget solely to maintain rate stability.

**Response:** Staff disagrees with Rate Counsel's assertion that it has increased the funding level. Staff's proposal decreases the funding level. In addition, the 2nd Revised CRA Straw Proposal clearly articulates the many factors Staff took into consideration in developing the proposed funding level, one of which is the impact on rates. It is certainly not the only factor considered by Staff. Other factors included the overall impact on energy costs, the level of cost effective EE that could be reasonably supported, the ability to expend the funds in FY14, impact on jobs, etc.

**Comment:** Staff has not demonstrated that the budget increases are consistent with the commitment to reduce carry-over.

**Response:** Staff disagrees. The approximately 9% decrease in the funding level from \$379.250 million to \$344.665 million is consistent with staff's commitment to reduce carry-over.

**Comment:** Rate Counsel supports Staff's proposal to increase marketing by \$3 million. However, Rate Counsel disagrees with Staff's proposal to increase program budgets to cover anticipated increases in participation.

**Response:** Staff appreciates Rate Counsel's support of the increased funding for marketing. Staff anticipates that extra marketing efforts will positively impact program participation rates. Staff also anticipates increased participation rates due to the portfolio of offerings available to Sandy victims.

**Comment:** Rate Counsel asserts that the 2<sup>nd</sup> Revised Straw does not allay several concerns that Rate Counsel raised in its April 26, 2013 comments concerning funds allocated to RE programs.

**Response:** Staff's responses to Rate Counsel's April 26, 2013 comments are discussed supra at 5, and 7-21.

**Comment:** The new funding level of \$17.5 million for RE represents a 133% increase in funding to be collected from ratepayers in FY14 for renewable energy. Rate Counsel requests additional information on how OCE derived this level of funding and how the funds will be distributed among the REIP initiatives.

**Response:** Staff disagrees with Rate Counsel's calculation. Although the amount of funding for RE programs has increased as compared to the amount recommended in the April 17, 2013

straw proposal, the aggregate collection from ratepayers in FY14 has decreased by approximately 9%. Therefore, ratepayers will realize a savings. Concerning the REIP program, the additional funding is reasonable because the program has recently experienced increased participation rates, and recent discussions with developers have suggested that increased support for energy storage may be prudent in light of Superstorm Sandy. The 2<sup>nd</sup> Revised Straw provided an explanation of the rationale used by Staff to adjust the funding levels.

**Comment:** Rate Counsel raised numerous concerns regarding the proposed funding level for CHP and fuel cells. Rate Counsel believes that the initial proposed funding level of \$30 million is more than is needed to support current activity levels and that the proposal to increase the funding level to \$50 million exacerbates this issue. Rate Counsel raises a number of concerns regarding a proposed portfolio standard for CHP.

**Response:** The large and small CHP/fuel cell programs have issued over \$26 million in commitments in the past 12 months and based on recent program activity and projects in the pipeline staff anticipates an upward trend in participation FY14. In addition, Staff recommends that \$20 million in funding be allocated to support NJEIT projects related to CHP/fuel cell, as discussed in the 2<sup>nd</sup> Revised Straw. Based on the above, the NJCEP can reasonably expect to make an additional \$50 million in commitments in this program in FY14.

Rate Counsel also raises concerns about a proposed portfolio standard for CHP. The proposed portfolio standard for CHP is currently in the conceptual stage only. Staff is developing details in the CHP working group and nothing has been proposed to the Board for consideration. Issues such as those raised by Rate Counsel will be discussed further in the working groups with opportunity to resolve issues prior to submitting any recommendations to the Board. Thus, Rate Counsel's concern that the proposed portfolio standard for CHP could result in duplicative funding is premature. The proposed FY14 funding level assumes that the existing CHP/fuel cell program will remain in place until if and when the Board replaces it with something different.

**Comment:** Rate Counsel supported the OCE efforts to work with DEP regarding potential projects with the NJEIT. Rate Counsel urges Staff to ensure that NJEIT program guidelines make clear that there is no duplication between this federal program and other NJCEP programs.

**Response:** Staff thanks Rate Counsel for its support of the NJEIT initiative. Staff will work with DEP and NJEIT to comply with all applicable federal guidelines. Staff anticipates circulating a proposal for public comment prior to Board consideration of the program.

**Comment:** The Sierra Club's position on the Comprehensive Resource Analysis is that proposed funding levels and energy savings are insufficient. Sierra Club believes that there's not enough money in this budget to deal with over 40,000 structures that have been pretty much destroyed by Hurricane Sandy. The Sierra Club supports CHP, but it should not replace renewables and real energy efficiency which reduces pollution, because you're actually burning fossil fuels.

**Response:** The Sierra Club's comments regarding the proposed funding level largely repeat comments made at the April 23, 2013 public hearing on the Revised CRA Straw Proposal which are discussed above.

**Comment:** The Sierra Club regrets that, in past years, the Legislature has diverted monies from the NJCEP to the General Fund. The Sierra Club notes that, as a result of these diversions, New Jersey is losing job growth and is lagging behind other states.

**Response:** Staff recognizes that past legislative action to sweep money from the NJCEP to the State General Fund has decreased the program's ability to reach initial program goals or serve as many consumers as initially anticipated. The goals outlined in the CRA will help the OCE enhance its operation of the NJCEP program, and obtain positive environmental impact. Staff has no control over what action the Legislature may or may not take in FY14.

**Comment:** NJNG supports the proposed approach to use 2014 as a transition year with the benefit of a new program administrator's strategic plan. NJNG strongly encourages the OCE to take advantage of the resources available from the state and local energy efficiency action network which is referred to as SEE Action and the Consortium for Energy Efficiency ("CEE"). NJNG appreciate CEPs continued efforts to support the emerging marketplace for comprehensive home improvements through Home Performance with Energy Star. NJNG also commends CEPs continuing to support a much broader market that is still addressing the single piece -- replacing a single piece of HVAC equipment. NJNG encourages the continuation of the combination incentive for the installation of a furnace and a water heater at the same time, as well as a proposal to expand that eligibility to also include it for boiler and water heater replacement. The combination is really getting off the ground, but it should allow for much more effective messaging about the importance of addressing both systems at the same time and should leave for fewer orphan appliances which may be a cause for concern for health and safety reasons.

**Response:** Staff appreciates NJNG's support for initiatives noted above. The NJCEP and several of the state's utilities currently support CEE and Staff recommends ongoing support for the services provided by CEE. With regard to SEE Action, Staff will further explore with NJNG and other stakeholders the services offered and whether and how SEE Action could potentially support the NJCEP.

**Comment:** In regards to the enhanced incentives for customers affected by Superstorm Sandy, NJNG is extremely pleased that those enhanced incentives continue throughout the 2014 program year. The Homeowner Resettling Program and the Homeowner Reconstruction Rehabilitation Elevation and Mitigation programs both have the potential to cover equipment or set building standards that are currently covered by New Jersey Clean Energy Programs. NJNG thinks it's important to understand the relationship between these programs as soon as possible so we can get accurate information out to customers and contractors so that they can consider the potential impact of participation rates in CEP.

**Response:** Staff fully supports the continuation of incentives for customers impacted by Superstorm Sandy. Staff has been in contact with the New Jersey Department of Community Affairs and will continue to coordinate with it regarding Homeowner Resettling Program and the Homeowner Reconstruction Rehabilitation Elevation and Mitigation programs.

**Comment:** Renu Energy commends the Office of Clean Energy in recognizing experiences from the implementation of the NJCEP that have highlighted shortfalls from expectations in performance and offering recommendations to improve future results. Renu Energy concurs with the OCE that collaborating with Treasury to more closely correlate program commitments and expenditures with budgets in minimizing unallocated budgeted money from one year to the

next synchronizes ratepayers' contributions under SBC to the earmarked programs. Renu Energy supports the allocation of more resources and the formation of a working group towards quantifying the benefits and costs of the NJCEP initiatives and benchmarking to other states as the pathway towards continuous improvement with program outcomes. Renu Energy supports the recommendation to rationalize energy efficiency incentives through scheduled coordination of program submissions and selective program approvals which should result in the elimination of unnecessary program administrative expenses, confusion among the marketplace participants and possible duplicative reimbursements. The priority in directing the Program Administrator (once confirmed) to create a clean energy strategic plan and a managed marketing strategy to elevate outreach to and education of the public creates the foundation for increasing the effectiveness of the clean energy programs. Renu Energy believes that it is desirable to attract to and nurture within NJ a critical mass of intellectual and financial resources that might generate innovative renewable energy technologies and invest in manufacturing assets to commercialize equipment, software, services, etc. The grants that might be offered under the NJCEP need to be linked to tangible recipient commitments and job creation.

Renu Energy concurs with the OCE that it is vital to quantify the creation of new jobs. It is also necessary to establish guidelines in terms of what is practical and affordable to spend towards creation of jobs. A distinction needs to be made between forecasting temporary jobs that exist throughout phases of a project with stable jobs that exist once the project has been completed and the system or facility becomes operational.

**Response:** Staff appreciates Renu Energy's support for the various initiatives noted above.

**Comment:** NAIOP encourages the BPU to evaluate all of its incentive programs, including the new SBC Credit Program for which the BPU is currently developing rules, to ensure that all commercial and industrial ratepayers, not just large energy users, will benefit. The focus of every incentive should be on enabling the greatest number of building owners/managers to invest in technology to reduce energy consumption. Toward that end, NAIOP is convening a Task Force to develop specific recommendations for the BPU on what changes should be made to transform energy efficiency incentive programs into ones that are more workable and accessible. The Task Force will suggest revisions to the programs to establish realistic eligibility thresholds, lower capital costs and a reasonable return on investment so that they can be used by the greatest number of office and industrial building owners. We expect to report to you this fall, with the hope that our recommendations will be of value as the next administration sets public policy priorities. At the same time, NAIOP will develop a fact-based message to industry members that conveys how improving energy efficiency can reduce costs and demand, and make buildings more attractive to tenants.

**Response:** The NJCEP is designed with the objective of making incentives available to all C&I customers, not just large energy users. Several C&I programs such as the C&I Retrofit and New Construction programs are available to all C&I customers, the Direct Install program targets smaller customers, and the LEUP targets the largest customers. Staff concurs that all programs should be evaluated to assess and eliminate barriers to participation and has proposed a significant increase to the program evaluation budget to achieve this objective. Staff welcomes NAIOP's formulation of a Task Force to suggest revisions to the programs and looks forward to meeting with NAIOP to discuss the results of the Task Force's efforts and recommending appropriate changes to the programs intended to increase participation.

**Comment:** Renu Energy supports the proposed increased resources and concerted focus by the OCE to conduct program evaluations during FY14. To be consistent with the articulated recommendation by the NJCEP in the 2<sup>nd</sup> Revised CRA 2014-2017 Straw Proposal that budgeted funds be more closely synchronized with expected expenditures and commitments, it is suggested that the OCE reduce the amount budgeted for program evaluation during FY14 to reflect the significant time commitment needed for organizational startup and preparation tasks as prerequisites. The transition period is bound to introduce friction and inefficiencies in the execution of programs, particularly the launching of new marketing initiatives and the advancement of programs currently in the early stage of formation.

**Response:** Staff appreciates Renu Energy's support of the proposed increases in funding. Staff disagrees with Renu Energy's proposal to reduce funding for program evaluation. Rate Counsel and others have long argued for increasing the budget for program evaluation and Staff supports these recommendations. Staff notes that only a limited level of program evaluation has been performed in the past several years so there is a need to catch up on evaluation efforts. Therefore, Staff recommends that the funding level for program evaluation remain as proposed.

**Comment:** NJLEUC appreciates making permanent the Large Energy Users Pilot program, and particularly appreciate the raising of the cap from one to \$4 million.

**Response:** Staff appreciated NJLEUC's support for the proposed change.

**Comment:** DCO Energenics urges the Board to adopt a long-term portfolio standard approach to funding CHP projects in order to meet the goals of the New Jersey Energy Master Plan. The industry is pleased with the proposed funding levels associated with the recent proposal budgeting \$60 million in fiscal year 2014 for large and small CHP projects statewide. However, this proposal continues to rely upon an annually set budget rather than a sustainable and predictable level of funding that would otherwise flow from a portfolio standard approach.

DCO Energenics is pleased to continue to work with Board Staff and the other stakeholders in the ongoing work of the CHP-PS working group and hope that this effort will generate the kind of long-term solutions that would best fit our ability to meet the goals of the New Jersey Energy Master Plan. It is our hope; therefore, that as that process moves forward the funds proposed in this budget can be folded into the CHP-PS program when adopted to help defray the costs of the CHP-PS program going forward.

The program as proposed in the budget will continue to support standard CHP facility construction in a manner largely consistent with past programs. The program, as is currently constructed, will not create the levels of incentives required to support the needed "grid hardening" of assets for our State's critical facilities. The program as proposed can only be considered a funding source that will create standard thermally sized/designed CHP facilities that will not support the continued functionality of critical state facilities during future occurrences of a protracted grid outage. A portion of these same funds could be used to create a number of "hardened critical assets" by simply setting aside about one third of the monies proposed to be used as "gap financing" to undertake the additional work of rewiring and shedding load (and functionality) or installing the most cost effective distributed generation resource available to fill the void above the thermal design creating a true power island hardened resource. DCO Energenics asks that the Board consider a set aside of as much as \$20 million of the proposed \$60 million budget, and direct staff to work with stakeholders immediately to design this supplemental "DG hardening" program.

**Response:** Staff appreciates DCO Energenics support for the proposed funding level and efforts of the CHP working group. Staff will facilitate additional discussions with the working group to address the issues raised by DCO Energenics related to hardening of assets and long-term solutions to financing CHP. While these issues are outside of the scope of the instant proceeding, Staff will continue to work with interested stakeholders to develop recommendation for consideration by the Board at a future date.

**Comment:** USEnergy Renovations supported the additional funding for the NJCEP. It is receiving a three-fold increase in requests from interested homeowners wanting to make their homes more energy efficient and believes the increase may be due to Superstorm Sandy.

**Response:** Staff appreciates USEnergy's support for the proposed increase in funding.

**Comment:** NJNG and SJG noted that the Revised CRA Straw Proposal proposed to maintain the current funding allocation for each utility. The 2<sup>nd</sup> Revised Straw Proposal allocated approximately 64% of the funding level to electric customers and 36% to natural gas customers and also utilized updated sales forecasts to allocate funding to individual utilities. The proposed allocation resulted in a 28% increase in the funding level for SJG compared to the current funding level.

NJNG stated that the underlying data used in the 2<sup>nd</sup> Revised Straw Proposal was taken from the Energy Information Administration ("EIA") and that it was unable to reconcile the EIA data with utility data that is historically used for allocating the Lifeline budget within the Universal Service Fund ("USF") rate proceeding. NJNG and SJG recommended that the Board utilize USF data instead since such data was subject to review and discovery by the Board Staff and Rate Counsel during the course of the prior two year's USF rate proceeding.

**Response:** Staff concurs with NJNG and SJG's recommendation to modify the FY14 allocation of the funding level to electric and natural gas customers. The revenue numbers used by Staff to develop the proposed allocation in the 2<sup>nd</sup> Revised Straw Proposal were forecasts of revenues developed by the EIA. NJNG and SJG proposed to instead utilize actual revenues for the past two years that were reviewed in the Board's USF proceeding. Staff concurs that using the utility revenues that have been reviewed by Staff and Rate Counsel and that the Board used in the USF proceeding is reasonable and results in a consistent allocation across programs.

Utilizing the USF revenue numbers results in 69% of the funding being allocated to electric customers and 31% to natural gas customers. Staff notes that this is the same allocation approved by the Board in the CRA III proceeding and that using this allocation will minimize the rate impacts compared to the allocation proposed by Staff in the 2<sup>nd</sup> Revised CRA Straw Proposal.

Staff has developed revised tables that estimate the rate impacts and a revised table that shows the monthly utility funding levels that result from utilizing the allocation recommended by NJNG and SJG. The revised tables are included herein below.

### **STAFF RECOMMENDATIONS**

The 2<sup>nd</sup> Revised CRA Straw Proposal is a comprehensive document that addresses numerous issues related to the NJCEP. The document includes the analytical support utilized by Staff in developing proposed FY14 funding levels and provides the basis for the proposed funding level for each key budget component.



The 2<sup>nd</sup> Revised CRA Straw Proposal calls for the establishment of working groups to further explore several issues that require additional input and assessment prior to preparing final recommendations to the Board. In addition, delays in the award of the Program Administrator contract has delayed the transition to a single administrator and the development of the Strategic Plan, which will inform Staff and the Board regarding the potential role of financing and will establish a multi-year plan for the NJCEP. For these reasons, Staff recommends that the Board set the funding level for FY14 only at this time, and defer a decision regarding the funding levels for FY15-FY17. This recommendation will allow Staff sufficient time to obtain additional input from the working groups and new Program Administrator, and to prepare additional recommendations for consideration by the Board.

Rate Counsel and others have submitted numerous comments over the past several years related to issues created by the current procedures utilized to collect funds from ratepayers and develop annual budgets. Specifically, the comments have centered on the issue of the program not fully expending or committing the available funds. Staff agrees that optimally all available funds will be expended or committed each year. This is a complicated issue that requires a review of Treasury requirements and an assessment of numerous related issues. The 2<sup>nd</sup> Revised CRA Straw Proposal sets out a process to further explore solutions to this issue.

The 2<sup>nd</sup> Revised CRA Straw Proposal discusses several issues related to better coordinating utility EE and RE efforts with the NJCEP. Staff will commence a working group in the near future to hold discussions with utilities, Rate Counsel and other stakeholders to develop recommendations related to what types of programs utilities should or should not implement and a process for coordinating utility efforts.

The initial Straw Proposal dated August 21, 2012 set out specific funding levels for finance programs over the course of the four year CRA, proposing that over 90% of the funding be dedicated to financing programs by FY17. Based, in part, on the numerous comments opposing this approach, the 2<sup>nd</sup> Revised CRA Straw Proposal significantly modifies the proposed approach to financing. Specific funding levels related to financing programs have been eliminated and replaced with a process for developing financing programs. The process includes extensive assessment of finance programs as part of the development of the Strategic Plan to be prepared by the new Program Administrator, implementation of pilot programs, and evaluating the results of pilot programs prior to making a determination of the types of finance programs to be implemented, a timetable for implementing such programs, and the level of funding that should be allocated to finance programs.

The 2<sup>nd</sup> Revised CRA Staff Straw Proposal included the following goals for the NJCEP for FY14:

- 1. In coordination with Treasury, finalize the Program Administrator contract, develop the Strategic Plan and complete the transition to a single Program Administrator.** The Strategic Plan will inform the direction of the NJCEP over the next several years. Staff will focus its efforts on completing the transition to the new Program Administrator and will work closely with the Program Administrator and other stakeholders to develop the NJCEP Strategic Plan.
- 2. Perform Key Evaluations:** Staff has emphasized throughout the Straw Proposal its support of the need for a higher level of program evaluation than has been conducted historically and as recommended in the EMP. To this end, Staff recommends formulation of a Working Group, chaired by Board Staff and CEEEP, to

coordinate with interested stakeholders and develop a three year evaluation plan that identifies specific program evaluation activities that should be performed in the years 2014 through 2016. Staff recommends that the evaluation plan be completed by the end of 2013.

Staff notes that it is in the process of preparing an RFP for an audit of the utility EE and RE programs and for an audit of the IMS system. These activities will be funded through the FY14 evaluation budget.

3. **Promote the role of the NJCEP in storm response, so that New Jersey can rebuild stronger, more energy efficiently and in a manner that provides long-term benefits to ratepayers and the environment.**
4. **Promote Distributed Generation, including CHP and Energy Storage, as a means of hardening infrastructure for critical facilities:** The EMP recommends an increased role for CHP systems and the Board is currently exploring the role of CHP and other types of distributed generation and energy storage as means of ensuring the operation of critical facilities during power outages. Staff has created a Work Group that is currently providing input and exploring alternative methods of financing CHP and fuel cell systems, including the development of an Energy Efficiency Portfolio Standard.
5. **Convene a Work Group to evaluate Utility programs:** The Straw Proposal identifies a number of concerns regarding the existing procedures for review and approval of utility EE and RE filings, the coordination of the utility programs with the NJCEP, and issues related to reporting utility program results. Staff will convene a Work Group to discuss these issues and develop recommendations for consideration by the Board.
6. **Assess the Impact of all EE and RE Programs:** It is important to understand the State's capacity to spend on clean and renewable energy, in order to enable a smooth transition to more market-based funding for EE and RE programs. The Straw Proposal identifies some of the challenges that Staff faces in gathering the information required to assess the full impact of all of the EE and RE programs.

Staff will coordinate with the Board's Division of Energy, Rate Counsel, the utilities, CEEEP and other interested stakeholders to identify information needs, develop systems for collecting and reporting such information, and to develop standardized reports that will make this information more readily accessible to the Board and other interested parties.

7. **Identify and track additional metrics such as funds leveraged, jobs created, and marketing impacts:** As the BPU evaluates the benefits of market-based financing and other mechanisms for leveraging ratepayer funds, it is necessary to understand the opportunities and the extent to which existing programs lend themselves to related goals, such as job creation and reducing reliance on SBC funds.

As a national leader in energy efficiency and renewable energy, New Jersey's clean energy economy creates steady jobs. It is important to understand how and where those jobs are being created.

While Staff is recommending increased marketing activities, Staff believes it is important to measure the impacts of additional marketing and recommends the development of specific metrics for tracking its marketing activities.

- 8. Promote Emerging Technologies such as Hydrokinetic Power and Energy Storage:** The Navigant market potential study identifies several emerging technologies such as hydrokinetic power and energy storage that could contribute to achieving the State's energy goals. Staff will hold discussions with interested stakeholders regarding the development of programs or incentives that promote these technologies. In FY14, staff anticipates that it will develop a solicitation to provide incentives for the development of energy storage technologies and that incentives for hydrokinetic power will be developed for implementation in FY15.
- 9. Coordinate with Treasury to develop appropriate procedures to better match the collection of funds from ratepayers to actual program needs:** Staff will work with Treasury to align the collection of funds from ratepayers with the needs of the program.
- 10. Coordinate with DEP:** Based on comments filed by the Department of Environmental Protection, Staff has agreed to continue to consult with DEP, going forward, regarding the identification of programs with dual environmental and energy benefits, and the permitting of projects and technologies.

Based on the above and consideration of the numerous comments submitted, Staff recommends that the Board adopt the FY14 funding level and the energy saving or generation goals set out in the 2<sup>nd</sup> Revised CRA Straw Proposal attached hereto. Staff recommends that the Board adopt the FY14 funding allocation proposed herein, which revised the funding allocation proposed in the 2<sup>nd</sup> Revised CRA Straw Proposal. Upon approval by the Board, Staff will formulate the various working groups recommended in the 2<sup>nd</sup> Revised CRA Straw Proposal to commence development of additional recommendations concerning the various issues set out in the 2<sup>nd</sup> Revised CRA Straw Proposal as well as proposed funding levels for FY15-FY17. Staff anticipates that the additional recommendations will be submitted to the Board for consideration in 2014.

Draft FY14 programs and budgets utilizing the new funding set out herein have been circulated for comment. Staff anticipates presenting its recommendations related to FY14 programs and budgets to the Board for consideration at the June 21, 2013 agenda meeting.

### **DISCUSSION AND FINDINGS**

Cost effective energy efficiency, by definition, means that the total cost of procuring energy efficiency is less than the cost that would be incurred to generate and deliver the energy that is saved. Thus, achieving all cost effective energy efficiency would lower the overall energy costs paid by all utility customers in the State.

The EMP notes that reducing customer usage during on-peak hours to ensure reliable electricity during peak electric demand days is less costly than expanding the electric supply chain infrastructure including generation, transmission and distribution facilities. The EMP also notes that reduced on-peak demand tends to reduce wholesale electric prices which results in benefits enjoyed by all ratepayers, even those that do not take action to reduce their usage.

Funding for the CRA programs is included in utility rates. Rates could be reduced for all customers if the Board chose not to fund some the CRA programs. However, taking this path would forgo the benefits that result from the programs including lowering the overall cost of energy. Although funding the CRA creates a rate impact, customer bills can go down if customers use less energy as a result of the programs funded through the CRA, as hundreds of thousands of residential, governmental, and business customers have over the past 12 years.

The EMP found that EE measures implemented under the CEP Energy Efficiency Program between 2003 and 2010 saved approximately \$4.29 for every \$1 invested in the C&I sector and \$1.80 for every \$1 in the residential sector. That is, for every \$100 million spent on EE projects in the C&I sector overall energy costs are reduced by \$429 million and for every \$100 million spent on EE projects in the Residential sector overall energy costs are reduced by \$189 million. In addition to reducing energy costs and usage, EE programs yield environmental benefits, lower carbon emissions, create local jobs, and keep energy dollars in the State that could otherwise flow out of state.

The cost of funding the CRA is born by customers of the seven investor-owned electric and gas utilities. Customers that participate in the NJCEP (participating customers) reduce their electric or natural gas costs by using less energy. For participating customers, utility rates are higher with CRA funding than without, however, their energy costs/bills would be lower since they are using less energy. For example, in the 2<sup>nd</sup> Revised CRA Straw Proposal Staff estimated that in FY14 the average residential electric customer would contribute \$24.67 to the CRA funding. If the customer participated in a NJCEP program that led to an investment in energy efficiency that reduced the customer's energy costs by more than this amount, then the customer was better off with than without the NJCEP; that is, while the customer's rates went up, the utility bill went down. Something as simple as installing 3 compact fluorescent light bulbs would result in a net customer benefit and the savings would last for several years depending on the life of the measure.

For non-participating customers, their rates contribute to the CRA funding but they do not enjoy the direct benefits associated with less usage. This creates a subsidy between participating and non-participating customers because non-participating customer's rates and costs are higher if they do not reduce energy usage. However, non-participating customers do receive some benefits such as lower wholesale costs that result from lower peak demands, as well as the environmental, health and economic/job benefits that result from the programs.

The Board has historically attempted to balance these competing interests in two ways. First, the Board has limited the level of CRA funding to an amount less than the amount needed to achieve all cost effective energy efficiency. This minimizes the impact on rates. The second method used to balance these competing objectives is to develop programs that provide an opportunity for all customers and customer classes to participate in a program. As noted above, if all customers participate in a program and reduce their energy usage, then energy costs would go down for all customers as well as for the State, even if rates go up.

Balancing the impact on rates with the goal of reducing the State's overall energy costs is a key factor considered by the Board in this matter. The FY14 funding level proposed by Staff would reduce annual ratepayer contributions to the NJCEP from the current level of \$379,250,000 per year to \$344,665,000 per year. The proposed funding level will result in a reduction in customer contributions to the NJCEP and will better align the collection of funds with realistic spending estimates.

Staff also proposes a methodology for allocating the total FY14 funding to electric and natural gas ratepayers. The following summarizes the impact on rates that results from Staff's proposal:

In the 2<sup>nd</sup> Revised CRA Straw Proposal Staff recommends a funding level of \$344,665,000 for FY14. This will result in a reduction in the amount of SBC collected from ratepayers for NJCEP programs as compared to the current level.

In the CRA III Order, the Board allocated 69% of the statewide CRA funding level to electric ratepayers and 31% to gas ratepayers. For the reasons set out above in response to comments from NJNG and SJG, Staff recommends that the Board modify the proposed allocation set out in the 2<sup>nd</sup> Revised CRA Straw Proposal and instead continue to allocate 69% of the statewide CRA funding level to electric ratepayers and 31% to gas ratepayers which is the allocation approved by the Board in the CRA III proceeding and is also the current allocation used in the USF proceeding.

The tables below show the level of funds to be collected from electric and gas ratepayers that result from the new allocation proposed by Staff above, the funding as a percentage of estimated revenues, the incremental impact as a percentage of rates and the \$/kWh or therm that result from Staff's recommendation:

**Electric Rate Impacts**

Year	Electric Funding	Estimated Retail Electric Revenues	Funding as a % of Revenues	Incremental Rate Impact	\$/kWh
FY13	\$265,475,000				
FY14	\$237,818,850	\$7,807,018,000	3.05%	-0.35%	\$0.00303

**Gas Rate Impacts**

Year	Natural Gas Funding	Estimated Retail Natural Gas Revenues	Funding as a % of Revenues	Incremental Rate Impact	\$/Therm
FY13	\$113,775,000				
FY14	\$106,846,150	\$3,550,689,000	3.01%	-0.20%	\$0.0234

Estimated retail revenues from USF proceeding.

The net result of the proposed change is a 0.35% reduction in the level of CRA funding collected as a percentage of estimated overall electric revenues and a 0.20% reduction as a percentage of overall natural gas revenues.

The following tables show the estimated amount contributed to the NJCEP per year by a residential customer, a mid-sized commercial customer and a large commercial/industrial customer:

## Electric

Year	Residential		Midsized C&I		Larger C&I	
	Average Annual Usage per Household (kWh)	Average Annual Bill Impact	Average Annual Usage per Business (kWh)	Average Annual Bill Impact	Average Annual kWh Usage per Business (kWh)	Average Annual Bill Impact
FY14	8,737	\$26.44	1,651,194	\$4,997.35	11,690,434	\$35,381.15

## Natural Gas

Year	Residential		Midsized C&I		Larger C&I	
	Average Annual Usage per Household (Therms)	Average Annual Bill Impact	Average Annual Usage per Business (Therms)	Average Annual Bill Impact	Average Annual kWh Usage per Business (Therms)	Average Annual Bill Impact
FY14	736	\$17.21	47,205	\$1,104.04	931,739	\$21,791.66

The issues being decided in this Order require the Board to balance several competing interests that will impact the long-term energy future of the State. The Board has a long history of supporting programs that promote the installation of EE measures and RE systems as an alternative to business-as-usual that would result in the need to site and build additional electric generation plants and transmission and distribution facilities. The Board, through a series of Orders over the past twenty plus years, has found that investments in EE and RE will lower energy costs over the long-term and produce significant benefits to customers including:

1. Lowering energy costs for customers that install EE and RE systems by lowering usage.
2. Lowering energy costs overall by reducing peak energy usage and providing a cheaper alternative to building and operating additional generating facilities.
3. Making New Jersey businesses more competitive by lowering their energy costs.
4. Reducing emissions and the associated health benefits.
5. Reducing greenhouse gas emissions.
6. Reducing the need to site, build, and operate electric generation, transmission and distribution facilities.
7. Reducing demand for natural gas and resultant environmental benefits.
8. Creating local jobs.

The NJCEP has a dampening effect on overall energy costs. CEEEP has estimated that even a small reduction in on-peak usage can produce significant reductions in the cost of electricity, a benefit that flows through to all ratepayers.

This proceeding included numerous opportunities for public input into the development of proposed funding levels. The Board requested and Staff considered comments submitted in response to the questions set out in the October 7<sup>th</sup> Order initiating this proceeding. Staff took those comments into account in developing its initial straw proposal dated August 21, 2012. Staff's initial straw proposal was circulated for comment in August 2012 and the Board received numerous comments on that proposal. A Revised CRA Straw Proposal dated March 28, 2013 (revised on April 17, 2013), that took into consideration comments submitted on the initial straw proposal was prepared by Staff, circulated for comment, and posted on the NJCEP and Board's web sites. The Board provided an opportunity for written comments and held a public hearing on April 23, 2013, to obtain comments on Staff's Revised CRA Straw Proposal.

In response to the numerous comments received, additional discussions with stakeholders, updated program information, and issues raised at the public hearing, Staff developed a 2<sup>nd</sup> Revised CRA Straw Proposal dated June 3, 2013 that was circulated for comment on June 6, 2013. The Board scheduled an additional public hearing to solicit comments on the 2<sup>nd</sup> Revised CRA Straw Proposal on June 12, 2013 and accepted additional comments through June 14, 2012.

By email dated May 6, 2013, the NJDEP confirmed that the Board consulted with the DEP regarding the Revised CRA Straw Proposal and proposed funding levels. DEP agreed with the funding levels proposed in the Revised CRA Straw Proposal. NJDEP requested that the Board continue to consult with the NJDEP going forward in identifying programs with dual environmental and energy benefits and in the permitting of projects and technologies. Staff concurred with this recommendation and the 2<sup>nd</sup> Revised CRA Straw Proposal was revised to include a recommendation to continue consulting with DEP going forward. By email dated June 13, 2013, DEP acknowledged that it had received, reviewed and accepted the changes to the revised straw proposal.

As required by EDECA, the process included notice, multiple opportunities for public comment, two public hearings, and consultation with NJDEP. Based on the above, the Board **HEREBY FINDS** that the process utilized in developing the proposed FY14 funding level was appropriate and provided stakeholders and interested members of the public the opportunity to comment. As requested by the NJDEP, the Board **HEREBY DIRECTS** the OCE to continue to consult with NJDEP going forward, as part of the process of developing annual programs and budgets, regarding the identification of programs with dual environmental and energy benefits, and the permitting of projects and technologies.

The Board concurs with Staff's recommendation to establish a FY14 funding level only at this time and to defer a decision on the funding level for FY15-FY17 until a later date. The Board **FINDS** it will benefit from additional input and further assessment of the numerous issues set out in the 2<sup>nd</sup> Revised CRA Straw Proposal. The Board **FINDS** that the FY14 funding level proposed by the OCE in the 2<sup>nd</sup> Revised CRA Straw Proposal is reasonable and will provide environmental benefits beyond those provided by standard offer or similar programs. Therefore, the Board **HEREBY APPROVES** the following funding level for FY14:

#### FY14 Funding Level

Funding Category	Proposed FY14 Funding Level
EE	\$252,565,000
RE	\$17,500,000
CHP-Fuel Cells	\$50,000,000
EDA	\$7,500,000
NJCEP Administration	\$17,100,000
<b>Total NJCEP</b>	<b>\$344,665,000</b>

The Board **FINDS** that the allocation of the FY14 funding to electric and natural gas customers proposed by Staff above is reasonable and consistent with the methodology approved by the Board in its 2008 CRA III Order. Based on the above, the Board **HEREBY APPROVES** the following schedule of monthly payments to the NJCEP Trust Fund by each utility:

Monthly Utility Funding Levels for Board Order

FY14	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total
ACE	\$3,208,039.52	\$3,439,249.57	\$3,156,648.45	\$2,500,263.99	\$2,236,927.62	\$2,410,920.15	\$2,732,828.49	\$2,592,529.34	\$2,497,434.38	\$2,298,498.02	\$2,239,325.78	\$2,525,533.85	\$31,838,189.16
JCP&J	\$6,586,759.11	\$6,974,323.94	\$6,314,579.03	\$5,161,506.17	\$4,738,144.32	\$5,194,895.15	\$5,454,913.22	\$5,509,869.05	\$5,287,593.44	\$4,987,304.42	\$4,603,282.10	\$5,466,437.32	\$66,279,594.27
PS-Electric	\$12,872,954.29	\$13,245,211.96	\$12,502,805.25	\$10,266,769.45	\$9,980,628.65	\$11,000,785.34	\$11,702,606.23	\$11,034,529.82	\$10,724,384.86	\$10,311,884.97	\$9,737,810.18	\$11,092,119.11	\$134,472,290.11
REGO	\$512,958.80	\$539,652.42	\$500,066.23	\$404,333.99	\$369,264.97	\$413,062.19	\$460,233.24	\$430,955.95	\$383,300.70	\$376,496.82	\$382,301.05	\$466,150.29	\$5,228,776.45
NJN	\$449,390.98	\$442,400.10	\$436,712.34	\$786,071.68	\$1,461,498.14	\$2,465,061.82	\$2,924,719.69	\$2,472,273.47	\$1,969,596.81	\$1,108,689.44	\$608,244.06	\$441,548.72	\$16,576,207.25
Plowm	\$409,706.27	\$398,835.33	\$378,638.83	\$482,878.19	\$842,801.75	\$1,392,927.86	\$1,715,574.99	\$1,690,700.83	\$1,530,013.96	\$1,059,977.63	\$646,685.02	\$517,116.37	\$11,055,857.03
PS-Gas	\$2,244,606.38	\$2,207,338.41	\$2,019,446.80	\$2,691,440.53	\$4,858,440.85	\$8,182,821.80	\$10,799,553.36	\$10,652,024.93	\$9,372,264.92	\$8,239,806.04	\$3,710,191.94	\$2,761,181.61	\$65,739,107.57
SJG	\$754,105.69	\$710,211.19	\$629,223.53	\$636,612.16	\$921,368.00	\$1,588,722.87	\$2,190,748.66	\$2,153,412.91	\$1,969,610.96	\$1,322,937.73	\$881,474.05	\$716,550.41	\$14,474,978.16
Total	\$27,038,520.34	\$27,947,222.92	\$26,938,120.46	\$22,929,866.16	\$25,399,971.30	\$32,649,187.18	\$37,981,077.88	\$36,536,296.30	\$33,754,190.03	\$27,705,595.07	\$22,809,314.18	\$23,976,637.68	\$344,665,000.00

The utilities will continue to make monthly payments to the NJCEP Trust Fund or its successor consistent with the Board's existing policies and procedures. Specifically, the utilities shall continue to deduct monthly NJCEP program costs from the amounts shown in the table above. The Board **AUTHORIZES** the utilities to continue utilizing deferred accounting, through the SBC, for NJCEP revenues and expenses as set out in previous Orders of the Board. The Board will consider rate making issues in the context of specific utility rate filings with the Board.

Historically, upon approval of CRA funding levels by the Board, on an annual basis the OCE coordinates with the Market Managers, the Program Coordinator and other stakeholders to develop specific programs and budgets for consideration by the Board. However, due to delays in the approval of the FY14 funding level approved herein, the OCE was required to commence the development of detailed FY14 programs and budgets prior to Board approval of the funding level. Proposed FY14 programs and budgets were developed based on the funding levels set out in the 2<sup>nd</sup> Revised CRA Straw Proposal, subject to revision upon Board approval of a final funding level for FY14.

Historically, the Board has required detailed program plans and budgets to include, at a minimum, the following components:

1. A description of the program
2. Identification of the target market and of customer eligibility
3. A description of the program offerings and customer incentives
4. A description of the program delivery methods
5. A description of the quality control provisions
6. Detailed budgets that include at a minimum a breakdown of costs by the following categories, if applicable:



- a. Administration and program development
- b. Sales, call centers, marketing and website
- c. Training
- d. Rebates, grants and other direct incentives
- e. Rebate processing, inspections and other quality control
- f. Performance incentives
- g. Evaluation and related research

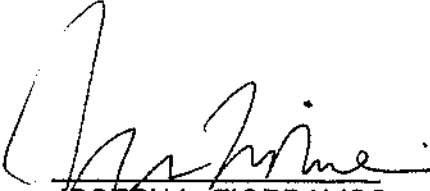
In addition, program managers propose any required changes to the protocols for measuring energy savings or generation and propose new protocols for any new programs or program components. The Market Managers also submit any proposed contract amendments required to implement the programs, if applicable. The Board **HEREBY DIRECTS** that future NJCEP program compliance filings continue to incorporate all of these items.

The Board **HEREBY DIRECTS** the OCE to facilitate the development of the various working groups discussed in the Revised CRA Straw Proposal, to solicit input and to prepare additional recommendations for consideration by the Board regarding FY15-FY17 funding levels, and to implement appropriate measures to achieve the goals outlined in the 2<sup>nd</sup> Revised CRA Straw Proposal dated June 3, 2013 and attached to this Order as Appendix A.

DATED: 6/21/13

BOARD OF PUBLIC UTILITIES  
BY:

  
ROBERT M. HANNA  
PRESIDENT

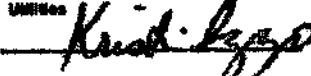
  
JOSEPH L. FIORDALISO  
COMMISSIONER

  
MARY-ANNA HOLDEN  
COMMISSIONER

ATTEST:

  
KRISTI IZZO  
SECRETARY

I HEREBY CERTIFY that the within document is a true copy of the original in the files of the Board of Public Utilities



IN THE MATTER OF COMPREHENSIVE ENERGY EFFICIENCY AND RENEWABLE  
ENERGY RESOURCE ANALYSIS FOR THE FISCAL YEAR 2014-2017 CLEAN ENERGY  
PROGRAM

DOCKET NO. EO11050324V

SERVICE LIST

Mr. Joseph Gennello  
**Honeywell Utility Solutions**  
5 East Stow Road, Suite E  
Marlton, NJ 08053

Ms. Diane M. Zukas  
**TRC Energy Solutions**  
900 Route 9 North, Suite 404  
Woodbridge, NJ 07095

Mr. Michael Ambrosio  
**Applied Energy Group**  
317 George Street, Suite 305  
New Brunswick, NJ 08901

Mr. Bruce Grossman  
Program Manager, Residential Energy  
Efficiency  
**South Jersey Gas Company**  
1 South Jersey Plaza  
Folsom, NJ 08037

Mr. Samuel Valora  
Program Manager, C&I Energy Efficiency  
**South Jersey Gas Company**  
1 South Jersey Plaza  
Folsom, NJ 08037

Mr. Ken Maloney  
**Elizabethtown Gas**  
300 Connell Drive, Suite 3000  
Berkeley Heights, NJ 07922

Mr. Alex Stern  
Assistant General Reg. Counsel  
**Public Service Electric and Gas Company**  
T5, PO Box 570  
Newark, NJ 07101

Mr. Anthony Pugliese  
**Elizabethtown Gas**  
148 Edison Road  
Stewartsville, NJ 08886

Ms. Mary Patricia Keefe  
**Elizabethtown Gas**  
300 Connell Drive, Suite 3000  
Berkeley Heights, NJ 07922

Mr. Thomas Kaufmann  
**Elizabethtown Gas**  
300 Connell Drive, Suite 3000  
Berkeley Heights, NJ 07922

Mr. Steve Swetz  
Director, Corporate Rates & Revenue  
Requirements  
**Public Service Electric and Gas Company**  
T5, PO Box 570  
Newark, NJ 07101

Mr. Scott Carter  
**AGL Resources**  
Ten Peachtree Place  
Atlanta, GA 30309

Ms. Debbie Franco  
**Elizabethtown Gas**  
300 Connell Drive, Suite 3000  
Berkeley Heights, NJ 07922

Mr. Mark Mader  
Rates and Regulatory Affairs  
**Jersey Central Power and Light Company**  
300 Madison Avenue, PO Box 1911  
Morristown, NJ 07962-1911

Mr. Wayne Barndt  
Manager Regulatory Strategy & Policy  
**Pepeco Holdings**  
New Castle Regional Office  
Mailstop 79NC59, PO Box 9239  
Newark, DE 19714

Ms. Tracey Thayer  
Director, Regulatory Affairs Counsel  
**New Jersey Natural Gas Company**  
1415 Wyckoff Road  
PO Box 1464  
Wall, NJ 07719

Ms. Anne Marie Peracchio  
Director, Conservation & Clean Energy Policy  
**New Jersey Natural Gas Company**  
1415 Wyckoff Road  
PO Box 1464  
Wall, NJ 07719

Ms. Mona Mosser  
Bureau Chief, Office of Clean Energy  
**State of NJ Board of Public Utilities**  
44 South Clinton Avenue, 9th Floor  
Post Office Box 350  
Trenton, NJ 08625-0350

Ms. Marisa Slaten, Esq.  
Deputy Attorney General  
Division of Law  
**Department of Law and Public Safety**  
124 Halsey Street  
Newark, NJ 07101

Ms. Rachel Boylan  
Legal Specialist  
**State of NJ Board of Public Utilities**  
44 South Clinton Avenue, 9<sup>th</sup> Floor  
Post Office Box 350  
Trenton, NJ 08625-0350

Ms. Allison E. Mitchell  
Administrative Analyst, Office of Clean Energy  
**State of NJ Board of Public Utilities**  
44 South Clinton Avenue, 9<sup>th</sup> Floor  
Post Office Box 350  
Trenton, NJ 08625-0350

Mr. Timothy White  
Manager Policy Coordination  
**Pepeco Holdings**  
New Castle Regional Office  
Mailstop 79NC59 , PO Box 9239  
Newark, DE 19714

Mr. Scott Markwood  
Administrator  
**Orange & Rockland Utilities, Inc.**  
Customer Energy Services  
390 West Route 59  
Spring Valley, NY 10977

Ms. Elizabeth Ackerman, Acting Director  
Office of Clean Energy  
**State of NJ Board of Public Utilities**  
44 South Clinton Avenue, 9<sup>th</sup> Floor  
Post Office Box 350  
Trenton, NJ 08625-0350

Mr. Michael Winka  
Special Assistant  
**State of NJ Board of Public Utilities**  
44 South Clinton Avenue, 9<sup>th</sup> Floor  
Post Office Box 350  
Trenton, NJ 08625-0350

Ms. Susan Lacey Ringhof  
Market Strategy & Development  
**Public Service Electric and Gas Company**  
80 Park Plaza, T8  
Newark, NJ 07102

Mr. Benjamin S. Hunter  
Renewable Energy Program Admin., OCE  
**State of NJ Board of Public Utilities**  
44 South Clinton Avenue, 9<sup>th</sup> Floor  
Post Office Box 350  
Trenton, NJ 08625-0350

Stefanie A. Brand, Esq.  
Director  
**Division of Rate Counsel**  
140 East Front Street, 4<sup>th</sup> Floor P.O. Box 003  
Trenton, NJ 08625

**Appendix A**

**Office of Clean Energy**

**2<sup>nd</sup> Revised CRA Straw Proposal  
Proposed Funding Levels FY14 – FY17**

**June 3, 2013**

Table of Contents

1.0 *Background/Context* 1

    1.1 EDECA 1

    1.2 Energy Master Plan Goals and Objectives 3

    1.3 Statewide Energy Efficiency and Renewable Energy 6

    1.4 Critical Facilities 11

    1.5 Costs versus Rates 12

2.0 *Implementation Challenges* 14

    2.1 Status of RFP for Program Administrator 14

    2.2 Transition to Financing 14

    2.3 Management of Funds 14

    2.4 Coordination with Utility Programs 15

3.0 *New Jersey's Clean Energy Program* 17

    3.1 Policy Goals 17

    3.2 NJCEP Program Budget 17

    3.3 NJCEP Administration 17

    3.4 Program Administrator 20

    3.5 Historic NJCEP Program Budgets 20

    3.7 Jobs Created 24

4.0 *Methodology and Approach* 25

    4.1 Development of Proposed EE Funding Levels and Savings Goals 25

    4.2 EnerNOC Potential Study 28

    4.3 AEG Benchmarking Analysis 34

    4.4 Comparison between NJCEP Historic Performance versus the EnerNOC  
        Potential Study and AEG Benchmarking Analysis 36

    4.5 Proposed EE Funding Levels and Associated Energy Savings Goals 39

5.0 *Proposed Funding Levels* 43

    5.1 Energy Efficiency 43

    5.2 Combined Heat & Power 44

    5.3 Renewable Energy 45

    5.4 Economic Development Authority 48

    5.6 Initial NJCEP Proposed Funding Levels 49

    Staff adjusts this amount herein for the reasons set out in Section 5.7 below.  
        50

    5.7 Revised NJCEP Proposed Funding Levels 50

6.0 *Rate Impacts* 54

7.0 *Summary of Staff Recommendations* 56

**1.0 Background/Context**  
**1.1 EDECA**

**Procedural History**

On February 9, 1999, the Electric Discount and Energy Competition Act, N.J.S.A. 48:3-49 et seq. (EDECA or the Act) was signed into law. The Act established requirements to advance energy efficiency and renewable energy in New Jersey through the societal benefits charge (SBC), at N.J.S.A. 48:3-60(a)(3). EDECA further empowered the Board to initiate a proceeding and to cause to be undertaken a Comprehensive Resource Analysis (CRA) of energy programs, currently referred to as the comprehensive energy efficiency (EE) and renewable energy (RE) resource analysis. After notice, opportunity for public comment, public hearing, and consultation with the New Jersey Department of Environmental Protection (NJDEP), within eight months of initiating the proceeding and every four years thereafter, the Board would determine the appropriate level of funding for EE and Class I RE programs (now called New Jersey's Clean Energy Program or NJCEP) that provide environmental benefits above and beyond those provided by standard offer or similar programs, in effect as of February 9, 1999.

As required by the Act, in 1999, the Board initiated its first comprehensive EE and RE resource analysis proceeding. At the conclusion of this proceeding, the Board issued its initial order, dated March 9, 2001, Docket Nos. EX99050347 et al. (March 9th Order). The March 9<sup>th</sup> Order set funding levels for the years 2001 through 2003, established the programs to be funded and budgets for those programs. By Order dated July 27, 2004, Docket No. EX03110945 et al., the Board finalized the funding level for 2004 and established the programs to be funded and budgets for those programs. The Board approved funding levels of \$115 million for 2001, \$119.326 million for 2002, \$124.126 million for 2003 and \$124.126 million for 2004.

By Order dated May 7, 2004, Docket Nos. EX03110946 and EX04040276, the Board initiated its second comprehensive EE and RE resource analysis proceeding and established a procedural schedule for the determination of the funding levels, allocations and programs for the years 2005 through 2008. By Order dated December 23, 2004, Docket No. EX04040276 (the December 23, 2004 Order), the Board concluded its second CRA proceeding, set funding levels for the years 2005 through 2008, and approved 2005 programs and budgets. The Board approved funding levels of \$140 million for 2005, \$165 million for 2006, \$205 million for 2007 and \$235 million for 2008.

On August 19, 2005, the New Jersey Department of the Treasury, Division of Purchase and Property (Treasury) issued, on behalf of the Board, Request for Proposal 06-X-38052 for New Jersey Clean Energy Program Management Services. The Board selected Honeywell International, Inc. (Honeywell) as the Market Manager for residential energy efficiency and renewable energy programs and TRC Energy Services (TRC) as the Market Manager for commercial and industrial energy efficiency programs. On October 19, 2006, Treasury issued a contract to Honeywell and to TRC to provide program management services.

On January 17, 2007, the Board approved the release of the Request for Proposal for the New Jersey Clean Energy Program - Program Coordinator - Docket No. EO05070640. After an extensive review of the proposals, the Board selected Applied Energy Group (AEG) to provide program coordinator services. A contract for these services was issued by Treasury on July 10, 2007.

By Order dated April 27, 2007, Docket No. EO07030203, the Board directed the Office of Clean

Energy (OCE) to initiate a third comprehensive EE and RE resource analysis proceeding and to schedule public hearings on program funding and funding allocations for the years 2009 – 2012. By Order dated September 30, 2008, Docket No. EO07030203, the Board concluded its proceeding and set funding levels of \$245 million for 2009, \$269 million for 2010, \$319.5 million for 2011 and \$379.25 million for 2012.

In 2012, the Board desired to align CRA funding levels and NJCEP budgets, which have been established on a calendar year basis, with the State fiscal year, which runs from July 1<sup>st</sup> through June 30<sup>th</sup> each year. Therefore, by Order dated November 20, 2012, Docket Nos. EO07030203 and EO11100631V, the Board approved a six month funding level of \$194,804,019 for the period from January 1 through June 30, 2013.

The table below summarizes the funding levels approved by the Board for the years 2001 – 2013 in the past three CRA proceedings:

**Annual CRA Funding Levels**

<b>Year</b>	<b>BPU Approved Funding Level</b>
2001	\$115,000,000
2002	\$119,326,000
2003	\$124,126,000
2004	\$124,126,000
2005	\$140,000,000
2006	\$165,000,000
2007	\$205,000,000
2008	\$235,000,000
2009	\$245,000,000
2010	\$269,000,000
2011	\$319,500,000
2012	\$379,250,000
2013 (first six months)	\$194,804,019
<b>Total</b>	<b>\$2,635,132,019</b>

Board approved funding levels set the level of new funding to be collected by the utilities from ratepayers each year. The funding levels are then allocated to program budgets, based on the new funding levels, plus any carry-over from the previous year.

As set forth at N.J.S.A. 48:3-60a(3), EDECA provides that after the eighth year, the Board shall make a determination as to the appropriate level of funding for energy efficiency and Class I renewable energy programs. Furthermore, EDECA provides that the Board shall determine, as a result of a comprehensive analysis, the programs to be funded by the SBC and the utilities level of cost recovery and performance incentives for existing and proposed programs.

Consistent with the requirements of EDECA, by Order dated October 7, 2011, Docket No. EO11050324V, (the October 7<sup>th</sup> Order), the Board directed the OCE to initiate a fourth CRA proceeding and to schedule public hearings on funding allocations for the energy efficiency and renewable energy programs for calendar years 2013-2016.

On August 22, 2012, the Office of Clean Energy (OCE) issued a Draft Straw Proposal dated August 21, 2012 that set out proposed goals and funding levels for FY14-17 and requested comments on the proposal. By Order dated November 20, 2012, Docket No. EO11050324, (the November 20<sup>th</sup> Order), the Board established a procedural schedule for finalizing the fourth CRA proceeding. Specifically, the November 20<sup>th</sup> Order indicated that Staff would issue a final straw proposal by December 3, 2012, schedule a public hearing for January 14, 2013, and accept comments on the final straw proposal through the date of the hearing.

As a result of a unique set of implementation challenges since the issuance of the November 20<sup>th</sup> Order discussed below, Staff requested and received additional time to develop a revised draft Straw Proposal. By Order dated February 28, 2013, the Board issued a revised procedural schedule.

### ***1.2 Energy Master Plan Goals and Objectives***

On December 6, 2011, Governor Christie released the New Jersey Energy Master Plan (EMP). The EMP included the following overarching goals (EMP, page 4):

6. Drive down the cost of energy for all customers.
7. Promote a diverse portfolio of new, clean, in-state generation.
8. Reward energy efficiency and energy conservation and reduce peak demand.
9. Capitalize on emerging technologies for transportation and power production.
10. Maintain support for the renewable energy portfolio standard of 22.5% of energy from renewable resources by 2021.

The EMP found that EE and CHP programs are the most cost effective way to reduce energy costs, and that the best way to lower individual energy bills and collective energy rates is to use less energy. However, the EMP also noted that the Administration is committed to a top-down reassessment of program efficacy. The EMP stated that the reduction in the cost of natural gas prices and the drop in electric usage due to the economy since the 2008 EMP required that the 20% energy reduction goal be modified, and that cost effective programs reduce the State's energy use, thereby fostering economic development and promoting the State's environmental goals.

The EMP included the following objectives regarding the promotion of cost-effective conservation and energy efficiency:

- Promote energy efficiency and demand reduction in State government buildings
- Incorporate aggressive energy efficiency in building codes
- Redesign the delivery and financing of State energy efficiency programs
- Monitor PJM's demand response initiatives
- Improve natural gas energy efficiency
- Expand education and outreach

The CRA funding can help the State achieve the goals set out in the EMP. However, the EMP goals cannot be met through CRA programs alone; the State must take other non-CRA related steps to achieve the EMP goals. To that end, Staff will coordinate with the State Energy Office, the Departments of Community Affairs and Environmental Protection, the new Program Administrator, Rate Counsel, utilities, program partners and others stakeholders to develop methods and/or programs aimed at achieving these objectives. As Staff proposes new CRA funding levels through this straw proposal, Staff will seek to reinforce, where possible, the goals established in the EMP, and compare these goals to results in other states.



In addition to the overarching goals and objectives, the EMP includes a number of findings and directives that will inform Staff's proposed funding levels. The following are excerpts from the EMP that Staff believes should be considered:

"The most cost-effective way to reduce energy costs is to use less. Passive energy conservation, the use of energy-efficient appliances, equipment, building materials and practices, and active DR programs result in the reduction of total energy use. Reducing customer usage during on-peak hours to ensure reliable electricity during the hottest and most humid days of the year is less costly than expanding the supply chain infrastructure – new power plants, transmission lines, and both primary and secondary distribution facilities. Reduced on-peak demand also tends to reduce wholesale electricity prices by avoiding the utilization of the least efficient generation dispatched to meet the highest demand level. Thus, reducing peak demand results in benefits that are enjoyed by all ratepayers, even those who have not taken any actions to reduce their electricity use." (EMP page 110)

"The 2008 EMP proposed to reduce projected peak demand, energy use, and natural gas use by about 20% across the board, by 2020, relative to the BAU outlook. As discussed in Section 7.3.3, New Jersey's peak demand reduction target remains aggressive but has been adjusted to reflect PJM's outlook of more modest peak load growth over the forecast period." (EMP pages 110-111)

"While EE and conservation reduce overall electricity use, only a portion of the EE and conservation induced load reduction is coincident with on-peak demand. Thus, the goal of reducing peak demand will require a substantial increased penetration rate of DR throughout New Jersey. While the cost savings to electric customers resulting from aggressive promotion of DR through 2020 may justify the effort, New Jersey must assess on a rigorous basis whether or not the resultant benefits associated with incremental DR are greater than the costs. Rival technology options to meet or avoid anticipated load growth must be evaluated. Hence, New Jersey's EDCs, DR program developers, and government bodies, in particular, the BPU and OCE, should conduct the required engineering economic analysis, as well as environmental assessment, in order to validate the merits of the goals set forth in this EMP. Likewise, performance benchmarks applicable to the benefits and costs, and environmental benefits ascribable to energy reduction targets should be developed by New Jersey's EDCs." (EMP page 111)

"The best way to lower individual energy bills and collective energy rates is to use less energy. Energy conservation results from consistent consumer behavior changes and actions, such as turning off lights and lowering thermostats. EE also results from technological measures, such as insulation for rooftops and installing more efficient lighting and heating systems, to replace less energy-efficient systems. Reducing energy costs through conservation and EE lessens the cost of doing business and enhances economic development. As collective energy use is lowered, New Jersey should realize a return on investment in the form of reduced energy bills." (EMP pages 111-112)

"EE measures implemented under the CEP Energy Efficiency Program between 2003 and 2010 saved approximately \$4.29 for every \$1 invested in the C&I sector, and \$1.80 for every \$1 in the Residential sector. These savings, however, are calculated on the basis of *total* customer load in each sector. As discussed in Section 4.11, only those customers who participate in the various EE program opportunities realize a direct

reduction in their electricity or gas usage, and hence a direct reduction in their bills. The societal benefit charges in the EDC and LDC rates that socialize the cost of the EE investments and other subsidies are paid by *all* customers, including those who do not or cannot take advantage of the EE programs. To the extent that EE measures reduce peak demand and thereby drive down the cost of energy, *all* ratepayers will enjoy the indirect savings in the form of lower rates. For this reason, a TRC test should be performed to assess the net benefit of EE subsidies and investments.” (EMP page 112)

“A strong EE program should also offset other macroeconomic pressures, such as increased costs of other goods and services. According to CEEEP, a strong EE program should result in an estimated net increase of 1,850 jobs by 2020. Additional savings result from EE participation in RPM, the PJM capacity market.” (EMP page 112)

“Established under EDECA, New Jersey’s RPS is one of the most aggressive in the U.S. The RPS requires each electricity supplier serving retail electricity customers in the State to procure 22.5% of the electricity it sells in New Jersey from qualified renewable energy resources by 2021. New Jersey established the RPS to drive the market deployment of new clean energy technologies, recognizing that expansion of renewable energy generation would provide significant economic development and environmental benefits, thereby advancing New Jersey’s greenhouse gas reduction goals...” (EMP page 59)

“The RPS for Class 1 renewable energy resources increases over time, reaching 20% by 2021 and includes carve-outs for solar and offshore wind.” As of January 2010, the Solar Energy Advancement and Fair Competition Act (SEAFCA or the Solar Advancement Act) requires a separate obligation for solar energy that requires electricity suppliers to procure an increasing amount of electricity from in-state solar electric generators, reaching at least 2,518 GWh by 2021, and at least 5,316 GWh of electricity by 2026 and each year thereafter.” (EMP page 46)

“OWEDA<sup>6</sup> was enacted August 19, 2010. OWEDA calls for at least 1,100 MW (installed capacity) of offshore wind generation on the outer continental shelf in the Atlantic Ocean. Like solar, the offshore wind provision is also defined as a carve-out from the total Class I requirement.” (EMP page 46)

While the EMP does not set specific energy savings goals or specific goals for the NJCEP, Staff draws the following conclusions from the EMP excerpts above, and these conclusions will inform the proposed funding levels set out below:

- Energy efficiency is the most cost-effective way to lower energy costs.
- Energy efficiency programs should focus on reductions in peak demand in addition to reductions in energy usage, which can lower costs for all ratepayers.
- While energy efficiency programs are the cheapest source of energy, the impact of the level of funding collected from ratepayers on non-participating customers must be considered.
- Energy efficiency programs and renewable energy contribute to State’s overall economic development and create in-state jobs.
- Energy efficiency and renewable energy programs deliver environmental and health benefits and lower peak energy costs, which benefit all ratepayers, including non-participating customers.

---

<sup>6</sup> Offshore Wind Economic Development Act

- Energy efficient and renewable energy programs must undergo regular and rigorous evaluation to confirm projected energy savings and economic benefits.
- The promotion of in-state renewable energy resources can reduce emissions while promoting economic development.
- Energy savings must be considered comprehensively, and those savings delivered by NJCEP programs should complement other non-NJCEP activities such as stricter building codes, higher appliance standards, utility programs and EE in state facilities.

### **1.3 Statewide Energy Efficiency and Renewable Energy**

Utilities also manage programs that support the Board's renewable energy goals. The costs of the utility RE programs were recently assessed in a report prepared by CEEEP and will not be repeated herein. CEEEP's report can be found at:

<http://policy.rutgers.edu/ceeeep/publications/2012/EDCSolarLongTerm.pdf>

#### **Role of Utilities**

Consistent with 2007 legislation known as the Regional Greenhouse Gas Initiative (RGGI), implementation amendments to the Global Warming Response Act, which sets out standards for cost-recovery related to utility-implemented programs, the EDCs have implemented various energy efficiency and renewable energy programs over the past several years. These programs are in addition to NJCEP and include:

- Four utilities, New Jersey Natural Gas, Elizabethtown Gas, South Jersey Gas and Rockland Electric Company have developed and implemented energy efficiency programs that generally supplement or complement the NJCEP, by providing additional incentives for certain measures or programs and/or have implemented new programs that address markets not covered by the NJCEP.
- One utility, Public Service Electric and Gas (PSE&G), has developed and implemented energy efficiency programs that overlap and compete with those offered through NJCEP, by offering similar efficiency options to customers in its service territory at greater incentive levels or in certain portions of its service territory, such as Urban Enterprise Zones.
- Two utilities, Atlantic City Electric Company and Jersey Central Power and Light Company do not offer any energy efficiency programs.
- Three utilities, Atlantic City Electric Company, Jersey Central Power and Light Company and Rockland Electric Company, have developed and implemented renewable energy programs that involve a competitive solicitation for the long-term purchase of SRECs at a fixed price and term.
- PSE&G has developed and implemented two solar programs including a solar loan program and a program whereby PSE&G owns and operates solar assets on its own property, and as well on projects owned by third parties, to whom it makes lease payments.

#### **Utility Program Costs**

A number of utilities offer EE programs that supplement the NJCEP. Because NJCEP and utility efficiency and renewable energy programs are both funded by ratepayers, Staff believes that the costs associated with such programs should inform the level of funding for the NJCEP.

The following table shows utility expenses on EE programs for the period 2010-2012:

#### **Utility EE Program Costs**

Utility	2010	2011	2012
---------	------	------	------

New Jersey Natural Gas	\$13,142,715	\$17,164,001	\$19,678,980
South Jersey Gas	\$4,855,839	\$6,278,245	\$6,131,609
Elizabethtown Gas	\$1,792,508	\$3,289,492	\$2,326,579
Rockland Electric	\$189,932	\$258,755	\$221,330
Public Service Electric and Gas	\$104,289,299	\$65,917,553	\$38,879,992
Total	\$124,272,303	\$92,910,057	\$67,240,502

Note: Expense data provided by utilities.

Utility expenses related to EE programs have declined over the past three years, primarily due to a decline in spending by PSE&G.

Staff believes that the utilities have not reliably reported expenditure data for both EE and RE programs, as required by RGGI, making detailed evaluation of the effectiveness of the programs difficult, and that additional evaluation of and coordination between the utility programs and the NJCEP would result in less customer confusion, lower costs and improve the overall effectiveness of EE and RE programs. In Section 2.4, this Straw proposal includes Staff recommendations on ways to better coordinate the utility EE programs with the NJCEP.

#### **RPS Costs**

Suppliers comply with the Board's Renewable Portfolio Standards (RPS) regulations through the purchase of Renewable Energy Certificates (RECs) or Solar Renewable Energy Certificates (SRECs) or by making Alternative Compliance Payments (ACPs or Solar/SACPs). The OCE estimated the total cost of compliance with the RPS, which ranges from approximately \$7.5 million in Reporting Year 2005 to \$197 million in Energy Year 2011 (EY)<sup>7</sup>. The solar RPS requirement is estimated to have ranged in cost from a low of \$1.4 million (RY05) to a high of \$184 million (EY11). The BPU received a low of \$48,900 SACPs in RY06 and a high of \$38.9 million SACPs in RY09. The Class I requirements are estimated to have ranged in cost from \$4 million to \$37.5 million, and the Class II requirements have cost approximately \$2 million per year during this time period. Electricity supplier/providers, who bear the obligation of RPS compliance, are presumed to pass through to their customers, the New Jersey electricity ratepayers, the majority of these costs.

---

<sup>7</sup> The RPS changes the nomenclature from reporting year to energy year in 2010 rule modification.

The following table summarizes the costs of complying with the Board's RPS regulations:

**NJ RPS Compliance History**

Compliance Period	RY 2005	RY 2006	RY 2007	RY 2008	RY 2009	RY 2010	EY 2011	EY 2012
Notes:	*#@+	+	^					Preliminary
Total Retail Sales of Regulated LSEs (MWh)	73,674,845	84,353,329	83,314,518	80,028,793	81,416,156	77,418,756	81,349,339	76,935,091
Class I RPS Percentage Requirement	0.74%	0.983%	2.037%	2.037%	2.92%	4.685%	5.492%	6.320%
Class I REC Obligation (MWh)	545,194	834,832	1,697,117	2,340,042	3,126,380	3,627,069	4,467,706	4,862,298
Class I RECs Retired for RPS (MWh)	527,160	845,702	1,697,364	2,341,702	3,127,491	3,627,074	4,468,399	4,866,522
Estimated Year End Weighted Average Price	\$8.00	\$8.00	\$8.00	\$15.00	\$12.00	\$2.00	\$2.38	\$4.14
Estimated Dollar Value of Class I RECs Retired	\$4,217,280	\$6,765,616	\$13,578,912	\$35,125,530	\$37,529,892	\$7,254,148	\$10,634,790	\$20,147,401
Class I ACPs Submitted (MWh)	0	19	539	200	0	3	6	27
ACP Level (\$ per MWh)	\$50	\$50	\$50	\$50	\$50	\$50	\$50	\$50
Cost of Class I ACPs (\$)	\$0	\$950	\$26,950	\$10,000	\$0	\$150	\$300	\$1,350
Retail Sales Obligated by RPS for solar (+)	57,140,000	61,470,091	83,314,518	80,028,793	81,416,156	77,418,756	81,349,339	76,935,091
SREC Obligation (MWh)	5,714	10,450	32,743	65,384	130,266	171,095	306,000	442,000
SRECs Retired for RPS (MWh)	3,329	10,723	31,541	49,617	75,532	123,717	289,021	438,900
Percentage of Obligation met via SRECs	58.26%	102.61%	96.33%	75.89%	57.98%	72.31%	94.45%	99.30%
Year End Cumulative Weighted Average Price	\$200.59	\$215.09	\$220.28	\$246.15	\$544.85	\$615.50	\$602.99	\$287.71
Estimated Dollar Value of SRECs Retired	\$667,764	\$2,306,410	\$6,947,851	\$12,213,225	\$41,153,610	\$76,147,814	\$174,276,773	\$126,275,919
SACPs Submitted (MWh)	2,653	163	1,232	15,768	54,738	47,373	15,344	4
SACP Level (\$ per MWh)	\$300	\$300	\$300	\$300	\$711	\$693	\$675	\$658
Percentage of Obligation met via SACPs	46.43%	1.56%	3.76%	24.12%	42.02%	27.69%	5.01%	0.00%
SACPs Submitted(\$)	\$792,132	\$48,900	\$369,600	\$4,730,400	\$38,918,718	\$32,828,160	\$10,357,301	\$2,632
Compliance on a Percentage Basis	104.69%	104.17%	100.09%	100.00%	100.00%	100.00%	99.47%	99.30%
Estimated Solar RPS Expenditures (SACP + SREC)	\$1,459,896	\$2,355,310	\$7,317,451	\$16,943,625	\$80,072,328	\$108,975,974	\$184,634,073	\$126,278,551
Estimated Class I RPS Expenditures (ACP + CI-REC)	\$4,217,280	\$6,766,566	\$13,605,862	\$35,135,530	\$37,529,892	\$7,254,298	\$10,635,090	\$20,148,751
Estimated Class II RPS Expenditures (ACP + CII-REC)	\$1,800,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000
Estimated Total RPS Expenditures (REC + SREC + ACP + SACP)	\$7,477,176	\$11,121,876	\$22,923,313	\$54,079,155	\$119,602,220	\$118,230,272	\$197,269,163	\$148,427,302

**Explanatory Notes on Compliance Reporting, Results and Data Issues**

1. NJ's RPS rules have evolved from legislation signed 02/01/99 with rule revisions to N.J.A.C. 14:8-2 made in 2004, 2006, 2008, 2009 and legislation 1/17/10.
2. (\*) The RPS compliance period classification has changed three times with compliance originally based on a Calendar Year. A Reporting Year classification was proposed
3. The RPS rule changes proposed October 2003 also treated the gap from 01/01/04 to 5/31/04 which resulted from the transition from a Calendar Year to a Reporting Year
4. (#) Eligibility to create SRECs from solar MWhs for use in NJ's RPS began 03/01/04 with RY05 (via Board Order dated 1/26/04).
5. (@) No aggregated compliance reports were produced for the NJ RPS prior to RY05.
6. (+) The Board grandfathered BGS auction winners with pre-existing contracts by exempting their load from the new solar carve-out requirements.
7. (^) Reporting Year 2007 Compliance Reports, ACP and REC requirements were deferred by Board Action from 09/01/07 until 02/29/08.
8. With the period beginning June 1, 2010, NJ RPS compliance

**Economic Development Authority**

The New Jersey Economic Development Authority (EDA) currently manages three NJCEP programs:

- The Edison Innovation Clean Energy Manufacturing Fund (CEMF), which offers financial assistance in the form of low-interest loans and non-recoverable grants to companies that manufacture renewable energy or clean and energy efficient products in New Jersey.

- The Edison Innovation Green Growth Fund (GGF), which offers financial assistance to clean technology companies seeking funding to grow and support their businesses. The program is intended to spur innovation and fund emerging technologies in New Jersey.
- The Large Scale CHP/Fuel Cell program, which provides rebates to large scale (>1 MW) CHP and fuel cell projects.

The EDA also managed a revolving loan program that was suspended in 2012, due to budget constraints and lack of participation.

The CEMF and GGF programs are designed to attract firms that manufacture clean energy technologies and/or are developing new RE and EE innovative technologies to New Jersey. The secondary goals of the programs are to create jobs and to develop a local manufacturing base. Staff believes the NJCEP should continue to support these types of programs going forward, assuming they continue to support energy efficiency or NJ Class I renewable technologies.

#### **Role of Third Party Suppliers and Curtailment Service Providers**

Third party electric suppliers (TSPs) and curtailment service providers (CSPs) are playing an increasing role in the delivery of electric power and demand response services. Based on information provided in the EMP, in April 2010, less than 1% of residential customers were served by TSPs. By September 2011, about 9% of residential customers were served by TSPs. In the C&I market, customers served by TSPs grew from less than 1% in 2007 to over 21% by December 2011. The C&I customers served by TSPs represent about 61% of the total C&I MW load (EMP pages 41- 42). The number of customers and the proportion of load served by TSPs have continued to grow since the release of the EMP.

CSPs work with customers to curtail load during times of peak electric demand through the control of existing equipment. Typically, this requires new equipment and/or increased on-site generation. CSPs aggregate the load reductions and sell the aggregated load reductions into the PJM capacity market.

Some TSPs are beginning to offer their customers services other than commodity supply, which are intended to assist customers in reducing their energy costs. For example, one TSP active in New Jersey is now offering on-bill financing to its customers for energy efficiency measures.

As the role of TSPs and CSPs continues to grow, and TSPs and CSPs become a point of contact with customers, the NJCEP should explore ways to work with both groups to deliver energy efficiency and demand response programs to customers. This might entail additional incentives or could simply involve having TSPs and CSPs assist in providing program information to customers or having them assist with marketing the NJCEP. Staff recommends that the selected Program Administrator convene working groups to identify potential opportunities for TSPs and CSPs to assist in the delivery of the NJCEP.

#### **State Energy Office**

While New Jersey's Clean Energy Program promotes energy efficiency improvements for businesses, residents and local governments, the State Energy Office was established in June 2011 by Governor Christie to demonstrate his commitment to "leading by example" and to determine where the greatest opportunities exist for state facilities to save energy and money. In order to achieve these objectives, the State Energy Office is leveraging state, federal, and private-sector resources to deliver the greatest energy, environmental, and cost reduction benefits to all citizens.

Since its inception, the SEO has updated prior energy audits or conducted new audits at the State's largest energy users – e.g. prisons, developmental centers, and state hospitals - and

created a prioritized list of state facilities. Based on the findings of these audits, the SEO implements energy conservation measures (ECMs) in these facilities, such as lighting upgrades, new HVAC and mechanical equipment, fuel conversions (oil to natural gas). Over the next 3-5 years the SEO's efforts will focus on the state's 30 largest energy-consuming facilities, which consume nearly 54% of the total energy of all state facilities.

This first phase of retrofits includes a total of 7 facilities, and is projected to reduce annual energy usage by approximately 20% and save approximately \$14 million annually. As with all Clean Energy programs, the SEO will measure and publish the State's progress, tracking reduced demand, reduced energy costs, reduced greenhouse emissions, and jobs created.

#### **Energy Savings Improvement Program (ESIP)**

Legislation enacted in 2009 (P.L. 2009 c.4) and revised in 2012 (P.L. 2012 c.55) provides a funding opportunity for the State's entities (i.e. agencies and authorities, public institutions of higher education, county colleges, local boards of education, counties and municipalities) to install high efficiency systems and other ECMs to significantly reduce energy consumption and associated costs. The savings achieved through these upgrades is then used to pay for the ECMs, through a refunding bond mechanism. These ECM's include, but are not limited to, lighting, occupancy sensors, chillers, boilers, HVAC equipment, demand management controls and even renewables, as long as the combined payback period is less than 15 years. Some districts are now considering incorporating CHP, focusing on a regional approach, which can extend the payback period to 20 years.

Boards of Education (K-12 school districts) have the greatest potential for participation, since the bonds to fund their projects are not new obligations, as defined by the legislation, and therefore do not require bond referendums. Aging structures requiring high maintenance and operations costs should be able to realize 20% or more in energy related cost reductions. There is potential for in this sector alone for well over \$1 billion in projects<sup>8</sup>, which can produce significant reduction in grid demand, as well as substantial job creation.

The BPU's Ombudsman's office has partnered with Sustainable Jersey (BPU provides funding through a grant) to capitalize on its existing relationship with school districts, to educate school districts on the ESIP's process and its funding advantages. The result has been a significant interest level from this sector.

### **1.4 Critical Facilities**

#### ***Distributed Generation/CHP for critical facilities***

At approximately 8:00 PM on October 29, 2012 Hurricane Sandy slammed into the New Jersey coast near Atlantic City and wreaked havoc with over 70% of New Jersey's electric distribution grid. Over 68% of New Jersey's electric utility customers were without power at the peak of this storm.

However, there were locations in the impacted areas that had power during this outage; entities that had combined heat and power (CHP) units, sometimes referred to as co-generation, were able to operate by isolating their CHP unit from the grid when the power went down. The College of New Jersey, Rutgers University, Princeton University and dozens of businesses, industries and public facilities continued to operate while the grid was down.

---

<sup>8</sup> Project potential based up a 50% district participation rate with an average of 3 facilities per district and \$3.5 million / dist. project



Staff believes there are valuable lessons to be learned from the aftermath of Sandy and specifically, about the role of CHP as a means of hardening infrastructure for critical facilities and the use of micro-grids to enhance system reliability.

Currently, New Jersey has approximately 209 CHP facilities serving universities, hospitals, multifamily buildings, waste treatment facilities, office buildings and industrial facilities, that generate over 3,000 MW. The 2011 Energy Master Plan established a goal of securing 70% off the State's energy needs from 'clean' energy sources by 2050 (EMP page 3), including CHP and fuel cells (FC). It also committed the State to developing 1,500 MW of CHP over the next 10 years (150 MW per year), including 1,400 MW for commercial and industrial applications and 100 MW through district energy systems. This goal will not be accomplished through NJCEP incentive programs alone.

Through 2012, the NJCEP provided over \$50M in incentives to help fund the installation of over 70 MW of CHP. In January 2013, with a budget of \$25 M, EDA issued a second solicitation for Large Scale CHP-FC Program. Based on past results, the solicitation is expected to attract approximately 15 projects with a total of 50 MW of capacity, and to leverage additional funds, for a total capital cost of approximately \$160 M.

The NJCEP 2012/2013 budget for the Small Scale CHP-FC Program (less than or equal to 1 MW) was \$17M. Since January 2012, the program has approved 7 projects for a total of 2.3 MW, with an additional five projects under review for a total of 2.8 MW.

Staff recommends that CHP-FC play an expanded role in emergency response and continue to be promoted as an energy efficient measure. To that end, the BPU has convened a CHP-FC work group tasked with evaluating the costs and benefits of CHP and with determining how to best implement this technology. The findings of this work group will inform the development of future CHP-FC programs and budgets, as well as the development of appropriate funding mechanisms. For example, the working group is currently exploring the costs and benefits of utilizing an Energy Efficiency Portfolio Standard (EEPS) as a means of financing CHP-FC.

### ***1.5 Costs versus Rates***

Cost effective energy efficiency, by definition, means that the total cost of procuring energy efficiency is less than the cost that would be incurred to generate and deliver the energy that is saved. Thus, achieving all cost effective energy efficiency would lower the State's overall energy costs.

The EMP notes that reducing customer usage during on-peak hours to ensure reliable electricity during peak electric demand days is less costly than expanding the electric supply chain infrastructure including generation, transmission and distribution facilities. The EMP also notes that reduced on-peak demand tends to reduce wholesale electric prices which results in benefits enjoyed by all ratepayers, even those that do not take action to reduce their usage.

Funding for the CRA programs is included in utility rates. Thus, rates could be reduced for all customers if the Board chose to not fund some CRA programs. However, taking this path would forgo the benefits that result from the programs including lowering the overall cost of energy.

Specifically, the EMP found that EE measures implemented under the CEP Energy Efficiency Program between 2003 and 2010 saved approximately \$4.29 for every \$1 invested in the C&I sector, and \$1.80 for every \$1 in the residential sector. That is, for every \$100 million spent on

EE projects in the C&I sector overall energy costs are reduced by \$429 million and for every \$100 million spent on EE projects in the Residential sector overall energy costs are reduced by \$189 million. In addition to reducing energy costs and usage, EE program result in environmental benefits that result from lower emissions, create local jobs and keep energy dollars in the State that would otherwise flow out of state.

Customers that participate in the NJCEP reduce their electric or natural gas costs by using less energy. These are referred to as participating customers. For participating customers, utility rates are higher with CRA funding than without, however, their energy costs/bills would be lower since they are using less energy. For example, in the 2008 CRA Order the Board estimated that in 2012 the average residential electric customer would contribute \$26.85 to the CRA funding. If the customer participated in a NJCEP program that led to an investment in energy efficiency that reduced the customer's energy costs by more than this amount, then the customer was better off with than without the NJCEP; that is, while the customers rates went up, its bill went down. Something as simple as installing 3 CFLs would result in a net customer benefit.

For non-participating customers, their rates go up to support the CRA funding but they do not enjoy the direct benefits associated with less usage. This creates a subsidy between participating and non-participating customers since non-participating customer's rates and costs are higher if they do not reduce energy usage. However, non-participating customers do receive some benefits such as lower wholesale costs that result from lower peak demands, as well as the environmental, health and economic/job benefits that result from the programs.

The Board has historically attempted to balance these competing interests in two ways. First, the Board has limited the level of CRA funding to an amount less than the amount needed to achieve all cost effective energy efficiency. This minimizes the impact on rates. For example, in the last CRA proceeding the Board approved a funding level that resulted in rates going up by approximately 1% over the 4 year cycle (or 0.25% per year). This level of funding would result in the State achieving some but not all of the cost effective energy efficiency potential and overall energy costs to the State being higher since not all cost effective EE was achieved.

The second method used to balance these competing objectives is to develop programs that provide an opportunity for all customers and customer classes to participate in a program. As noted above, if all customers participate in a program and reduce their energy usage, then energy costs would go down for all customers as well as for the State, even if rates go up.

## **2.0 Implementation Challenges**

### **2.1 Status of RFP for Program Administrator**

On June 22, 2012, Treasury issued Request for Proposal 13-X-22546. The RFP sought bids to manage the full suite of NJCEP EE and RE programs. A primary objective of this RFP was to condense the team of program administration consultants from three (AEG, Honeywell and TRC) to a single Program Administrator, with a goal of streamlining and reducing administrative costs.

All bids were received on June 22, 2012. On August 31, 2012, six (6) bids were opened and all were deemed responsive by Treasury. At its February 20, 2013, agenda meeting, the Board voted to concur with Treasury's Recommendation Report dated January 11, 2013. On February 22, 2013, Treasury issued the Letters of Intent to Award, making the results of the RFP public, and commencing the protest period. As of March 8, 2013, when the protest period closed, Treasury had received two formal protests, and the process for resolution is ongoing.

### **2.2 Transition to Financing**

The EMP states that "There are several innovative alternatives to optimize existing EE programs, including revolving loan programs and improving the mechanisms for delivering the programs in a more efficient manner. These alternatives should be implemented if they are cost-effective and benefit all ratepayers." (EMP, page 8) The EMP also states that "increased use of revolving loan programs would eventually allow the programs they support to become self-sustaining. SBC funds could then be re-directed and/or the charges to ratepayers could be reduced." (EMP, page 119)

While financing programs, in theory, provide an opportunity to reduce reliance on SBC funding to promote energy efficiency, in practice, questions remain regarding whether financing without rebates is sufficient to overcome barriers to investing in energy efficiency, about the costs of implementing financing programs, and about the types of financing programs that can best serve the needs of customers. In short, whether or not revolving loan programs can deliver the theoretical benefits remains untested.

Another requirement of the RFP was that bidders submit a Strategic Plan to guide the NJCEP as it moves from rebate and incentive-based programs to market-driven programs. The RFP states that the Strategic Plan shall "identify opportunities and pathways to achieve continuous administrative improvements, efficient resource acquisition and market transformation, including the use of innovative financing and alternative funding sources...and shall include a timetable for the transition to long term financing and reduction of SBC funding."

The Strategic Plan was intended to inform this CRA process. However, since the Strategic Plan is now delayed beyond this CRA process, Staff is altering its approach to financing by eliminating a specific proposed allocation of funding to financing programs and replacing it with a process for testing the potential benefits of financing programs through pilots and evaluation and other research.

### **2.3 Management of Funds**

Over the past several years, NJCEP has not fully spent or committed its budgeted funds. A number of factors may account for this. First, there may be a significant delay between the time when the Board approves a budget for a new program and the implementation of the program.

Over the past several years, the process utilized for developing new programs is as follows:

1. The OCE, in coordination with the Market Managers and other stakeholders, develops proposed programs and budgets for consideration by the Board.
2. Upon approval by the Board, the Market Manager develops applications, marketing materials, program procedures and guidelines and systems for managing the programs.

3. Upon approval by the Board, the Market Manager develops proposed contract modifications required to implement a new program and submits the proposed contract modification to Treasury, through the OCE, for review and approval.
4. Upon completion of the above three steps, which in some cases can take up to six months, the Market Manager advertises that the program is open to accepting applications.

Staff recommends that the program implementation process be reviewed with the aim of reducing this time lag.

Second, the NJCEP has programs with two differing types of spending patterns. Programs, like the Residential HVAC and the C&I lighting programs, have a short program cycle, and typically require about six months or less from application to payment of the incentive. These programs experience a high volume of projects, require less investment and produce immediate, but less comprehensive, energy savings.

The second class of programs encourages a more comprehensive approach to energy efficiency and requires more extensive technical planning and capital investment, such as the Large Energy User's Pilot and Large Combined Heat and Power program. Other programs, like Pay for Performance, pay incentives based on a performance period once the energy conservation measures are installed. This class of programs often experiences a lapse of several years between when the NJCEP commits funds to the program and when funds are committed to individual projects and/or spent.

Third, based on historic scrub rates, program managers know that not all projects for which commitments are made, will be completed. However, current practice is that 100% of every commitment is "reserved" until a project is completed and paid, or cancelled.

Different programs have different completion rates. For example, based on past history, approximately 70-80% of homes enrolled in the Residential New Construction program are ultimately built (although some projects expire and re-enroll). Staff recommends that program commitment procedures be reviewed to determine if it is permissible to allow programs to "reserve" less than 100% of commitments, based on historic completion rates.

Finally, staff will continue to track program spending on a monthly basis and will develop contingency spending plans, i.e. plans for accelerating spending if programs are spending less than anticipated.

#### ***2.4 Coordination with Utility Programs***

The utility programs, as implemented in the past and/or as currently implemented, raise a number of concerns that Staff will consider as it develops the funding levels and program budgets as part of the CRA and program budgeting processes. These concerns include:

In addition to the piecemeal approach to submitting, reviewing and approving utility programs Staff's main concern is that these programs confuse customers and increase administrative burden. Because utilities individually develop a portfolio of proposed programs and submit such proposals to the Board for approval, there is minimal coordination amongst the utilities. Furthermore, the timing of the submittal of proposed programs has been disjointed, with each utility submitting its filing whenever it is ready to do so, which does not allow for a global review of utility programs.

As a result, utilities have developed programs with differing approaches, programs and incentive levels across the state, depending on in which service territory a customer resides. This has led

to customer and contractor confusion, an issue that led to the Board moving to statewide program administration in 2007.

For example, several utilities offered different levels of incentives over and above those provided by the NJCEP for installation of furnaces, boilers, hot water heaters and CHP systems. Contractors working in different utility service territories needed to familiarize themselves with multiple incentive levels and application processes. Staff believes that additional evaluation is required to determine if the enhanced utility incentives have led to any additional savings or benefits that offset the additional costs.

PSE&G has implemented certain programs in its service territory that overlap with and duplicate those offered by the NJCEP, including the Home Performance with Energy Star and Direct Install programs. Questions arose regarding whether customers were eligible for either the PSE&G program or the statewide NJCEP, or both. Further, given that PSE&G offers higher incentives than the NJCEP does for these programs, the PSE&G programs effectively remove a significant portion of the marketplace for NJCEP programs, which can adversely impact effectiveness and cost of delivering NJCEP programs.

Going forward, Staff recommends the following changes to address these issues:

The RFP for the new Program Administrator requires the selected contractor to develop a Strategic Plan. Staff recommends that the Strategic Plan, with input from interested stakeholders, address the following:

1. The types of programs utilities should or should not implement.
  - a. Should a utility be permitted to implement a program in its service territory that directly competes with one offered by the NJCEP?
  - b. Should rebates be higher in certain service territories than in others due to utility-specific programs or should rebate levels be consistent across the State?
2. A process for developing utility programs.
  - a. The current process involves utilities developing programs and submitting them to the Board for approval. Staff recommends that, prior to doing so, the utilities participate in a collaborative process with other utilities, the OCE Staff, Rate Counsel and other stakeholders, to identify the types of programs that Staff would support, and promote consistency across utility programs and funding levels.
3. A schedule for utility filings.
  - a. Staff believes it is important to review and coordinate utility programs. This cannot be done when utility filings are submitted randomly.
4. Develop a methodology for review of total program costs and total incentives when utility programs or incentives supplement a NJCEP program or incentive, i.e. is the combined program still cost effective?
5. Develop a process for review of total EE or RE expenditures (i.e. NJCEP and utility programs) to determine the overall impact on rates and overall benefits.

The process set out above would require utilities to coordinate collaboratively with other utilities, the OCE, the NJCEP, Rate Counsel and other stakeholders in developing proposed EE and RE programs, prior to submitting such programs to the Board for review.

### **3.0 New Jersey's Clean Energy Program**

#### **3.1 Policy Goals**

Both the proposed funding levels and specific programs and budgets that result from the proposed funding levels should be guided by policy goals and objectives approved by the Board. To this end, Staff has reviewed historic Board policy and the policy goals and the objectives of the 2011 EMP, and has taken into consideration comments previously made as part of this proceeding. Based on the above, Staff recommends the following objectives for the Board's clean energy and renewable energy programs:

1. Maintain New Jersey's leadership position in the promotion and use of energy efficiency and renewable energy, so the state remains attractive to new residents and business investment.
2. Reduce the total cost of energy to customers, both residential and business, thereby enhancing the competitiveness of New Jersey's economy.
3. Promote the goals of Governor Christie's 2011 Energy Master Plan.
4. Spur opportunities for creative financing and that leverage private investment, thereby reducing reliance on the SBC.
5. Promote affordable energy and access to NJCEP programs for all ratepayer classes.
6. Balance spending between programs that create immediate economic stimulus and job creation with more comprehensive programs that require longer term investment.
7. Promote market transformation in EE and RE technologies.
8. Coordinate and promote a comprehensive, state-wide EE and RE effort by reducing or eliminating duplicative or competing programs and by promoting programs that foster market competition.
9. Recognize the value of spending for regular program evaluation.
10. Recognize the opportunity to motivate behavioral change through outreach and education.
11. Create jobs.

#### **3.2 NJCEP Program Budget**

The Board has established seven budget categories for reporting expenses including:

- Administration & Program Development
- Sales, Call Centers, Marketing and Web site
- Training
- Rebates, Grants and Other Direct Incentives
- Rebate Processing, Inspections and Quality Control
- Evaluation and Related Research, and
- Performance Incentives

In the annual budget process, each program manager assigns expenses to one of these budget categories. For example, Administration & Program Development expenses totaled approximately \$13.3 million in 2011. Of this amount, approximately \$10 million was expended by Honeywell and TRC, the EE and RE Market Managers, and \$2.1 million was expended by the OCE. The remainder was expended by EDA and the True Grant. Approximately \$3.1 million was spent on Sales and Marketing, \$1.6 million on Training, \$14.1 million on Rebate Processing, Inspections and Quality Control and \$1.2 million on Evaluation and Related Research. No performance incentives were approved for 2011.

#### **3.3 NJCEP Administration**

The NJCEP administration budget, currently indicated as OCE Oversight in the Board approved budget, includes four subcategories:

- OCE Administration and Overhead, including Program Coordinator services

- Memberships and Dues
- Evaluation and Related Research, and
- Marketing and Communications

Staff strives to keep program administration costs at a minimum, thereby allowing the vast majority of program spending to be made available as incentives to customers. As shown in the table below, in 2011, 82.6% of total program expenses were for rebates, grants and other direct incentives.

**New Jersey's Clean Energy Program**  
*Detailed Expenses Data for Reporting Year 2011*

Statewide Summary: New Jersey's Clean Energy Program  
 Reporting Period: YTD thru 4th Quarter 2011

Program	Total Actual NJCEP Expenditures	Administration & Program Development	Sales, Call Centers, Marketing and Website	Training	Rebates, Grants, and Other Direct Incentives	Rebate Processing, Inspections, and Other Quality Control	Evaluation and Related Research	Performance Incentives
Energy Efficiency Programs	\$139,035,801.19	\$8,588,099.75	\$2,585,603.84	\$1,649,450.39	\$115,175,122.81	\$10,808,309.16	\$228,215.24	\$0.00
Renewable Energy Programs	\$38,963,321.60	\$1,378,416.32	\$27,000.00	\$0.00	\$35,102,813.05	\$2,454,992.23	\$0.00	\$0.00
EDA Programs	\$8,335,017.00	\$660,000.00	\$0.00	\$0.00	\$5,675,017.00	\$0.00	\$0.00	\$0.00
Office of Clean Energy	\$4,331,674.86	\$2,082,530.80	\$534,936.00	\$0.00	\$0.00	\$765,240.00	\$948,968.06	\$0.00
TRUE Grant	\$3,210,125.71	\$627,339.94	\$1,044.42	\$0.00	\$2,531,931.35	\$49,810.00	\$0.00	\$0.00
<b>TOTAL</b>	<b>\$191,875,940.36</b>	<b>\$13,336,386.81</b>	<b>\$3,148,584.26</b>	<b>\$1,649,450.39</b>	<b>\$158,484,984.21</b>	<b>\$14,078,351.39</b>	<b>\$1,178,183.30</b>	<b>\$0.00</b>
<b>Percent of Total</b>	<b>100.00%</b>	<b>6.95%</b>	<b>1.64%</b>	<b>0.86%</b>	<b>82.60%</b>	<b>7.34%</b>	<b>0.61%</b>	<b>0.00%</b>

As indicated in the EnerNOC market potential study discussed below, at 83%, compared to similar state-wide programs which average 55%, NJCEP is delivering a particularly high proportion of spending as a direct benefit to its participants. This indicates that there is room for NJCEP to reconsider what it spends on administrative costs and the value it delivers, while remaining a national leader.

**OCE Administration and Overhead**

The OCE Administration and Overhead budget included two subcategories: OCE Staff and Overhead and Program Coordinator. Each plays an integral role in implementing New Jersey's clean energy programs. The program budget funds OCE staff salaries and related overhead. Going forward, Staff's responsibilities will also include quality assurance and control, as Staff will be tasked with monitoring the services of the new Program Administrator. While these costs have been in the \$1.5-\$2 million per year range, Staff anticipates that OCE Staff costs will increase to cover the cost of the additional staff required to perform this function. A budget for Program Coordinator services will no longer be required once the new PA is brought on board

**Memberships and Dues**

Historically, the Membership and Dues budget line item has been used to fund memberships in national trade associations that support the EE and RE programs, such as the Consortium for Energy for Energy Efficiency, the National Association of State Energy Offices and the Clean Energy States Alliance. Some of these membership costs will be included in the new Program Administrator's contract. Staff believes approximately \$100,000 per year will be sufficient to cover memberships and dues not included in the new Program Administrator contract.

## **Evaluation and Related Research**

The EMP places a great deal of emphasis on the importance of evaluation noting that "going forward, New Jersey should implement more rigorous cost/benefit analyses to determine the cost-effectiveness of its energy policy options." (EMP page75)

Over the years, program funds dedicated to Evaluation have paid for the following services:

- Planning and cost-benefit analyses provided by Rutgers Center for Energy, Economic and Environmental Policy (CEEPP)
- Financial audits of the program and funding reconciliations
- Market assessments, process and impact evaluations and market potential studies performed by outside contractors
- Offshore wind studies to evaluate the costs and benefits offshore wind resources

Through on-going research and evaluation, CEEPP has supported the NJCEP by performing cost-benefit analyses, developing program evaluation plans, developing RFPs for evaluation services, procuring third party evaluation contracts, evaluating the costs of utility and renewable energy programs, and evaluating pilot programs. Going forward, Staff recommends that the program continue to utilize the services currently provided by CEEPP and expand some evaluation services to meet the goals of the EMP. In 2013 CEEPP will launch its Energy Data Center and EMP performance indicators to measure and track progress towards EMP goals. CEEPP will also be instrumental in working with the Program Administrator and other contractors to provide a more rigorous framework for program evaluations, which will inform future policy and program decisions.

In 2013, CEEPP will also work with the Rutgers Institute of Marine and Coastal Sciences (IMCS) to provide a "total picture" of the cost-effectiveness of offshore wind energy installations and subsequent operations. IMCS has been working with the BPU to develop a dynamic multi-spatial model of New Jersey offshore wind resources, including an analysis of the sea breeze circulation and other local wind patterns that determine wind power production during periods of peak energy demand. CEEPP will incorporate the results of the IMCS studies into their energy and economic evaluations to help determine the economic viability of New Jersey's proposed offshore wind energy projects. These evaluations and analyses will provide information relevant to the OREC Application requirements, established under NJBPU OSW Rules (N.J.A.C. 14:8-6.5(a)3, 6, 8, 9, and 11).

The costs associated with program evaluation can vary widely both in total dollar amount and as a percentage of revenues, as well as from year to year, depending on the types of evaluations being performed in any year. For example, in New Jersey, market potential studies are generally performed every four years, and Staff recommends that impact evaluations be performed every three to four years. In other states, typical evaluation budgets are in the range of 2% to 5% of program costs. Applied to the NJCEP, this average would result in a program evaluation budget of \$6 - \$15 million per year.

Staff supports a review of CEEPP's most recent program evaluation plan and recommends that, in conjunction with evaluations to be provided by the new Program Administrator, the NJCEP fund an increased level of evaluation, as compared to past years.

## **Marketing and Communications**

In 2007, when the NJCEP program delivery initially transitioned from the utilities to the Market Managers, the Board directly engaged contractors to develop and deliver an umbrella marketing campaign aimed at promoting the NJCEP brand. This effort was in place from 2007 through



2009, after which the responsibility for all marketing activities was transferred to the Market Managers.

Included in the OCE Administration Budget is OCE Marketing and Communications, which currently consists of Outreach and Education/Community Partner Grants and the Clean Energy Business Website, both of which fund remaining balances of past grants. Staff recommends the elimination of Marketing and Communications budget line within the OCE Oversight budget to avoid confusion.

When the PA contract is awarded, fees for marketing, communications, and outreach and education will be managed by the new Program Administrator and will be included within program budgets. The new Program Administrator will be responsible for developing a comprehensive marketing plan that continues to build awareness of the NJCEP programs and to drive direct participation to each program. The marketing plan will also develop a process for tracking the effectiveness of all marketing campaigns.

#### **Outreach and Education**

In 2008, the Board issued a solicitation for Outreach and Education services and awarded several grants. While the Board recognizes the value of outreach and education to improve program participation, encourage market transformation and to effectuate broad behavioral change, at this time, Staff does not recommend funding for additional grants of this type.

Staff recommends that NJCEP continue to fund a grant for Sustainable Jersey, a nonprofit, nonpartisan organization that supports community efforts to reduce waste, cut greenhouse gas emissions, and improve environmental equity. Working closely with Staff, Sustainable Jersey will continue to promote NJCEP programs through its extensive municipal network.

#### ***3.4 Program Administrator***

The new Program Administrator's primary responsibility will be to ensure that the funds collected from the State's ratepayers are spent wisely and efficiently on EE and RE programs. The PA should strive to minimize administrative and other non-incentive costs, including implementation costs, while ensuring sufficient resources for functions such as developing appropriate financial and data management systems, implementing QA/QC procedures, employing market assessment tools, and working with evaluation contractors to assess the programs and make necessary changes to the programs.

The PA should share the BPU's goal of delivering the maximum level of savings per program dollar spent by NJCEP programs. While short-term resource acquisition will maximize the savings delivered per program dollar expended, the NJCEP must balance short-term resource acquisition efforts with longer-term market transformation objectives, so that market transformation will continue to the point when energy efficiency becomes common practice, without the need for market intervention.

#### ***3.5 Historic NJCEP Program Budgets***

The following table shows annual NJCEP budgets, expenditures, and commitments as a percentage of the total budget for the period 2001-2011:

#### **NJCEP Budgets and Expenditures 2001 - 2011**

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Budgets	\$114,882,000	\$132,686,000	\$137,138,000	\$197,340,000	\$243,855,000	\$309,114,000	\$349,555,000	\$419,491,000	\$525,380,811	\$460,728,352	\$506,323,547
Expenditures	\$57,555,000	\$99,904,000	\$97,786,000	\$107,502,000	\$124,592,542	\$171,197,000	\$176,811,000	\$147,550,000	\$178,164,200	\$219,585,204	\$191,875,940
Commitments	\$22,207,000	\$51,454,000	\$79,453,000	\$165,230,000	\$210,020,000	\$164,134,000	\$115,348,000	\$155,425,000	\$167,687,838	\$141,768,354	\$124,590,089
Expenditures plus Commitments	\$79,762,000	\$151,358,000	\$177,239,000	\$272,732,000	\$334,612,542	\$335,331,000	\$292,159,000	\$302,975,000	\$345,852,138	\$361,353,559	\$316,466,029
Expenditures plus Commitments as % of Budget	69.43%	114.07%	129.24%	138.20%	137.22%	108.48%	83.58%	72.22%	65.83%	78.43%	62.50%

In the most recent four year CRA period, 2009-2012, the Board ordered funding levels totaling \$1,212,750,000. Based on preliminary 2012 expense reports, expenses for this period totaled \$770,102,983 and averaged approximately \$193 million per year. In addition, at the end of 2012, there was approximately \$141 million in outstanding commitments, to be paid upon project completion. The difference between the level of funding collected from ratepayers and the amount expended and committed was either carried forward into the 2012-2013 budget or lapsed to the State's general fund. Ideas on how to better align expenditures with available funds are discussed in this Straw Proposal.

### 3.6 Historic NJCEP Performance

The initial Staff Straw Proposal dated August 21, 2012 included information regarding budgets, expenditures, energy savings and other information related to NJCEP performance since 2001. This information will not be repeated herein. For this information, Staff advises interested parties to reference the previous draft, which can be found at:

[http://www.njcleanenergy.com/files/file/program\\_updates/OCE%20draft%20Straw%20Proposal%202013%20-2016%208-22-12.pdf](http://www.njcleanenergy.com/files/file/program_updates/OCE%20draft%20Straw%20Proposal%202013%20-2016%208-22-12.pdf)

In addition, Staff has developed a spreadsheet that shows in detail, historic program results. This spreadsheet as well as other program information can be found at:

<http://www.njcleanenergy.com/main/public-reports-and-library/financial-reports/clean-energy-program-financial-reports>

The first step in developing the Straw Proposal is to review historical NJCEP program results. The following tables depict the most recent two years of available data. The tables are provided with and without the low-income program, because low-income programs typically have very high costs relative to their savings, and can skew comparisons to other state/utility programs, which generally track low-income program results separate from other EE programs.

Energy efficiency program data, including expenditures and energy savings, were taken from the 2010 and 2011 fourth quarter New Jersey Clean Energy Program Reports submitted to the New Jersey Board of Public Utilities. Energy sales data were taken from the United States Energy Information Administration.<sup>9</sup>

<sup>9</sup> U.S. EIA. Natural Gas Annual Respondent Query System.

[http://www.eia.gov/cfapps/ngqs/ngqs.cfm?f\\_report=RP1](http://www.eia.gov/cfapps/ngqs/ngqs.cfm?f_report=RP1); U.S. EIA. Form EIA 861. [www.eia.gov/electricity/data/eia861/index.html](http://www.eia.gov/electricity/data/eia861/index.html)

### NJCEP Actual Results Excluding Low-Income

#### NJCEP Actual Results excluding Low-Income

	2010	2011	Notes
<b>MWh Sales</b>			
Residential	29,656,481	28,738,386	Retail electric sales by market sector from US EIA data.
Non-Residential	47,672,912	46,298,052	
Total	77,329,393	75,036,438	
<b>Dtherm Sales</b>			
Residential	224,181,002	218,543,891	Retail gas sales by market sector from US EIA data.
Non-Residential	235,028,659	246,514,625	
Total	459,209,661	465,058,516	
<b>EE Expenditures Electric</b>			
Residential	\$46,831,745	\$36,882,205	EE expenditures from NJCEP 4Q reports, allocated to electric and gas by AEG.
Non-Residential	\$29,293,143	\$40,055,092	
Total	\$76,124,888	\$76,937,298	
<b>EE Expenditures Gas</b>			
Residential	\$38,588,609	\$23,102,924	EE expenditures from NJCEP 4Q reports, allocated to electric and gas by AEG.
Non-Residential	\$7,323,286	\$10,013,773	
Total	\$45,911,895	\$33,116,697	
<b>EE MWh Savings</b>			
Residential	204,548	266,279	Annual energy savings included in 4Q NJCEP reports.
Non-Residential	134,365	177,333	
Total	338,912	443,612	
<b>EE Dtherm Savings</b>			
Residential	438,789	526,846	Annual energy savings included in 4Q NJCEP reports.
Non-Residential	430,395	167,433	
Total	869,184	694,278	
<b>EE Cost per kWh Saved</b>			
Residential	\$0.23	\$0.14	EE Expenditures Electric/EE MWh Savings (converted to kWh); i.e. \$/kWh saved
Non-Residential	\$0.22	\$0.23	
Total	\$0.22	\$0.17	
<b>EE Cost per therm Saved</b>			
Residential	\$8.79	\$4.39	EE Expenditures Gas/EE Dtherm Savings(converted to therms); i.e. \$/therm saved
Non-Residential	\$1.70	\$5.98	
Total	\$5.28	\$4.77	
<b>EE % of Annual Electric Sales Saved</b>			
Residential	0.7%	0.9%	EE MWh Savings/MWh sales = electric savings as a % of retail electric sales
Non-Residential	0.3%	0.4%	
Total	0.4%	0.6%	
<b>EE % of Annual Gas Sales Saved</b>			
Residential	0.2%	0.2%	EE Dtherm Savings/Dtherm sales= gas savings as a % of retail gas sales.
Non-Residential	0.2%	0.1%	
Total	0.2%	0.1%	

#### NJCEP Actual Results Including Low Income

**NJCEP Actual Results (with Low Income)**

	2010	2011	Notes
<b>MWh Sales</b>			
Residential	29,656,481	28,738,386	Retail electric sales by market sector from US EIA data.
Non-Residential	47,672,912	46,298,052	
Total	77,329,393	75,036,438	
<b>Dtherm Sales</b>			
Residential	224,181,002	218,543,891	Retail gas sales by market sector from US EIA data.
Non-Residential	235,028,659	246,514,625	
Total	459,209,661	465,058,516	
<b>EE Expenditures Electric</b>			
Residential	\$59,068,849	\$47,960,452	EE expenditures from NJCEP 4Q reports, allocated to electric and gas by AEG.
Non-Residential	\$29,293,143	\$40,055,092	
Total	\$88,361,992	\$88,015,545	
<b>EE Expenditures Gas</b>			
Residential	\$57,728,695	\$40,430,439	EE expenditures from NJCEP 4Q reports, allocated to electric and gas by AEG.
Non-Residential	\$7,323,286	\$10,013,773	
Total	\$65,051,980	\$50,444,212	
<b>EE MWh Savings</b>			
Residential	213,542	276,348	Annual energy savings included in 4Q NJCEP reports.
Non-Residential	134,365	177,333	
Total	347,906	453,681	
<b>EE Dtherm Savings</b>			
Residential	504,431	615,124	Annual energy savings included in 4Q NJCEP reports.
Non-Residential	430,395	167,433	
Total	934,826	782,556	
<b>EE Cost per kWh Saved</b>			
Residential	\$0.28	\$0.17	EE Expenditures Electric/EE MWh Savings (converted to kWh); i.e. \$/kWh saved
Non-Residential	\$0.22	\$0.23	
Total	\$0.25	\$0.19	
<b>EE Cost per therm Saved</b>			
Residential	\$11.44	\$6.57	EE Expenditures Gas/EE Dtherm Savings(converted to therms); i.e. \$/therm saved
Non-Residential	\$1.70	\$5.98	
Total	\$6.96	\$6.45	
<b>EE % of Annual Electric Sales Saved</b>			
Residential	0.7%	1.0%	EE MWh Savings/MWh sales = electric savings as a % of retail electric sales
Non-Residential	0.3%	0.4%	
Total	0.4%	0.6%	
<b>EE % of Annual Gas Sales Saved</b>			
Residential	0.2%	0.3%	EE Dtherm Savings/Dtherm sales= gas savings as a % of retail gas sales.
Non-Residential	0.2%	0.1%	
Total	0.2%	0.2%	

In a following section, the above program results are compared to the results of the EnerNOC study and benchmarked against results in other states, to inform funding levels and identify potential opportunities for program improvements.

### 3.7 Jobs Created

While jobs creation is not a primary goal of the NJCEP, New Jersey's clean energy industry remains robust and the NJCEP creates steady jobs, particularly in construction. CEEP prepared the following job creation estimates in 2011 for the EMP:

**NJCEP Jobs Created**

Year	Expenditures plus Commitments	Direct	Direct + Indirect + Induced	Direct + Indirect + Induced Using RECON Multiplier of 1.3
2007	\$292,159,000.00	2,311	2,378	3,004
2008	\$302,975,000.00	2,397	2,466	3,116
2009	\$345,852,137.53	2,736	2,815	3557
2010	\$361,353,558.83	2,858	2,941	3715
2011	\$316,466,028.95	2,503	2,576	3,254
	NOTES	7.91 Job-Years/\$1 million	\$122,867/job	

It is evident from the table above that the NJCEP has generated more than 12,800 jobs over the past five years and continues to support the construction industry in New Jersey, an industry slow to recover since the recession of 2008. When the impact of these jobs is extended to account for both indirect and induced jobs, the NJCEP is generating or maintaining approximately 3,500 jobs annually, while indirectly creating jobs as a result of energy-related cost savings.

As an example, in 2012, the Viking Yacht Company, a major luxury yacht manufacturer located in New Gretna, completed a project to install six 65 kW micro turbines with integral heat recovery modules and absorption chillers for cooling. By generating a total of 390 kW, this system is expected to offset nearly 85% of the facility's electrical load and 100% of the heating and cooling loads.

Viking Yacht received a total of \$877,500 from the NJCEP Pay-4-Performance program, including incentives for a CHP system, and anticipates saving \$111,902 annually in energy costs. Viking has chosen to reinvest these savings, to add a new line of manufacturing to their facility, which in turn has created 200 new jobs. Furthermore, Viking anticipates that it will need 175 additional workers by the end of 2013. This success story demonstrates how NJCEP programs can induce businesses to create additional jobs.

#### 4.0 Methodology and Approach

##### 4.1 Development of Proposed EE Funding Levels and Savings Goals

By starting with a detailed overview of how energy is being consumed in New Jersey, by screening new technologies for cost-effectiveness, and by prioritizing programs based upon the funding needed to achieve the targets, the NJCEP contributes to the EMP goals of lowering energy use, lowering customer prices and costs, and ensuring New Jersey has a diverse mix of clean resources sufficient to ensure reliable supply.

In this section, Staff builds upon the disaggregated data and analysis presented previously and compares the NJCEP to other programs across the country. This is followed by a summary of the findings of the EnerNOC Market Potential study and the AEG Benchmarking Analysis. Staff then compares NJCEP historic results to the results of the EnerNOC study and the AEG Benchmarking Analysis, and combined with generic cost estimates, develops proposed EE funding levels and associated energy savings goals.

##### **ACEEE Scorecard**

This section compares EE spending and savings in New Jersey to other state and utility programs. The American Council for an Energy-Efficient Economy (ACEEE) issued its *2012 State Energy Efficiency Scorecard* (the "Scorecard") in October, 2012. The Scorecard included numerous statistics regarding program spending levels, program goals and energy savings from across the country.

The Scorecard documented a rapid increase over the past six years in spending on energy efficiency programs. Nationally, spending on electric energy efficiency programs increased from \$1.6 billion in 2006, to \$3.4 billion in 2009 and to \$5.9 billion in 2011, an increase of about 370%. Spending on natural gas energy efficiency programs increased from \$300 million in 2006 to \$900 million in 2009 and to \$1.1 billion by 2011, an increase of 366%. (Scorecard page 18) The increase in spending for both electric and natural gas programs resulted from both increased spending in states that had existing programs, as well as the creation of many new state/utility programs.

##### **Budget as a Percentage of Revenues: Electric**

One way to look at the relative size of energy efficiency programs is to compare efficiency program budgets as a percentage of total utility revenues, which is the total amount paid by ratepayers for electricity or natural gas. Using this metric, the top 20 program budgets in the country range in size from Massachusetts with an EE program budget equal to 5.77% of electric revenues, to Michigan with a budget equal to 1.5% of revenues. At 2.05%, New Jersey is ranked fourteenth based on its EE budget as a percentage of revenues

The following table compares electric efficiency program budgets as a percentage of electric revenues for several key states. Key states are defined as states in the region (New York, Connecticut, Pennsylvania, and Maryland) and states with large programs (Massachusetts, California, Michigan, Ohio and Illinois).

**Electric Efficiency Program Budgets**

State	2011 Budget (\$000)	Budget as % of Statewide Electric Revenues
Massachusetts	\$453	5.77%
New York	\$1,073	4.69%
California	\$1,162	3.35%
Connecticut	\$138	2.83%

Maryland	\$156	2.05%
<b>New Jersey</b>	<b>\$225</b>	<b>2.05%</b>
Michigan	\$127	1.50%
Pennsylvania	\$225	1.44%
Ohio	\$134	0.96%
Illinois	\$116	0.91%

Source: ACEEE Scorecard page 26

As shown in the table above, in 2011, New Jersey's electric EE program budget is in the mid-range of the key states and is significantly below New York and Massachusetts.

**Budget as a Percentage of Revenues: Natural Gas**

Rather than indicating budget as a percentage of revenues (as was done for electric programs), the ACEEE Scorecard for natural gas records EE program budgets on a per residential customer basis. Using this metric, the top 20 states for natural gas efficiency programs range from Massachusetts at \$84.92 per residential customer to Ohio at \$13.14 per residential customer. New Jersey is ranked sixth for natural gas programs, spending \$40.03 per residential customer.

The following table compares budgets and budget per residential customer for natural gas efficiency programs for the same ten states indicated above:

**Natural Gas Efficiency Program Budgets**

State	2011 Budget (\$000)	\$ per Residential Customer
Massachusetts	\$118	\$84.92
Connecticut	\$20	\$40.77
<b>New Jersey</b>	<b>\$106</b>	<b>\$40.03</b>
New York	\$119	\$27.55
California	\$268	\$25.43
Michigan	\$80	\$25.22
Illinois	\$52	\$13.44
Ohio	\$43	\$13.14
Pennsylvania	\$22	\$8.18
Maryland	\$4.6	\$4.29

Source: ACEEE Scorecard page 28

As indicated above, Massachusetts is the only key state that budgets more per customer on residential gas programs than New Jersey.

Of note, the tables above show *budgets* as a percent of revenue (natural gas) or budgets per residential customer, not actual spending, which is different than what was budgeted. Further, budgets should not be confused with funding levels, as in New Jersey, budgets include carry-over from previous years.

As a point of comparison, the 2011 funding level for the entire NJCEP was \$325 million, and the EE budgets were \$225 million for electric programs and \$106 million for gas programs, while actual 2011 spending was \$220 million for all efficiency programs. (New Jersey does not have specific electric and gas programs, i.e. some programs provide incentives for both. Therefore, certain assumptions were used to allocate expenses and budgets to electric and natural gas

programs).

**Electric Savings as a Percentage of Retail Sales**

The next point of comparison is electric savings as a percentage of retail sales. The following table shows New Jersey's rank compared to the same ten states:

**Incremental Electric Savings by State**

State	2010 Net Savings (MWh)	Savings as a % of Retail Sales
California	4,617,000	1.79%
Connecticut	422,097	1.39%
Massachusetts	628,709	1.10%
New York	1,215,844	0.84%
Michigan	714,110	0.72%
Maryland	330,678	0.48%
Ohio	722,929	0.47%
<b>New Jersey</b>	<b>313,116</b>	<b>0.40%</b>
Pennsylvania	344,256	0.23%

Source: ACEEE Scorecard page 31

As indicated above, compared to other key states, New Jersey ranks near the bottom in electric savings as a percentage of retail sales. When Staff compares New Jersey's performance to Ohio and Michigan, it is evident that it would be beneficial to evaluate the electric EE programs of these states, as New Jersey spends more as a percentage of retail sales, but does not realize the same level of savings as a percentage of retail sales.

At the same time, it is important to note that different states use different baselines and assumptions to estimate energy savings. Therefore, while the numbers above are of some relative value, additional research is needed to determine why NJCEP savings lag behind the levels achieved in other states and to compare the baselines utilized in New Jersey's Protocols for Measuring Resource Savings to those utilized by other states.

Several states have also established specific goals for energy savings as a percentage of sales. The table below compares goals in other states and/or utilities:

State	Year	Mandate
Colorado	2007	Public Service Company of Colorado electric savings goals of 1.14% of 2006 sales in 2012, increasing to 1.68% in 2020. Goals may be revisited to account various factors.
Illinois	2007	Annual incremental savings goal of 0.2% prior year sales in 2009, increasing to 2% electric sales in 2015 and 1.5% natural gas sales in 2019.
Maryland	2008	Statewide goal to reduce per capita energy consumption and peak demand by 15% by the end of 2015 (based on a 2007 baseline).
Massachusetts	2010	Statewide 3-year savings goals in 2010 are 1.4% electric retail sales and 0.6% natural gas retail sales, increasing to 2012 with 2.5% electric and 1.15% natural gas. Utility goals vary. Goals accounted for outside influences, such as economic conditions.
Minnesota	2007	1.5% average weather-normalized sales for 3 prior years, beginning in 2010. Interim 2010-2012 natural gas savings goal is 0.75%. Utilities may request to adjust the goal.



<b>New York</b>	2008	Statewide electricity savings goal of 15% forecasted usage by 2015 and natural gas savings goal of 14.7% estimated usage by 2020.
<b>Oregon</b>	2010	Energy Trust 2010-2014 savings goals of 256 MW and 22.5 million therms.
<b>Vermont</b>	2008	Efficiency Vermont has a 3-year (2012-2014) cumulative electric savings performance goal of 320 GWh, based on forecasted retail sales.
<b>Wisconsin</b>	2010	2011-2014 savings goals set at 1,816 GWh and 73 million therms. Previous goals were a percentage of forecasted sales (average sales for 3 prior years with 1% annual growth rate) accounting for outside influences, such as economic conditions. Electric goal of 0.75% in 2011, increasing to 1.5% in 2014. Natural gas goal of 0.5% in 2011, increasing to 1% in 2014.

According to ACEEE, "best in class" public benefit programs target savings of 1.2% of sales per year, set specific measurable goals, conduct rigorous measurement and verification, and evaluate the benefit/cost ratios for programs.

#### **4.2 EnerNOC Potential Study**

##### **Overview & Sales Forecast**

In 2012, EnerNOC conducted an EE market potential study for the State of New Jersey. In this study, EnerNOC performed a detailed, bottom-up assessment of the New Jersey market, in order to estimate achievable energy savings based on specific energy efficiency measures. The potential study segmented its results by sector – residential, commercial and industrial - and by fuel type - natural gas and electricity. The full details of the study will not be repeated in this document; only the high level results will be used to develop proposed EE funding levels. The full EnerNOC study is available at:

<http://www.njcleanenergy.com/main/public-reports-and-library/market-analysis-protocols/market-analysis-baseline-studies/market-po>

In the study, EnerNOC provides estimates for three types of potential: technical potential, economic potential, and achievable potential. Technical and economic potential are both theoretical limits to efficiency savings and are not relevant to the development of the Straw Proposal.

However, achievable potential considers actual market conditions (barriers) and thus is an appropriate basis upon which to develop funding levels and energy savings goals. To account for the inherent uncertainty in predicting market conditions, EnerNOC developed a low and high scenario for achievable potential. Staff then performed a "results verification" (benchmark) by comparing the EnerNOC results to broader industry results.

There are a number of metrics that are used to benchmark against industry experience. One of these is the percent of total sales saved by the energy efficiency portfolio. A sales forecast is required to determine this value. The tables below indicate EnerNOC electric and gas sales forecasts for 2013 – 2016.

##### **Electricity Baseline Forecast Summary (GWh)**

<b>Sector</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>% Change</b>	<b>Avg. Growth Rate</b>
Residential	30,442	29,793	29,515	29,502	-2.70%	-0.40%
Commercial	36,511	35,964	35,699	35,797	-10.80%	-1.90%

Industrial	7,822	7,858	7,937	7,732	-8.30%	-1.40%
<b>Total</b>	<b>74,776</b>	<b>73,615</b>	<b>73,151</b>	<b>73,031</b>	<b>-7.40%</b>	<b>-1.30%</b>

**Natural Gas Baseline Forecast Summary (million therms)**

Sector	2013	2014	2015	2016	% Change	Avg. Growth Rate
Residential	2,300	2,319	2,333	2,352	4.30%	0.70%
Commercial	1,771	1,753	1,748	1,756	-6.00%	-1.00%
Industrial	489	487	487	481	-3.20%	-0.50%
<b>Total</b>	<b>4,560</b>	<b>4,559</b>	<b>4,568</b>	<b>4,589</b>	<b>-0.70%</b>	<b>-0.10%</b>

It should be noted that while EnerNOC has forecast a decrease in electricity usage through 2016, this result contradicts a recent electricity forecast issued by the Regional Transmission Operator, PJM. While the PJM report noted a downward revision to the economic outlook, especially in 2013 and 2014, which resulted in lower peak and energy forecasts in its report, PJM forecasted a significant rebound in energy use over the period 2013-2016, and a net increase in New Jersey's electric energy use from 2013 to 2016. In fact, PJM forecasted a total gain of 10.1% in New Jersey's energy usage by 2016, compared to estimated 2012 usage levels.

It may be that EnerNOC's growth rates are conservative and its forecast may be overstating the rate at which the impact of new efficiency standards will be adopted. Similar observations can be made in regard to the EnerNOC natural gas forecast. To reflect uncertainty in assumptions, including the sales forecast, EnerNOC developed high and low potential scenarios. By weighting these two scenarios, we are able to capture the uncertainty in assumptions including sales growth.

**Potential Savings Estimates**

In a bottom-up potential study, estimates for energy use are made by customer class and then by appliance/end use (measure). These measure estimates are then forecasted into the future based upon projected changes in measure saturations, customer growth, new construction activity, codes and standards, competing fuel costs, new technology adoption, etc. A total of 700 measures (equipment and non-equipment) were evaluated in the EnerNOC study. For the most part, EnerNOC did not project any significant changes in major end use shares by appliances/end uses within each customer class. However, based on its declining sales forecast for the commercial and industrial sectors, EnerNOC did project a shift in overall energy use to the residential sector. Staff notes this since it will affect the savings potential within each sector.

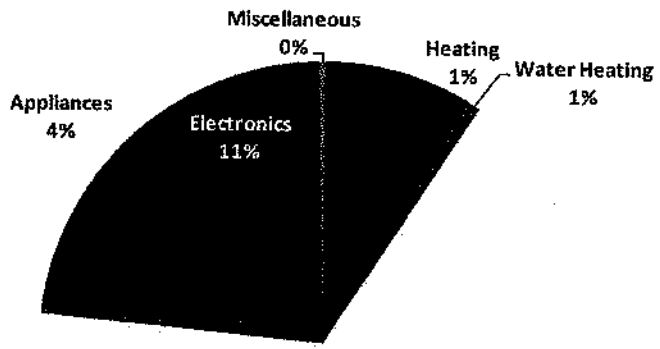
The estimated achievable high and achievable low electric and gas savings are shown below. AEG created a third estimate, a 50/50 weighting, which represents the midpoint between the achievable high and low potential scenarios. The energy savings have also been expressed as a percent of total sales.

### Electric Energy Efficiency Potential Savings

	2013	2014	2015	2016
<b>Achievable Low Potential (GWH)</b>				
Residential	263	238	242	248
Non-Residential	285	319	405	488
Total	548	558	647	736
<b>Achievable High Potential</b>				
Residential	504	452	452	456
Non-Residential	598	631	765	877
Total	1,102	1,083	1,217	1,333
<b>50/50 Weighting</b>				
Residential	384	345	347	352
Non-Residential	441	475	585	682
Total	825	820	932	1,034
<b>EE % of Annual Sales Saved</b>				
<b>Achievable Low Potential</b>				
Residential	0.87%	0.80%	0.82%	0.84%
Non-Residential	0.64%	0.73%	0.93%	1.12%
Total	0.73%	0.76%	0.88%	1.01%
<b>Achievable High Potential</b>				
Residential	1.66%	1.52%	1.53%	1.55%
Non-Residential	1.35%	1.44%	1.75%	2.01%
Total	1.47%	1.47%	1.66%	1.83%
<b>50/50 Weighting</b>				
Residential	1.26%	1.16%	1.18%	1.19%
Non-Residential	1.00%	1.08%	1.34%	1.57%
Total	1.10%	1.11%	1.27%	1.42%

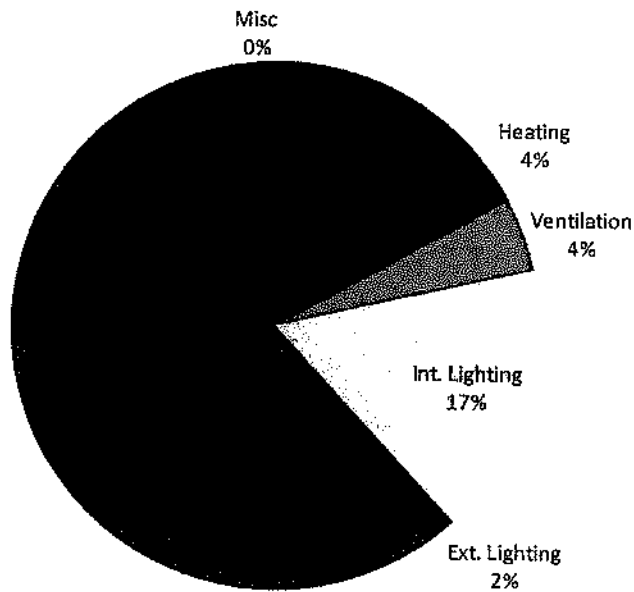
As noted above, the savings from the electric achievable potential study are comprised of hundreds of measures, building types, technologies, etc. The electric savings estimates can be better understood by looking at their end-use components.

The following graph illustrates the end-use components for the residential | achievable low scenario:

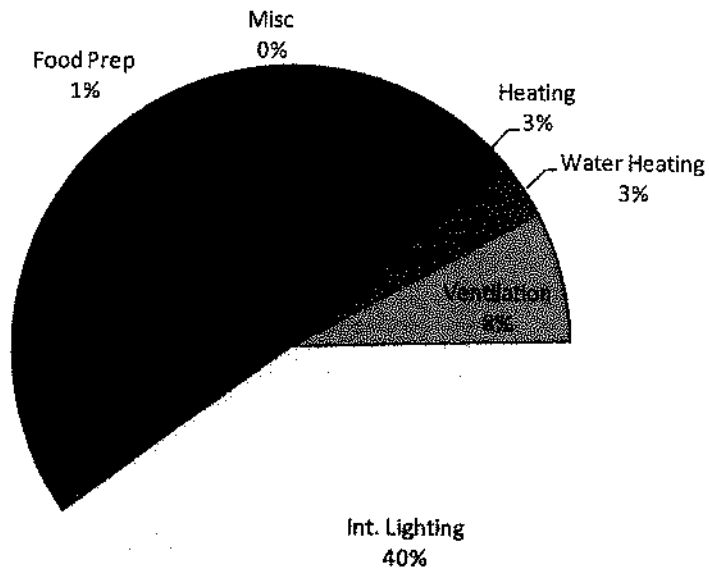


Int Lighting  
67%

The following graph illustrates the end-use components for the industrial achievable low scenario:



The following graph illustrates the end-use components for the commercial achievable low scenario:



The following table summarizes the achievable low and high potential gas energy efficiency savings results.

**Natural Gas Energy Efficiency Potential Savings**

	2013	2014	2015	2016
<b>Achievable Low Potential (Mcf)</b>				
Residential	138,335	212,891	275,535	276,635
Non-Residential	538,965	646,237	971,500	1,422,691
Total	677,300	859,127	1,247,036	1,699,326
<b>Achievable High Potential</b>				
Residential	225,905	376,739	460,978	412,330
Non-Residential	1,240,470	1,364,489	1,937,962	2,680,265
Total	1,466,374	1,741,228	2,398,940	3,092,595
<b>50/50 Weighting</b>				
Residential	182,120	294,815	368,257	344,482
Non-Residential	889,717	1,005,363	1,454,731	2,051,478
Total	1,071,837	1,300,177	1,822,988	2,395,961
<b>EE % of Annual Sales Saved</b>				
<b>Achievable Low Potential</b>				
Residential	0.06%	0.09%	0.12%	0.12%
Non-Residential	0.24%	0.29%	0.43%	0.64%
Total	0.15%	0.19%	0.27%	0.37%
<b>Achievable High Potential</b>				
Residential	0.10%	0.16%	0.20%	0.18%
Non-Residential	0.55%	0.61%	0.87%	1.20%
Total	0.32%	0.38%	0.53%	0.67%
<b>50/50 Weighting</b>				
Residential	0.08%	0.13%	0.16%	0.15%
Non-Residential	0.39%	0.45%	0.65%	0.92%
Total	0.24%	0.29%	0.40%	0.52%

No pie charts are shown for natural gas since the end use components are straight forward - heating, water heating, cooking/laundry (residential) and process (industrial).

**Sensitivity Analysis**

EnerNOC reviewed the sensitivity of their results to variation in some key assumptions. One of those key assumptions is the fuel cost of electricity and natural gas. The lower the price, the lower the number of measures that will pass the cost benefit screening, and thus lower the overall potential. EnerNOC modeled a scenario in which the fuel cost for each year of the study was increased by 20%, with all other variables held constant. The impact on the electric results was relatively small. Although Staff did not consider the effect significant, the effect of the changes was more pronounced for natural gas measures.

**Cost Estimates**

The Straw Proposal requires measure costs to calculate projected energy savings. While the initial EnerNOC study did not contain the costs associated with the achievable potential, it has since provided these costs in a follow-up analysis, and these costs will be presented and discussed in this section.

Estimating costs associated with measures requires many different assumptions. Incentive levels are generally based upon a combination of incremental costs, customer payback and cost per unit of energy saved. For electric measures, peak coincident summer savings can also be factored into the determination of incentive levels. Non-incentive costs can generally be determined as a percent of total spending. These costs include administration, rebate

processing, quality control, etc. Costs to deliver energy efficiency programs will also vary between sectors. All things being equal, it is generally more expensive to deliver residential programs than non-residential programs, with residential interior lighting and behavior change being the exceptions.

The following tables contain the EnerNOC's costs associated with their achievable savings potential. As was done for the energy savings tables, AEG created a 50/50 weighting to represent a mid-point between the achievable high and low potential scenarios. The cost is expressed on a dollar per unit of energy saved basis. This metric will be used to benchmark the EnerNOC results to industry experience, which Staff does in the next section.

### **Electric Energy Efficiency Potential Cost**

	2013	2014	2015	2016
<b>Total Program Costs (\$000)</b>				
<b>Achievable Low Potential</b>				
Residential	\$27,918	\$32,512	\$37,685	\$35,496
Non-Residential	\$60,054	\$59,806	\$68,424	\$85,841
Total	\$87,972	\$92,319	\$106,109	\$121,338
<b>Achievable High Potential</b>				
Residential	\$65,782	\$74,670	\$85,021	\$78,129
Non-Residential	\$152,316	\$145,202	\$162,498	\$198,599
Total	\$218,097	\$219,873	\$247,519	\$276,728
<b>50/50 Weighting</b>				
Residential	\$46,850	\$53,591	\$61,353	\$56,813
Non-Residential	\$106,185	\$102,504	\$115,461	\$142,220
Total	\$153,035	\$156,096	\$176,814	\$199,033
<b>Cost per kWh Saved</b>				
<b>Achievable Low Potential</b>				
Residential	\$0.11	\$0.14	\$0.16	\$0.14
Non-Residential	\$0.21	\$0.19	\$0.17	\$0.18
Total	\$0.16	\$0.17	\$0.16	\$0.16
<b>Achievable High Potential</b>				
Residential	\$0.13	\$0.17	\$0.19	\$0.17
Non-Residential	\$0.25	\$0.23	\$0.21	\$0.23
Total	\$0.20	\$0.20	\$0.20	\$0.21
<b>50/50 Weighting</b>				
Residential	\$0.12	\$0.16	\$0.18	\$0.16
Non-Residential	\$0.24	\$0.22	\$0.20	\$0.21
Total	\$0.19	\$0.19	\$0.19	\$0.19

### **4.3 AEG Benchmarking Analysis**

A Benchmarking Analysis serves two purposes. First, it serves as a "results verification" of the EnerNOC Potential Study. While the EnerNOC study was detailed and comprehensive, it did require thousands of assumptions and should be verified for the reasonableness of its results. This can be accomplished through a comparison with a benchmarking analysis.

The second purpose of a Benchmarking Analysis is to provide independent and standalone saving and cost projections that will serve as an alternative approach to developing funding levels. This approach takes into consideration industry experience and employs a top-down approach, rather than the bottom-up approach employed by the EnerNOC study. It is a widely

accepted approach to develop high level estimates for total portfolio saving and cost goals by comparing two models employing different methodologies.

### Industry Benchmark Analysis

Many states mandate a percent of sales as a goal for utilities and state agencies. For example, Illinois has a 6-year target that increases 0.2% per year for 6 years (goal is 1.2% of sales by year 6 with 2% revenue cap). New York State has employed various initiatives, including "15 by 15", which means saving 15% by 2015. This required saving almost 2% per year, a target that will not be reached. Minnesota had a spending goal for many years and then switched to a savings goal of 1.5% of sales. However, they later lowered this goal for gas utilities to a 1% level.

Actual savings and expenditures were gathered for various jurisdictions (utilities and statewide agencies) in the Northeast, Mid-Atlantic and Midwest with mature DSM programs. The tables below present these results on a unit of energy saved basis (\$/kWh or \$/therm):

#### Total DSM Portfolio \$/kWh

DSM Program	State	2010	2011
Northern States Power (Xcel)	MN	\$0.11	\$0.11
Potomac Electric Power Co	MD	\$0.14	\$0.16
Public Service Company of Colorado	CO	\$0.15	\$0.15
Interstate Power & Light	IA	\$0.18	\$0.17
MidAmerican	IA	\$0.19	\$0.25
NJCEP	NJ	\$0.22	\$0.17
Baltimore Gas & Electric	MD	\$0.22	\$0.31
LIPA	NY	\$0.25	

#### Total DSM Portfolio \$/Therm

DSM Program	State	2010	2011
Northern States Power (Xcel)	MN	\$1.07	\$1.24
Centerpoint	MN	\$1.19	\$1.18
MERC	MN	\$1.45	\$1.54
Public Service Company of Colorado	CO	\$2.58	\$2.75
Interstate Power & Light	IA	\$2.65	\$2.67
Columbia Gas	MA	\$3.40	
MidAmerican	IA	\$3.85	\$4.49
National Grid	MA	\$3.87	
NJCEP	NJ	\$5.28	\$4.77

Benchmark metrics for expenditures per unit of energy saved and savings as a percentage of sales were developed from this data. Note that these are the same two metrics developed from the EnerNOC study. The following tables present these metrics. NJCEP is not included in the metrics, but is presented for comparison purposes.

#### Residential Sector Metrics



	\$/kWh	\$/therm	Electric Savings as a % of Sales	Gas Savings as a % of Sales
Minimum	\$0.08	\$1.64	0.6%	0.3%
Median	\$0.18	\$3.44	1.1%	0.8%
Average	\$0.25	\$3.55	1.1%	0.8%
Maximum	\$0.62	\$5.80	1.7%	1.6%
NJCEP	\$0.18	\$6.59	0.8%	0.2%

#### **Non-Residential Sector Metrics**

	\$/kWh	\$/therm	Electric Savings as a % of Sales	Gas Savings as a % of Sales
Minimum	\$0.11	\$0.52	0.3%	0.1%
Median	\$0.19	\$1.89	0.9%	0.4%
Average	\$0.20	\$1.87	0.9%	0.6%
Maximum	\$0.33	\$4.19	1.5%	1.2%
NJCEP	\$0.22	\$3.84	0.3%	0.1%

#### **Total Portfolio Metrics**

	\$/kWh	\$/therm	Electric Savings as a % of Sales	Gas Savings as a % of Sales
Minimum	\$0.11	\$1.07	0.4%	0.2%
Median	\$0.17	\$2.62	0.9%	0.6%
Average	\$0.18	\$2.42	0.9%	0.6%
Maximum	\$0.31	\$4.49	1.3%	1.0%
NJCEP	\$0.20	\$5.03	0.5%	0.2%

By applying values to the total projected sales by sector (residential and non-residential) and by fuel type (electric and gas), these metrics can be used to develop expenditure and savings goals. The approach is straight forward. Total projected sales are multiplied by savings as a percent of sales to generate the savings goal. The resultant savings goal is multiplied by the cost per unit of energy (kWh or therms) metric to generate the funding level. The result of this exercise is shown in the next section.

#### **4.4 Comparison between NJCEP Historic Performance versus the EnerNOC Potential Study and AEG Benchmarking Analysis**

The tables below compare the historic NJCEP performance to the EnerNOC Potential Study and AEG Benchmarking Analysis. It should be noted that these results do not include energy savings or costs associated with CHP programs.

#### **Comparison of Actual NJCEP, AEG Benchmarking & EnerNOC Potential Study**

Sector	NJCEP (1)	Benchmark Analysis (2)	EnerNOC Potential Study (3)	Benchmark Analysis (2013)	EnerNOC Potential Study (2013)
<b>Electricity Savings (MWh)</b>					
Residential	235,413	326,229	356,904	333,112	383,739
Non-Residential	155,849	398,246	545,872	402,816	441,155
<b>Total</b>	<b>391,262</b>	<b>724,475</b>	<b>902,773</b>	<b>735,928</b>	<b>824,894</b>
<b>Natural Gas Savings (Dtherm)</b>					
Residential	482,817	1,758,638	297,418	1,738,980	182,120
Non-Residential	298,914	909,596	1,350,322	916,490	889,717
<b>Total</b>	<b>781,731</b>	<b>2,668,233</b>	<b>1,647,741</b>	<b>2,655,469</b>	<b>1,071,837</b>

Sector	NJCEP (1)	Benchmark Analysis (2)	EnerNOC Potential Study (3)	Benchmark Analysis (2013)	EnerNOC Potential Study (2013)
<b>Electricity Expenditures</b>					
Residential	\$41,856,975	\$60,143,998	\$54,651,694	\$61,412,927	\$46,849,755
Non-Residential	\$34,674,118	\$75,825,159	\$116,592,441	\$76,695,340	\$106,184,788
<b>Total</b>	<b>\$76,531,093</b>	<b>\$135,969,157</b>	<b>\$171,244,135</b>	<b>\$138,108,267</b>	<b>\$153,034,543</b>
<b>Natural Gas Expenditures</b>					
Residential	\$30,845,767	\$60,488,554	\$33,212,073	\$59,812,413	\$59,812,413
Non-Residential	\$8,668,529	\$17,219,633	\$18,351,650	\$17,350,143	\$13,596,063
<b>Total</b>	<b>\$39,514,296</b>	<b>\$77,708,187</b>	<b>\$51,563,723</b>	<b>\$77,162,556</b>	<b>\$73,408,477</b>
<b>Total Portfolio Expenditures</b>					
Residential	\$72,702,742	\$120,632,552	\$87,863,767	\$121,225,340	\$106,662,168
Non-Residential	\$43,342,647	\$93,044,792	\$134,944,091	\$94,045,483	\$119,780,852
<b>Total</b>	<b>\$116,045,389</b>	<b>\$213,677,343</b>	<b>\$222,807,858</b>	<b>\$215,270,823</b>	<b>\$226,443,020</b>

- Notes: (1) Average of actual 2011 and 2012 results  
(2) Based on average of 2013 to 2016 estimates  
(3) Based on average of 2013 to 2016 study results assuming 50/50 weighting

**Comparison of Actual NJCEP, AEG Benchmarking & EnerNOC Potential Study**

Sector	NJCEP (1)	Benchmark Analysis (2)	EnerNOC Potential Study (3)
<b>EE Cost per kWh</b>			
Residential	\$0.18	\$0.18	\$0.15
Non-Residential	\$0.22	\$0.19	\$0.22
<b>Total</b>	<b>\$0.20</b>	<b>\$0.19</b>	<b>\$0.19</b>
<b>EE Cost per therm</b>			
Residential	\$6.59	\$3.44	\$11.40
Non-Residential	\$3.84	\$1.89	\$1.35
<b>Total</b>	<b>\$5.03</b>	<b>\$2.67</b>	<b>\$3.22</b>

Sector	NJCEP (1)	Benchmark Analysis (2)	EnerNOC Potential Study (3)
<b>EE % of Annual Electric Sales Saved</b>			
Residential	0.8%	1.1%	1.2%
Non-Residential	0.3%	0.9%	1.2%
<b>Total</b>	<b>0.5%</b>	<b>1.0%</b>	<b>1.2%</b>
<b>EE % of Annual Gas Sales Saved</b>			
Residential	0.2%	0.8%	0.1%
Non-Residential	0.1%	0.4%	0.6%
<b>Total</b>	<b>0.2%</b>	<b>0.6%</b>	<b>0.4%</b>

Notes: (1) Average of actual 2011 and 2012 results

(2) Based on average of 2013 to 2016 estimates

(3) Based on average of 2013 to 2016 study results assuming 50/50 weighting

A number of conclusions can be drawn from the comparison of actual NJCEP savings and expenditures to the EnerNOC study and the AEG Benchmarking Analysis.

For the electric portfolio, the key conclusions are:

1. NJCEP historical Residential expenditures per kWh are within industry norms (\$0.18) and total savings delivered by the Residential programs (as a percentage of total sales) are within industry norms (0.8% compared to 1.1%).
2. NJCEP historical Non-Residential expenditures per kWh are within industry norms (\$0.22 compared to \$0.19), but total savings delivered by the Non-Residential programs (as a percentage of total sales) are well below industry norms (0.3% compared to 0.9%).

For the gas portfolio, the key conclusions are:

3. NJCEP historical Residential expenditures per therm are well above industry norms (\$6.59 compared to \$3.44), but total savings delivered by the Residential programs as (a percentage of total sales) are well below industry norms (0.2% compared to 0.8%).
4. NJCEP historical Non-Residential expenditures per therm are well above industry norms (\$3.84 compared to \$1.89), but total savings delivered by the Non-Residential programs (as a percentage of total sales) are well below industry norms (0.1% compared to 0.4%).

These findings indicate that the recommended savings goals and associated expenditures for electricity will be significantly higher for the C&I electric portfolio and that Staff must further evaluate the performance of NJCEP programs in the gas portfolio.

The comparison above demonstrates that New Jersey's savings, on a dollar spent per kilowatt basis, are lower than its peer states. There could be many factors (or a combination of factors) causing this. Possible factors include:

- a. Differing methodologies and data sets were used to calculate savings
- b. NJCEP incentive levels may be too low, given the current low cost of natural gas
- b. Customer awareness needs to be increased
- c. NJCEP program designs need to be improved and funding levels need to remain consistent
- d. Cost allocation between gas and electric is not accurate
- e. Codes and standards are eroding savings potential

Staff recommends that a thorough review of the electric and gas portfolio of programs be conducted to ascertain the reasons for this apparent under-performance.

#### ***4.5 Proposed EE Funding Levels and Associated Energy Savings Goals***

There is no magic number for either sales-based savings or revenue-based spending goals. However, based on experience in states around the country, averages can be determined for these goals. For electric utilities, "typical goals" for annual savings are in the 1.0% of retail sales range and a \$0.20 per kWh cost is typical. For gas portfolios, annual savings in the 0.6% of retail sales range and a cost \$2.5 per therm is typical. These are for mature portfolios, not startup programs. Costs can be reduced when programs can be jointly delivered between electric and gas.

AEG has direct experience with portfolios in many states and utilities in New York, Illinois, Colorado, Missouri, and Minnesota and has direct knowledge of activities in Massachusetts, Vermont, Wisconsin, Pennsylvania, Ohio, Indiana, and Michigan. The Benchmark Analysis does not include all of these states, but AEG can provide the aggregated information that supports these "typical goals".

As discussed in the prior section, New Jersey is lagging in a number of categories. The two scenarios presented in this section ignore, to some degree, historic NJCEP experience and instead assume a level of performance based upon industry norms.

In developing the Straw Proposals from the AEG Benchmark Analysis, Staff made some basic assumptions:

1. While it is clear that saving goals can be increased without increasing the average cost associated with those savings, this can only be done up to a certain level. Beyond that point, the cost to achieve the incremental growth in savings increases the average cost. Any EE supply curve will depict this behavior. The so called "sweet spot" or point at which electric savings can no longer be obtained at equivalent cost levels is in the 1% of sales range. For gas savings, the percent value is lower, primarily due to the low cost of natural gas and the resulting lack of incentive for customers to invest in more efficient gas technology.
2. Using cost per unit of energy saved as a basis for developing a portfolio budget only works when the portfolio is assumed to be balanced. For example, a residential portfolio that is heavily dependent upon behavior change and CFL replacements can be

accomplished at a very low annual cost. However, on a life cycle basis, it will not compare well to more comprehensive options. In a similar fashion, a commercial portfolio that only focuses on lighting will also have a lower annual cost. In both these examples, unbalanced portfolios can be delivered at lower costs, but are not sustainable in the long term, as they capitalize the low hanging fruit and leave the more expensive measures for the future.

The Straw Proposal scenarios were developed based on the AEG Benchmark Analysis, specifically the median metrics for electric and natural gas.

**Proposed Portfolio Expenditure Metrics**

	\$/kWh	% of Sales
Residential	\$0.18	1.1%
Non-Residential	\$0.19	0.9%
Total	\$0.19	1.0%

	\$/therm	% of Sales
Residential	\$3.44	0.8%
Non-Residential	\$1.89	0.4%
Total	\$2.67	0.6%

The first scenario presents the funding levels and associated savings if they were based solely on AEG’s benchmarking analysis. However, as discussed below, Staff also took other factors into consideration in developing its proposed EE funding levels.

**Expenditure Forecast based on Benchmarking Metrics**

Sector	2013	2014	2015	2016
<b>Electricity</b>				
Residential	\$61,412,927	\$60,103,650	\$59,542,820	\$59,516,594
Commercial	\$63,163,413	\$62,217,112	\$61,758,666	\$61,928,205
Industrial	\$13,531,928	\$13,594,207	\$13,730,876	\$13,376,229
<b>Total</b>	<b>\$138,108,267</b>	<b>\$135,914,969</b>	<b>\$135,032,362</b>	<b>\$134,821,028</b>
<b>Natural Gas</b>				
Residential	\$59,812,413	\$60,306,516	\$60,670,592	\$61,164,694
Commercial	\$13,596,063	\$13,457,876	\$13,419,491	\$13,480,907
Industrial	\$3,754,080	\$3,738,725	\$3,738,725	\$3,692,663
<b>Total</b>	<b>\$77,162,556</b>	<b>\$77,503,118</b>	<b>\$77,828,808</b>	<b>\$78,338,265</b>
<b>Total Portfolio</b>				
Residential	\$121,225,340	\$120,410,166	\$120,213,412	\$120,681,288
Commercial	\$76,759,476	\$75,674,988	\$75,178,157	\$75,409,112
Industrial	\$17,286,007	\$17,332,933	\$17,469,601	\$17,068,892
<b>Total</b>	<b>\$215,270,823</b>	<b>\$213,418,087</b>	<b>\$212,861,170</b>	<b>\$213,159,293</b>

**Savings Goal based on Benchmarking Metrics**

Sector	2013	2014	2015	2016
<b>Electricity Savings (MWh)</b>				
Residential	333,112	326,010	322,968	322,826
Commercial	331,745	326,774	324,367	325,257
Industrial	71,072	71,399	72,117	70,254
<b>Total</b>	<b>735,928</b>	<b>724,183</b>	<b>719,451</b>	<b>718,337</b>
<b>Natural Gas Savings (Dtherm)</b>				
Residential	1,738,980	1,753,345	1,763,930	1,778,296
Commercial	718,187	710,888	708,860	712,104
Industrial	198,302	197,491	197,491	195,058
<b>Total</b>	<b>2,655,469</b>	<b>2,661,724</b>	<b>2,670,282</b>	<b>2,685,458</b>

A second scenario is based upon the EnerNOC study. As noted previously, the EnerNOC study contains literally thousands of assumptions. It is a model that looks at savings at the measure level and builds up to a sector, fuel type and portfolio. The EnerNOC study represents the opposite of the AEG Benchmark Analysis, which uses gross estimates of performance without getting into any details regarding how the savings or costs are actually generated. Developing funding proposals from these two totally different models is an effective way to triangulate towards a recommended savings and expenditure goal.

Based on a review of the results of the EnerNOC study, AEG's benchmarking analysis and historic spending and results, Staff believes that the proposed funding level should approximate a scenario half way between EnerNOC's Achievable Potential High and Achievable Potential low scenarios. The following table shows the results assuming a 50/50 weighting of these two scenarios:

**Expenditure Forecast based on 50/50 Weighting**

Sector	2013	2014	2015	2016
<b>Electricity</b>				
Residential	\$46,849,755	\$53,591,254	\$61,353,083	\$56,812,685
Non-Residential	\$106,184,788	\$102,504,307	\$115,460,654	\$142,220,015
<b>Total</b>	<b>\$153,034,543</b>	<b>\$156,095,561</b>	<b>\$176,813,737</b>	<b>\$199,032,700</b>
<b>Natural Gas</b>				
Residential	\$23,652,965	\$34,653,915	\$40,622,762	\$33,918,651
Non-Residential	\$11,002,277	\$13,948,987	\$19,794,247	\$28,661,088
<b>Total</b>	<b>\$34,655,243</b>	<b>\$48,602,902</b>	<b>\$60,417,009</b>	<b>\$62,579,740</b>
<b>Total Portfolio</b>				
Residential	\$70,502,720	\$88,245,169	\$101,975,844	\$90,731,337
Non-Residential	\$117,187,066	\$116,453,294	\$135,254,901	\$170,881,103
<b>Total</b>	<b>\$187,689,786</b>	<b>\$204,698,463</b>	<b>\$237,230,746</b>	<b>\$261,612,440</b>

**Savings Goal based on EnerNOC 50/50 Weighting**

Sector	2013	2014	2015	2016
<b>Electricity Savings (MWh)</b>				
Residential	383,739	345,102	346,829	351,933
Non-Residential	441,155	475,044	584,944	682,346
<b>Total</b>	<b>824,894</b>	<b>820,146</b>	<b>931,773</b>	<b>1,034,279</b>
<b>Natural Gas Savings (Dtherm)</b>				
Residential	182,120	294,815	368,257	344,482
Non-Residential	889,717	1,005,363	1,454,731	2,051,478
<b>Total</b>	<b>1,071,837</b>	<b>1,300,177</b>	<b>1,822,988</b>	<b>2,395,961</b>

When the Benchmark Analysis-based proposal is compared to the EnerNOC Study-based proposal, there is consistency in the early years, 2013 & 2104. EnerNOC's study and the benchmarking study prepared by AEG were based on calendar years. However, since EnerNOC completed its study, the Board has shifted from a calendar year budget to a fiscal year budget. Staff has discussed both the effort required to replicate the studies based on a fiscal year and the potential impact on the results, and Staff believes the impact would be nominal. Therefore, Staff has determined that the calendar year projections prepared by EnerNOC and AEG be used as a reasonable proxy for the fiscal years being considered herein, with 2013 being used as a proxy for FY14.

### **5.0 Proposed Funding Levels**

The Board's October 7, 2011 Order which established a procedural schedule for the 2014-17 CRA anticipated that Staff would propose funding levels for four years. However, based on current circumstances, Staff has reconsidered the wisdom of doing so at this time.

In December 2011, Governor Christie released the State's EMP. The EMP sets out numerous goals and objectives, such as "Redesigning the delivery and financing of State energy efficiency programs" that requires additional evaluation. In addition, the Board is in the process of engaging a new Program Administrator, who is charged with developing a Strategic Plan that for transitioning the NJCEP programs and developing performance based metrics.

Staff believes that both the Board and ratepayers will benefit by awaiting the development of the Strategic Plan and from additional research into financing options prior to setting funding levels. Therefore, Staff proposes that the Board establish funding levels for FY14 only and defer a decision on the funding levels for FY15-17 until the Strategic Plan is developed and as the result of additional evaluation.

Staff took numerous factors into consideration in developing a proposed FY14 funding level including:

1. The goals and objectives of the EMP
2. The NJCEP policy objectives set out above
3. The results of the EnerNOC study and AEG's benchmarking study
4. Historic state/utility spending levels
5. Current levels of funding and the impact on rates of such funding
6. Comments received on the April 17, 2013 and May 23, 2013 Revised CRA Straw Proposals
7. Lessons learned from Superstorm Sandy and rebuilding efforts

The funding scenarios discussed above compare historic spending on EE in New Jersey to the spending levels and anticipated results set out by the EnerNOC study, and to spending and results in other states based on the benchmarking study. Given NJCEP's history of under-spending, Staff's goal is to propose a FY14 funding level that can be fully expended/committed.

Staff developed a proposed funding level for each of the following major budget categories:

- Energy Efficiency
- CHP/Fuel Cells
- Renewable Energy and Energy Storage
- EDA
- NJCEP Administration including program evaluation

The following sections discuss each of these activities and summarize the factors Staff took into account in developing a proposed funding level for each major budget category. This June 3, 2013 2<sup>nd</sup> Revised CRA Straw Proposal supercedes all prior CRA Straw Proposals for FY14, and commenters are advised to reference the page numbers and figures of this Straw Proposal when submitting comments.

### **5.1 Energy Efficiency**

Staff's proposed funding level for the EE programs is guided by several key factors:

1. The NJCEP policy objectives
2. The costs associated with achieving different levels of savings
3. The impact on rates of the proposed funding levels
4. Historic spending levels and the ability to fully expend/commit proposed funding levels
5. Recognition that the programs will be transitioning to a new Program Administrator in the near future, and



## 6. Potential impacts of alternative financing mechanisms

The costs associated with achieving different savings levels and the historic spending levels were discussed in Section 4.

In developing the proposed EE funding levels, Staff attempts to balance what are sometimes competing objectives. For example, based on the Achievable High scenario in the EnerNOC study, the cost of all achievable, cost-effective EE savings which would result in the lowest overall cost of energy in the State, requires a funding level of \$266 million in 2013, and grows to \$332 million in 2016. This represents a significant increase to current funding level and rates.

The results of the Benchmarking Analysis were based on an EE funding level of \$187,689,786, which is the half-way point between EnerNOC's High and Low Achievable potential scenarios. In its April 17, 2013 Revised CRA Straw Proposal Staff recommended a FY14 funding level of \$177,665,000 for the EE programs. Staff adjusts this amount herein for the reasons set out in Section 5.7 below.

### ***5.2 Combined Heat & Power***

The EMP set a goal of 1,500 MW of CHP generation by 2021, with 1,400 MW coming from C&I applications and 100 MW from district energy systems. To date, existing programs have delivered 42 MW of CHP. Therefore, 1,358 MW of new CHP and 100 MW of new district heating is needed to meet the goal.

The NJCEP currently includes three programs that provide incentives for the installation of CHP and fuel cell systems. The Small CHP program provides incentives for systems with a capacity of up to 1 MW. The Renewable Energy Incentive Program (REIP) provides incentives for CHP and fuel cell systems that utilize renewable energy as a source of fuel and EDA manages a program for systems greater than 1 MW.

Incentives vary by program, technology, source of fuel and system size. Incentives range from over \$4,000 per kW for fuel cells that utilize waste heat, to \$2,000 per kW for small natural gas-fired CHP systems and \$350 per kW for large systems greater than 3 MW. The level of capacity delivered by these programs therefore depends on the mix of system sizes, technologies and fuel source.

Based on recent program activity, the Small CHP program is expected to deliver about 14 MW, utilizing a budget of \$20 million, which averages approximately \$1,429 per kW. REIP has approved 7 projects with a capacity of 3.26 MW and incentives of \$6.78 million, or an average incentive of \$2,080 per kW. EDA's first Large CHP solicitation resulted in awards to 6 projects totaling 24.84 MW, with incentives of \$11.11 million, or an average incentive of \$447 per kW. Combined, the three programs are expected to deliver 42 MW, based on total incentives of approximately \$38 million, and with an average incentive of \$900 per kW.

Using the average incentive levels calculated in the paragraph above and based on existing programs, approximately \$607 million ( $1,358 \text{ MW} * \$447,000/\text{MW}$ ) in incentives is required to achieve the EMP's CHP goal, if all of the capacity was procured using the current EDA large scale CHP solicitation. Incentives totaling \$1.94 billion are required ( $1,358 \text{ MW} * \$1,429,000/\text{MW}$ ) if the capacity is produced by small systems, and \$1.22 billion is required based on the current mix of programs and an average incentive of \$900 per kW. The required funding level will be higher if a higher percentage of projects come from small systems, fuel cells or from renewably fueled CHP systems.

Staff does not believe that current funding levels and programs will be sufficient to meet the State's goal of 1,500 MW of CHP by 2021. Therefore, in its Straw Proposal, Staff is recommending a level of funding that demonstrates the State's commitment to developing CHP long-term, while the BPU explores alternative financing mechanisms. Staff also believes that given the limited amount of funding required to meet this goal, CHP funding should emphasize larger systems and those technologies that generate electricity a lower cost per kW.

Based on the above, in its April 17, 2013 Revised CRA Straw Proposal Staff initially recommended a FY14 funding level of \$30 million for CHP and fuel cells, including large and small projects and renewably-fueled projects. Staff adjusts this amount herein for the reasons set out in Section 5.7 below.

Staff believes that funding should focus on projects that deliver the highest level of electric generation and/or savings per rebate dollar expended.

### ***5.3 Renewable Energy***

New Jersey's solar energy programs have been extremely successful in achieving a rapid increase in the number and capacity of solar energy installations. The original Renewable Portfolio Standards (RPS) in 1999 required competitive suppliers and BGS providers to provide Renewable Energy Certificates (RECs) for specified percentages of their sales (or to pay an Alternative Compliance Payment, ACP, the levels of which were set by the BPU).

While the 2005 Energy Master Plan goal (supported by 2006 legislation) of achieving 22.5% of sales from renewable energy by 2020/2021 was at the time regarded as very ambitious, the 2010 RPS Annual Report noted that the great majority of suppliers/providers were able to obtain and retire sufficient RECs and SRECs, with relatively few subject to ACP. In 2010, 4.7% of sales were from Class I and 2.5% were from Class II renewable energy systems. Due to the fact that Class I resources can be sourced from anywhere within PJM, and a great deal of wind has been installed in Pennsylvania and Indiana, Staff does not anticipate any issues with an adequate supply, even as the Class I requirement increases to 17.88% by 2020/2021. Furthermore, due to the abundant supply and low price of RECs, Staff estimates the EY12 compliance costs (passed on to customers in BGS bids or TPS prices) to be \$20 million and that the amount spent by ratepayers on SRECs in EY12 was \$126 million.

Solar energy has experienced an explosion of installed capacity in the last 3 years. In 2009/2010 the RPS requirement was 0.22% of sales, which was set to reach 2.12% by 2020/2021. In 2010, the Legislature adjusted the requirement to a fixed total of 5,316 GWH by 2026 (remaining at that level thereafter). In July 2012, the targets were further adjusted to increase near term requirements, while lowering the ACP to minimize compliance costs. As of February 2013, installed solar capacity 1,000 MW, almost a ten-fold increase from the 93 MW installed in October 2009. By any measure, New Jersey's solar initiatives have been extremely successful.

SRECs are now the principal state incentive available to motivate developers and to process compliance costs passed along to electricity customers. As required by the Solar Act of 2012, the Board has initiated a proceeding to explore potential methods of stabilizing solar market development, which some developers claim has become volatile over the past several years. Staff will not address this issue herein.

Outside of solar, New Jersey now has a total of 42 MW of Class I renewables: 9.5 MW of wind, 31 MW of bio-power, and 1.5 MW of fuel cell capacity. The EMP also calls for a carve out for a

minimum of 1,100 MW of offshore wind, which would reduce other Class I resource requirements.

#### **Proposed Funding Level: Renewable Energy**

Staff recommends funding for several activities that will support the continued development of renewable energy systems in New Jersey including:

- Administrative support for the SREC market
- Incentives for biomass facilities
- Incentives for large wind systems
- Evaluation of off-shore wind systems, and energy storage
- Incentives for hydro-kinetic systems

#### **Solar**

Due to the past success of the solar program, Staff does not believe NJCEP funding for solar incentives is required over the next four years. The Solar Act of 2012 requires the Board to develop a financial incentive for solar on landfill, brownfields, and areas of historic fill, pursuant to N.J.S.A. 48:3-87t (j). While several commenters have recommended that NJCEP funding be utilized for additional incentives for solar systems built on landfills, due to the current oversupply in the SREC market and since the Board provided 180 MW to EDC finance programs, Staff does not support this recommendation at this time. Staff will continue to explore funding mechanisms for any additional solar incentives that may be required by the Solar Act of 2012.

Staff believes funding is required for processing SREC applications, including quality assurance reviews and inspections, tracking and reporting SREC activities and prices, verification in coordinating with PJM GATS, and coordinating with industry representatives. Staff initially recommended a FY14 funding level of \$2.5 million for these activities. Staff adjusts this amount herein for the reasons set out in Section 5.7 below.

#### **Biomass**

The EMP has a goal of 900 MW of biopower facilities by 2021. Since 2009, the NJCEP has paid incentives or approved applications for 9 biomass projects, with a total capacity of 7 MW and incentives totaling \$8.3 million. This equates to an average incentive of \$1,187/kW.

The biomass market has recently begun to expand, and 6 new projects were approved with a total capacity of 3.26 MW since August of 2012. Based on this recent activity, Staff recommends that the four year funding level for biomass be set about 25% above the level of rebates and commitments made since 2009. The level of rebates paid and/or commitments made since 2009 is \$8.3 million. Increasing this amount by approximately 25% would result in a four year funding level of approximately \$10 million. Therefore, Staff initially recommended a FY14 funding level of \$2.5 million for biomass projects. Staff will explore additional strategies for achieving the EMP goal of 900 MW generated by bio-power facilities by 2021 and adjusts this amount herein for the reasons set out in Section 5.7 below.

#### **Off-shore Wind**

The Offshore Wind Economic Development Act, P.L. 2010, Chapter 57 directs the BPU to develop an OREC program to support at least 1,100 MW of generation from qualified offshore wind projects. OWEDA also: (i) authorizes the BPU to accept applications for qualified offshore wind projects; (ii) sets forth the criteria to be used by the BPU in reviewing the projects' applications; and (iii) authorizes EDA to provide up to \$100 million in tax credits for qualified wind energy facilities in wind energy zones.

During the next four years (2013-2017), the BPU will be engaged in developing and launching the OREC Program, which will provide incentives for project developers. In 2011, the BPU engaged Boston Pacific to assist with the evaluation of OREC applications and is finalizing

rules, in order to open an application window. Application fees paid by the developers will cover the costs for the evaluation. Staff is not recommending any additional direct incentives for off-shore wind projects.

However, Staff believes there will be an ongoing need for characterizing wind resource potential, including studying the proposals expected from developers seeking ORECs. The cost of these offshore wind evaluations is embedded in Staff's recommended evaluation budget discussed below.

#### **On-shore Wind**

In the past, the NJCEP has provided incentives for small and large-scale on-shore wind systems. The program has been suspended since March 2011, due to concerns with the safety of small-scale wind systems. The Board has engaged the National Renewable Energy Laboratory (NREL) to examine the safety of these systems and to make a recommendation on potential program changes.

The renewable energy market potential study performed by Navigant concludes that New Jersey has about 132 MW of technical potential for on-shore wind development, mostly located near the coast, and that there are limited potential sites located inland. The report states that the majority of on-shore wind development is likely to be at sites ranging from 1-10 MW in potential capacity. The report notes that power output and reliability issues have been a challenge in New Jersey, largely as a result of the intermittent nature of the wind resource most common in New Jersey. Given the extensive destruction caused by hurricane Sandy, particularly along the coast, many of the potential sites for small-scale wind energy are now facing massive rebuilding efforts. Based on the above, Staff recommends that funding for on-shore wind projects be limited to projects 1 MW or greater.

Navigant found that the cost of wind power is expected to decline in the near term. The report also noted the existence of the federal Production tax Credit of 2.2 cents per kWh and 30% Investment Tax Credit, both of which were extended through the end of 2013.

Since its inception, the NJCEP awarded rebates to two on-shore wind projects greater than 1 MW. One of the two projects received an incentive of \$548 per kW and the other \$693 per kW, with an average incentive for the two projects of \$620/kW. Going forward, given the extension of the federal tax incentives and expected decline in costs, Staff believes an incentive in the range of \$500 to \$600 per kW should be sufficient to stimulate development of on-shore wind projects greater than 1 MW. Incentive levels would need to be re-evaluated if the federal tax credits expire. Furthermore, Staff will explore alternatives to making incentive levels competitively determined.

Staff anticipates developing a new on-shore wind program during FY14 for consideration by the Board. However, given the time required to develop a program and obtain all required approvals to implement the program, and time required for developers to develop a project to the point it is ready to apply for incentives, Staff is not recommending FY14 funding for on-shore wind at this time. However, as details regarding the proposed new program evolve, Staff anticipates a proposed funding level for on-shore wind for FY15.

#### **Marine Hydrokinetic**

On July 23, 2012, the Governor signed the Solar Act of 2012, which amended the definition of NJ Class I to include hydropower less than 30 MW. While Staff is not proposing a FY14 funding level for these technologies, Staff will explore potential program options to promote marine hydrokinetic projects.

## Energy Storage

Based on the amount of intermittent renewable energy installed in New Jersey, Navigant identified two potential opportunities for energy storage in the near term (2012 – 2016):

- Shifting renewable generation to more optimal times of day
- Providing some of the additional frequency regulation that may be required with higher levels of intermittent renewable energy.

Staff believes that energy storage holds much promise as a tool that can address problems and opportunities associated with the intermittent nature of many renewable energy systems, including wind and solar. Therefore, Staff initially recommended a funding level of \$5 to \$10 million over the next four years to fund energy storage pilot projects or programs. Staff adjusts this amount herein for the reasons set out in Section 5.7 below.

The following table summarizes Staff's proposed funding level for renewable energy discussed above that was included in its April 17, 2013 Straw proposal:

**Proposed Renewable Energy FY14 Funding Level**

Technology	Proposed Funding Level	4 Year Total: Low-Range	4 Year Total: High Range	Proposed FY14 Funding Level
Solar	\$2 to \$3 million per year	\$8 million	\$12 million	\$2,500,000
Biomass	\$2 to \$3 million per year	\$8 million	\$12 million	\$2,500,000
On-shore Wind	\$5 to \$10 million over 4 years	\$5 million	\$10 million	
Energy Storage	\$5 to \$10 million over 4 years	\$5 million	\$10 million	\$2,500,000
Hydrokinetics	\$2 to \$3 million per year	\$8 million	\$12 million	
<b>Total</b>				<b>\$7,500,000</b>

Based on the above, Staff initially recommended a FY14 funding level of \$7.5 million for RE in its April 17, 2013 Revised CRA Straw Proposal. Staff adjusts this amount herein for the reasons set out in Section 5.7 below.

### **5.4 Economic Development Authority**

The New Jersey Economic Development Authority (EDA) currently manages three NJCEP programs:

- The Edison Innovation Clean Energy Manufacturing Fund (CEMF) which offers financial assistance in the form of low-interest loans and non-recoverable grants to companies that manufacture renewable energy or clean and energy efficient products in New Jersey.
- The Edison Innovation Green Growth Fund (GGF), which offers financial assistance to clean technology companies seeking funding to grow and support their business. The program is intended to spur innovation and fund emerging technologies in New Jersey.
- The Large Scale CHP/Fuel Cell program, which provides rebates to large scale (>1 MW) CHP and fuel cell projects.

The EDA also managed a revolving loan program that was suspending due to budget constraints and lack of participation.

EDA's initial involvement in the Large Scale CHP/Fuel Cell program was based on its ability to provide a financing mechanism for the program. EDA does not possess in-house, technical expertise regarding CHP or fuel cell systems, and relies on Staff and the Market Managers to assess the technical merits of proposed projects.

As previously noted, TRC currently manages a Small Scale CHP/Fuel cell program for systems up to 1 MW. Staff believes several benefits can result from combining the large and small CHP/fuel cell programs, as well as the CHP component of the REIP, into a single program including:

- Lower administrative costs that would result from eliminating duplicative administrative structures
- Elimination of the need to design, implement and coordinate three separate but related programs
- Greater budget flexibility that would result from a single program budget.

Staff recommends awaiting the results of the Strategic Plan and further direction from the Board regarding how and when to implement CHP financing programs, prior to determining the future role of EDA in any CHP program.

The CEMF program currently has an 18 month budget of \$8.4 million. Through December 2012, the program has expended \$1.2 million and committed \$4.5 million, for a total of \$5.7 million. The GGF fund currently has an 18 month budget of \$3.4 million. Through December 2012, the program has expended \$867,542 and committed \$1.7 million for a total of \$2.6 million.

Based on the above, Staff recommends a FY14 funding level of \$7.5 million for the CEMF and GGF programs managed by EDA and believes EDA should play an active role in exploring alternative financing mechanisms for CHP.

### **5.5 NJCEP Administration**

The EMP places a great deal of emphasis on the importance of evaluation, noting that "going forward, New Jersey should implement more rigorous cost/benefit analyses to determine the cost-effectiveness of its energy policy options." To this end, Staff recommends that CEEEP develop an evaluation plan that identifies specific studies to be performed and the anticipated cost of such studies, which will inform the funding levels for evaluation activities in years 2 through 4.

Staff initially recommended a FY14 budget for NJCEP Administration of \$5,000,000, which includes funding for OCE Staff salaries and overhead, memberships, program evaluation, and Sustainable Jersey. Staff adjusts this amount herein for the reasons set out in Section 5.7 below.

### **5.6 Initial NJCEP Proposed Funding Levels**

The following table summarizes the funding levels initially proposed by Staff in its Revised CRA Straw Proposal dated April 17, 2013:

#### **Proposed FY14 Funding Level**

	<b>FY14</b>
<b>EE</b>	<b>\$177,665,000</b>

<b>RE</b>	<b>\$7,500,000</b>
<b>CHP</b>	<b>\$30,000,000</b>
<b>EDA</b>	<b>\$7,500,000</b>
<b>NJCEP Administration</b>	<b>\$5,000,000</b>
<b>Total</b>	<b>\$227,665,000</b>

Staff adjusts this amount herein for the reasons set out in Section 5.7 below.

#### **5.7 Revised NJCEP Proposed Funding Levels**

In response to comments received, additional Staff discussions, updated information and issues raised at the Board's public hearing on the revised CRA FY14-17 Straw Proposal, Staff is proposing the following adjustments to the FY14 funding level set out in the Revised CRA Straw Proposal dated April 17, 2013:

The Revised CRA Straw Proposal dated April 17, 2013 included an assessment and analyses that formed the basis for Staff recommending a total FY14 CRA funding level of \$227,665,000 for NJCEP programs and administration. Staff is proposing a number of changes that will increase this amount as follows:

#### **1. Additional Energy Efficiency Funding:**

- a. Based on the results of the EnerNOC market potential study and the benchmarking study prepared by AEG, the analysis included in the April 17, 2013 Revised CRA Straw Proposal recommended a funding level for EE of approximately \$187 million. In the interest of keeping customer rates stable, Staff reduced this amount by \$10 million in its April 17, 2013 Revised CRA Straw Proposal. Now, however, given that the June 3, 2013 2<sup>nd</sup> Revised CRA Straw Proposal results in an overall reduction of the SBC that customers will pay, Staff recommends that \$10 million be added back in to the proposed EE funding level.
- b. The benchmarking study discussed in Section 4 above was based, in part, on an assessment of current spending and did not take into consideration the potential for new programs. In 2011 and 2012, the Board approved two new programs: Multi-family Finance and Retro-commissioning. However, these programs were never implemented due to the pending transition to a new Program Administrator.

The RFP for the new Program Administrator required bidders to include a Multi-family Finance and Retro-commissioning program in their bids. Staff anticipates an award of the contract for the new Program Administrator in the near term and anticipates that these two programs will be implemented in FY14. Staff is proposing to add \$15 million to the EE budget for new programs, based on the amount previously approved by the Board for the Multi-family Finance and Retro-commissioning programs.

2. **Increase Marketing:** Subsequent to the issuance of the April 17, 2013 Revised CRA Straw Proposal, Staff worked with the program managers to develop proposed FY14 budgets based on the funding levels recommended in the Straw Proposal. The draft compliance filings submitted by Honeywell and TRC in May 2013 included a combined marketing budget of approximately \$2.4 million. Rate Counsel and others have consistently recommended increased marketing budgets, as a means to improve participation rates and the effectiveness of the programs. Staff concurs with this recommendation and is proposing to increase the funding by \$3.6 million in order to bring the total funding available for marketing to approximately \$6 million.
3. **Anticipated Increase in Participation Rates:** As noted by Rate Counsel and others, an increased level of marketing should both improve the effectiveness of the programs and

increase participation levels. Staff conservatively estimates that the additional marketing proposed above will increase program participation rates by approximately 5%. Therefore, Staff is proposing to increase the overall EE funding by \$16.3 million to account for the anticipated increase in participation.

4. **Increased Program Evaluation:** Rate Counsel strongly supported Staff's recommendation to increase the level of evaluation and stated that 2% of the total budget would be a reasonable budget level for evaluation. The proposed FY14 budget that resulted from the funding levels in the April 17, 2013 Revised CRA Straw Proposal included \$1.7 million for program evaluation, which is approximately 0.3% of the overall draft FY14 NJCEP budget of \$440 million. Staff concurs with Rate Counsel's recommendation and proposes to increase the funds available for program evaluation by \$7.1 million to \$8.8 million, which totals approximately 2% of the estimated initial draft FY14 NJCEP budget.
5. **Increased Renewable Energy:** Staff initially proposed a funding level of \$7.5 million for RE, including \$2.5 million each for the SREC registration program, new biomass facilities and energy storage. However, based on recent activity that has occurred subsequent to the issuance of the April 17, 2013 Revised CRA Straw Proposal, Staff is proposing to increase funding for the Renewable Energy Incentive Program (REIP) by \$10 million. The following identifies the key factors that support Staff's proposed revisions to the RE funding level:
  - a. The SREC registration program has exceeded estimated participation rates. By letter dated May 9, 2013, Honeywell submitted a request to increase the line item in the REIP budget allocated to the SREC registration program, based on an increased estimate of the number of applications from 3,000 to 4,200.
  - b. The program has reported to Staff that it recently approved several new applications for biomass projects, and the pipeline for biomass projects continues to exceed expectations.
  - c. Recent discussions with developers have indicated that the potential for energy storage may be greater than initially anticipated by Staff. Furthermore, in light of Superstorm Sandy rebuilding efforts, energy storage has been identified as a potential means of hardening the electric infrastructure, particularly for critical facilities, as this technology will allow customers to continue to operate during electric grid outages.
  - d. The April 17, 2013 Revised CRA Straw Proposal proposed a funding level of \$30 million for CHP and fuel cells, including large and small projects and renewably-fueled projects. Based on further discussions with industry participants, the draft FY14 budget circulated by Staff proposed to include renewably-fueled CHP and fuel cell projects in the RE program as opposed in the CHP/Fuel Cell program as initially proposed by Staff. The revisions to the funding levels set out herein reflect this change.
6. **Increase CHP/Fuel Cells:** The April 17, 2013 Revised CRA Straw Proposal included \$30 million for CHP and Fuel Cell projects. In response to Superstorm Sandy, Staff has recently facilitated a number of working group meetings to discuss ideas for increasing the pace of development of CHP and Fuel Cell projects and for additional incentives for projects at critical facilities, such as hospitals and water treatment plants, in order to allow such facilities to operate when the electric grid is down. Furthermore, in response to the devastation of Superstorm Sandy, the Board is exploring increased opportunities to employ CHP and Fuel Cells as a means of "hardening" the grid. Based on the above, Staff recommends increasing the funding for CHP/Fuel Cells by \$20 million.
7. **New Jersey Environmental Infrastructure Trust:** In the aftermath of Superstorm Sandy, the New Jersey Department of Environmental Protection is eligible for federal



funds for rebuilding infrastructure projects. In late 2012, Staff began discussions with the New Jersey Department of Environmental Protection and the New Jersey Environmental Infrastructure Trust (NJEIT) to explore the opportunity to leverage NJCEP funds as the source of the state match for the federal funds, to fund energy efficient upgrades and CHP/Fuel Cell projects for critical, water-related infrastructure projects. Staff is currently reviewing a draft MOU with DEP and anticipates that a proposal will be made available for public comment prior to consideration by the Board. Towards that end, Staff proposes earmarking \$30 million in FY14 funding for this program, which is the approximate level of state match required to fully leverage the available federal funds.

8. **Transition to new Program Administrator:** Treasury is in the process of awarding a contract to the new Program Administrator, and Staff anticipates increased costs related to transferring the programs managed by the current Market Managers to the new administrator. Based on the transition costs included in the Program Administrator bids and on the level of transition costs incurred in 2007 when the programs transitioned from the utilities to the Market Managers, Staff proposes to increase the funding by \$5 million for transition related costs.

The following table summarizes the proposed funding levels set out in this June 3, 2013 2<sup>nd</sup> Revised CRA Straw Proposal:

**Revised Proposed FY14 CRA Funding Level**

<b>Funding Category</b>	<b>Revised Proposed FY14 Funding Level</b>
<b>EE</b>	<b>\$252,565,000</b>
<b>RE</b>	<b>\$17,500,000</b>
<b>CHP-Fuel Cells</b>	<b>\$50,000,000</b>
<b>EDA</b>	<b>\$7,500,000</b>
<b>NJCEP Administration</b>	<b>\$17,100,000</b>
<b>Total NJCEP</b>	<b>\$344,665,000</b>

### 6.0 Rate Impacts

In its April 17, 2013 CRA Straw Proposal, Staff proposed to keep the FY14 funding level at the same level approved by the Board for calendar year 2012 and proposed utilizing the same allocation factors as in the 2008 CRA Order. As a result, the level of funding collected from each utility in FY14 would have remain unchanged from the level collected in 2012.

In the April 17<sup>th</sup> Straw Proposal, Staff proposed a total funding level of \$379,250,000. Staff is now proposing to reduce the FY14 CRA funding level to \$344,665,100. This will result in a reduction in the amount of SBC collected from ratepayers for NJCEP programs.

In the 2008 CRA Order, the Board allocated 69% of the statewide CRA funding level to electric ratepayers and 31% to gas ratepayers. This allocation was calculated by dividing the electric and natural gas annual revenues by the total electric and natural gas annual revenues. For FY14, Staff proposes utilizing the same methodology with updated estimated retail electric and gas revenues for calendar year 2013 provided by CEEEP, as follows:

#### Proposed Allocation to Electric and Natural Gas Ratepayers

	2013 Estimated Retail Revenues	% of Total Revenues
Electric	\$11,782,824,076	64.38%
Natural Gas	\$6,520,000,000	35.62%
Total	\$18,302,824,076	100.00%

The tables below shows the resultant level of funds to be collected from electric and gas ratepayers, the funding as a percentage of estimated revenues, the incremental rate impact as a percentage of rates and the \$/kWh or therm:

#### Electric Rate Impacts

Year	Electric Funding	Estimated Retail Electric Revenues *	Funding as a % of Revenues	Incremental Rate Impact	\$/kWh
FY13	\$265,475,000				
FY14	\$221,885,270	\$11,782,824,076	1.88%	-0.37%	\$0.00282

#### Gas Rate Impacts

Year	Natural Gas Funding	Estimated Retail Natural Gas Revenues *	Funding as a % of Revenues	Incremental Rate Impact	\$/Therm
FY13	\$113,775,000				
FY14	\$122,779,730	\$6,520,000,000	1.88%	0.14%	\$0.0269

\* Source: CEEEP. Note: Calendar year estimates used as proxy for FY revenue and average sales estimates.

The net result of the proposed change is a 0.37% reduction in the level of CRA funding collected as a percentage of estimated overall electric revenues and a 0.14% increase as a percentage of overall natural gas revenues.

The following tables show the estimated amount contributed to the NJCEP per year by a residential customer, a mid-sized commercial customer and a large commercial/industrial customer:

**Electric**

Year	Residential		Midsized C&I		Larger C&I	
	Average Annual Usage per Household (kWh)	Average Annual Bill Impact	Average Annual Usage per Business (kWh)	Average Annual Bill Impact	Average Annual KWh Usage per Business (kWh)	Average Annual Bill Impact
FY14	8,737	\$24.67	1,651,194	\$4,662.53	11,690,434	\$33,010.66

**Natural Gas**

Year	Residential		Midsized C&I		Larger C&I	
	Average Annual Usage per Household (Therms)	Average Annual Bill Impact	Average Annual Usage per Business (Therms)	Average Annual Bill Impact	Average Annual KWh Usage per Business (Therms)	Average Annual Bill Impact
FY14	736	\$19.78	47,205	\$1,268.68	931,739	\$25,041.37

Based on the proposed funding level of \$344,665,100, the following table shows the level of funding to be collected monthly from each utility:

**Monthly Utility Funding Levels for Board Order**

FY14	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total
ACE	\$2,993,104.69	\$3,208,823.94	\$2,945,156.76	\$2,332,739.95	\$2,087,056.13	\$2,249,391.36	\$2,549,732.23	\$2,418,832.95	\$2,330,109.25	\$2,144,501.39	\$2,089,293.61	\$2,356,326.09	\$29,705,068.35
JCP&L	\$6,145,454.08	\$6,507,052.54	\$5,891,509.75	\$4,815,691.39	\$4,420,691.48	\$4,846,834.03	\$5,089,440.52	\$5,140,714.38	\$4,933,330.97	\$4,653,160.96	\$4,294,867.67	\$5,100,192.52	\$61,838,940.29
PS-Electric	\$12,010,481.66	\$12,357,798.52	\$11,665,132.17	\$9,578,908.11	\$9,311,845.10	\$10,263,745.80	\$10,918,452.24	\$10,295,229.44	\$10,005,863.83	\$9,621,000.94	\$9,085,388.48	\$10,348,960.32	\$125,462,806.61
RECO	\$478,590.99	\$503,496.35	\$466,562.38	\$377,244.09	\$344,524.65	\$385,387.52	\$429,398.16	\$402,082.42	\$357,620.01	\$351,271.98	\$356,687.33	\$425,588.76	\$4,878,454.64
NJN	\$516,407.03	\$508,373.63	\$501,837.68	\$903,295.70	\$1,667,954.81	\$2,832,667.58	\$3,360,872.56	\$2,840,954.68	\$2,286,298.18	\$1,274,024.29	\$698,949.29	\$507,395.29	\$17,899,030.72
Etown	\$470,804.28	\$446,820.94	\$435,103.87	\$554,888.07	\$968,485.73	\$1,600,650.16	\$1,971,412.49	\$1,942,828.93	\$1,758,179.41	\$1,218,048.26	\$743,122.82	\$594,232.07	\$12,704,577.03
PS-Gas	\$2,579,336.42	\$2,536,510.81	\$2,320,599.61	\$3,092,805.32	\$5,582,962.57	\$9,403,096.43	\$12,410,051.71	\$12,240,522.90	\$10,769,905.42	\$7,170,325.75	\$4,263,479.45	\$3,172,946.64	\$75,542,543.03
SJG	\$866,562.75	\$816,122.42	\$723,057.36	\$731,547.83	\$1,058,768.28	\$1,825,643.36	\$2,517,447.09	\$2,474,543.59	\$2,263,331.92	\$1,520,222.65	\$1,012,925.09	\$823,406.99	\$16,633,579.33
Total	\$26,060,741.90	\$26,884,999.15	\$24,948,959.58	\$22,387,120.46	\$25,442,288.75	\$33,407,416.24	\$39,246,807.00	\$37,755,709.29	\$34,704,638.99	\$27,952,556.22	\$22,544,713.74	\$23,329,048.68	\$344,665,000.00

### **7.0 Summary of Staff Recommendations**

The FY14-17 CRA comes at a unique time for the NJCEP. As recommended in the 2011 Energy Master Plan, the NJCEP has begun the process of transitioning from multi-manager contracts to a single Program Administrator and towards more market driven programs.

At the same time, the award for the new Program Administrator has been challenged, and the associated Strategic Plan is on hold. The NJCEP is only beginning to evaluate the impacts of Superstorm Sandy on its budgets and future program design. Staff continues to review the role of utility EE and RE programs, and Staff recognizes the NJCEP's contribution to the state's economy, and the construction industry in particular.

In response to current circumstances and the various open issues discussed in this Straw Proposal, Staff recommends a number of processes/working groups and evaluations that will inform proposed changes to the programs, processes and structure of the NJCEP. Staff believes that the results of the additional assessments recommended in the Straw Proposal will assist the Board in making a more informed decision regarding the funding levels, especially in the outer years of this proceeding.

However, given that the current Board approved funding levels for the NJCEP expire at the end of June 2013, at this time, the Board must determine funding levels for FY14 to enable the continuation of the NJCEP. Based on the above, Staff is proposing a funding level for FY14 and will defer to 2014 its recommendation to the Board regarding the funding levels for the remaining three years.

While continuing to administer a comprehensive set of programs, Staff will reevaluate the suite of existing programs, considering which programs are most beneficial to ratepayers, the State and the environment, prior to recommending specific FY14 programs and budgets to the Board.

Staff recommends the following goals for the NJCEP for FY14:

**11. In coordination with Treasury, finalize the Program Administrator contract, develop the Strategic Plan and complete the transition to a single Program Administrator.** The Strategic Plan will inform the direction of the NJCEP over the next several years. Staff will focus its efforts on completing the transition to the new Program Administrator and will work closely with the Program Administrator and other stakeholders to develop the NJCEP Strategic Plan.

**12. Perform Key Evaluations:** Staff has emphasized throughout the Straw Proposal its support of the need for a higher level of program evaluation than has been conducted historically and as recommended in the EMP. To this end, Staff recommends formulation of a Working Group, chaired by Board Staff and CEEEP, to coordinate with interested stakeholders and develop a three year evaluation plan that identifies specific program evaluation activities that should be performed in the years 2014 through 2016. Staff recommends that the evaluation plan be completed by the end of 2013.

Staff notes that it is in the process of preparing an RFP for an audit of the utility EE and RE programs and for an audit of the IMS system. These activities will be funded through the FY14 evaluation budget.

- 13. Promote the role of the NJCEP in storm response, so that New Jersey can rebuild stronger, more energy efficiently and in a manner that provides long-term benefits to ratepayers and the environment.**
- 14. Promote Distributed Generation, including CHP and Energy Storage, as a means of hardening infrastructure for critical facilities:** The EMP recommends an increased role for CHP systems and the Board is currently exploring the role of CHP and other types of distributed generation and energy storage as means of ensuring the operation of critical facilities during power outages. Staff has created a Work Group that is currently providing input and exploring alternative methods of financing CHP and fuel cell systems, including the development of an Energy Efficiency Portfolio Standard.
- 15. Convene a Work Group to evaluate Utility programs:** The Straw Proposal identifies a number of concerns regarding the existing procedures for review and approval of utility EE and RE filings, the coordination of the utility programs with the NJCEP, and issues related to reporting utility program results. Staff will convene a Work Group to discuss these issues and develop recommendations for consideration by the Board.
- 16. Assess the Impact of all EE and RE Programs:** It is important to understand the State's capacity to spend on clean and renewable energy, in order to enable a smooth transition to more market-based funding for EE and RE programs. The Straw Proposal identifies some of the challenges that Staff faces in gathering the information required to assess the full impact of all of the EE and RE programs.

Staff will coordinate with the Board's Division of Energy, Rate Counsel, the utilities, CEEEP and other interested stakeholders to identify information needs, develop systems for collecting and reporting such information, and to develop standardized reports that will make this information more readily accessible to the Board and other interested parties.

- 17. Identify and track additional metrics such funds leveraged, jobs created, and marketing impacts:** As the BPU evaluates the benefits of market-based financing and other mechanisms for leveraging ratepayer funds, it is necessary to understand the opportunities and the extent to which existing programs lend themselves to related goals, such as job creation and reducing reliance on SBC funds.

As a national leader in energy efficiency and renewable energy, New Jersey's clean energy economy creates steady jobs. It is important to understand how and where those jobs are being created.

While Staff is recommending increased marketing activities, Staff believes it is important to measure the impacts of additional marketing and recommends the development of specific metrics for tracking its marketing activities.

- 18. Promote Emerging Technologies such as Hydrokinetic Power and Energy Storage:** The Navigant market potential study identifies several emerging technologies such as hydrokinetic power and energy storage that could contribute to achieving the State's energy goals. In FY14, Staff will hold discussions with

interested stakeholders and develop solicitations to provide incentives for the development of these technologies.

- 19. Coordinate with Treasury to develop appropriate procedures to better match the collection of funds from ratepayers to actual program needs:** Staff will work with Treasury to align the collection of funds from ratepayers with the needs of the program.
- 20. Coordinate with DEP:** Based on comments filed by the Department of Environmental Protection (DEP), Staff has agreed to continue to consult with DEP, going forward, regarding the identification of programs with dual environmental and energy benefits, and the permitting of projects and technologies.