OCE 2nd Revised Staff Straw Proposal for the NJCEP 2009 through 2012 Funding Levels – Comprehensive Energy Efficiency and Renewable Energy Resource Analysis
April 15, 2008

On or about January 11, 2008, the Office of Clean Energy (OCE) circulated a draft straw proposal recommending funding levels for New Jersey's Clean Energy Program for the years 2009 – 2012. The straw proposal was discussed at meetings of the Energy Efficiency (EE) and Renewable Energy (RE) Committees of the Clean Energy Council and written comments were received. On or about March 26, 2008, OCE circulated a 1st Revised Straw Proposal which took into consideration the comments received. The 1st Revised Straw Proposal was presented to and discussed with the Clean Energy Council (CEC) on March 27th. The following is OCE's 2nd Revised Straw Proposal which takes into consideration all written comments received to date as well as discussions that took place at meetings of the CEC and the EE and RE Committees.

The Board has initiated a formal proceeding to consider funding levels for 2009 – 2012. OCE has circulated this 2nd revised straw proposal to members of the CEC and EE and RE Committees for consideration and comment at the formal hearings scheduled for April 22nd in Newark and May 6th in Trenton. OCE encourages interested parties to submit formal written comments to the Board and to participate in the public hearings.

BACKGROUND

On February 9, 1999, the Electric Discount and Energy Competition Act, N.J.S.A. 48:3-49 et al. (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. 48:3-60a(3). EDECA further directed the Board of Public Utilities (Board) to initiate a proceeding and cause to be undertaken a comprehensive resource analysis of energy programs currently referred to as the comprehensive energy efficiency and renewable energy 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 energy efficiency and Class I renewable energy programs (now called New Jersey's Clean Energy Program) 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 energy efficiency and renewable energy resource analysis proceeding. At the conclusion of this proceeding, the Board issued its initial comprehensive resource analysis order, dated March 9, 2001, Docket Nos. EX99050347 et al. (hereinafter referred to as the 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. By Order dated July 27, 2004, Docket Nos. EX03110945 et. al. the Board adopted a final 2004 funding level. The 2001 – 2004 funding levels approved by the Board are set out in the table below:

Table 1: 2001 through 2004 Funding Levels

Year	Total ($ million)	Energy Efficiency	% of Total	Renewable Energy	% of Total
2001	**$115**	**$86.25**	**75%**	**$28.75**	**25%**
2002	**$119**	**$89.25**	**75%**	**$29.75**	**25%**
2003	**$124**	**$93**	**75%**	**$31**	**25%**
2004	**$124**	**$93**	**75%**	**$31**	**25%**
Total	**$482**	**$361.5**	**75%**	**$120.5**	**25%**

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. In this proceeding the Board directed the OCE to review the programs and budgets with advice from the Clean Energy Council. The Board also directed OCE to hold hearings and meetings to discuss programs and budgets.

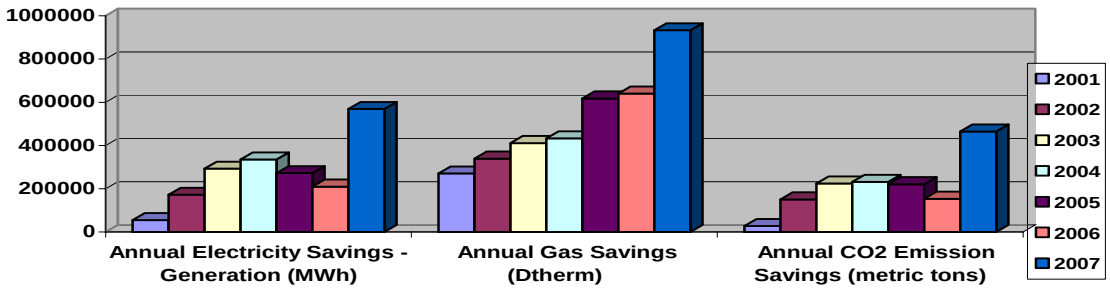
By Order dated December 23, 2004, Docket No. EX04040276, the Board concluded its second CRA proceeding, set funding levels for the years 2005 through 2008, and approved 2005 programs and budgets. The Board approved funding levels as set out in the table below:

Table 2: 2005 through 2008 Funding Levels

Year	Total ($ million)	Energy Efficiency	% of Total	Renewable Energy	% of Total
2005	**$140**	**$103**	**74%**	**$37**	**26%**
2006	**$165**	**$113**	**68%**	**$52**	**32%**
2007	**$205**	**$123**	**60%**	**$82**	**40%**
2008	**$235**	**$133**	**56%**	**$102**	**44%**
Total	**$745**	**$472**	**63%**	**$273**	**37%**

The funding approved by the Board was used to provide incentives to residential customers, businesses and local and State governmental entities that installed energy efficiency and renewable energy measures. The installation of these measures produced significant benefits including reduced energy costs for customers that participated in the programs, lower overall costs for all customers, local job growth, as well as environmental and health benefits that result from reduced emissions. Figure 1 below provides a high level overview of the savings achieved from 2001 to 2007. Additional detail regarding the benefits of the programs is discussed below.

Figure 1: Program Results 2001 - 2007



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 and the programs to be funded by the SBC. As a result of the requirements in EDECA and the aforementioned Orders, the Board directed OCE to initiate a third proceeding and public hearings on program funding and funding allocations for the comprehensive energy efficiency and renewable energy resource analysis programs for years of 2009-2012.

The Board, in its April 12, 2007 Order Docket No. EO07030203, requested comments on how New Jersey's Clean Energy Program can support the proposed goals and objectives in the Energy Master Plan (EMP) and the changes to programs and funding levels needed to achieve these goals and objectives.

As set forth in the April 12, 2007 Order, the 2009 through 2012 funding levels must support and implement the goals and strategies of the recently released draft EMP. The Board has engaged the Northeast Energy Efficiency Partnerships (NEEP) to develop a proposed portfolio of energy efficiency programs designed to achieve the goals that have been set for the draft EMP. In summary, the energy efficiency (EE) and renewable energy (RE) EMP goals are to:

1. Reduce electricity consumption 20% by 2020
2. Produce 22.5% of electricity demand through renewable resources by 2020.

The NJCEP 2009-2012 programs and savings goals must also be coordinated with energy savings measures proposed in the EMP including the majority of combined heat and power and demand response measures. The EMP goals for these initiatives are as follows:

1. 2,200 MW of demand response (DR), and
2. 1,500 MW of combined heat and power (CHP)

The funding for the above initiatives and goals--including DR, CHP, EE and RE--must be developed in a coordinated and integrated manner, particularly in the delivery and marketing/education/communication of these specific programs and incentive measures.

The major objective of the OCE straw proposal for the NJCEP 2009-2012 funding levels is to assist New Jersey customers in achieving the EMP goals in the most efficient and cost effective manner. This 4-year funding level is designed in part to begin to implement the draft EMP goals to reduce energy use and demand, increase clean energy generation, reduce the environmental impacts of energy generation and use, increase energy related jobs, and lower energy costs. The energy infrastructure decisions that are made today will either assist or hinder the state in achieving these energy reduction and clean generation goals.

It is important to commence the discussions of the next 4-year funding levels now even though the draft EMP and NEEP work is ongoing. It is likely that the final decisions made in these processes will influence the future funding levels, especially in the later years. However, in order to continue program momentum it is necessary to put in place the next 4-year funding level, while recognizing that it may be revisited based on the work currently being conducted.

The 2009 through 2012 funding level must also assist in achieving the Governor's Greenhouse Gas (GHG) Emission requirements for 2020 and 2050, as set forth in the New Jersey Global Warming Response Act. The goals of this Act are as follows:

1. Achieve 1990 GHG emission levels by 2020, and
2. 80% reduction in 2006 GHG emission levels by 2050.

As initially estimated by DEP in their GHG reporting, approximately 80% of the anticipated savings in GHG emission levels needed to achieve the 1990 GHG reduction goal by 2020 will come from EE and RE measures. In order to meet the 80% reduction in 2006 GHG levels by 2050, New Jersey will have to approach a carbon neutral energy infrastructure for its transportation, electricity, and heating usage. The actions we take today have to begin to put us on the right track to achieve this goal.

It will take more than increased funding to reach these savings goals. Successful efforts to reach ambitious levels of savings share several common characteristics:

1. A long term, statewide plan for energy efficiency and renewable energy;
2. Programmatic approaches that leverage established and advance new energy codes, appliance standards and protocols;
3. A flexible implementation strategy that allows for innovation and pilots in a timeframe efficient and cost effective manner;
4. An administrative structure that provides for a consistent delivery of energy efficiency and renewable energy services;
5. Adequate and predictable resources beyond the four year funding cycle that allows long term ramp up of energy efficiency and renewable energy programs;
6. Consistent statewide core energy efficiency and renewable energy programs.

In its initial straw proposal OCE estimated that in order to achieve the EE EMP goals, in the next year we would need to double the cumulative savings achieved through the NJCEP over the six year period from 2001 to 2006. This implied that the level of EE program savings would need to increase approximately six-fold to achieve the EMP goals. This could be achieved by either additional NJCEP SBC funding for new or revised programs or fully revising the program's incentive delivery mechanism.

However, the budgets and saving goals filed by the Market Managers for the 2008 EE programs are estimated to reduce electricity usage by approximately 0.67%. This implies that we would need to increase funding by about 2 to 3 times to achieve the EMP goals as opposed to by about 6 times as estimated in the initial straw proposal. If the new estimates are correct, we can come much closer to achieving the EMP goals utilizing the proposed funding levels.

The solar transition provides a potential roadmap for revisions to the EE programs. The solar transition took over a year to develop and regulations fully implementing the changes will likely take another year to complete. It is anticipated that a similar time period would be needed to transition to a different model for advancing EE.

Since 2001 we have achieved the following annual and cumulative lifetime savings or renewable energy generation:

Table 3: 2001 through 2007 Clean Energy Program Results

	Electric Savings	Natural Gas Savings	Renewable Energy	Renewable Energy

			Capacity	Generation
	MWh	Dtherms	kW	MWh
2001 – 2007	**1,446,739**	**3,083,151**	**85,168**	**338,947**
Annual Average	**206,677**	**440,450**	**12,166**	**48,421**
Maximum	**328,513**	**931,746**	**42,821**	**224,281**
Minimum	**50,683**	**243,146**	**8**	**11**
Cumulative Lifetime 2001 -2007	**19,408,672**	**50,487,771**	**85,168**	**4,282,937**

The savings shown in the table above were updated from the previous straw proposal to reflect final 2007 program results. The above savings have been delivered by the following participants in the energy efficiency and renewable energy programs:

Table 4: NJCEP Participants*

	2001	2002	2003	2004	2005	2006	2007
Residential EE	**23,388**	**28,873**	**55,109**	**62,589**	**50,227**	**41,498**	**43,218**
Low income	**5,848**	**5,937**	**6,661**	**6,706**	**6,403**	**8,552**	**8,484**
C&I EE	**1,650**	**9,163**	**4,209**	**3,983**	**2,387**	**2,094**	**1,297**
Renewable Energy	**6**	**46**	**58**	**284**	**496**	**1,005**	**838**
Total	**30,892**	**44,019**	**66,037**	**73,562**	**59,513**	**53,149**	**53,837**

*Number of rebates or grants issued

This Straw Proposal also provides information on the estimated costs and benefits of the Solar Transition, the PSE&G Solar loan program, and the Regional Greenhouse Gas Initiative (RGGI) allowance auction allocation as set forth in the RGGI amendments to the Global Warming Response Act (GWRA). This straw does not include information on the cost, benefits or value of the utility regulated EE and RE programs as provided in the RGGI amendments, the Greenhouse Gas Portfolio Standards or the Energy Efficiency Portfolio Standards as provided for in the Global Warming Response Act at P.L. 1999 c. 23 since no programs have been proposed to date pursuant to any of these initiatives.

As currently enacted, the RGGI amendments in Section 7 of P.L. 1999 C. 23 provide for the following uses for the RGGI CO_2 Allowance Auction funds after annual appropriations for administrative costs:

1. 60% by the New Jersey Economic Development Authority (NJEDA) for commercial, industrial and institutional entities to support end-use energy efficiency projects and new efficient electric generation facilities that are state of the art as determined by the New Jersey Department of Environmental Protection (NJDEP), including but not limited to energy efficiency and renewable energy applications to develop combined heat and power production and other high efficiency electric generation facilities, and to stimulate or reward investment in the development of innovative carbon emission abatement technologies with significant carbon emission reduction or avoidance potential. The NJEDA shall develop its grant or other forms of financial assistance programs in consultation with NJBPU and NJDEP.

2. 20% by the NJBPU to support programs that are designed to reduce electricity demand or costs to electricity customers in low-income and moderate-income residential sectors with a focus on urban areas, including efforts to reduce heat island effect and reduce impacts on ratepayers attributable to the implementation of the GWRA. The NJBPU shall develop its programs in consultation with NJEDA and NJDEP.

3. 10% by NJDEP to support programs designed to promote local government efforts to plan develop and implement measures to reduce greenhouse gas emissions, including but not limited to technical assistance to local governments, and awarding grants and other forms of assistance to local governments to conduct and implement energy efficiency, renewable energy and distributed energy programs and land use planning resulting in measurable reductions of greenhouse gas emissions. The NJDEP shall develop its programs in consultation with NJBPU and NJEDA.

4. 10% by NJDEP to support programs that enhance the stewardship and restoration of the State's forests and tidal marshes that provide important opportunities to sequester and reduce greenhouse gases.

5. The NJDEP can utilize up to 4% for administrative costs and NJBPU and NJEDA can use up to 2% for administrative cost.

It is estimated that the auction of RGGI CO2 allowance will generate approximately up to $70 million annually will result in an approximate o,2% rate impact in 2009 and an approximate rate impact of 0.7% in 2012 on average across all customer classes. This is based on an allowance price of

approximately $2.00 in 2009 and $2.50 in 2012. The requirements for RGGI C02 compliance will be on all New Jersey electric generation units over 25 MW as set forth in NJDEP regulations.

The funding level needs to be considered in terms of how they achieve both the near term goals (2009-2012), and establish a pathway for achieving the longer term (2020) goals, for EE and RE set forth in the EMP. It is clear from the current stakeholder discussions that the funding levels in and of themselves may not achieve these goals. Further it is clear in the overall analysis that the funding level can not simply "rebate" the achievement of the EMP goals. Other approaches and mechanisms to achieving the EMP goals and the GHG reduction provisions may be required. To help define potential other approaches, the OCE requests comments on the following questions:

1. Should the proposed SBC funding level be increased to fund the full EMP goals or ramp up over the 12 years?
2. What other mechanisms should be implemented to compliment this four year funding level?
3. Should the other funding mechanisms in the RGGI amendments be in additional to the SBC four year funding level programs or part of the total overall funding level in a percentage not to exceed?
4. How should those programs from the other funding sources be coordinated?
5. Should the SBC 2009 through 2012 funding level identify specific funding for RGGI utility EE and Class 1 RE pilots?

Renewable Energy
The solar transition program for financing solar through solar RECs (SRECs) coupled with any additional securitization as needed, and the changes in the renewable portfolio standard rules and net metering and interconnection requirements will in large part assist in meeting the EMP solar goals. However, there is still a need to promote and advance the following types renewable energy for development and operation in New Jersey:

1. Small scale PV
2. Biomass – grid connected and on-site systems
3. Offshore Wind
4. Onshore Wind – grid connected and on-site systems
5. Clean Energy Technology Fund

The EMP objectives for construction and operations of wind and biomass in New Jersey are:

1. 1000 MW of offshore wind by 2020
2. 200 MW of on-shore wind by 2020
3. 900 MW of sustainably grown and harvested biomass

In addition to these EMP goals for construction of Class 1 RE within New Jersey, the Board has established at N.J.A.C. 14:8 the following Renewable Energy Portfolio Standard (RPS) requirements. Table 5 represents the non-solar RPS requirements.

Table 5: Class I RPS Requirements

Energy Year (Ending May)	Class I RPS %	Required RECs (MWh)
2008	**2.92%**	**2,435,692**
2009	**3.84%**	**3,198,720**
2010	**4.69%**	**3,902,605**
2011	**5.49%**	**4,574,836**
2012	**6.32%**	**5,264,560**
2021	**17.88%**	**14,894,040**

The requirements to meet the RPS can be achieved via generators located throughout PJM utilizing the PJM-EIS Generator Attributes Tracking System (GATS), which is an interstate tracking system for RECs within the PJM area. In addition to the non-solar Class I RPS requirements, there is currently a solar set aside in addition to the Class 1 RPS requirement as follows:

Table 6: Solar RPS Requirements

Energy Year (Ending May)	Solar RPS %	Required SRECs (Solar MWh)
2008	0.08%	68,056
2009	0.16%	133,280
2010	0.22%	184,093
2011	0.31%	254,065
2012	0.39%	328,202
2021	2.12%	1,700,000*

* The cap approved by the Board in the December 6, 2007 Solar Transition Order subject to rulemaking-

The two tables above provide the estimated RPS requirements based on the percentage of retail sales requirements in the RPS rules and 2007 retail sales of approximately 83,300 GWh.[1] Actual RPS requirements will be based on future retail sales levels. Both the EMP goals and the RPS requirements were used to help frame the discussion on the appropriate 2009 through 2012 funding levels in the context of these Class I renewable and solar goals.

The Board has issued a solicitation for funding assistance for offshore wind projects through a production based grant that is provided after the facility is permitted, constructed and operational. It is estimated that the offshore wind funding will not be required until 2012 or later. However, in order to provide offshore wind funding assistance through a grant solicitation, the funds for any project must be obligated or committed at this time. The current production incentive grant proposal provides up to $19 million for a 350 MW pilot project. 10% of these funds may be used upfront for engineering and permitting with the remainder potentially needed as a production based grant.

Based on the above EMP RE goals for 2009 to 2012, Table 5 estimates the annual energy production, avoided emissions and avoided environmental costs. The avoided emissions factors are those provided by NJDEP in the Rutgers CEEEP 2006 Cost Benefit Analysis that was distributed with the initial straw and posted on the CEP website. The avoided environmental benefits are those factors provided in the Rutgers CEEEP 2006 Cost Benefit Analysis that was distributed with the initial straw and posted on the CEP website. The avoided environmental cost (environmental benefit) is estimated at $0.02 per kWh. The avoided CO_2 emissions and the avoided environmental cost are maximum value

[1] Estimated retail sales for 2007 based on preliminary Electric Suppliers reporting to PJM-GATS, currently under review and verification by the Office of Clean Energy. Note, that consistent with general efficiency goals expected in the Energy Master Plan in the tables presented above total retail sales are maintained at a constant level through 2021. Actual RPS targets will reflect any upward or downward trends in sales from this level.

based on 2007 factors. As the average emissions from power plant becomes "cleaner" over time these values will be reduced in the future from this maximum.

Table 7: Class 1 RE Energy Production, Avoided Emission and Environmental Benefits from EMP RE Goals 2009 – 2012 and RPS Requirements

Class 1 Renewable Energy Technology	Estimated Annual Energy Production	Estimated Annual Avoided CO2 Emissions	Annual Avoided Environmental Cost
	MWh	tons	$
EMP			
Offshore Wind	2,628,000	1,666,152	$52,560,000
Onshore Wind	438,000	277,692	$8,760,000
Sustainable Biomass*	6,307,200	3,998,764	$126,144,000
RPS			
Solar	1,700,000	1,077,000	$34,000,000
Class 1 non-solar	14,894,040	9,442,821	$297,880,800

***** CO2 emissions from sustainable biomass are not considered anthropogenic -

Staff estimates the following annual energy production, avoided emissions and avoided environmental costs if the 2009 – 2012 goals set out in this Straw Proposal are achieved:

Table 8: Energy Production, Avoided Emission, Environmental Benefit for RE 2009 through 2012 Funding Level

Years	Estimated Annual Energy Production	Estimated Annual Avoided CO2 Emissions	Annual Avoided Environmental Cost
	MWh	tons	$
Solar (OCE)	30,000	19,020	$ 600,000
Solar (MSEIA)	50,000	31,700	$1,000,000
Wind	262,800	166,615	$ 5,256,000
Biomass	700,800	444,307	$ 14,016,000
Total	993,600	629,942	$ 19,872,000

Table 7 below, from Summit Blue's Renewable Energy Market Assessment Report, shows the estimated cost of SRECs needed to achieve the RPS goals:

Table 9: Estimated Solar SREC Cost, Bill Cost and Rate Impact

Year	Solar Transition SREC Cost	$ Impact for Average Residential Customer	Incremental Rate Impact
2009	**$ 42,239,133**	**$ 4.37**	**0.39%**
2010	**$ 74,114,936**	**$ 7.57**	**0.65%**
2011	**$160,735,705**	**$11.77**	**0.98%**
2012	**$268,480,781**	**$15.96**	**1.28%**
Total	**$545,570,555**	**-**	**-**

The Solar Transition costs are estimated using average SREC prices at $100 below the established SACP values as set by the Board (i.e. $611 for EY 2009).

The value of the PSE&G Solar program is $105 million over two years. Program costs are recoverable as a separate non by-passable charge called the Solar Pilot Recovery Charge (SPRC). The PSE&G Solar program would provide 10 to 15 year loans to customers that install solar systems. It is estimated the programs first year's net cost to ratepayers, defined as the difference between the SPRC minus the value from the sale of SREC through an auction, would be $1.4 million. The remaining costs will be recovered from customers that participate in the program through the repayment of loans.

Proposed RE Funding Levels

The following table presents the OCE's current proposed funding levels for renewable energy for 2009-2012. These have not been modified from the initial straw proposal pending consideration of further comments and responses to questions outlined below. At this time, the solar, biomass, and wind industries have all submitted comments proposing a higher level of funding than the level proposed in OCE's initial straw proposal.

Table 10: OCE Proposed RE Funding Levels

Year/ Program	Wind	Biomass	Clean Energy Tech Fund	Small Solar < 20 kW	Total
2009	**$25 M**	**$15 M**	**$7.5 M**	**$21.00 M**	**$68.50 M**
2010	**$25 M**	**$15 M**	**$7.5 M**	**$13.50 M**	**$61.00 M**
2011	**$25 M**	**$15 M**	**$7.5 M**	**$12.00 M**	**$59.50 M**
2012	**$25 M**	**$15 M**	**$7.5 M**	**$ 6.75 M**	**$54.25 M**
Total	**$100 M**	**$60 M**	**$30 M**	**$53.25 M**	**$243.25 M**

A number of factors contribute to the proposed funding levels presented above.

1. The market transition to financing solar through solar RECs coupled with additional securitization (as required), changes in the RPS and potential changes in the net metering and interconnection requirements provide significant non-rebate revenue streams for solar projects.[2]

2. This proposal assumes the continuation of the federal investment tax credits and vibrant REC/SREC trading markets.

3. New market offerings, such as the Solar Financing Program developed by Public Service Electric & Gas, are emerging to further supplement the funds proposed for the CRA. The allocation of CO2 allowance auction revenues to the NJEDA and NJDEP to support programs designed to promote commercial/industrial/institutional and local government efforts to reduce GHG emissions (including possible renewable project development) is another example of new funding.

4. Given the current higher capital cost for off-shore wind, onshore wind and biomass compared to the marginal cost of fossil fuel electric generation facilities, OCE estimates that the funding levels listed above are needed in order to begin to meet the RPS and EMP goals for wind and sustainable biomass Class I renewable energy.

5. OCE is proposing, based on a comparative analysis performed by the NJ Economic Development Authority (EDA) of other state funds used for similar purposes, $15 million per year for the Clean Energy Technology Fund to promote and advance New Jersey EE and RE R&D and manufacturing businesses. The funds for this program would be derived

[2] Based on the Summit Blue Solar Market Transition Analysis – SREC revenues (if valued at $100 less than the SACP) will total more than $545 million over 2009-2012. If SRECs (on average) trade at a lower value the total will be reduced accordingly (e.g. at an average value of $250/MWh the total SREC value for 2009-2012 would be ~$221 million). In either case, it is clear that looking forward SREC revenues are responsible for an increasingly larger share of the public resources supporting solar market development.

from a 50 – 50 allocation from the EE and RE programs, or $7.5 million per year million for RE for 4 years.

Further development of the Energy Master Plan, and/or the implementation of legislative initiatives (such as implementation of Section 13 of P.L. 1999 c.23-RGGI amendments to GWRA may further influence and impact the final CRA funding levels as proposed above.

It is also important to note that while the total renewable CRA funding levels presented above are lower than the renewable funding approved in the 2004-2008 CRA cycle, that the overall funding levels for renewable energy market support (combined SREC and REC revenues, CRA support, and other potential new sources, such as initiatives related to Section 13 of P.L. 1999 c.23, are expected to continue robust growth to help meet the State's goals. Along with this overall growth in support for renewable energy markets, there is an increasing shift towards the market based (SREC and REC) mechanisms, and additional resources to supplement the proposed CRA budget.

Potential Targets Related to Straw Funding Levels

The proposed 2009 through 2012 funding levels that will go towards meeting the EMP RE goals are estimated in Table 11 below.

Table 11: Installed Capacity vs Spending

	4 Year Installed Capacity MW	Cumulative GWh/Yr from new 2009-2012 rebate resources by end 2012	Average Installed Cost ($/Watt)	Total CRA Incentives 2009-2012 ($ million)	Incentives as % of Installed Costs	New Incentive Installed Capacity (2009-2012) as % of 2021 Capacity Target
Solar-OCE	30	33	$ 7.00	$ 53	25%	2%
Solar-MSEIA	50	55	$ 7.00	$ 107	31%	3%
Biomass -OCE	100	701	$ 2.75	$ 60	22%	11%
Wind - OCE	120	294	$ 3.50	$ 100	24%	10%

This table uses a different capacity factor for wind and solar than Table 6

The table above includes both the OCE straw proposal for solar funding of $53 million in rebate funding for solar projects smaller than 20 kW, and the Mid Atlantic Solar Energy Industries Association proposal of $107 million of funding for solar projects smaller than 40 kW.

The OCE and MSEIA proposals are estimated to result respectively in 30 MW and 50 MW of new solar capacity supported by rebates over the 4 year CRA horizon. These levels of new capacity represent roughly 13% and 21% of the new solar capacity that will be required during this time period in order to meet the RPS solar target in 2012. They represent a much smaller share, less than 3% of the total installed capacity that will be required to meet the 2020 goal. The

proposed funding levels and capacity targets estimate that rebates could cover roughly 25% to 31% of the initial system installation costs.

For wind and biomass, the proposed funding levels are estimated to provide roughly 100 MW of new biomass capacity and 120 MW of new wind capacity if they are assumed to cover 20% to 25% of the installed costs. This would attain roughly 10% of the installed capacity goals for 2020. The generation from these resources would be expected to provide about one third of the new generation required to meet the incremental Class I RPS requirements in 2012. The remaining two thirds of the incremental Class I RPS requirements by 2012 would need to be met by other resources outside of New Jersey across PJM. The off-shore wind solicitation is also expected to deliver an additional 350 MW of wind capacity.

The targets of 100 MW new biomass capacity and 120 MW new wind capacity by 2012 would need to be increased if meeting more of the incremental RPS requirement is a near term objective. Based on project lead times, global market conditions, and experience in New Jersey to date, a more aggressive ramp up of the biomass and wind installed capacity might not be feasible, even if the proposed CRA funding levels were increased.

Solar Rebate Design

The following table presents the OCE's initial proposal for annual rebate funding levels for solar rebates (systems less than 20kW).

Table 12: Proposed CORE Funding Level 2009 to 2012

	CORE Rebates for Small Systems
	< 20 kW
2009	$21.00 m
2010	$13.50 M
2011	$12.00 M
2012	$ 6.75 M
Total	$53.25 M

An alternative approach to structuring rebates is proposed herein. Proposed modifications to the solar rebate structure include addition of an expected performance component to rebate calculations, the use of capacity based blocks that trigger automatic (purely administrative) reductions in rebate levels as the market grows, and further integration with efficiency through enhanced incentives and/or program requirements.

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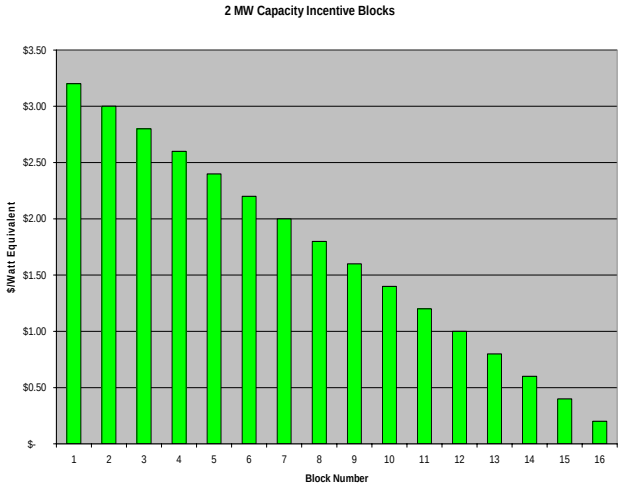
As an example of this structure, the following figure illustrates anticipated project volumes and annual budgets based on sixteen incentive blocks (2 MW each) with a steady decline of $0.20/Watt.

Note that in this example, the rebate incentives for small systems are reduced to zero at the end of the four years, assuming that during this time period the target of 30 MW of additional capacity has been installed. If the market response were slower, then rebate levels would remain at a higher level until each 2 MW capacity block were filled.

Figure 2: Proposed Solar Rebate Structure

Proposed Solar Rebate Structure



	2009	2010	2011	2012
Incentive Budget By Year Million	$ 16.60	$ 15.57	$ 12.97	$ 8.11

	2009	2010	2011	2012
Number of Systems	700	1,200	1,500	1,875
Capacity kW	5,203	6,504	8,130	10,163

Wind Market Development

The proposed funding levels of $100 million would target approximately120 MW for wind development over 2009-2012 anticipate a strong emphasis on community scale – cluster type developments between 1 and 10 MW of capacity. Market experience from around the country, and in New Jersey (Atlantic City Utility Authority) suggest strong potential for further development of New Jersey's on and near shore wind resources at this scale. Financing strategies and mechanisms such as Community Renewable Energy Bonds (CREBs), and power purchase agreements are expected to make promising contributions to the growth of this market in New Jersey during the next four year period.

The proposal also expects more modest, but continued growth of the customer sited, behind the meter, scale wind market during the next four years. This market segment is expected to add approximately 5 MW total capacity to the overall target. The wind proposal is based on continuing with the recently developed Expected Performance Based Buy-down (EPBB) approach, allowing for modifications and refinements as experience is gained with this method over time.

While more detailed program design and incentive planning remains to be completed during the annual budget process, the funding levels are established, $70 million of the funding available for wind to provide support for development of community scale projects with the remaining $30 million available to support the customer sited – behind the meter market. Given the long lead time for project development for wind OCE expects that a portion of the funding, to be determined in the annual budget process, with be for market development assistance for pre-construction development as well as direct financial support for project development. Off shore wind development is expected to play a major contributing role to meeting the RPS standard requirements by 2020. However, at this point, the wind funding level of $100 million is expected to be primarily targeted toward development of on-shore and near-shore resources. The Board has approved $19 million of the 2008 budget has been set aside for an off-shore wind solicitation. Staff expects that at a minimum $17.1 million of the $100 million wind funding will be set aide for the offshore wind projects.

Biomass Market Development

The proposed funding levels of $60 million would target approximately 100 MW for biomass development over 2009-2012 anticipates a mix of technologies relying on combustion, gasification and anaerobic digestion that will see active market growth in the next four years. The scale for biomass projects is expected to cover a broad range (from 250 kW or smaller customer on-site systems, potentially up to plants with regionally coordinated biomass supply on the order of 20-30 MW, or more). Prescriptive incentive designs, and/or competitive solicitations, that provide sufficient financial incentives to encourage project

development will be matched with assistance for market development activity, (including supply chain procurement assistance for pre-construction development. Regional and coordinated transfer of material and biomass exchange networks are examples of supply chain development activities that can help catalyze project development at the scale that will be required.

Note that for the wind and biomass market development targets listed above, the 2009 through 2012 funding level are expected to be supplemented by "robust" Class I REC trading values in the range of $20 to $50/MWh driven by consistently increasing demand for both the New Jersey and other RPS standards.

Questions to Inform Future Revisions to the RE Funding Level

The OCE welcomes additional comments on all aspects of the straw proposal for CRA renewable funding presented above. In addition, there are a number of questions that the OCE would like stakeholders to address to further inform future revisions. These include:

1. Should program design provide strong incentives or mandate that customers - generators implement energy efficiency measures in order to be eligible for renewable energy rebates? Energy efficiency is currently significantly more cost effective than renewable energy. If customers install energy efficiency measures first, the size of renewable energy systems needed to meet a customer's electric needs can be reduced. This can result in achieving the EMP goals at a lower overall cost and in spreading renewable energy incentives to more customers since customers will install smaller systems.

2. Are the capacity targets and spending levels for wind, biomass and solar presented in this version of the straw proposal reasonable and achievable?

3. How should the RGGI mechanisms for funding for RE be coordinated with the SBC funding for RE? Should those programs be in addition to or part of the overall total?

4. What types of pilots or innovative programs should be developed and funded through the SBC four year funding level for RE ? Or through the other RGGI mechanisms?

5. Should there be a rebate based component for behind the meter and grid supply wind and biomass projects?

6. Is there a need for additional New Jersey and resource specific carve outs in the RPS targets (e.g. in-state wind and biomass resources?)

7. What further rule changes (e.g. co-firing eligibility, group net metering for wind, are required to enable significant progress towards RPS goals?

8. Should funding be available to support upstream development and non-generation assets such as feasibility, siting, and permitting, risk mitigation in S/REC markets, and biomass exchange network?

9. What additional market development activities will help reach RPS goals?

Energy Efficiency

The EMP objectives for electric and natural gas energy savings through EE are approximately:

20,000 GWh per year of electric savings by 2020; and
77.24 million dekatherms per year of natural gas savings by 2020

Based on estimates included in the EMP, of the 20,000 GWh, 2,500 GWh will be achieved through energy efficiency appliance standards for residential and C&I appliances and equipment, and 2,300 GWh through advanced energy building codes for residential and C&I buildings. This leaves 15,200 million GWh per year to be achieved through the NJCEP or other efforts by 2020. Assuming an average life of 10 years across all residential and C&I measures, OCE believes a reasonable target for 2020 is 1,500 GWh of annual savings achieved each year, or close to 2% of retail electricity sales.

The following table presents projected 2008 NJCEP EE program performance:

Table 13: Projected 2008 Savings

Projected NJ 2008 Electric sales[3] (GWH)	**81,817**
Projected NJ Annual Residential 2008 Savings[4] (GWH)	**340**
Projected NJ Annual C&I 2008 Savings[5] (GWH)	**207**
Total NJ Annual 2008 Electric Savings (GWH)	**547**
2008 Electric Savings as % of Projected Sales	**0.67%**

The medium savings goal for 2008 is about 0.67% of current NJ electricity sales. To increase savings to 2% of statewide annual electricity sales would then require close to 3 times initially projected 2008 levels of savings.

Of the 77.24 million dekatherms, 7.27 million dekatherms will be achieved through advanced energy appliance standards for residential and C&I appliances and equipment, and 9.83 million dekatherms will be achieved through advanced energy building codes for residential and C&I buildings. This leaves 59.48 million dekatherms to be achieved through the NJCEP.

As reported above, between 2001 and 2006 the NJCEP EE programs saved 1.2 million MWh of electricity and 2.8 million dekatherms of natural gas usage. 68.5% of the electricity savings were achieved through the C&I EE program and 31.2% were achieved through the residential EE program. 77.3% of natural gas savings were achieved through the residential EE program and 27.4% through the C&I EE programs.

Between 2001 and 2006, 66.3% of the EE budget was expended on the residential program of which 28.9% was expended on the Low Income programs including Comfort Partners, DCA Weatherization and Seniors Weatherization. The Low Income programs achieved only 11.1% of the residential electric savings and only 1.8% of the residential natural gas savings. OCE notes comments that indicated that the reported savings for the low-income programs were artificially low based on the protocols that capped savings and that recent changes to the protocols will result in higher savings being reported for the low income programs.

However, while these programs may not be as cost effective as other Clean Energy programs, they are necessary and needed programs from a societal perceptive and are consistent with EDECA. Without the Low Income programs the residential EE represents 58.6% of the EE expenditures between 2001 and

[3] EIA 2007 electric sales by state for NJ for 2007, inflated by growth rate for electric sales from 2006-2007 *(newly released).*

[4] Projected annual savings at 120% of goal level contained in New Jersey Clean Energy Program Honeywell Program Plans for 2008

[5] Projected lifetime savings at 120% of goal level contained in New Jersey's Clean Energy Program 2008 Program Descriptions and Budget Commercial & Industrial Energy Efficiency Programs Managed by TRC as C&I Market Manager, divided by an average measure life of 15 years.

2006 and the C&I EE program represent 41.4% of the EE expenditures between 2001 and 2006.

Every dollar expended in the C&I EE program resulted in approximately $11 in customer savings and every dollar expended in the residential EE program results in approximately $4 in savings. This does not include the societal savings of avoided infrastructure and environmental impact.

Through linear trend analysis of the current program expenditures and savings, the charts attached at the end of this document show the projected annual and cumulative savings needed to achieve the EMP EE goals noted above. These charts also project as a linear trend, the energy savings for electricity and natural gas through that same period if the current Clean Energy programs were continued at the same level through this period. In addition, the charts **"estimate"** the expenditures needed to achieve the EMP EE objectives based on the KEMA report's anticipated savings.

As noted above, more recent information shows that the 2008 programs are estimated to achieve a higher level of savings than past programs which could significantly reduce the estimate of additional funding needed to achieve the EMP goals. Also, OCE recognizes that specific goals for energy savings from each program need to be developed as we move into the next phase of this proceeding.

A one to one relationship between the budget and savings is probably not a correct assumption. In addition, even if it were, the NJCEP could not be ramped up to meet the increase in the EE budget from $133 million in 2008 to $393 million in 2009, a 300% increase, or to $707 million by 2012, a 500% increase. It is not realistic to expect to triple the performance of the current NJCEP in one year. In addition, the rate impact on this increase could be up to about 3% of current revenues for the overall EE programs.

The cost and rate impact estimates are part of the reason NEEP is working to analyze other approaches to the delivery of EE that would lessen the impact on ratepayers. A key concept to further explore is whether more of the EE program can be funded from the customers that receive the benefits of the actual energy savings that occur through implementation of efficiency measures.

One option would be to maintain the overall 2008 funding level using the proposed reduction in the RE funding level to fund additional investments in EE programs. The 2008 RE funding level was $102 M. Because of the solar transition, the 2009 RE program funding level is proposed to drop to $68.5 M, a decrease of $33.5 M. This difference could contribute to an approximate 25% increase in the EE funding level for 2009, which is an achievable increase in annual performance.

Expanding the existing programs at an annual increase of 25% in EE funding level would result in the following annual budgets:

Table 14: Proposed EE Funding Level 2009 – 2012

Year	Total EE Funding
2009	$166.5 M
2010	$208.0 M
2011	$260.0 M
2012	$325.0 M
Total	$958.5 M

The incremental rate impact of the proposed funding levels would be less than 1% over the 4 years. The proposed funding level for 2012 would result in total SBC contributions for the NJCEP equaling less than 3% of customers bills. **These proposed funding levels will be revisited as the EMP and NEEP work is completed.**

OCE believes that the funding allocation should shift additional funding towards the C&I programs such that by 2011, 60% of the funding is allocated to C&I programs and 40% for residential programs. This allocation is based on an approximation of the level of funding contributed by each customer class and takes into consideration both current budgets and the ability to ramp up new C&I programs. The proposed annual EE budgets must also fund the low income programs ($30 million per year) and the Clean Energy Technology Fund ($7.5 M per year (EE portion)). The following table sets out OCE's proposed allocation of the EE budget taking these factors into consideration:

Table 15: Proposed Allocation between C&I and Residential Markets Segments

	C&I	Residential	Low Income	Clean Energy Tech Fund	Total
2009	$ 62.4 M	$ 66.6 M	$ 30.0 M	$ 7.5 M	$ 166.5 M
2010	$92.3 M	$ 78.2 M	$ 30.0 M	$ 7.5 M	$ 208.0 M
2011	$133.5 M	$ 89.0 M	$ 30.0 M	$ 7.5 M	$ 260.0 M
2012	$172.5 M	$115.0 M	$ 30.0 M	$ 7.5 M	$ 325.0 M
Total	$460.7 M	$348.8 M	$120.0 M	$ 30.0 M	$ 959.5 M

In order to meet the goals in the EMP, existing buildings - including both C&I and residential buildings - will have to be retrofitted and upgraded to meet significantly higher energy efficiencies than those currently in place. There are approximately 3.2 million residential homes and 500,000 C&I buildings in NJ. In order to achieve the EMP goals, most of the state's existing building stock will have to be upgraded on a whole building or integrated building approach.

Achieving the energy reduction goals in the EMP, and in part meeting the greenhouse gas reduction requirements in the Global Warming Response Act, provides New Jersey with significant and substantial economic potential and job growth opportunities. On average, the Energy Efficiency program provides approximately 45,000 rebates per year for high performance lighting, furnaces, boilers, chillers, AC units, motors and drivers. To meet the goal, the number of installation jobs will need to significantly increase. This work will be performed by trained energy professionals and installers with an increased demand for the products and services of equipment manufacturers, energy engineers, and architectural design professionals.

The proposed model is an integrated whole building approach. The first step of this approach is to rate a building based on an energy assessment of the performance of the building's energy usage compared to an average baseline. CEP is proposing to use the HERS system for rating residential buildings and the USEPA Energy Star Portfolio Management system for rating C&I buildings. OCE also believes that Energy Savings Performance Contracts can contribute to achieving EMP goals and should be considered as part of the portfolio of programs.

The next step is to deliver an integrated whole building upgrade within a set plan, including:

1. Building shell upgrades
2. Energy systems upgrades including CHP
3. Appliance and fixture upgrade
4. Demand response
5. Renewable Energy

The final step is developing a system to monitor/verify the savings tied to the overall financing of the upgrade.

The proposed model would provide the building owner with a report of the cost effective measures needed to accomplish the EE/RE/DR upgrade. The report would also provide a schedule so that the building owner could develop a long term plan based on available financing to upgrade the buildings efficiency or lower its demand in order to achieve a zero energy building with a zero emissions greenhouse gas footprint.

The OCE proposal for the EE programs would include a whole building approach and individual appliance/equipment upgrades or replacements to address worn-out equipment both separately and within the integrated whole building approach. We are estimating that approximately one third of the upgrades could be available through an individual upgrade or replacement of an appliance or equipment, while the other two thirds would be allocated through the integrated whole building approach as follows:

Table 16: Proposed Allocation between C&I Replacement and Whole Building Programs

C&I	Replacement	Whole Building
2009	**$15.54 M**	**$ 46.86 M**
2010	**$28.76 M**	**$ 63.54 M**
2011	**$44.06 M**	**$ 89.44 M**
2012	**$56.93 M**	**$115.57 M**
Total	**$145.29 M**	**$315.41 M**

Table 17: Proposed Allocation Between Residential Replacement and Whole Building Programs

Residential	Replacement	Whole Building
2009	**$27.03 M**	**$39.57 M**
2010	**$27.51 M**	**$50.69 M**
2011	**$29.37 M**	**$59.63 M**
2012	**$37.95 M**	**$77.05 M**
Total	**$121.86 M**	**$226.94 M**

The above model highlights one key issue: that rebates or incentives alone cannot provide for the sole means of upgrading the level of overall energy efficiency or reduced energy usage needed to meet the goals of the EMP.

This means that changes to the NJCEP need to focus on market transformation, which must include getting manufacturers to increase the supply of products and encouraging retailers to increase the availability (and thereby lower the cost) of energy efficiency appliances and equipment without upfront rebates or incentives. The other component to be considered in this proposed transition is a shift from upfront incentive rebates to an EE financing program, as was accomplished with the solar transition.

NEEP is considering options for such a transition as part of their ongoing effort. As decisions are made, it may be necessary to re-examine the EE funding proposals presented in this straw.

The following table provides a summary of the proposed 2009-2012 funding levels for both EE and RE. The 2008 funding level for EE and RE is included as a point of reference.

Table 18: Proposed 2009 through 2012 NJCEP Funding Level for EE and RE Total

Year	EE	RE	Total
2008	$133.00 M	$102.00 M	$235.00 M
2009	$166.50 M	$68.50 M	235.00 M
2010	$208.00 M	$61.00 M	269.00 M
2011	$260.00 M	$59.50 M	$319.50 M
2012	$325.00 M	$54.25 M	$379.25 M
Total 2009 - 2012	$958.00 M	$243.25 M	$1,202.75 M

The tables below estimate the rate impact of the OCE proposed EE and RE funding levels for 2009 through 2012 both in terms of the total rate impact, the incremental rate impact and the bill cost to the average residential customer.

As stated above NEEP is working with BPU as the EMP is finalized and this evaluation will impact on the overall funding levels and allocation to the different segments.

Potential Energy Savings, Benefits and Avoided Costs and Impacts for Energy Efficiency Programs

Based on the energy savings for the C&I, Residential HVAC, and Energy Star - New Homes construction programs for 2001 through 2006, Staff estimates the following natural gas and electricity savings for 2009 through 2012. It should be noted that the savings, avoided costs, and environmental benefits set forth below are based on past performance and it is assumed that program performance will be equal or better than the past performance given the completion of the transition to the Market Managers in 2007.

Table 19: C&I Annual and Lifetime Energy Savings

	Proposed Funding Level	Annual Electric Energy Savings	Lifetime Electric Energy Savings	Annual Natural Gas Savings	Lifetime Natural Gas Savings
	$	MWh	MWh	Dtherms	Dtherms
2009	$ 62.4 M	329,000	4,910,158	245,672	4,092,895
2010	$92.3 M	485,166	7,262,553	363,461	6,055,264
2011	$133.5 M	701,730	10,504,905	525,727	8,758,625
2012	$172.5 M	906,730	13,573,754	679,311	11,317,325
Total	$460.7 M	2,422,626	36,251,370	1,814,171	30,224,109

Table 20: Residential Annual and Lifetime Energy Savings

	Proposed Funding Level	Annual Electric Energy Savings	Lifetime Electric Energy Savings	Annual Natural Gas Savings	Lifetime Natural Gas Savings
	$	MWh	MWh	Dtherm	Dtherm
2009	$ 66.6 M	78,110	1,224,400	1,187,979	21,361,336
2010	$ 78.2 M	91,715	1461,618	1,395,012	25,084,188
2011	$ 89.0 M	104,381	1,662,926	1,587,550	28,546,195
2012	$115.0 M	134,875	2,148,736	2,050,835	36,579,981
Total	$348.8 M	409,081	6,497,680	6,221,376	111,571,700

Table 21: Low-Income Annual and Lifetime Energy Savings

	Proposed Funding Level	Annual Electric Energy Savings	Lifetime Electric Energy Savings	Annual Natural Gas Savings	Lifetime Natural Gas Savings
	$	MWh	MWh	Dtherm	Dtherm
2009	$ 30.0 M	14,288	249,428	131,824	2,571,878
2010	$ 30.0 M	14,288	249,428	131,824	2,571,878
2011	$ 30.0 M	14,288	249,428	131,824	2,571,878
2012	$ 30.0 M	14,288	249,428	131,824	2,571,878
Total	$120.0 M	57,152	997,712	527,296	10,287,512

Based on the annual and lifetime savings in Tables 19 through 21, Table 22 is an estimate of the potential avoided emissions that would result from the 2009 through 2012 proposed C&I and residential funding level. The avoided emissions factors are those provided by NJDEP in the Rutgers CEEEP 2006 Cost Benefit Analysis that was distributed with the initial straw and posted on the CEP website. The lifetime projected avoided emissions utilize these same emission factors. The majority of avoided emissions are from the C&I sector energy savings at approximately 87%.

Table 22: Potential Avoided Emissions based on the Annual and Lifetime Energy Savings

	Annual Electric Energy Savings	Lifetime Electric Energy Savings	Annual Natural Gas Savings	Lifetime Natural Gas Savings
	Tons	tons	tons	Tons
	(Hg in lbs)	(Hg in lbs)		
CO2	1,859,979	28,075,424	44,971	793,869
NOx	4,396	66,359	11	626
SO2	16,218	246,440		
Hg	103.5	1,381.5		

Based on the annual and lifetime savings in Tables 19 through 21, Table 23 is an estimate of the potential avoided T&D cost and environmental benefit (avoided environmental cost) that would result from the 2009 through 2012 proposed C&I and residential funding level. The avoided T&D cost and environmental benefits are those factors provided in the Rutgers CEEEP 2006 Cost Benefit Analysis that was distributed with the initial straw and posted on the CEP website. The avoided T&D cost is estimated at $15 per MWh and the avoided environmental cost (environmental benefit) is estimated at $0.02 per kWh and $0.95 per MM Btu. The lifetime projected avoided emissions utilize these same factors.

Table 23: Potential Avoided T&D and Environmental Costs based on the Annual and Lifetime Energy Savings

	Annual Electric Avoided Cost	Lifetime Electric Avoided Cost	Annual Natural Gas Avoided Cost	Lifetime Natural Gas Avoided Cost
	$	$	$	$
Envi C&I	$51,060,720	$764,378,960	$1,817,067	$30,272,349
Envi Res	$7,595,220	$121,001,840	$5,486,079	$98,646,710
Environmental Total	$ 58,655,940	$ 885,380,800	$ 7,303,146	$128,919,060
T&D C&I*	$38,295,540	$573,284,220		
T&D Res*	$5,696,415	$90,751,380		
T&D Total*	$43,991,955	$664,035,600		
Total	$101,647,895	$1,549,416,400	$ 7,303,146	$128,919,060

*Avoided T&D costs are a one time avoided cost and are not annual – the total represents the total in the first year.

Based on the annual and lifetime savings in Tables 19 through 21, Table 24 is an estimate of the potential avoided energy costs that would result from the 2009 through 2012 proposed C&I and residential funding level. The avoided energy costs are those cost provided in the Rutgers CEEEP 2006 Cost Benefit Analysis that was distributed with the initial straw and posted on the CEP website. The lifetime projected avoided energy costs utilize the average cost over 15 years. The majority of avoided costs and benefits are from the C&I sector energy savings at approximately 87%.

Table 24: Potential Avoided Energy Costs based on the Annual and Lifetime Energy Savings

	Annual Electric Avoided Cost	Lifetime Electric Avoided Cost	Annual Natural Gas Avoided Cost	Lifetime Natural Gas Avoided Cost
	$	$	$	$
C&I	$268,324,083	$5,553,213,144	$17,941,154	$367,410,725
Res	$ 47,887,862	$968,619,729	$78,537,552	$1,734,105,338
Total	$ 316,211,945	$6,521,832,873	$96,478,706	$2,101,516,063

As shown in the tables above, the benefits of the proposed funding levels over the life of the measures installed exceed the costs of the programs by a factor of over 10 to 1.

Questions to Inform Revisions to the EE Funding Level

The OCE welcomes additional comments on all aspects of the straw proposal for renewable funding levels presented above. In addition, there are a number of questions that the OCE would like stakeholders to address to further inform future revisions. These include:

1. Should program design provide strong incentives or mandate that customers that receive an EE rebate implement demand response measures, energy monitoring or smart metering measures in order to be eligible for the EE rebates? DR can help to lower the peak energy use. If customers install DR measures, the peak energy use of a customer's electric needs can be reduced. This can result in helping to achieve the EMP DR goals at a lower overall cost.

2. Are the EE residential and C&I targets and funding levels presented in this version of the straw proposal reasonable and achievable?

3. Should there be a rebate based component for replacement only or whole building approach only or both?

4. How should the RGGI mechanisms for funding for RE be coordinated with the SBC funding for RE? Should those programs be in addition to or part of the overall total?

5. What types of pilots or innovative programs should be developed and funded through the SBC four year funding level for RE ? Or through the other RGGI mechanisms?

6 Is there a need for an EE Portfolio Standard for electricity and natural gas resources? If so what classes of an EEPS should be developed?

7. Is the system proposed in this straw for a building rating reasonable? Should HERS and Portfolio Management be mandatory in the overall whole building approach to establish a baseline energy usage?

8. Should financing mechanism be developed within the overall CEP?

9. Should this include on the bill tracking of the savings and finance loan payment?

Electric, Natural Gas and Total Energy Rate Impact

OCE proposed allocating 60% of the proposed EE funding levels and 100% of the proposed RE funding levels to electric customers and 40% of the proposed EE funding to natural gas customers. OCE notes that in the last CRA proceeding the Board allocated 69% of the total funding, including both EE and RE, to electric customers and 31% to natural gas customers.

OCE believes that in theory electric and natural gas customers should contribute equally as a percentage of total revenue. However, in the previous CRA proceeding OCE recommended a higher percentage for electric customers in order to mitigate rate impacts on gas customers. OCE also believes that natural gas customers benefit from the installation of renewable energy measure and should therefore contribute to funding renewable energy programs. Therefore, OCE is requesting additional comments on the allocation of EE and RE funding to electric and natural gas customers prior to developing a revised allocation proposal.

The following tables set out OCE's proposed allocation of funding:

Table 25: Electric Rate Impact

	Electric EE	Electric RE	Total Electric	Total Retail Electric Revenues	Proposed Funding as a Percent of Revenues	Incremental Rate Impact
2009	**$ 99.90 M**	**$68.50 M**	**$168.40 M**	**$10,895.3 M**	**1.5%**	**0%**
2010	**$124.80 M**	**$61.00 M**	**$185.80 M**	**$11,411.7 M**	**1.6%**	**0.1%**
2011	**$156.00 M**	**$59.50 M**	**$215.50 M**	**$11,952.7 M**	**1.8%**	**0.2%**
2012	**$195.00 M**	**$54.25 M**	**$249.25 M**	**$12,519.4 M**	**1.9%**	**0.3%**
Total	**$574.90 M**	**$243.25 M**	**$818.95 M**	**$46,779.1 M**	**1.75%**	**0.15%**

Table 26: Natural Gas Rate Impact

	Natural Gas EE	Total Retail Natural Gas Revenues	Proposed Funding As a Percent of Revenues	Incremental Rate Impact
2009	**$ 66.6 M**	**$ 7,819.1 M**	**0.85%**	**0.0%**
2010	**$ 83.2 M**	**$ 7,822.9 M**	**1.06%**	**0.21%**
2011	**$ 104.0 M**	**$ 7,747.3 M**	**1.34%**	**0.49%**
2012	**$130.0 M**	**$ 7,627.4 M**	**1.70%**	**0.85%**
Total or Average	**$ 383.8 M**	**$ 31,016.7 M**	**1.24%**	**0.52%**

Table 27: Total Customer Bill Impact per Year to the Average Residential Electric Customer

	Residential Electric Usage	Residential Retail Electric Rate	Total Bill Cost per Year for EE and Renewable	Percent Bill Cost Impact
	kWh	$/kWh	$/Year	%
2009	**8,706**	**$ 0.1515**	**$ 19.78**	**1.5%**
2010	**8,755**	**$ 0.1542**	**$ 21.60**	**1.6%**
2011	**8,804**	**$ 0.1570**	**$ 24.88**	**1.8%**
2012	**8,853**	**$ 0.1596**	**$ 26.85**	**1.9%**
Total	**-**	**-**	**$ 23.28**	**1.75%**

Table 28: Total Customer Bill Impact per Year to the Average Residential Natural Gas Customer

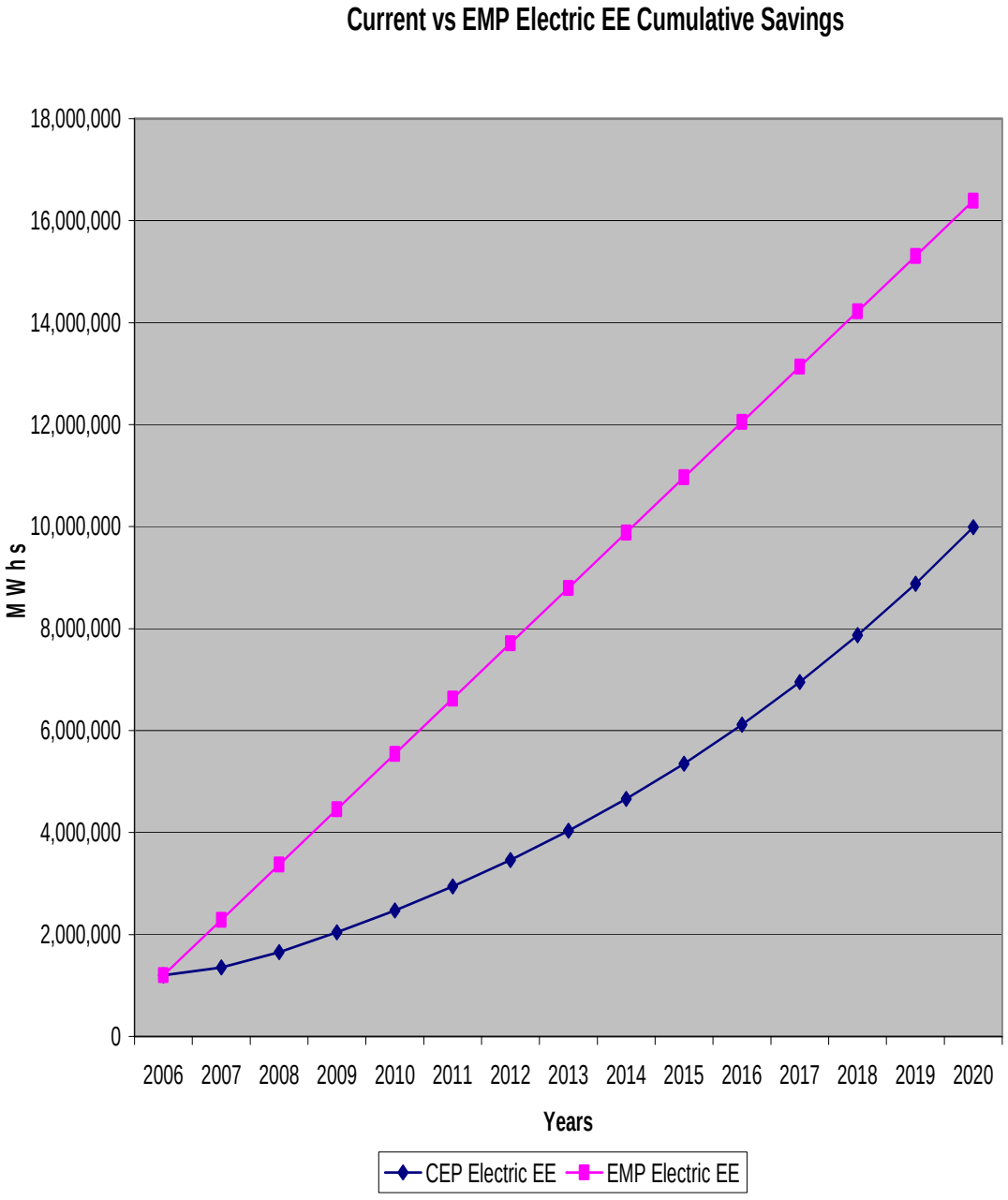
	Residential Natural Gas Usage	Residential Retail Natural Gas Rate	Total Bill Cost for EE	Percent Bill Cost impact
	therms	$/therm	$	%
2009	**912**	**$ 1.798**	**$ 13.93**	**0.85%**
2010	**908**	**$ 1.820**	**$ 17.52**	**1.06%**
2011	**904**	**$ 1.813**	**$ 21.96**	**1.34%**
2012	**900**	**$ 1.791**	**$ 27.40**	**1.70%**
Total	**-**	**-**	**$ 20.20**	**1.24%**

Reference:

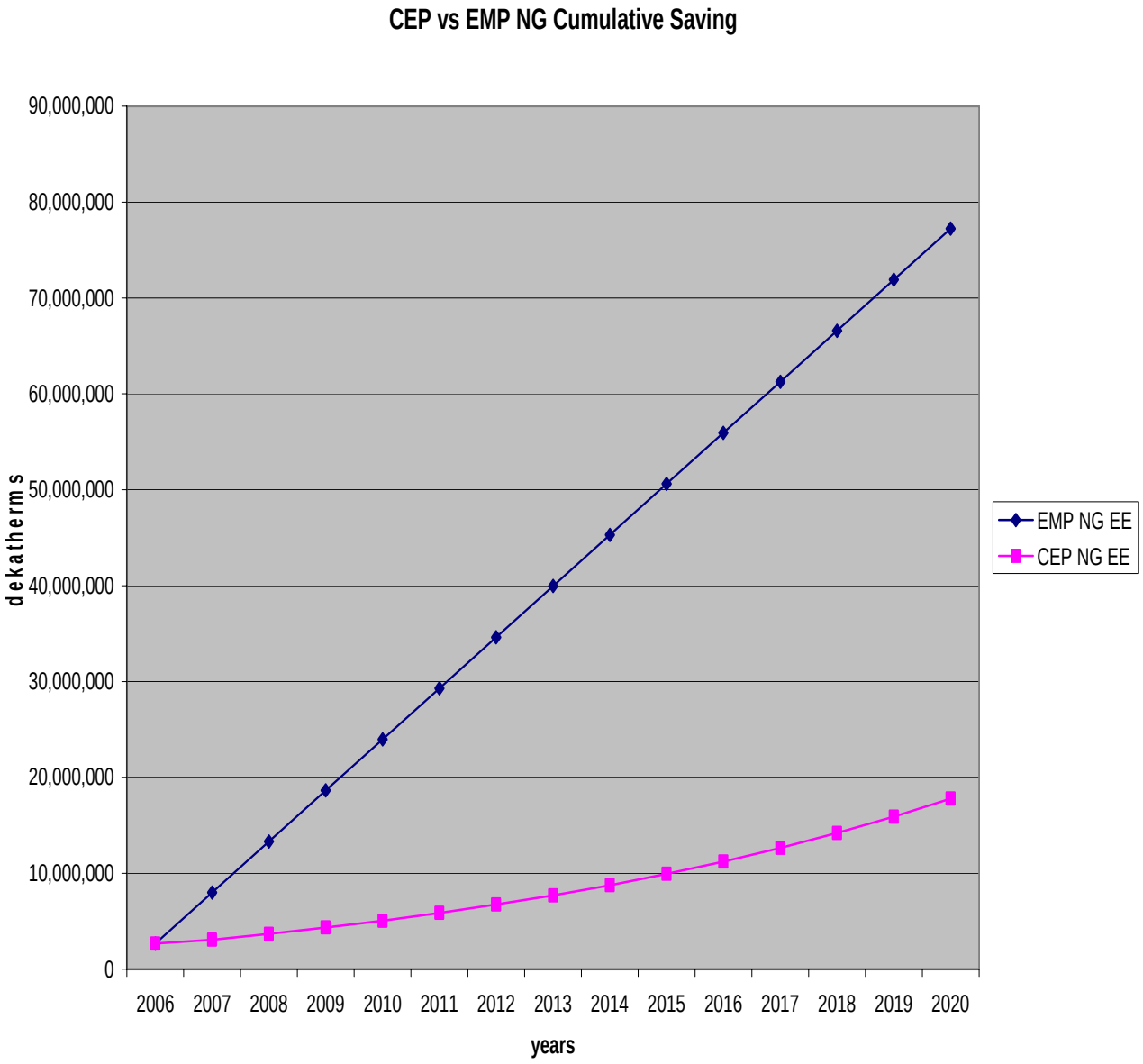
KEMA NJ Energy Efficiency and Distributed Generation Market Assessment Aug 04
Navigant NJ Renewable Energy Market Assessment Aug 2004
Summit Blue Energy Efficiency Market Assessment of NJCEP July 2006
NJBPU CEP Summary data 2001 through 2007 (2Q) summary
CEEEP Energy Master Plan and R/CON data modeling data

All reports and data are available on the NJBPU CEP CEEEP or EMP website

The following is a trend analysis of the current electric energy efficiency savings 2001 through 2006 projected through 2020 and the projection of the electric energy savings.


Current vs EMP Electric EE Cumulative Savings
18,000,000
16,000,000
14,000,000
12,000,000
10,000,000
8,000,000
6,000,000
4,000,000
2,000,000
0
M W h s
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
Years
CEP Electric EE
EMP Electric EE

The following is a trend analysis of the current natural gas energy efficiency savings 2001 through 2006 projected through 2020 and the projection of the natural gas energy savings.



The following is a trend analysis estimate of the funding needed to achieve the EMP goals based on the trend analysis of electric EE and natural gas EE estimated in the charts above