

## **New Jersey Board of Public Utilities**

#### **REQUEST FOR PUBLIC COMMENT** November 9, 2006

The New Jersey Board of Public Utilities (Board) hereby solicits public comment on the following schedule and straw proposal for the Alternative Compliance Payment and Solar Alternative Compliance Payment levels for upcoming Energy Years (EY) 2008, 2009 and 2010.

Under the Board's Renewable Portfolio Standards (RPS), <u>N.J.A.C.</u> 14:4-8, each electric power supplier or basic generation service provider who sells electricity to retail customers in New Jersey must ensure that a certain amount of the energy it supplies for retail use is renewable and solar energy. These rules require the purchase of one or more Renewable Energy Certificates (RECs) or, in the alternative, payment of monies termed alternative compliance payments (ACPs) and solar alternative compliance payments (SAPCs). Pursuant to the RPS rules, the Board shall review the level of these payments at least once per year, and, after considering the recommendations of an ACP Advisory Committee, adjust the amount of these payments if needed.

The Board also administers the New Jersey Clean Energy Program (NJCEP) program, which provides rebates for renewable energy installations which are installed and constructed according to program specifications. The incentive programs and the RPS rules interact, in that the supply of RECs depends partially on the number and size of renewable generation projects that are funded through the NJCEP. If more generation capacity is built, there will be more RECs available for those entities subject to the RPS rules to use in their compliance efforts.

The ACP Advisory Committee has considered these issues, along with developments in the national and State energy markets, and has recommended to the Board that ACPs and SACPs should be set at the current level for EY 2008. For EY 2009-2010, the Committee recommended further, that the Board should increase the SACP in an amount equivalent to the amount of solar renewable energy requirements in the RPS rules, which cannot be met through the current funding levels of the NJCEP's CORE program. An Energy Year begins on June 1 and ends on May 31 in the following year and is named by the year in which it ends. For example, at present the RPS market is operating in Energy Year 2007, which began on June 1, 2006 and ends on May 31, 2007. The ACP Advisory Committee's recommendations represent a departure from the past practice of the Board, in that the recommendation proposes a multi-year schedule, whereas the Board in the past has set ACP and SACP levels on an annual basis.

The Board, having considered these recommendations, now seeks public comment on Staff's straw proposal to the existing ACP and SACP levels. The Board is soliciting comment on the following proposed actions:

- 1. That the Board announce a schedule for a stakeholder process, possibly to include public hearings, regarding ACP and SACP levels for EY2009-2010.
- 2. That the Board order that the SACP and ACP remain at their current levels for EY2008.

All comments must be submitted no later than 5:00 p.m. December 11, 2006 to:

Board of Public Utilities 2 Gateway Center Newark, New Jersey 07102

Att'n: Kristi Izzo Secretary of the Board

Comments may be submitted by electronic mail to <u>OCE@bpu.state.nj.us</u> no later than 5:00 p.m. December 11, 2006.

## STATE OF NEW JERSEY BOARD OF PUBLIC UTILITIES 2 Gateway Center Newark, New Jersey 07102 Attention: Kristi Izzo Secretary of the Board

## IN THE MATTER OF THE SCHEDULE AND STRAW PROPOSAL FOR THE ALTERNATIVE COMPLIANCE PAYMENT AND SOLAR ALTERNATIVE COMPLIANCE PAYMENT LEVELS FOR UPCOMING ENERGY YEARS (EY) 2008, 2009 AND 2010.

## **PV NOW COMMENTS**

## **INTRODUCTION**

PV NOW appreciates the opportunity to submit these Comments on the two issues relating to the adoption of Alternative Compliance Payments (ACP) for which the Board seeks public input.

"PV Now" is a coalition of nine of the world's leading manufacturers of solar electric equipment. PV Now members include the following companies: Energy Innovations, Evergreen Solar, PowerLight, Schott Solar, Sharp Solar, SolarWorld, SunEdison and SunPower. PV Now members represent the leading companies in a ten billion dollar industry that is growing at 30% per year. Member companies manufactured a large percentage of the solar electric equipment sold in the world last year. The companies represented by PV Now employ thousands of workers in their manufacturing, sales and support operations.

Our comments will reply specifically to the two questions below. We will limit our comments to the solar ACP (SACP). We take no position on the level of the Class One ACP. To the extent we are recommending specific schedules for the SACP, it may be logical to follow similar paths for the Class One ACP.

Each of the questions has serious implications for the solar industry and we will answer them while providing a context for our responses within the overall framework of the existing and evolving solar program in New Jersey. How the Board sets policies regarding ACP levels and timeframes will have profound implications on the viability of emerging financing models that must replace the current rebate/SREC hybrid financial model. The ACP policies adopted by the Board will play a major role in determining whether the solar industry can continue to prosper and provide quality jobs, economic development and clean consumer electric choice to New Jersey residents. PV Now is providing comments on the following proposed actions:

1. That the Board announce a schedule for a stakeholder process, possibly to include public hearings, regarding ACP and SACP levels for EY2009-2010.

2. That the Board order that the SACP and ACP remain at their current levels for EY2008.

Question 1: Should the Board announce a schedule for a stakeholder process, possibly to include public hearings, regarding ACP and SACP levels for EY2009-2010?

## SUMMARY OF PV NOW RESPONSE TO QUESTION ONE:

 PV Now believes it is not necessary to schedule an additional stakeholder process to establish multi-year SACP levels. There have been exhaustive discussions in numerous public forums over the last year regarding the transition to a non-rebated solar program and the changes to SACP levels that are required to implement this desired Board policy. If the Board were to adopt the structure of the proposal detailed below, there will be little or no additional costs to ratepayers over the five year schedule shown. Consequently, we believe it is within the statutory authority of the Board to establish the SACP levels for the Energy Years 2008, 2009, 2010, 2011 and 2012 at this time. We recommend that the Board publish such a schedule (at the SACP levels indicated) in time for the values to be factored into supplier bids for the February 2007 BGS auction.

- 2. If the Board decides to conduct a stakeholder process, the scope of the inquiry should be broadened to include an examination of the efficacy of splitting the RPS requirement for solar energy into two sub classes of solar RECs (SREC):
  - A class of SRECs for non-rebated projects with a corresponding ACP.
  - A class of SRECs for rebated projects with a separate ACP.

As will be detailed below, such a plan allows for the transition to a REC only financing model to occur at the lowest possible cost to ratepayers. Customers who have received CORE rebates will not be able to capture a windfall from the higher SREC prices necessary to finance REC only projects.

If the Board determines that the creation of this additional sub-class of SRECs requires a rule making proceeding, such rule making should commence as soon as possible and should be expedited to the fullest extent possible. In addition to creating a new sub-class of SRECs, this proceeding should amend existing rules so that any solar generators in New Jersey may create SRECs and the life of a REC can be extended from one year to two.

Question 2: Should the Board order that the SACP and ACP remain at their current levels for EY2008?

### SUMMARY OF PV NOW RESPONSE TO QUESTION TWO:

- 1. We recommend SACP levels as follows:
  - <u>Rebated Project ACP</u>

\$300 for EY 2008, 2009, 2010, 2011 and 2012.

- <u>Non Rebated Project ACP</u>
  \$750 for EY 2008, 2009, 2010, 2011 and 2012.
- 2. We have argued that the Board should publish a five year schedule to give all stakeholders information needed for planning future market participation. However, the Staff Straw proposal suggests a one year SACP for EY2008. In anticipation of the February 2007 BGS auction, if the Board chooses to adopt the Staff Straw, it is critical that the Board make clear that future year SACP levels may vary significantly from past levels due to pending solar program changes. There should be no implicit assumption on the part of

suppliers that they can grandfather any of their future 2009 or 2010 load to fall under a \$300 SACP, for example. The SACP should be another of the many variable costs that suppliers must factor into their BGS bids (e.g. changes in PJM transmission tariffs). Without the ability to include the total solar RPS requirement within any new SACP levels that the Board may set in 2009 or thereafter, the State will have extreme difficulty achieving its solar requirement within the RPS regulations.

## **SACP Proposal Background**

According to the BPU request for comment,

"The Board also administers the New Jersey Clean Energy Program (NJCEP) program, which provides rebates for renewable energy installations which are installed and constructed according to program specifications. The incentive programs and the RPS rules interact, in that the supply of RECs depends partially on the number and size of renewable generation projects that are funded through the NJCEP."

At their November 9, 2006 meeting, the BPU Commissioners expressed a desire to transition to a new solar financing model that exclusively relies on SRECs instead of a combination of rebates and SRECs to enable customers to install solar projects. In order to accomplish this policy objective, the price of SRECs for non-rebated projects must increase significantly to compensate for rebates that today make up nearly 50% of the customer installation costs. In order to enable this wider trading range for SRECs, the SACP must go up so the RPS can be successful.

## **SACP Levels Should Be Based On Solid Economics**

The solar industry has presented to the OCE a plan showing how this transition from a rebate/REC hybrid structure (today's paradigm) to a REC only model can be accomplished. The underlying economics are demonstrated in a financial model based on the template used by the original ACP committee and Rutgers. The model is attached to these response comments for reference. As we transition to a new financing model for solar energy projects, it is critical that policy formation be informed by solid economics. We urge the Board to enlist impartial economic experts to provide input to the Staff as they develop transition programs, including REC only trial programs.

## **SACP Levels Should Be Based On the Cost of Solar Generation**

The Board should establish levels for SACPs that are consistent with the intent of the RPS rules to set ACP values that recognize the costs of providing renewable generation. The BPU order of December 18, 2003 that initially established the \$300 SACP level specifically stated that the SACP level approved in 2003 "is based on "the estimated revenue stream needed to ensure financing for solar renewable energy projects."<sup>1</sup>

When CORE rebates are eliminated, the cost recovery mechanism provided by SRECs must increase if minimal economic return criteria are to be achieved. The ACP level should be set at a level that encourages trading in RECs while setting a reasonable maximum for the LSEs' worst case planning. The OCE has expressed a desire to eliminate CORE rebates by 2009. The SACP for Energy Years where projects are built without rebates must be established with this in mind.

## Higher SACP Levels Are Needed to Support the Staff Pilot

BPU Staff has indicated a need and desire to immediately establish a trial program (Phase One) for EY 2008 to test the REC only model as well as to address near term potential shortfalls in solar generation that can be supported through CORE rebates. We appreciate the recognition by Board Staff of the urgency of the pilot but believe that the Phase One pilot (proposed with no increase in SACP for non rebated projects) will attract minimal interest. The economic realities (economic equivalency and minimal financial criteria) of solar project development in a REC only program require higher SREC prices than in a rebate supported market. Accordingly, a true pilot will require the setting of a higher solar ACP for those pilot projects.

Industry data shows that there will be a solar generation shortfall in Energy Year 2008- highlighting the critical nature of immediately establishing a SACP for the pilot that is significantly higher than the existing, rebate supported SACP. In order to give the pilot a realistic chance of success, there must be a corresponding, no-rebate SACP established for Energy Year 2008, with the LSE obligation to purchase these no-rebate RECs to commence in Energy Year 2008.

<sup>1 &</sup>quot;In The Matter Of The New Jersey Renewable Portfolio Standards - Recommendations For The Alternative Compliance Payment And The Solar Alternative Compliance Payment". Docket No. Ex03080616. December 18, 2003

## <u>Why Two SREC Sub-classes May Not Increase RPS Compliance</u> <u>Costs</u>

If a dual SREC market structure is not established in EY 2008, SREC supply and demand will not be in balance. The consequences will be two fold. There will be approximately 9,000 SACP payments made by LSE's in 2008, and the average price of all SRECs will rise due to their scarcity. On the other hand, by establishing a non-rebate SREC class now to deal with the anticipated 9,000 SREC shortage in 2008, and by limiting a higher SACP to that small percentage of total SRECs in the market (9,000 out of 61,000), the market can be brought into relative balance. There likely will be little or no impact on overall 2008 solar RPS costs since rebated SREC prices will be lower although non-rebated SREC prices will be higher. Since the LSE requirement for rebated SRECs will be reduced from nearly 61,000 to 52,000, the market will be brought into relative balance and rebated SREC prices will likely trade near their historic values. Although non rebate SRECs will trade at higher prices, they will only comprise 15% of the total market. Thus the overall cost to the ratepayers will not change.

As an example of a plausible scenario that demonstrates this proposition, assume an overall SACP demand in 2008 of 61,000 SRECs and a shortfall of 9,000 SRECs. With such a shortfall, LSEs will be required to make payments for 9,000 SACPs at \$300 and pay a likely SREC average price for the remaining 52,000 SRECs of \$260 (a price that reflects a 15% SREC shortfall). The average SREC price under those conditions will be **\$266<sup>2</sup>**. Under the PV Now alternative scenario, where the non rebate SREC price is \$620 for 9,000 SRECs and the remaining 52,000 rebated SRECs trade at \$204 (the 2005-6 historical price in a balanced market), the average SREC price would also be **\$266.**<sup>3</sup> This shows that the first year cost of establishing two sub classes of SRECs (using the above assumptions) will not necessarily increase RPS costs.

## The Board Should Adopt a Five Year SACP Schedule

PV Now agrees with the consensus of the ACP Committee that a multi-year SACP schedule should be published, and proposes making it five years since this benefits all stakeholders (project developers, BGS action participants, rate payers) through

<sup>&</sup>lt;sup>2</sup> Average SREC price in single SREC market- (.85\*\$260+.15\*\$300)= \$266

<sup>&</sup>lt;sup>3</sup> Average SREC price in dual SREC market- (.85\*\$204 + .15\* \$620)= \$266

reduced risk and avoidance of the associated risk premiums. This is one way to create regulatory predictability and market certainty, which is a key goal for the program.

The proposed schedule shown below includes non-rebate and rebate based SRECs for the years 2008-2012. These SACP levels would be set by the BPU for five years with an ongoing process that would review the SACP schedule each year and establish the SACP levels for Year Five. For example, assuming the Board establishes a five year schedule in December 2007 for EY 2008-2012, in December 2008 the Board would review the SACP schedule for EY 2009-2012, and in addition, would establish the SACP for EY 2013. In this manner, pending unanticipated changes in the market (new or expiring tax credits, rapidly falling solar equipment prices, etc), both suppliers and customers would know likely SACP levels for the coming five year period. This level of certainty would lower risk for both project financers and LSE's, thereby reducing the overall costs of the solar program for ratepayers.

## **SACP Levels for Rebated Projects and Non Rebated Projects**

Because the underlying economics of rebated and non –rebated projects are so different, we have argued that there should be two types of SRECs. We believe that the market should, and will, ultimately set the price of SRECs. In order for the market to function effectively, there is a need to set a higher SACP for non-rebated projects so as to provide some headroom between likely SREC trading prices and the SACP. By limiting this higher ACP to a small percentage of the total RECs being traded, the total RPS compliance costs of suppliers will be minimized. SRECs from rebated projects will continue to represent the vast majority of trades for a number of years. This will allow the market to establish a higher price for a limited percentage of RECs without raising the price of RECs throughout the market.

• <u>Rebated Project ACP</u>

We recommend a value of \$300 for EY 2008, 2009, 2010, 2011 and 2012.

• Non Rebated Project ACP

We recommend a value of \$750 for EY 2008, 2009, 2010, 2011 and 2012.

The \$750 is based on the economic model shown in the attachment. It was developed by the solar industry to account for cost recovery and a modest 7.8% IRR for solar projects without CORE rebates. The model indicates that a 2008 non-rebate SREC will trade in the neighborhood of \$620. If project developers find financing and equipment that allows them to build at lower costs, they will be able to offer less expensive non-rebate SRECs to the market.

## **Requirements for Each Sub Class of SRECs**

The following schedule addresses the interest of prospective BGS bidders to understand their potential worst-case costs should they be required to make ACP payments. It also shows the percentage of the SREC requirement that suppliers can expect to purchase of the existing SREC type as well as the percentage of new, non-rebate SRECs that they will be required to retire. This is consistent with the RPS rules which establish a total SREC requirement for each LSE based on their percentage of load served.

Energy	Total	Non-	Non-	Non	Non-	SRECs	SREC	Rebated
Year	SREC	rebate	rebate	rebate	rebate	(with	$\%^4$	SACP
	Requirement	SRECs	SRECs	SREC	SACP	rebates)		value
		(new)	(total)	%	value			
2008	60,948	9236	9236	15	\$750	51,712	85	\$300
2009	120,640	38,987	48,223	40	\$750	72,417	60	\$300
2010	168,000	35,947	84,170	50	\$750	83,830	50	\$300
2011	234,000	66,000	150,170	64	\$750	83,830	36	\$300
2012	306,000	72,000	222,170	73	\$750	83,830	27	\$300

## A 2008 SACP Applies Only to 2008 Load

One of the critical issues for a solar program that relies exclusively on SREC revenue is to ensure that the RPS market design reflects the overall policy and program established by the Board. This is particularly relevant in coordinating the annual BGS auction (e.g. the February 2007 auction) with changes in the solar

<sup>&</sup>lt;sup>4</sup> Assumes that rebates go away in 2009 energy year and SRECs from rebated systems remain at 83,830 thru 2012

program. Since LSE's are bidding for a third of the BGS load for the next three years, and the SACP is likely to go up significantly during that period to meet the Board's desire for a REC only financing program, it is essential that the Board set out clear policy direction for the bidders regarding the likely level of the SACP in coming years. BGS suppliers should be told that an SACP established for EY2008 only applies to EY2008. BGS load in EY 2009 and 2010 will be subject to whatever SACP levels are established by the Board for those years. If the Board carries through its intention to establish a REC only financing program for solar in New Jersey, the SACP will likely rise and the potential costs of annual RPS compliance could increase for Years Two and Three of the BGS period. The Board should inform bidders that any increased cost of solar compliance will involve a variable cost risk similar to many other elements of their three year bids (increased PJM transmission tariffs, costs of capacity market changes, etc.) Even if the BGS bidders use an estimate of \$750 for their maximum solar RPS compliance cost, it will have an insignificant effect on their overall BGS bid since the solar percentage of their load is only .16% in 2009 and .221% in 2010.

### **Conclusion**

PV Now believes that the solar industry will contribute to New Jersey's achievement of several important goals, including providing clean, distributed generation to the citizens of the State and growing a vibrant industry contributing the benefits of new jobs and economic development to both participating and non participating rate payers. In order to achieve these goals, a comprehensive solar transition program must be implemented, including the establishment of ACP levels that will support the investment required to make solar projects happen in a REC only market. We look forward to working with the Board and its Staff as we address this key piece of the puzzle.

## APPENDIX A – SOLAR PROJECT MODEL

Yellow = Input Parameter

#### Commercial Application: 100KW RPS Only

						Orange = Compu	uted Input				
Constant Assumptions						Blue = Heading					
System Size (KW-DC)	100.000					Green = Key Cor	mputed Result				
Construction Cost	\$750,000	\$7.50	\$/watt						-		
Capacity based incentive (NJ Rebate)	\$0										
Production Factor (first year, kwhr/Wdc STC)	1.00	Note: degredation	on reflected in ann	ual production es	timates						
System Peformance Degredation (%/yr)	0.005										
Annual Power Cost Escalation	0.02										
Federal Tax Rate	0.35	Note: State tax in	mplications not co	onsidered							
Federal Tax Credit Basis	\$750,000	Assumes zero re	bate received by	customer and tax	able, so basis is	total construction of	costs				
Federal Tax Credit	\$225,000	30% FTC, assur	ning service date	by 12/31/07							
Federal Depreciation Basis	\$637,500	Net cost (after re	bate), minus half	the FTC							
	Energy yr	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Annual Assumptions		Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10
Retail Value Of Displaced Electricity (\$/kwhr)		\$0.0980	\$0.1000	\$0.1020	\$0.1040	\$0.1061	\$0.1082	\$0.1104	\$0.1126	\$0.1148	\$0.1171
SREC Value (\$/kwhr)		\$0.620	\$0.620	\$0.620	\$0.620	\$0.620	\$0.620	\$0.620	\$0.620	\$0.620	\$0.620
Maintenance Costs (amortized \$/kwhr)		0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Annual Production (kwhr)		100,000	99,500	99,003	98,507	98,015	97,525	97,037	96,552	96,069	95,589
	SACP	\$750.00	\$750.00	\$750.00	\$750.00	\$750.00	\$750.00	\$750.00	\$750.00	\$750.00	\$750.00
Project Economics (Customer Cashflow)		1	2	3	4	5	6	7	8	9	10
Construction Investment		-\$750,000									
Cashflows (pre-tax, + = income or savings)											
Rebate		\$0									
SAVINGS From Displaced Power Purchase		\$9,800	\$9,946	\$10,094	\$10,245	\$10,397	\$10,552	\$10,709	\$10,869	\$11,031	\$11,195
SREC Income		\$62,000	\$61,690	\$61,382	\$61,075	\$60,769	\$60,465	\$60,163	\$59,862	\$59,563	\$59,265
Operating Expense (Maint. Sinking Fund)		-\$2,000	-\$1,990	-\$1,980	-\$1,970	-\$1,960	-\$1,950	-\$1,941	-\$1,931	-\$1,921	-\$1,912
Sub-Total Annual Cashflows (pre-tax)	)	\$69,800	\$69,646	\$69,496	\$69,349	\$69,206	\$69,067	\$68,932	\$68,800	\$68,673	\$68,549
Federal Tax Calculation											
Taxable Income		<b>6</b> 00 000	<b>*</b> ***	<b>*</b> ***	<b>*</b> ***	<b>6</b> 00 000	<b>*</b> ***	<b>*</b> ***	<b>*</b> ***	<b>6</b> 00.070	<b>*</b> ***
Net Annual Cashflows		\$69,800	\$69,646	\$69,496	\$69,349	\$69,206	\$69,067	\$68,932	\$68,800	\$68,673	\$68,549
MACRS Deduction		-\$127,500	-\$204,000	-\$122,400	-\$73,313	-\$73,313	-\$36,975	<b>*</b> ~~~~~~	<b>*</b> ***	AAA 070	<b>A</b> AA <b>E</b> (A
Sub-Total: Taxable Income (+=income)	)	-\$57,700	-\$134,354	-\$52,904	-\$3,963	-\$4,106	\$32,092	\$68,932	\$68,800	\$68,673	\$68,549
Federal Tax Obligation (+=refund)		\$20,195	\$47,024	\$18,516	\$1,387	\$1,437	-\$11,232	-\$24,126	-\$24,080	-\$24,035	-\$23,992
Federal Investment Tax Credit		\$225,000	¢ 47.004	\$40 F40	¢1.007	¢4 407	¢44.000	<b>\$04.400</b>	¢04.000	604.005	\$00.000
Net Federal Tax Benefit (+=refund	)	\$245,195	\$47,024	\$18,516	\$1,387	\$1,437	-\$11,232	-\$24,126	-\$24,080	-\$24,035	-\$23,992
	6447.044	C 405 005	\$440.070	<b>\$00.010</b>	¢70 700	<b>\$70.040</b>	<b>*F7</b> 005	C14 000	<b>\$44</b> 700	¢44.007	<b>644557</b>
Net Cashflow (after federal tax)		-\$435,005	\$116,670	\$88,012	\$70,736	\$70,643	\$57,835	\$44,806	\$44,720	\$44,637	\$44,557
Cummulative Cashflow		-\$435,005	-\$318,335	-\$230,323	-\$159,587	-\$88,943	-\$31,108	\$13,697	\$58,418	\$103,055	\$147,611
Customer IRR	7.8%										

October 23, 2006



Michael Winka Director, Office of Clean Energy New Jersey Board of Public Utilities Two Gateway Center Newark, NJ 07102

RE: PSEG Energy Resources & Trade LLC's ("PSEG ER&T") comments to ACP and SACP Straw proposal memorandum dated October 17, 2006.

Dear Mr. Winka:

PSEG ER&T appreciates the opportunity to comment on the referenced straw proposal. PSEG ER&T agrees with the Office of Clean Energy that the current ACP and SACP levels of \$50 and \$300 respectively, should remain unchanged for Reporting Year 2008, which begins June 1, 2007 and ends May 31, 2008. In light of the upcoming BGS Auction, which will set prices for one third of New Jersey's load for the Reporting Years 2008, 2009, and 2010, PSEG ER&T recommends taking the opportunity now to set the ACP and SACP for Reporting Years 2009 and 2010 as well. We believe this will enable BGS suppliers bidding in the auction to limit the risk premium they apply to the renewable component of their bids, and to potentially reduce costs to consumers.

BGS suppliers face many pricing challenges in the 2007 auction period. They range from significant changes to PJM market fundamentals, to growing environmental requirements. Any area where the Board can provide a measure of certainty, such as setting ACP and SACP pricing for the entire auction period, we think is in the best interest of New Jersey consumers. If the Board is unable to set prices at this time, then we recommend that any future changes to the ACP and SACP not be applied to tranches won by suppliers in the 2007 auction. This "grandfathering" treatment would be consistent with how the Board treated the last major change made to the New Jersey RPS, when the solar requirement was introduced, and tranches won in the 2003 auction were exempted. Again, the less regulatory uncertainty there is for suppliers to evaluate, the better the prices will be for New Jersey consumers.

Thank you for considering our input to this important process, and we look forward to working closely with the Board on this issue.

Sincerely,

Joseph P. Roenbuck

Joseph P. Roenbeck



December 11, 2006

Board of Public Utilities 2 Gateway Center Newark, New Jersey 07102

Attention: Kristi Izzo Secretary of the Board

Dennis Wilson, on behalf of The Solar Center, Inc. hereby submits the following comments in response to the Board's request for comments on the straw proposal for the Alternative Compliance payment and Solar Alternative Compliance Payment for upcoming years.

- 1. The Solar Center is a solar integrator primarily doing business in the state of New Jersey. It currently has a backlog of solar residential projects under contract that is second in quantity as appears on the most recently published <10KW queue, and has more than ten >10KW commercial projects under contract. Our interactions with residential and commercial customers are frequent and numerous and these comments reflect our assessment of those customers segments.
- 2. The solar industry in NJ has grown more rapidly than anticipated due to the timely convergence of attractive solar rebates, federal tax credits, and a jump in electric rates in New Jersey in June 2006. It was not possible to anticipate the timing, size or certainty of the latter two financial impacts until they had actually occurred, and thus it was difficult to have in place solar rebate levels that would precisely meet program expectations. In hindsight, lower rebate levels would have delivered the desired level of solar rebate applications.
- 3. Changes are likely to occur quickly in connection with commercial and residential tax benefits for investing in solar systems. As recently as two days ago Congress voted to extend the solar Investment Tax Credit, adding one year of additional certainty for that financial factor, and assuring that most of the commercial projects under contract will be completed in time to capture a solar investment tax credit.
- 4. With a new Congress entering office shortly, many expect the solar investment tax credit to be extended for an additional eight years early in the tenure of the new Congress. Expectations are also that a higher residential tax credit of \$2.00/KW or even \$3.00/KW will be enacted as well. These levels of potential residential solar tax credits were contained in a number of bills during the past Congress. Changes in these financial factors will have an effect on the market response to NJ solar incentive programs, whether those solar projects are already in queue or have yet to go to contract.
- 5. In the event an increased federal residential solar tax credit is enacted by Congress, (possibly within the next six months), I would expect the BPU to lower solar rebates per KW by the amount of the increase in federal residential solar tax credits. If a federal residential solar tax credit of \$2000/KW was enacted, the NJCEP rebate for



residential customers could be lowered by about \$2.00/KW, and the rebate budget for residential customers would be able to provide a rebate to double the number of residential customers it could under the higher rebate level. This step would result in a greatly increased number of residential installations (roughly 200%), which would generate additional SRECs to meet the 2008 and 2009 EY SREC requirements. If a residential solar tax credit of \$3000/KW was enacted (the high end of expectations), then the NJCEP rebate per KW could be reduced by a similar amount without significantly affecting customer demand, and the residential solar rebate budget would be able to service about four times as many residential solar customers at a rebate of about \$1000/KW. This increased level of residential solar development activity would deliver substantially more SRECs than presently predicted, and most likely an amount sufficient to meet any expected shortfall in SREC requirements.

- 6. Residential market delivery capabilities have increased substantially and will be able to ramp up further to meet increased market demand. The training process for new installation staff is only about three months and we have found that individuals are eager to enter the solar field, perceiving it as a long term growth industry. Solar modules are also becoming more available during the past few months, prices appear to have stopped climbing, and manufacturers indicate that they expect silicon supply to more than double by 2008. So it appears that installation capacity and module supply are unlikely to be constraints on the growth, at least in the residential solar sector.
- 7. The availability of debt financing for residential and commercial systems is increasing and several banks (Wells Fargo is one) are providing 100% financing for residential solar systems. Debt financing is available from many sources for credit worthy commercial solar projects. We believe that if rebates are significantly reduced due to increased residential tax credits, adequate financing will be available to customers to support a ramp up in residential solar activity, allowing customers to finance the amount no longer paid through a NJCEP rebate.
- 8. The response of the capital markets to the need for very long term (10+ years) solar project financing to support the development of solar projects using Power Purchase Agreements (PPA) or Solar Service Agreements (SSA) is relatively new. In the past most long term energy project funding has been for conventional power plants, where a \$50 million project funding is considered small, and most financings are in the hundreds of millions of dollars. From comments made by major Wall Street funding organizations at two recent renewable project financing conferences, their solar project financing interest starts at \$20 million or more in solar projects, preferably located at the facilities of a few high credit corporations. Thus at the present time, financing for 10+ year terms is available to few solar integrators for their clients, notably SunEdison (NVT on the queue) and Powerlight in NJ. The availability of this long term financing allows for the development of solar projects as a type of new independent power plants, with only one customer per plant, and with no fuel cost. In most cases, electricity is sold to the facility where the solar project is located at a flat or formula based electric rate for 15 to 25 years. The attraction to the customer is there is no capital outlay, and the purchase of electricity is at stable rates over a long term contract.



- 9. It certainly appears that Walmart has decided that buying electricity for 20+ yrs from a solar system owned by a third party is a good decision. The total solar rebate funding in the queue sought by NVT Licenses, LLC (now part of SunEdison) for Walmart facilities totals \$36 million, fully 16.7% of the total rebate dollars, while representing only 1% of the total number of projects. The decision by Walmart to enter into these contracts is a prudent one by Walmart, and one which confirms the validity of the third party financing model, in which the investor/financing entity puts up all the project funding and the customer receives electricity on a flat or formula basis. NJCEP may, however, want to consider limits on how much rebate money or how much of the SREC market can be allowed to be filled by any one customer each year, to prevent an adverse impact on the development of the rest of the solar industry in NJ. While the SREC market is small during the next few years relative to NJ's long term renewable goal, the development of a large number of projects for one large multi-site customer, while benefiting that customer, could adversely affect the development of other solar market sectors at this delicate stage of the market's development. The BPU might want to evaluate whether it was intended that the ratepayers of NJ subsidize the solar systems of the largest corporation in the US to such a disproportionate level, or whether such an action is politically desirable. Surely Walmart can afford to fund its own solar systems without taking so much money from New Jersey ratepayers.
- 10. Long term financing to support this new electric supply model is presently available for the largest projects, and will rapidly become available for the rest of the market. One firm, Citizenre, (see www.citizenre.com) is already signing up residential customers with 25 year contracts to supply a portion of the customer's electricity from a new solar electric system, installed with no cash outlay by the customer. Electricity is supplied at a flat rate to the customer over the term of the supply agreement. One would have to presume that the long term financing necessary to install the systems has already been committed to the Citizenre program by a significant capital source. Hopefully this model of solar financing, in which investors with an appetite for federal tax benefits own the solar systems, will spread to all customer segments, and be compatible with the transition to a SREC funding structure. The growth of this financing structure and its application to the overall solar market holds the promise to deliver a larger amount of solar capacity than predicted just one or two years ago.
- 11. Electric rates in New Jersey are expected to again increase in June of 2006 for residential and commercial customers. Although the percent of the increase will not be known until the bids from LSEs are received, after last year's rate hike it was predicted that electric rates would increase an equal amount or more (as much as 20%) in 2007 if wholesale oil and natural gas prices remained at then current levels. Based on current fossil fuel market prices, an electric rate hike of 15% in June of 2007 would not be surprising. This hike will further encourage the growth of the solar industry in NJ and increase the desire of electric customers to limit their risk of higher electric prices by investing in a solar system to produce some of their electric needs, or by entering into a long term agreement to purchase solar electricity.



12. The expectations of future energy price hikes, the extension of (and possible expansion of) federal tax benefits, the desire for energy consumers for more stable energy prices, the desire of commercial and residential customers to become more "green" and to take some action to combat global warming, are all dynamic factors that will affect how the market responds to the solar opportunity in New Jersey. The dramatic response of the NJ solar market during the past 12 months would seem to indicate that overall financial benefits have become very attractive, and lower rebates would have delivered a quantity of applications more in line with program goals.

In light of the above, I support the establishment of a stakeholder process regarding ACP and SACP levels for EY2009-2010, to commence as soon as possible. Additional input is necessary from the industry and other stakeholders to determine what level SACP is needed to deliver the desired level of solar development activity. If a pilot SREC program is initiated for future SREC years, it should be open to all customer segments, and the amount able to be supplied by each customer segment under such a pilot SREC program should be approximately equal to the relationship of that customer segment to total electric consumption. SREC levels should be set for a minimum of two years at a time to provide some financial certainty for projects developed and installed during those years.

I support the Board keeping the SACP and the ACP at their current levels for EY 2008. In the event the Board sees that an insufficient amount of solar capacity is being developed during the next six months, when federal action on commercial and residential solar tax credits is likely, the Board can take further action to ensure that sufficient solar capacity is developed for future SREC years. The solar industry has grown substantially, and will be able to quickly ramp up its activities as needed to meet future year SREC requirements.

The attached spreadsheet is derived from the most recent queue list for >10KW systems and supports some of the comments made above. Corrections have been made to queue data where errors were apparent.

Respectfully submitted,

Dennis Wilson President

111 Market Place Suite 500 Baltimore, Maryland 21202 410.468.3500 410.468.3540 Fax



December 11, 2006

Kristi Izzo Secretary of the Board Board of Public Utilities 2 Gateway Center Newark, New Jersey 07102

Dear Ms. Izzo:

Constellation Energy Commodities Group, Inc. ("CCG") herein submits comments in response to the New Jersey Board of Public Utilities' ("Board") November 9, 2006 Request for Public Comment ("Board Request") regarding the schedule and straw proposal ("Straw Proposal") for the Alternative Compliance Payment ("ACP") and Solar ACP ("SACP") levels for upcoming Energy Years ("EY") 2008, 2009 and 2010.

CCG is a wholesale power marketer focused on serving the full requirements power needs of distribution utilities, co-ops and municipalities that competitively source their load requirements. CCG has been a winning bidder in New Jersey's previous Basic Generation Service ("BGS") Auctions and currently serves load in New Jersey as a BGS provider.

With respect to the Board's Straw Proposal, CCG first notes its support for proposed Board action to "order that the SACP and ACP remain at their current levels for EY2008."<sup>1</sup> The Straw Proposal also proposes that "the Board announce a schedule for a stakeholder process, possibly to include public hearings, regarding ACP and SACP levels for EY2009-2010."<sup>2</sup> While CCG supports the proposal to hold a stakeholder process, CCG urges the Board to set a schedule such that a final Board decision regarding the ACP and SACP levels for EY2009-2010 be made by February 1, 2007, such that bidders in the February 2007 BGS Auctions have certainty with respect to the renewable portfolio requirements associated with serving BGS load under contracts awarded in the February 2007 BGS Auctions. CCG notes that any Board action which provides certainty to bidders will help to increase the competitiveness of the BGS Auctions, and thus lead to more competitive prices for New Jersey consumers.

CCG appreciates the opportunity to submit these initial comments on the Board Request.

<sup>&</sup>lt;sup>1</sup> Board Request at p.2.

<sup>&</sup>lt;sup>2</sup> Id.

Regards,

/s/

Lisa M. Decker, Esq. Counsel Constellation Energy Group, Inc. 111 Market Place, Suite 500 Baltimore, Maryland 21202 (410) 468-3792 Lisa.Decker@constellation.com

On behalf of Constellation Energy Commodities Group, Inc.

file:////trndc01/Users/mcshea/NJ%20CEP/Renewable%20Energy%20Pro...20for%20comments%20on%20Alternative%20Compliance%20Payments.htm

From: Winka, Michael on behalf of OCE
Sent: Tuesday, December 12, 2006 5:18 PM
To: Hunter, Benjamin; Boylan, Rachel; Todd D. Davis (TODD.D.DAVIS@saic.com)
Cc: Izzo, Kristi; Csira, Regina
Subject: FW: BPU request for comments on Alternative Compliance Payments

## Michael Winka

Michael Winka Director Office of Clean Energy NJBPU

44 S Clinton Ave POB 350 Trenton,NJ 08625-0350

609 777 3335 609 777 3330 (fax)

-----Original Message----- **From:** Adrian Brunori (MA PRN) [mailto:Adrian.Brunori@wholefoods.com] **Sent:** Sunday, December 10, 2006 11:09 PM **To:** OCE **Subject:** Re: BPU request for comments on Alternative Compliance Payments

**Dear Board Members** 

Whole Foods has been a leader in adopting Green practices. We have offset 100% of our power consumption through the purchase of Wind energy credits. Our natural evolution in this process will be to become clean power producers and eventually energy independent. I have been proposing a New Jersey based initiative that would support the State and Governor's commitment to clean energy leadership. Offsetting our total power use would require a Solar project of about 50MW. This project alone would be a significant contribution to the States goals. Such a facility would provide power during peak usage times, lessening the need for gas fired plants, benefiting rate payers and preventing outages.

The logistics of such a plan are huge. In formulating a business model there have been many obstacles. Please consider the following concerns. Projects like this do not qualify for CORE rebates. Grid Supply Projects need to be able to sell SREC's. For the economics to work we need to see an SREC price of at least \$750 and a higher SACP. SACP levels need to be fixed preferably for 10 years so there can be assurances for investment.

Time is of the essence for New Jersey to innovate aggressively before other States adopted more favorable environments. We would like to see this as a New Jersey project; we are the Garden State and should lead.

Thank you. Adrian Brunori Adrian Brunori Green Mission Specialist Whole Foods Market Princeton, NJ 609-799-2919 cell 732 850 1105 adrian\_brunori@yahoo.com



600 College Road East, Suite 4400 Princeton, NJ 08540 T: 609 513.7295 F: 610 988 0862

www.mseia.org

#### STATE OF NEW JERSEY BOARD OF PUBLIC UTILITIES 2 Gateway Center Newark, New Jersey 07102

Attention: Kristi Izzo Secretary of the Board

#### IN THE MATTER OF THE SCHEDULE AND STRAW PROPOSAL FOR THE ALTERNATIVE COMPLIANCE PAYMENT AND SOLAR ALTERNATIVE COMPLIANCE PAYMENT LEVELS FOR UPCOMING ENERGY YEARS (EY) 2008, 2009, AND 2010

Mid Atlantic Solar Energy Industries Association Comments

**Introduction** 

The Mid Atlantic Solar Energy Industries Association ("MSEIA") appreciates the opportunity to submit these Comments on the issues relating to the adoption of Alternative Compliance Payments ("ACPs") as set forth in the ACP Public Notice dated November 9, 2006.

MSEIA is a trade association with a membership of approximately 70 solar industry businesses including manufacturers, suppliers, installers, contractors, consultants, research and development firms and others. Our members range from individually or family owned enterprises to national and multinational companies.

The comments below reply to the two questions posed in the Public Notice and are limited to the solar ACP ("SACP"). We take no position on the Class One ACP. The questions posed are of serious import to the solar industry. In the course or the last year and a half the industry has experienced remarkable growth of about 30% a year but at the same time in 2006 it has been subject to tremendous uncertainty as rebate levels have dropped multiple times, rebate applicants have been placed in a queue where they must wait as much as year to know whether their project will be awarded a rebate; program policies and administrative requirements have



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changed, sometimes retroactively, with the result that applications that are months old are suddenly returned for not meeting current requirements; and transition to a financing system based only on Solar Renewable Energy Credits (SRECs") is forecasted while the details are unknown. While the general level of interest in solar has not diminished, the uncertainties brought about by these changes have resulted in the solar industry's experiencing a marked decline and retrenchment in the last six months. It is imperative that the Board's action on the subject of the SACP send a clear message to the industry and to the larger investment community that future year SACP levels are expected to increase, that there is a defined track to transition from a rebate program to a SREC-based system and what the parameters of that system will be.

# Question 1. Should the Board announce a schedule for a stakeholder process, possibly to include public hearings, regarding ACP and SACP levels for EY2009-2010?

Setting SACP levels for multiple years at a time would be a highly positive action on the part of the Board. It would send a strong signal to the market regarding the future value of SRECS and help to define risk levels for potential project investors. By better defining risk, it will reduce costs to ratepayers. MSEIA strongly endorses a multiyear schedule and urges the Board to consider a schedule of at least three (3) and preferably five (5) years or more. While the Board would retain the authority to adjust SREC prices based on identified factors, such a clear statement of intent and direction will allay many of the uncertainties that accompany setting SREC prices on a year-to-year basis.

With respect to the process for setting SACP levels, we note that the subject of the SACP and the related transition to a SREC-only system have been discussed in the Renewable Energy Committee meetings which are open to the public, on the Renewables mailing list which is also open to the public, at a public Solar Roundtable on November 13, 2006 at Monmouth University and in the White Paper Series published on the Office of Clean Energy website. If additional public input is determined to be necessary, we are hopeful that it will be implemented expeditiously and with an announced end date in the first quarter of 2007. Such a schedule will



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give the Board a reasonable opportunity to analyze the issues, but assure that the industry and the public are not left in regulatory limbo while the process takes its course.

Should the Board convene a public input process, MSEIA also seconds the comments of PVNow encouraging the Board, in addition to evaluating a multi-year process, to assess the efficacy of a two tier SREC system with one price for SRECs generated by systems that received rebates and a higher price for SRECs generated by systems that did not receive rebates.

# Question 2. Should the Board order that the SACP and ACP remain at their current levels for EY2008?

Given the reasonable expectations of investors in solar projects that have been built or are scheduled to come on line in EY2008, the Board should, at a minimum, maintain the current level of \$300 for SRECs generated by those projects. Anything lower would do damage to the growing market for solar projects. In fact, we recommend raising the ACP for the reasons set forth below.

We strongly endorse the comments of PVNow urging that the Board decision on SREC prices in EY2008 and beyond be based on solid economic data and analysis. We join PVNow in encouraging the Board to retain qualified consultants and economic experts to review the economic data and advise the Board on the implications of its economic decisions in this regard.

It is axiomatic that if solar projects are to be funded without rebates the higher cost of purchase and installation will have to be made up somehow. The obvious source to pay for that differential is an increase in SREC prices. Our models show that a SREC price of two and a half to three times the current value will be necessary to drive consumer and investor interest in non-



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rebated solar. We therefore recommend a SREC price of at least \$750 for non-rebated projects to go into effect for generation during EY2008.

BPU Staff has suggested implementing a trial program for EY2008 in which nonrebated projects will be allowed to construct, interconnect, and net meter at the current SREC price of \$300. We strongly encourage the BPU to put in place the administrative mechanisms necessary to allow such projects to proceed immediately even though we realistically expect that there will be only limited interest in such a trial. We have in other submittals advised of the potential harm from such a trial by itself, without (1) immediately instituting the necessary administrative changes to allow nonrebated projects to connect to the grid and (2) accompanying it with a clear statement that the trial is transitional only and not in lieu of allowing market factors to dictate a higher SREC in the future.

Respectfully submitted,

alcard the

Susan Packard LeGros

Executive Director Mid Atlantic Solar Energy Industries Association

December 4 2006

Kristi Izzo, Secretary Board of Public Utilities 2 Gateway Center Newark, New Jersey 07102

Dear Ms Izzo,

I am commenting on the Nov 9 BPU ACP Public Notice as a New Jersey resident supportive of renewable and nuclear energy to reduce greenhouse gas emissions. I am in the BPU solar rebate queue but have no connection to the solar industry. I have read the *White Paper Series: New Jersey's Solar Market. Transition to a Market-based REC Financing System,* and attended the September 18th conference.

I applaud the leading position taken by the State of New Jersey to promote renewable sources of energy including solar. The innovative rebate program has been successful in jump-starting solar installations in the State, but, as Mr Winka made clear in his White Paper and at the September 18th conference, it is expensive and funds will not be available to meet the Renewable Portfolio Standard demand much longer. There are over 1100 applicants currently waiting for approval in the sub-10Kw queue established in March 2006, with over 200 in the > 10Kw queue, and there is no guarantee that funds will be available for them all, let alone new applicants. If funded, the wait time appears to be a year or more. There seems to be general agreement in the White Papers that the BPU should move quickly to an arrangement where solar renewable energy certificates (SRECs) increase in value to the point that the revenue stream they generate (together with electricity cost-savings) justifies the investment in a photovoltaic installation.

However, the proposed BPU decision will leave the solar Alternative Compliance Payment (ACP) at its current level of \$300 until June 2008 if not longer. But will rebates still be provided 18 months from now? Without a rebate, at current electricity prices and with SRECs now trading at about \$200 on average, the annual return on investment is only about 4.5%, compared to about 10% under the rebate program. In part because of the high risk involved -- SREC value is vulnerable not only to market forces but also to political and regulatory changes – a 4.5% return is grossly inadequate; it barely exceeds the current return on an A-rated New Jersey municipal bond, which carries virtually no risk. Therefore, unless SREC prices rise very substantially, new installations not supported by a rebate are likely to be confined to a few wealthy individuals ardently committed to renewable energy and a few companies willing to make a non-economic investment for public relations purposes. This would quickly lead to a disappointing decline if not near-shutdown of what has been a very promising start in bringing solar energy to New Jersey. Therefore, I urge the committee to raise the ACP to 2-3 times the current level of \$300 for Energy Year 2008 and thereafter, which would at least make it possible (depending on supply not exceeding demand) for the value of an SREC to rise sufficiently to justify the expense of a non-rebated photovoltaic installation. If administratively feasible, there could be a provision to restrict these more valuable SRECs to installations that have not had the benefit of a rebate. In addition, a non-rebate pilot program should be initiated as soon as possible, but for any reasonable chance of success SREC prices must increase 2-to 3-fold.

Sincerely

VANGEN

Jonathan Tobert



80 East Fifth Street, Paterson, NJ 07524 • (973) 569-9330 voice • (973) 569-9663 fax letsgo@PfisterEnergy.com • www.pfisterenergy.com

December 11, 2006

Kristi Izzo Secretary of the Board New Jersey Board of Public Utilities 2 Gateway Center Newark, NJ 07102

Dear Ms. Izzo:

Please accept this letter as Pfister Energy's formal comment and objection to the proposed NJBPU schedule and straw proposal for Solar Alternative Compliance Payment levels for the upcoming Energy Years (EY) 2008, 2009, and 2010.

We disagree with the notion that the SACP should not rise above \$300/MWh due to BPU's concerns of adversely impacting ratepayers for the following key reasons:

- A proposed increase in the SACP forms the basis for all models for the transition from the current rebate-based PV program to a SREC-based program. No positions have determined a means of keeping our nationally acclaimed PV program operational without a rise in the SACP to help close the funding gap that will exist when rebates are no longer available. The PV program is a cornerstone of our Renewable Portfolio Standard (RPS).
- 2. The RPS is good for New Jersey, benefiting all citizens through cleaner air. It also places less strain on the load pocket areas of our grid. It puts New Jersey in a national leadership role with regard to energy policy. As a highly visible program on a national basis, our SREC program has the potential to see increasing benefits if it is adopted as a regional or national model.
- 3. As Mike Winka's 9/22/06 paper demonstrates, maintaining a rebate structure could cost the state's ratepayers \$500 million annually and billions over the cost of the program, which has been legislated to continue for the next 14 years. A rising SACP would be much less costly for our ratepayer base.
- 4. In lieu of rebates the resulting project financing gap must be closed. Otherwise it is probable that PV projects will not be built. The Clean Energy Program has built its successful model upon a maximum 10 year payback. Included already in this success is the "low hanging fruit", early adopters to whom payback metrics are a lower priority than achieving green benefits. Moving forward in the RPS will require participation by parties increasingly likely to keep an eye on their bottom line which is, after all, good stewardship of their respective organizations. Maintaining current SACP levels on an indefinite basis will cause a divergence between installed solar capacity and RPS-required capacity due to the project financing gap. As this divergence increases there

Kristi Izzo December 11, 2006 Page 2



will likely arise a need for new incentives to help rekindle investment in PV projects as required by the RPS. Otherwise we, as a state, run the risk of increased reliance on RPS compliance through the SACP.

In summary, reasonable increases in the SACP will allow New Jersey to achieve the stated RPS policy goals at the overall lowest cost to the state's ratepayers. Thank you for considering our comments in your decision process.

Sincerely,

Wayne Pfisterer President



Asset Management Group

December 8, 2006

Kristi Izzo Secretary of the Board New Jersey Board of Public Utilities 2 Gateway Center Newark, New Jersey 07102

Dear Ms Izzo:

Pepco Energy Services respectfully submits the attached comments in response to the ACP Advisory Committee's recent recommendations and straw proposal concerning the future levels of the ACP and SACP.

Please feel free to contact me with any questions. I can be reached at 703-253-1641.

Respectfully submitted,

Jayu A. Hudders

Wayne<sup>I</sup>A. Hudders Senior Energy Market Analyst

1300 North 17<sup>th</sup> Street • Suite 1600 • Arlington • VA • 22209 • 703-253-1800 • Fax 703-253-1697 • www.pepcoenergy.com

#### BEFORE THE NEW JERSEY BOARD OF PUBLIC UTILITIES

#### Renewable Energy Portfolio Standards ) N.J.A.C. 14:4-8

#### COMMENTS OF PEPCO ENERGY SERVICES, INC.

Pepco Energy Services, Inc. ("PES") hereby submits its comments pertaining to the proposed schedule and straw proposal for the Alternative Compliance Payment ("ACP") and Solar Alternative Compliance Payment ("SACP") levels for upcoming Energy Years (EY) 2008, 2009 and 2010 set forth under the Renewable Energy Portfolio Standards ("RPS") regulation.

PES concurs with the recommendations of the Alternative Compliance Payment (ACP) Advisory Committee that the ACP and SACP should be set at the current level for EY 2008 and recommends that the New Jersey Board of Public Utilities (Board) adopt an order affirming this recommendation.

PES also recommends that the Board should set up a stakeholder process to examine future levels for the ACP and SACP in EY 2009-2010 as proposed in the Board's solicitation for public comments. PES would like to participate in any stakeholder process that is developed and requests such an invitation if a stakeholder process is ordered by the Board. PES encourages the Commission to adopt its recommendations as contained herein and looks forward to the opportunity to work with the Board and other stakeholders to further the goals of the RPS legislation in an efficient manner that treats both BGS and competitive suppliers equitable to the benefit of all New Jersey end-users.

> Respectfully submitted, PEPCO ENERGY SERVICES, INC.

Jada S

Wayne A. Hudders Sr. Energy Market Analyst



STATE OF NEW JERSEY BOARD OF PUBLIC UTILITIES 2 Gateway Center Newark, New Jersey 07102

> Attention: Kristi Izzo Secretary of the Board

#### IN THE MATTER OF THE SCHEDULE AND STRAW PROPOSAL FOR THE ALTERNATIVE COMPLIANCE PAYMENT AND SOLAR ALTERNATIVE COMPLIANCE PAYMENT LEVELS FOR UPCOMING ENERGY YEARS (EY) 2008, 2009, AND 2010

Via email - December 11, 2006

As a member appointed to the ACP committee I would first like to put on the record that the ACP committee did discuss the issues at length but did NOT vote on or agree to any specific recommendations to the Board as stated in the November 9, 2006 Request for Public Comment.

Per the request for comment on the two items:

# Item 1: "That the Board announce and schedule for a stakeholder process, possibly to include public hearings, regarding the ACP and SACP levels for EY2009-2010."

We believe opportunity for adequate stakeholder input has already taken place over the last several months in the form of multiple publicly open Renewable Energy Committee meetings, Clean Air Council meetings, an open public forum at Monmouth University November 13, 2006, and this straw proposal posted and open for comments for several weeks. BPU Board members should have sufficient feedback and evidence to make a determination on the SACP levels and whether to set levels for energy years 2008 through 2010.

Should the Board decide that additional public process is required, we strongly urge it begin immediately and complete the process as soon as possible. The solar industry is currently in distress and urgently needs the next generation of incentives to keep the industry moving afloat and in a position to help meet the solar requirement in the RPS.

## Item 2: "Should the Board order that the SACP and ACP remain at their current levels for EY2008?"

It is commonly accepted that a REC-only incentive structure will be the incentive structure to go beyond rebates and drive investment to help meet the solar requirement in the RPS beginning in EY 2008 and through 2021. There is solid consensus that higher SACP levels are required to make a REC-only program work. PowerLight

www.powerlight.com

**Corporate Headquarters** 2954 San Pablo Avenue Berkeley, CA 94702 510.540.0550 East Coast Region 700 South Clinton Avenue Trenton, NJ 08611 609.964.8900 **Pacific Region** PO Box 38-4299 Waikoloa, HI 96738 808.883.9411

Southwest Region 6 Morgan, Suite 122 Irvine, CA 92618 949.581.6022 supports the MSEIA and PV Now proposal of SACP levels of \$750 beginning in EY 2008 and setting a multi-year SACP schedule for at least the following two years, preferably for an additional four years. A multi-year schedule would send a strong signal to the LSEs and SREC market participants that the program will indeed be around and that entering into long-term contracts is prudent.

Common sense dictates that if there is a loss of a rebate of 50% or more that something else must make it up in order to maintain similar project economics. Typical project proformas have been released and analyzed during the public vetting process that indicate SREC prices of approximately \$625 in order to generate reasonable return on investment with no rebates. An SACP of \$750 or more would be required to see SREC prices in the range of \$625. It should be pointed out that the SACP does not set the SREC price but only sets the upper limit. Market forces will determine the price. The SACP simply needs to provide adequate motivation for LSEs to enter into SREC contracts, preferably long-term ones at even lower SREC prices.

Respectfully submitted,

Thomas Leyden Vice President **PowerLight East Coast Office** 700 South Clinton Avenue Trenton, NJ 08611 <u>tleyden@powerlight.com</u> www.powerlight.com

609-964-8900 off. 609-964-8924 fax.

www.powerlight.com

**Corporate Headquarters** 2954 San Pablo Avenue Berkeley CA 94702 510.540.0550 Northeast Region 993 Lenox Drive, Suite 200 Lawrenceville, NJ 08648 609.219.7475 **Pacific Region** PO Box 38-4299 Waikoloa HI 96738 808.883.9411 Southwest Region 4217 Calle Abril San Clemente, CA 92673 949.429.6366

#### VIA EMAIL

December 11, 2006

Ms. Kristi Izzo Secretary of the Board New Jersey Board of Public Utilities 2 Gateway Center Newark, New Jersey 07102

#### Reference: Comments of PSE&G and JCP&L on the "Alternative Compliance Payment ("ACP") and Solar Alternative Compliance Payment ("SACP") levels for upcoming Energy Years (EY) 2008, 2009 and 2010"

Dear Secretary Izzo:

Public Service Electric and gas Company ("PSE&G") and Jersey Central Power and Light ("JCP&L") appreciate the opportunity to provide comments on the New Jersey Board of Public Utilities' ("BPU" or "Board") "Alternative Compliance Payment ("ACP") and Solar Alternative Compliance Payment ("SACP") levels for upcoming Energy Years (EY) 2008, 2009 and 2010" public notice.

#### <u>Summary</u>

- PSE&G and JCP&L support the Board's proposal to maintain the Class I and Class II ACP level at \$50 per REC and the SACP level at \$300 per SREC for EY 2008 (June1, 2007 through May 31, 2008).
- PSE&G and JCP&L contend that the ACP should be set at \$50 per ACP for all load for EY 2009 and 2010 and that the SACP level should be set at \$300 per SACP for winners of BGS-FP tranches in the 2006 and 2007 BGS auctions for EY 2009 and 2010.
- PSE&G and JCP&L support the Board's proposal to initiate a stakeholder process with respect to developing a funding mechanism for photovoltaic ("PV") projects unable to receive rebates under the CORE program due to funding limitations.

#### Proposal to Maintain ACP and SACP Levels for EY 2008

PSE&G and JCP&L support the Board's proposal to maintain the Class I and Class II ACP level at \$50 per REC and the SACP level at \$300 per SREC for EY

2008. We believe that these levels appropriately balance the ACP/SACP's intended dual purpose of providing an incentive to transact in the renewable energy marketplace and to bring new renewable capacity online rather than relying on the ACP/SACP as a normal business practice, while simultaneously preventing RPS compliance costs from becoming unreasonably burdensome to ratepayers in the event that sufficient renewable energy attributes are not available to market participants, or if there is an unanticipated increase in the cost of RECs.

Based on the Board's estimate of retail load for EY 2008<sup>1</sup>, it appears that sufficient CORE funding is available to meet the EY 2008 solar RPS requirements with rebated PV projects. Meeting the EY 2008 solar RPS target would require the installation of approximately  $51 - 60^2$  MW's of PV. In its "Straw Proposal for ACP and SACP Levels for EY 2008", the Board has determined that it is capable of funding 84 MW of PV. The upper boundary estimate of the amount of PV required to meet the EY 2008 RPS targets clearly falls within the Board's funding capabilities.

Additionally, maintaining a \$50 ACP for EY 2008 still appears to be appropriate. It appears that sufficient RECs will be available in the marketplace to meet the EY 2008 Class I standard.

#### Extend ACP and SACP levels to EY 2009 and 2010

PSE&G and JCP&L recommend setting the ACP level at \$50 for EY 2009 and 2010 for all retail load served in New Jersey. The cost of generating Class I RECs is not expected to fundamentally change over the next several years. Furthermore, unlike SRECs, the cost of generating RECs is not driven by subsidy availability. Locking-in the ACP level for the next three years will promote a stable marketplace and will provide certainty to developers and LSE's alike. The ACP advisory committee unanimously agreed that setting a \$50 ACP level for 3 years was appropriate.

PSE&G and JCP&L further recommend setting the SACP at \$300 for EY 2009 and 2010 for rebated solar projects. BGS bidders winning 36–month FP tranches in the 2006 and 2007 Board sponsored BGS auctions should be protected from unanticipated spikes in solar RPS compliance costs. Protecting these existing contracts would help promote a stable marketplace, reduce regulatory risk and mitigate the cost to ratepayers of meeting renewable energy mandates.

Based on the Board's ability to subsidize 84 MW of PV, it will be possible to fully grandfather the BGS FP tranches won in the 2006 and 2007 BGS auctions with PV projects that received CORE rebates. As shown in **Table 1** below, based on

<sup>&</sup>lt;sup>1</sup> From http://www.njcep.com/media/Current\_NJBPU\_20by2020.pdf

<sup>&</sup>lt;sup>2</sup> 60 MW estimate based on the solar industry's decreased efficiency estimate of solar installations under real world operating conditions.

**MWs of Rebated PV Required** 

BGS-FP load served in EY 2006 for all EDCs in New Jersey and the solar industry's revised estimate of electrical output for PV projects in New Jersey, we estimate that 71 MW of PV capacity will be needed to meet the solar requirements of the 2006 and 2007 FP tranches in EY 2009. The amount of capacity needed drops to 50 MW in EY 2010 as the 2006 BGS-FP tranches expire in May 2009.

Actual BGS-FP Load PSE&G	- June 2005 - JCP&L	May 2006 (EY 2006 ACE	6) RECO	Totals
35,974,473	19,444,914	8,682,031	1,349,406	65,450,824
Load Growth	1.00%			
PV Capacity Factor	1.01	kWh Ac/watt DC	(Solar Industry Estin	nate)
Impact of Grandfathe	ering Existing			
		EY 2009 <sup>1</sup>	EY 2010 <sup>2</sup>	
Grandfathered FP Lo	ad	44,956,033	22,702,797	
Solar RPS Requirmen	t	0.160%	0.221%	
MWh Required		71,930	50,173	

#### Table 1. PV Capacity Needed to Grandfather Existing BGS FP Tranches

1. Load based 2/3 (2006 and 2007 FP tranches) of estimated FP load after applying growth factor

71

50

2. Load based 1/3 (2007 FP tranches) of estimated FP load after applying growth factor

Without the stability provided by locking in SACP levels for the upcoming BGS-FP auction, bidders may feel compelled to factor risk premiums into their bid prices to compensate for the potential threat of rising SACP levels. This may result in higher BGS auction clearing prices, which would be passed onto consumers. This is not in the best interest of consumers and will not result in any additional renewable energy capacity.

For example, if potential suppliers bidding on 2007 FP tranches factor-in a solar RPS compliance cost of \$700 per SREC in EY 2009 and EY 2010, rather than a \$250 per SREC<sup>3</sup>, the solar RPS' impact on the resulting clearing price of the auction would be increased from \$0.39 per MWh to \$0.96 per MWh, resulting in a net rate impact of approximately \$0.57 per MWh as shown in **Table 2**.

<sup>&</sup>lt;sup>3</sup> \$700 per SREC is the solar industry's estimate of actual SREC trading prices for fully market based SRECs. The actual market price could be higher or lower. \$250 per SREC represents the approximate current price of SRECs subject to CORE rebates.

		EY 2008	EY 2009	EY 2010		
Total FP Load <sup>1</sup>		66,766,386		67,434,050		68,108,390
Solar Required		0.0817%		0.16%		0.221%
Solar MWh		54,548		107,894		150,520
\$300 SACP in all yea	ars					
Cost per SREC	\$	250.00	\$	250.00	\$	250.00
Total Cost of Solar	\$	13,637,034	\$	26,973,620	\$	37,629,886
			Tot	al Load		202,308,826
			Tot	al Solar Cost	\$	78,240,540
Impa	ct to B	GS Auction Cle	aring	g Price \$/MWh	\$	0.39
\$300 SACP in first y		•				
Cost per SREC	\$	250.00	\$	700.00	\$	700.00
Total Cost of Solar	\$	13,637,034	\$	75,526,136	\$	105,363,680
			Tot	al Load		202,308,826
	Total Solar Cost					194,526,850
Impact to BGS Auction Clearing Price \$/MWh						0.96

# Table 2.2007 BGS FP Auction - Cost of Solar RPS Compliance

1. Actual EY 2006 FP load after applying a 1%/year load growth factor.

The potential for an unnecessarily higher BGS-FP market-clearing price in the upcoming auction can be mitigated or eliminated by maintaining the ACP for tranches offered in the 2007 auction. Additionally, this grandfathering can be accomplished without presupposing how the new funding mechanism for non-rebated PV systems will ultimately develop.

#### PSE&G Supports Stakeholder Process for Recommending Changes in PV Funding Mechanism

PSE&G and JCP&L support the Board's proposal to initiate a stakeholder process to determine SREC prices for EY 2009 and 2010 for projects unable to receive a CORE program rebate due to funding limitations.

As part of this stakeholder process, PSE&G and JCP&L recommend that the Board perform an updated rate impact analysis for the solar portion of the RPS. This analysis should seek to determine the rate impact of transitioning away from a subsidy/SREC driven funding mechanism to a fully market based system, which would likely result in higher SACP levels. It should also include updated assumptions based on the experience gathered over the last several years of implementing the solar program as past of the analysis. This includes updated pricing information for solar installations and updated future projected solar pricing. It should also include an analysis of the increased PV capacity needed to meet current and future RPS targets based on actual experience with installed solar capacity in New Jersey. For example, the original solar goal presented by the Renewable Task Force was for 120,000 MWh by 2008, which was thought to be equivalent to about 90 MWs of installed capacity based on a 15% capacity factor. In practice, the typical PV capacity factor in New Jersey is closer to 12%

factor. In practice, the typical PV capacity factor in New Jersey is closer to 12%. The rate implications of these updated assumptions should be assessed as part of the solar market transition.

Thank you for the opportunity to provide comments. Please feel free to contact me if you have any questions or comments.

Sincerely,

#### COMMENTS OF THE NEW JERSEY DEPARTMENT OF THE PUBLIC ADVOCATE DIVISION OF RATE COUNSEL

#### Introduction

The New Jersey Department of the Public Advocate, Division of Rate Counsel ("Rate Counsel") appreciates the opportunity to comment upon the Board of Public Utilities ("BPU" or "Board") Staff's straw proposal to existing ACP and SACP levels. The Board has requested comment on the following specific recommendations:

- (1) That the Board announce a schedule for a stakeholder process, possibly including public hearings, regarding ACP and SACP levels for EY 2009-2010.
- (2) That the Board order that the SACP and ACP levels remain at their current levels for EY 2008.

In summary, our positions on the Staff's straw proposal are:

- (1) Rate Counsel supports the recommendation to initiate a stakeholder process that would include public hearings, regarding ACP and SACP levels. However, as will be discussed in further detail in our comments, we would recommend that the Board not prejudge any specific increase in the SACP at this time, or fix these SACP levels until a thorough investigation of all the interrelated issues can be conducted.
- (2) Rate Counsel supports maintaining SACP and ACP levels at their current levels for EY 2008.

In addition, on December 6, 2006 the Staff presented an additional straw proposal regarding a potential pilot program for solar energy shortfalls for a portion of EY 2009 to the BPU. This proposal would create a market-based mechanism (competitive solicitation) for a share of the EY 2009 solar energy requirements. Resources being bid into this pilot program would be required to be completely market-based, and take no state support under the existing rebate programs. Support for the resources developed in this program would be provided completely by SREC and SACP funding.

As noted in our comments, Rate Counsel supported the development of a market-based mechanism to test market expectations on a share of the EY 2009 solar energy requirements. Rate Counsel looks forward to further work with the Staff on further development of this proposal.

In addition to our comments, Rate Counsel would like to encourage the Board to direct Staff to consolidate all of these issues related into solar energy into one more comprehensive examination that addresses all of these issues within one process. This will help eliminate the possibilities for inconsistencies between programs and repeated "fine tuning" due to policy modifications. The remainder of Rate Counsel's comments elaborate on our summary recommendations above, and our position on several outstanding solar energy proposals.

#### Staff Straw Proposals

Rate Counsel generally supports the Staff's straw man proposal to advance the development of solar energy resources, as required under the Board's Renewable Portfolio Standard ("RPS") rule. Rate Counsel interprets the Staff's recommendation as a proposal to create some type of non-rebate-based business opportunity for solar energy development until a longer run mechanism guiding this market can be developed.

Rate Counsel sees the need for these proposals being created by two types of uncertainties:

- (1) Recognition that the existing system of financial support for solar energy development (CORE program) is unsustainable in its current form over the long run.
- (2) Recent recognition that there is an unanticipated shortfall of solar energy development for the 2008-2009 energy year. Originally anticipated solar capacity for that year, upon which the RPS was approved was 90 megawatts ("MW"). The current expected need is 120 MW based upon the greater than anticipated capacity needed to provide the solar generation the RPS requires. This represents a significant increase of some 33 percent from earlier approved levels.

The Staff Straw proposal would attempt to address this uncertainty by locking in EY 2008 SACP amounts at their current level, and for the later years, increasing the SACP levels and fixing them for EY 2009 and 2010. While the Staff recommendation does not explicitly suggest an increase in the SACP, Rate Counsel believes that a strong possibility of a material increase in the SACP is certainly implied.

While Rate Counsel supports the recommendation of addressing these uncertainties, as well as moving to a more sustainable structure for the development of solar energy resources that is at least less reliant on the CORE program, we believe that moving to *o* far forward with the Staff recommendations is not warranted at this time, but may be with further examination.

For instance, the Staff recommendation strongly suggests that the SACP levels will need to be increased and fixed for 2009 and 2010. Rate Counsel recognizes and appreciates the need for business certainty in this market; we would suggest that the Staff recommendations at this time prejudge a number of considerations, particularly that the CORE program funding is either not sufficient in the more immediate years, and that CORE support for solar energy will be completely eliminated. While this may ultimately be the case, such conclusions have not been forwarded to the Board at this time. Thus, setting SACP levels to reflect such hypothetical changes is premature.

While we support the explicit Staff recommendation to create more certainty in solar energy markets, we would encourage the Board to not pre-judge anything that would suggest that it is necessary to either increase these SACP prices or lock them down over any extended period of time. Instead, Rate Counsel would suggest that both of the issues be explored in the upcoming proceeding and then, after the consideration of all options, make a later recommendation to the Board. This later recommendation could easily include increases and fixed prices, but the recommendation would be made with more input and hopefully better understanding of a number of unresolved issues for the development of New Jersey solar energy.

It is the wide range of unresolved issues that motivates Rate Counsel's additional recommendation that the Board direct the Staff to establish a broader hearing scope and procedural schedule that would take a wide range of unresolved issues into consideration which includes:

- (1) Establishing goals for the CORE program relative to the development of solar energy.
- (2) Concurrently, define a future market structure for solar energy support that takes into account not only the overall goals of promoting solar energy but how this market structure fits with the overall decisions in the CORE program development.
- (3) Given the decisions on the CORE program, and the market structure that will replace it, examine any anticipated capacity shortfalls and the potential rate and economic impacts of these shortfalls.

(4) Define some mechanisms for making any potential capacity shortfalls if doing so is in the public interest.

#### **Conclusions**

Rate Counsel would like to thank the Board for the opportunity to comment upon the Staff Straw proposal. We recognize that Staff has been moving forward diligently in attempting to address many of these issues, however, Rate Counsel believes a more interrelated and comprehensive approach may be warranted in order to develop a consistent and more timely overall solar energy policy for New Jersey.

We appreciate the Board's consideration of our comments, and look forward to continued active involvement in this process.



January 19, 2007

ATTN: Kristi Izzo Secretary of the Board New Jesey Board of Public Utilities 2 Gateway Center Newark, NJ 07102

VIA EMAIL: OCE@bpu.state.nj.us

#### RE: Solar program - Energy Year 2008 – 2010 ACP and SACP levels

Dear Members of the Board:

As I am sure you are aware, SunEdison is a leading developer of commercial solar projects in New Jersey and we consider the State one of the most significant solar markets worldwide. We have a compelling interest in the continued success of its renewable energy programs.

However, we are seriously concerned that this program does not at this time support any sales or new market growth into the state. CORE rebates have been oversubscribed for months, and forecasting SREC values is not currently possible without some guidance from the Board.

In this situation, the construction of new projects can continue, but new sales for ourselves and other commercial developers are difficult or impossible, as financial projections and scheduling of rebate or SREC receipts cannot be carried out with any degree of confidence.

As you know, aggressive solar targets in New Jersey's RPS require both exponential year over year growth in new projects, especially in large commercial projects; with a major compliance "step" expected in 2008. Our projections suggest that *reliable development of new projects must recommence early in 2007* if sufficient capacity is to be online for a sufficient time to provide adequate SRECS before upcoming compliance reporting deadlines.

Without clear market signals and visibility to a viable successor program to CORE early in 2007, we do not see an alternative to dramatic market and policy failure early on in this landmark program.

#### A Successor SRECs – Only Program is Urgently Necessary

This transition is urgent for three reasons; firstly, the development of the industry in the state is severely threatened by the inability to carry out new sales in the absence of any future visibility to adequate incentives. Secondly, the current pace of project development with an inactive rebate program is not adequate to place sufficient capacity on-line in sufficient advance time to meet 2008 requirements. Thirdly, the 2007 / 2008 year will see



the first interactions between New Jersey and Pennsylvania SREC markets, and any uncertainty in the rules may have unpredictable and disruptive effects regionally.

#### Transitioning From CORE Necessitates Significant SACP Increases

Currently, solar projects receive a significant portion of their necessary revenue from the upfront CORE rebate. The immediate effect of removing this substantial rebate, and the differential value of long-term streams of payment from SRECS, both point to the need to significantly increase the SACP and its effective "ceiling" on prices. We anticipate that SREC prices may more than double in such a scenario, and the ceiling should provide enough "headroom" to accommodate this effect and permit competition for SREC pricing without interference – we join with the industry in suggesting a first year ceiling of **\$750**, with declines subsequent to a fixed five year period for the ACP.

By fixing an amount, the Board will send a strong signal and remove regulatory uncertainty for the program and that projects can base their economics on the incentive of an S-REC alone. *Conversely, we cannot provide any new solar capacity to the state if the proposed SACP remains at \$300 and short term, for non-rebated projects.* 

#### Future Disruption Must Be Minimized Through Long Term Signals

The New Jersey solar *industry* currently is proceeding with construction; the New Jersey solar *market* is at a standstill awaiting action from the Board. Clearly, this is an undesirable situation, and the ability of the RPS targets to accommodate lengthy shutdowns will only decrease with time.

SunEdison and our clients would benefit enormously from the ability to schedule and book installations more than one year in advance. We anticipate that associated savings in materials acquisition and planning, resource planning and labor, contract negotiations, and other areas would be highly significant, translating ultimately into significantly lower SREC prices for the state's ratepayers.

This type of sophisticated long-range planning can only occur in the presence of strong market signals as to SREC pricing. Since the SACP "ceiling" provides such a large component of this signal, we cannot extend our planning beyond the range for which such information is available – it is our belief that significantly more sophisticated industry development and competition can occur only when multiple years of SACP information are available in advance.

We strongly urge the Board to put in place a process for developing appropriate SACP levels several years in advance to permit this industry development.

We applaud the Board for its thoughtful, transparent and public deliberations on this and related issues, and for the degree of attention to industry and ratepayer concerns. We feel that the extensive public, staff, workgroup, and advisory committee process over the past year has provided a strong record to support these decisions – further delay is not only unnecessary, but in our opinion highly inadvisable - the sales cycle for new commercial projects is already upon us for the 2008 energy year.



900 St. Paul Street, 3<sup>rd</sup> Floor Baltimore, MD 21202 (443) 321-9872 www.sunedison.com

We urge immediate action on these issues to facilitate New Jersey's continued development as a national leader in renewable energy development

Sincerely,

Christopher Cook/s/

Christopher Cook General Counsel and Vice-President, Regulatory Affairs