

Request for Public Comment on Staff’s Straw Proposal

15 year Solar Alternative Compliance Payment (SACP) Schedule

The Solar Advancement Act of 2010 directed the New Jersey Board of Public Utilities to adopt a fifteen year schedule for Solar Alternative Compliance Payment (SACP) amounts for use within the state’s Renewable Portfolio Standards (N.J.S.A. 48:3-87 (d) 3). On September 21, 2011, the Board approved staff’s recommendation to issue for public comment the following fifteen year SACP schedule prior to the commencement of a public rulemaking process (Agenda Item 8. D. I/M/O THE FIFTEEN YEAR SOLAR ALTERNATIVE COMPLIANCE PAYMENT SCHEDULE IN THE NEW JERSEY RENEWABLE PORTFOLIO STANDARD - DOCKET NO. EO11090527V. New Jersey Board of Public Utilities Public Agenda Meeting. Wednesday, September 21, 2011.)

Staff Straw Proposal; Remainder from the 8 Year Schedule

Energy Year	2012	2013	2014	2015	2016
SACP	\$658	\$641	\$625	\$609	\$594
Annual % Change	2.52%	2.58%	2.50%	2.56%	2.46%
Year in schedule	1	2	3	4	5

New SACP Amounts and Reductions by Energy Year and Year in Schedule

2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
\$475	\$463	\$451	\$440	\$429	\$418	\$407	\$397	\$387	\$377
20.00%	2.54%	2.54%	2.54%	2.54%	2.54%	2.54%	2.54%	2.54%	2.54%
6	7	8	9	10	11	12	13	14	15

The Board used the process contained with the RPS at N.J.A.C. 14:8-2.10 (b) to develop the proposed 15 year SACP schedule. An ACP Advisory Committee was convened to “provide recommendations to the Board regarding the appropriate cost of the ACPs as well as other characteristics of their use”. Relevant documents supporting Advisory Committee input is attached to provide context for stakeholder comment on the proposed Staff Straw. The Order memorializing the Board directive for staff to seek public comment on the straw proposal has been circulated via the NJCEP Renewable Energy email distribution list and posted to the NJCEP.com website on the RPS Background page.

Interested stakeholders are requested to submit comments to OCE@bpu.state.nj.us by close of business on November 14th, 2011. Please title your comments “Proposed 15 Year SACP Schedule”. Any questions about this Request for Public Comment, please feel free to use the OCE@bpu.state.nj.us email or contact Ron Jackson at 1-609-633-9868.

From: Pagliuco, Thomas
Sent: Saturday, August 27, 2011 12:07 PM
To: ACP Advisory Committee members
Subject: NJLEUC Summary Comments on the 15 year SACP Schedule.

Dear ACP/SACP Advisory Committee Members,

NJLEUC offers the following summary of our comments, originally sent on July 8, 2011. This summary also addresses highlights of the discussion generated at the SACP Advisory Committee meeting on August 19, 2011.

NJLEUC proposes an SACP schedule significantly less than the Staff straw proposal dated September 1, 2010. The SACP schedule for 2009-2016 was set too high. Market conditions resulted in SREC pricing at or very near the SACP thus providing project financial returns (IRRs of 21-25%), much greater than originally intended. Since the SACP can not be adjusted downward, and there are currently no "safety valve" provisions in place (i.e. 2% cap or the ability to adjust the SACP downward), NJLEUC recommends a strong correction to the SACP schedule for 2017 to 2025.

The NJLEUC SACP proposal draws on several principles that were key points in the move several years ago from the rebate based solar PV incentive program to a market based/SREC solar program and the recently issued draft of the Energy Master Plan:

- SREC values need to support projects with an IRR of 10-12%
- The 2% cap originally agreed to as a compromise in setting the original 8 year schedule should guide the process for determining the 2017 to 2025 schedule
- Solar PV installations should provide economic and environmental benefit without inadvertently transferring wealth from non-participants to participants
- The emphasis will be on larger scale solar PV projects

The NJLEUC believes that the price for Solar PV installations will continue to drop through-out the next few years and our proposed 2017 - 2025 schedule will provide project returns that meet the above principles.

Ratepayer impact needs to be seriously considered in setting the SACP. The Energy Master Plan proposes a Offshore Wind REC (OREC) which will place an additional burden on ratepayers and the effect of both RECs should be considered when setting the penalties for both products. Since the OREC is still conceptual, it is difficult to evaluate its impact to ratepayers at this time. This is another reason to set the SACP at a reasonable value until the impact of the EMP proposals can be fully evaluated.

Additionally, NJLEUC requests that Staff give consideration to providing safeguards in the program to prevent developers from gaining SREC market power. The intrinsically safe way to do this is to set a reasonable SACP that will limit the upside of the SREC. If the SREC market was trading at 100% of the NJLEUC proposed SACP, the impact to ratepayers would be limited to 2.3%

The SACP can always be adjusted upward if the pace of solar PV projects fails to meet the RPS requirements. Using a conservative approach to setting the SACP, especially in the out years seems to be a better way to control the impact solar incentives will have on the cost of electricity borne by the ratepayers. I am available to discuss our proposal and answer any questions. Thank you for your consideration. Best Regards, Tom Pagliuco on behalf of the NJ Large Energy Users Coalition



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STEFANIE A. BRAND
Director

August 26, 2011

Via Overnight Delivery and Electronic Mail

Honorable Kristi Izzo, Secretary
 New Jersey Board of Public Utilities
 44 South Clinton Avenue, 9th Floor
 P.O. Box 350
 Trenton, New Jersey 08625-0350

**Re: Office of Clean Energy Straw Proposal, Solar Alternative
 Compliance Payment Rate Schedule (2017-2025)**

Dear Secretary Izzo:

Enclosed please find an original and ten copies of Final Position Comments submitted on behalf of the New Jersey Division of Rate Counsel in connection with the above-captioned matters. Copies of the comments are being provided to all parties by electronic mail and hard copies will be provided upon request to our office.

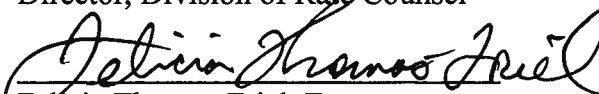
We are enclosing one additional copy of the comments. Please stamp and date the extra copy as "filed" and return it in our self-addressed stamped envelope.

Thank you for your consideration and assistance.

Respectfully submitted,

STEFANIE A. BRAND
 Director, Division of Rate Counsel

By:


 Felicia Thomas-Friel, Esq.
 Deputy Rate Counsel

cc: Mike Winka, BPU
 Mona Mosser, BPU
 Benjamin Hunter, BPU
 Anne Marie McShea, BPU
 Marisa Slaten, DAG
 Electronic Service List

FINAL POSITION
New Jersey Division of Rate Counsel

**Office of Clean Energy Straw Proposal, Solar Alternative Compliance Payment
Rate Schedule (2017-2025)**

**Final Position Statement Dated:
August 26, 2011**

Rate Counsel appreciates the opportunity to provide the Office of Clean Energy (“OCE”) with its final position regarding its straw proposal to extend the current eight-year Solar Alternative Compliance (“SACP”) schedule to a 15-year schedule, consistent with the recently-passed Solar Advancement Act of 2010 (AB 3520). Rate Counsel presents its final proposed alternatives in Table 1 below. The rationales for these various proposals, and the methods upon which they are based, were articulated in our July 8, 2011 Comments.

Rate Counsel suggests the Board of Public Utilities (“the Board”) be mindful of the numerous uncertainties associated with setting future SACP values and the restrictions in AB 3520 that allow SACP values to increase, but never decrease. Rate Counsel believes that the existing eight-year SACP schedule is already higher than necessary since the schedule is based upon a degree of electricity savings that have been considerably higher than anticipated at the time the eight-year SACP schedule was approved. These higher-than-expected electricity savings, coupled with a relatively “tight” SREC market that force SREC prices to near parity with SACP values, have allowed solar developers to earn returns considerably in excess of what was needed for development. The Board needs to err on the side of caution to ensure comparable outcomes do not occur in the future with the 15-year SACP schedule.

The uncertainties associated with future solar markets, and opportunities for compounded errors in setting incorrect SACP values, suggest the Board choose a cautious and conservative approach since future SACP values can always be adjusted upwards but never downwards. This creates asymmetrical risk for ratepayers since developers always have the potential for increasing SACP prices, but ratepayers never have the opportunity for a future year decrease.

Many solar industry comments on this matter are likely to take the position that the SACP has no impact on SREC prices given the very recent increase in solar installations and the reduction in solar costs, caused primarily by the global-recession

driven glut in solar panel manufacturing. Prices over the past year, however, are a historic anomaly.

Figure 1 below shows that SACP prices have clearly served as the driver for SREC prices over the past several years given tight markets. This has allowed solar developers to realize excess profits from market prices elevated to the SACP cap. The recent decrease in SREC prices are simply a single, one-year observation: not a longer-run trend. The Board should not gamble and set SACP prices based upon this one year result alone and assume all will be fine for the next 15 years.

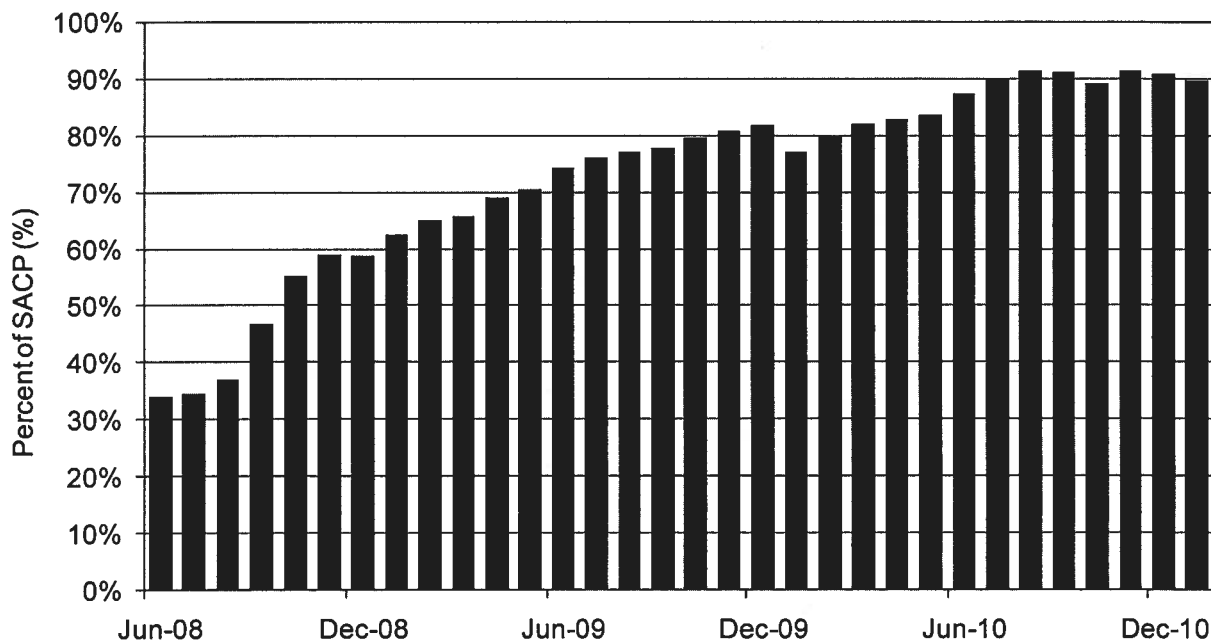


Figure 1. New Jersey SREC Prices as a Percent of SACP

Further, the Board should set SACP prices with a “big picture” policy goal in mind that focuses on getting New Jersey solar energy markets in-line with other Eastern states. The recent New Jersey SREC price decrease, while welcome, still leaves New Jersey ratepayers with uncompetitive solar energy prices relative to other states along the east coast. Rate Counsel’s primary recommendation is the adoption of the Force Average Parity (constant % decrease) option as illustrated in Table 1 below, and is consistent with the Governor’s recently-released 2011 Energy Master Plan that seeks to reduce the cost of solar energy for New Jersey ratepayers.

Table 1. Rate Counsel SACP Proposal and Alternatives

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
8-year SACP (Approved 2007)																	
	\$ 711	\$ 693	\$ 675	\$ 658	\$ 641	\$ 625	\$ 609	\$ 594									
	-2.5%	-2.6%	-2.5%	-2.5%	-2.6%	-2.5%	-2.6%	-2.5%									
Staff Straw Proposal (Sept-2010)																	
	\$ 475	\$ 463	\$ 451	\$ 440	\$ 429	\$ 418	\$ 407	\$ 397	\$ 387								
	-20.0%	-2.5%	-2.6%	-2.4%	-2.5%	-2.6%	-2.6%	-2.5%	-2.5%								
Other States																	
Maryland	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400	\$ 350	\$ 350	\$ 200	\$ 200	\$ 150	\$ 100	\$ 100	\$ 50			
Massachusetts	\$ 600	\$ 550															
Ohio	\$ 450	\$ 400	\$ 400	\$ 350	\$ 350	\$ 300	\$ 250		\$ 250	\$ 200	\$ 150	\$ 100	\$ 100	\$ 50			
Pennsylvania	\$ 654	TBD	TBD	TBD	TBD	TBD	TBD										
Delaware	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400		\$ 400	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400
DC	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500		\$ 500	\$ 500							
Average of Other States																	
	\$ 283	\$ 267	\$ 250	\$ 233	\$ 217	\$ 200	\$ 183	\$ 154	\$ 283	\$ 267	\$ 250	\$ 233	\$ 217	\$ 200	\$ 183	\$ 168	\$ 154
	-5.9%	-8.1%	-6.3%	-6.7%	-7.1%	-7.7%	-8.3%	-8.3%	-5.9%	-6.3%	-6.7%	-7.1%	-7.7%	-8.3%	-8.3%	-8.3%	-8.3%
Force Average Parity (constant \$ decrease)																	
	\$ 439	\$ 404	\$ 368	\$ 332	\$ 297	\$ 261	\$ 225	\$ 190	\$ 439	\$ 404	\$ 368	\$ 332	\$ 297	\$ 261	\$ 225	\$ 190	\$ 154
Percent change	-26.0%	-8.1%	-8.8%	-9.7%	-10.7%	-12.0%	-13.7%	-15.8%	-26.0%	-8.1%	-8.8%	-9.7%	-10.7%	-12.0%	-13.7%	-15.8%	-18.8%
Force Average Parity (constant % decrease)																	
	\$ 435	\$ 382	\$ 335	\$ 294	\$ 259	\$ 227	\$ 199	\$ 175	\$ 435	\$ 382	\$ 335	\$ 294	\$ 259	\$ 227	\$ 199	\$ 175	\$ 154
Percent change	-26.8%	-12.2%	-12.2%	-12.2%	-12.2%	-12.2%	-12.2%	-12.2%	-26.8%	-12.2%	-12.2%	-12.2%	-12.2%	-12.2%	-12.2%	-12.2%	-12.2%
\$100 SACP by 2025																	
	\$ 433	\$ 392	\$ 350	\$ 308	\$ 267	\$ 225	\$ 183	\$ 142	\$ 433	\$ 392	\$ 350	\$ 308	\$ 267	\$ 225	\$ 183	\$ 142	\$ 100
Percent change	-27.0%	-9.6%	-10.6%	-11.9%	-13.5%	-15.6%	-18.5%	-22.7%	-27.0%	-9.6%	-10.6%	-11.9%	-13.5%	-15.6%	-18.5%	-22.7%	-29.4%
\$100 SACP by 2021																	
	\$ 400	\$ 325	\$ 250	\$ 175	\$ 100	\$ 100	\$ 100	\$ 100	\$ 400	\$ 325	\$ 250	\$ 175	\$ 100	\$ 100	\$ 100	\$ 100	\$ 100
Percent change	-32.7%	-18.8%	-23.1%	-30.0%	-42.9%	0.0%	0.0%	0.0%	-32.7%	-18.8%	-23.1%	-30.0%	-42.9%	0.0%	0.0%	0.0%	0.0%

**SUPPLEMENTAL COMMENTS OF THE SOLAR ALLIANCE
ON THE OFFICE OF CLEAN ENERGY'S STRAW PROPOSAL
FOR A FIFTEEN YEAR SOLAR ALTERNATIVE COMPLIANCE PAYMENT
SCHEDULE**

JULY 8, 2011

The Solar Alliance respectfully submits these supplemental comments to the BPU Staff and members of the ACP Stakeholder Committee regarding the fifteen year Solar Alternative Compliance Payment schedule. These comments are additive to, and provide additional support for the comments submitted by the Solar Alliance on July 9, 2010.

A. The SACP is not a price setting mechanism, it is an incentive for compliance. The SACP level should be set at a level sufficient to encourage suppliers to enter into long-term contracts for SRECs.

The SACP is not a price setting mechanism, it is a payment intended to encourage compliance with the RPS by motivating LSEs to enter into lower priced long-term contracts. To be effective, it needs to be high enough to serve this purpose. It can and should decline over time but this should be done VERY carefully to keep its purpose intact.

Unfortunately, recent comments from various stakeholders and policy makers continue to miss the distinction between the SACP and actual SREC market pricing. The SREC market is designed such that prices will, over time, track to system costs. While spot trades (historically 60-70% of the market) traded closer to the SACP in EY2010 and EY2011, this was driven by a temporary supply/demand imbalance that is unlikely to recur. In fact, the dramatic rate of installations over the last 24 months has eliminated this imbalance, spot SREC prices have fallen back in line with long-term pricing, and the market is functioning exactly as intended with prices aligning to system costs rather than regulatory thresholds.

The data in figure (1) from Flett Exchange highlights the true nature of this market based system. Note that 2012 SRECs are now trading on the spot market at \$400, more than \$200 below 2011 SRECs and more than \$250 below the 2012 SACP of \$658 (~60% of SACP). It should also be re-emphasized that these are only spot trades. Long-term contracts are already at and below the \$400 mark as discussed in our previous comments.

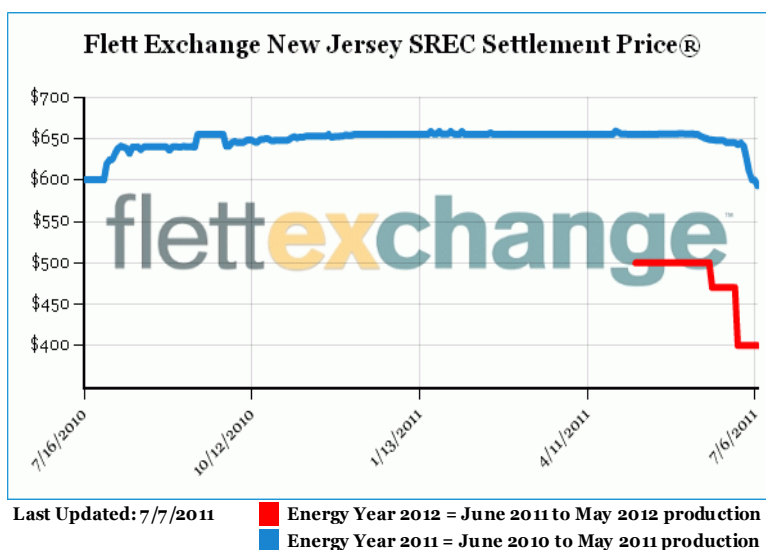


Figure 1 – NJ Spot SREC Prices, July 7th, 2011 (FlettExchange)

Finally, we can expect these prices to continue declining and to remain decoupled from the SACP. Over the next five years the incremental capacity that must be built in any one year to meet the RPS ranges from 130MW to 170MW. In the last 6 months, the average rate of installations has exceeded 15MW/month suggesting the industry is capable *today* of installing more than 180MW in a single year.

B. The SACP should decline by 2.5% annually. If the Board adopts a one-time adjustment to capture recent solar cost declines, it should not exceed 4.5%.

In particular, our primary recommendation is that the forward SACP schedule for the period 2017-26 maintain an approximate 2.5% digression, consistent with the long-term declination in solar installed costs in New Jersey; and that to the extent the Board adopt a one-time true-up for more recent and dramatic world-wide reductions in module prices the adjustment should not exceed 4.5%. It is the Solar Alliance's view that the larger price declines observed over the last two years are driven by short term market dynamics, similar to positive *and* negative short term trends we have seen in the past. Such a narrow timeframe does not represent the underlying moderate but steady level of decline in installed costs resulting from sustainable technological advancements and improvements in operational efficiency. And thus, the last two years alone should not form the basis of the Board's SACP determination.

Rather, the Solar Alliance believes that the New Jersey SACP should fundamentally be driven by New Jersey solar market cost trends. In our initial comments, we reported a 1.22% constant annual rate of cost declines (CAGR) exhibited since 2001 based on NREL's Open PV for installations in New Jersey. Based on an additional year's worth of data reported by NREL's Open PV, the long-term rate of decline is now 2.89% from 2001 to 2010 (*which includes the more dramatic 2 year CAGR decline of 11.1% observed from 2008 to 2010*).

C. Any Board Order implementing a new schedule should acknowledge that schedule is based on continuation of the 30% Federal Investment Tax Credit and if such ITC is not extended, the schedule should be reassessed.

The 30% Federal Investment Tax Credit is expected to remain in place through 2016 and if not extended, it will substantially impact project economics at the same time the Straw Proposal suggests a dramatic decline in the SACP. The Solar Alliance concurs with other members of the Committee that any schedule that may be adopted should clearly state assumptions and should anticipate obvious market events which may require reassessment of that schedule. Specific language to this effect will improve regulatory transparency and support market stability in the future.

D. The SACP schedule adopted by the Board in the instant process should extend through 2027.

The Solar Alliance supports the view that the Solar Energy Advancement and Fair Competition Act (SEAFCA) requires the Board to set a fifteen year SACP on a rolling annual basis, with the fifteenth year added to the back end of the schedule with the completion of each successive compliance year.

Over one year has now transpired since the July 1, 2010 effective date of SEAFCA, and since the SACP Committee initially convened. In light of this, it is appropriate that the Board take this opportunity to adopt a full 15-year schedule, rather than adopt a schedule through 2026 that will be truncated from the get-go. Administrative efficiency supports adoption of a schedule now that fully runs through 2027, rather than immediately reconvene the committee. Further, the SACP level for 2027 should maintain the annual rate of digression contemplated in the Staff Straw Proposal; namely, a 2.5% decline from the 2026 level.

E. The SEAFCA’s Mechanism Returning SACP Payments to Ratepayers Mitigates Consumer Exposure to Setting a SACP Level “Too High”.

At the June 24, 2011 SACP Stakeholder Committee meeting various participants identified the provision of SEAFCA limiting the Board’s ability to lower the SACP once set as justification for erring on the side of conservatism in setting the SACP. Implicit in this position is the view that by purposefully setting the SACP at the low end of what is cost justified will limit consumer exposure to SACP payments.

This argument misses the fact that the SEAFCA established a companion principle which requires any SACP payments be returned to ratepayers, ultimately holding the ratepayer harmless in the event their load serving entity fails to satisfy their annual solar obligation through the retirement of SRECs. Acknowledging the existence of this mechanism, some committee members nonetheless divine a common practice among LSE’s of assuming the incurrence of the SACP in their BGS cost, and profiting to the extent they can identify lower cost SRECs in the market. As the Solar Alliance noted in its initial comments, we are not in a position to know whether this bidding strategy has any basis in reality given the lack of transparency in the BGS process. In any event, it is the Solar Alliance’s view that this strategy is unsustainable as the solar obligation ramps up and more prudent SREC procurement becomes a competitive advantage for LSE’s. The Solar Alliance reiterates that, to the extent there is concern that the BGS auction provides an opportunity for manipulation of solar compliance costs to the detriment of consumers, this is an issue that should be taken up in the possible context of BGS reform – not the basis for artificially constraining the SACP from empirically sound levels.

Respectfully submitted,

Terry Sobolewski
Jim Torpey
Fred Zalczman

On behalf of:
THE SOLAR ALLIANCE

-----Original Message-----

From: Pagliuco, Thomas on behalf of NJLEUC

Sent: Friday, July 08, 2011 2:22 PM

To: ACP/SACP Advisory Committee

Subject: NJLEUC Comments on and Revised Proposal for the 15 Year SACP Schedule - Memo Dated December 15, 2010; Staff Straw Proposal Sep 1, 2010

Dear ACP/SACP Advisory Committee Members,

NJLEUC offers the following comments, and proposes a revised SACP schedule (see below) to the Staff Straw Proposal: September 1, 2010 included in the memo from Michael Winka/Scott Hunter to the ACP Advisory Committee members dated December 15, 2010.

Our SACP proposal draws on several principles that were key points in the move several years ago from the rebate based solar PV incentive program to a market based/SREC solar program and the recently issued draft of the Energy Master Plan:

- SREC values need to support projects with an IRR of 10-12%
- The 2% cap originally agreed to as a compromise in setting the original 8 year schedule, should guide the process for determining the 2017 to 2025 schedule
- Solar PV installations should provide economic and environmental benefit without inadvertently transferring wealth from non-participants to participants
- The emphasis will be on larger scale solar PV projects

The Rutgers University CEEEP model was used to calculate forecasted project returns using several SREC value scenarios and to develop a proposed SACP schedule that supports the above objectives. Several adjustments were made to the assumptions used in the Rutgers' model, to bring these more in line with current market conditions, these were:

- C&I (150 kW) and Grid Interconnect (10 MW) were the only cases evaluated.
- The installed price was reduced to \$4,000/kW for C&I and \$3,900 for Grid Interconnect systems. This is in-line with several recently announced projects and the forecasted 2011 installed cost published in the US DOE EERE Solar Energy Technologies Program - Multi-year Program Plan 2007-2011.
- Annual Operating and Maintenance costs (O&M) were reduced to \$0.011/kWh for C&I installations and \$0.003/kWh for Grid Interconnected projects. These costs are based on projections in the US DOE report listed above.
- The assumption that inverters are replaced every 5 years was retained in the evaluation even though this is a conservative assumption..

The first case evaluated used the OCE SACP Strawman schedule and the Rutgers' assumption that SRECs will trade at 75% of the SACP. This generated **a 20 year after tax IRR of 24.5%, with a simple payback of 3 years** for the C&I case and an **IRR of 21.2%, with a simple payback of 4 years** for the Grid Interconnect project! This is almost twice the intended IRR.

To obtain an IRR in the 12% range (~7-8 year simple payback) requires the SRECs to trade at **40% - 50% of the OCE Strawman SACP schedule for all 15 years**. Historical SREC pricing makes this case unlikely, especially considering that the SACP is set through 2016 and can not be reduced. In order to prevent this from occurring with the 2017 to 2025 schedule, NJLEUC proposes the following:

Energy Year	2009	2010	2011	2012	2013	2014	2015	2016
OCE SACP Strawman	\$711	\$693	\$675	\$658	\$641	\$625	\$609	\$594
NJLEUC Proposed SACP Schedule	\$711	\$693	\$675	\$619	\$478	\$385	\$321	\$280

2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
\$ 482	\$ 470	\$ 458	\$ 447	\$ 435	\$ 424	\$ 413	\$ 403	\$ 393	\$ 403
\$ 247	\$ 220	\$ 196	\$ 175	\$ 157	\$ 141	\$ 125	\$ 112	\$ 101	\$ 91

The NJLEUC proposed SACP and forecasted SREC price (75% of SACP) produces a 20 year after tax IRR of 20.3% with a simple payback of 3 years for the C&I case and an IRR of 15.7% and simple payback of 4 years for the Grid Interconnect case. This still exceeds the IRR target, but this is driven by the 2011-2016 SACP schedule. The proposed NJLEUC SACP schedule provides an average ratepayer impact over the 15 years of 2%. The OCE Straw proposal would cause a ratepayer average impact of 4.2% with a peak of 6.5% in 2025. NJLEUC believes that the proposed SACP provides a generous return for solar PV projects while providing some relief to ratepayers.

Ratepayer impact needs to be seriously considered in setting the SACP. The Energy Master Plan proposes a Offshore Wind REC (OREC) which will place an additional burden on ratepayers and the effect of both RECs should be considered when setting the penalties for both products. Since the OREC is still conceptual, it is difficult to evaluate its impact to ratepayers at this time. This is another reason to set the SACP at a reasonable value until the impact of the EMP proposals can be fully evaluated.

Additionally, NJLEUC requests that Staff give consideration to providing safeguards in the program to prevent developers from gaining SREC market power. The intrinsically safe way to do this is to set a reasonable SACP that will limit the upside of the SREC. If the SREC market was trading at 100% of the NJLEUC proposed SACP, the impact to ratepayers would be limited to 2.3%

The SACP can always be adjusted upward if the pace of solar PV projects fails to meet the RPS requirements. Using a conservative approach to setting the SACP, especially in the out years seems to be a better way to control the impact solar incentives will have on the cost of electricity borne by the ratepayers.

I am available to discuss our proposal and answer any questions. Thank you for your consideration.

Best Regards, Tom Pagliuco on behalf of the NJ Large Energy Users Coalition



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BOARD OF PUBLIC UTILITIES
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KIM GUADAGNO
Lt. Governor

STEFANIE A. BRAND
Director

July 8, 2011

Via Hand Delivery and Electronic Mail

Honorable Kristi Izzo, Secretary
New Jersey Board of Public Utilities
Two Gateway Center, Suite 801
Newark, NJ 07102

**Re: Office of Clean Energy ("OCE") Straw Proposal, Solar Alternative
Compliance Payment Rate Schedule ("SACP") (2017-2025)**

Dear Secretary Izzo:

Enclosed please find an original and ten copies of comments submitted on behalf of the New Jersey Division of Rate Counsel in connection with the above-captioned matters. Copies of the comments are being provided to all parties by electronic mail and hard copies will be provided upon request to our office.

We are enclosing one additional copy of the comments. Please stamp and date the extra copy as "filed" and return it to our courier.

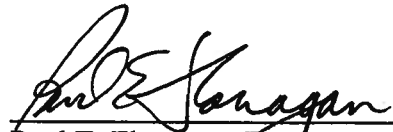
Honorable Kristi Izzo, Secretary
July 8, 2011
Page 2

Thank you for your consideration and assistance.

Respectfully submitted,

STEFANIE A. BRAND
Director, Division of Rate Counsel

By:



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Mona Mosser, BPU
Benjamin Hunter, BPU
Anne Marie McShea, BPU

Comments of the New Jersey Division of Rate Counsel

Office of Clean Energy Straw Proposal, Solar Alternative Compliance Payment Rate Schedule (2017-2025)

Comments Dated:
July 8, 2011

1. Introduction

Rate Counsel appreciates the opportunity to provide the Office of Clean Energy (“OCE”) with comments regarding its straw proposal to extend the current eight-year Solar Alternative Compliance (“SACP”) schedule to a 15-year schedule, consistent with the recently-passed Solar Advancement Act of 2010 (AB 3520). The prior eight-year SACP schedule was adopted by the Board in 2007, started at a level of \$711, and decreased by roughly 2.5 percent each year to 2016. This prior-approved eight year schedule is set forth in Table 1.

Table 1. Original Board-Approved Eight-Year SACP Schedule

	2009	2010	2011	2012	2013	2014	2015	2016
SACP	\$ 711	\$ 693	\$ 675	\$ 658	\$ 641	\$ 625	\$ 609	\$ 594
% change		-2.5%	-2.5%	-2.5%	-2.5%	-2.5%	-2.5%	-2.5%

OCE is specifically proposing a series of SACP prices for the period 2017 through 2025, consistent with AB 3520. OCE’s straw proposal would reduce SACP prices by 20 percent between 2016 to 2017, where 2016 is the last year of SACP prices under the Board’s prior-approved eight year schedule. OCE’s proposed 20 percent discount is based upon its position that solar module prices have fallen by over 18 percent and these decreases should be reflected in the SACP. The OCE-proposed SACP for the remaining years, however, reverts to the same annual percent decline (2.5 percent) used in the original eight-year SACP schedule.¹

2. Rate Counsel Recommendations – Overview

Rate Counsel sets forth four different SACP proposals to the Board in Table 2, below. Our primary recommendation is that the Board select, the “Forced Average Parity (Equal Percent Reduction)” proposal.

¹OCE Memorandum, November 20, 2010, updated December 15, 2010, pg 1; pg.11.

Each of the four options have been developed to force solar markets to move in a direction consistent with the recently-released Energy Master Plan.² Each proposal recognizes two fundamentally important aspects of solar energy policy as it relates to future SACP schedules. First, and most importantly, SACPs can be increased in any future year but they can never be decreased. This creates an asymmetrical risk for ratepayers since they must maintain a price support for solar over a 15-year period with no opportunity for reducing this price support mechanism over the longer term should market conditions change.

Second, Rate Counsel's recommendations make a firm and concerted effort at "taking the training wheels off" of the solar market by setting a future date at which solar financial support will substantially decrease, if not be completely eliminated.³ Rate Counsel's four SACP proposals are based upon the philosophical goal of either (a) moving the New Jersey solar market into parity with other regional solar markets or (b) moving the New Jersey solar market to "grid parity" within a fixed time period.

The first two options propose SACP prices that force New Jersey's SACPs to a level consistent with other Atlantic states. The first "forced average parity (constant dollar)" scenario averages the anticipated difference, on an absolute dollar basis, between the current OCE straw proposal and the average SACP posted by other Atlantic states.⁴

The second "forced average parity (constant percent)" scenario simply smoothes the average SACP difference, on a uniform percent basis, across the 2017-2025 time period. Rate Counsel recommends that this approach be adopted by the Board. The approach provides a known, uniform percentage reduction in prices that is a slight improvement on the constant dollar reduction approach provided in the first option and is less aggressive in its overall SACP price reductions than either of the "grid parity" options discussed below.

The last two SACP options are based upon a goal of forcing the New Jersey solar market to "grid parity" (i.e., costs comparable to existing market resources) by a date certain. As shown in Table 2 below, "grid parity" occurs when the SACP level reaches \$100, under the assumption that SREC prices are \$100 below SACP levels.

²New Jersey 2011 Draft Energy Master Plan, June 7, 2011.

³ An SACP value of \$100 assumes an SREC price of \$0 given past OCE modeling assumptions.

⁴SACP prices for the District of Columbia and Pennsylvania have not been used in formulating the average since each jurisdictions' schedule is limited to a finite period much shorter than New Jersey or other eastern states. SACP prices for Massachusetts are also not included in the average, as they are set annually by the Massachusetts Department of Energy Resources.

Table 2. Rate Counsel SACP Proposal and Alternatives

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
8-year SACP (Approved 2007)	\$ 711	\$ 693	\$ 675	\$ 658	\$ 641	\$ 625	\$ 609	\$ 594									
		-2.5%	-2.6%	-2.5%	-2.6%	-2.5%	-2.6%	-2.5%									
Staff Straw Proposal (Sept-2010)																	
Other States																	
Maryland	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400	\$ 350	\$ 350	\$ 200	\$ 200	\$ 150	\$ 100	\$ 100	\$ 407	\$ 397	\$ 387	-20.0%
Massachusetts	\$ 600	\$ 550							\$ 250	\$ 200	\$ 200	\$ 150	\$ 100	\$ 100	\$ 100	\$ 50	
Ohio	\$ 450	\$ 400	\$ 400	\$ 350	\$ 300	\$ 300	\$ 250		\$ 400	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400	
Pennsylvania	\$ 654	TBD	TBD	TBD	TBD	TBD	TBD		\$ 500	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500	
Delaware	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400		\$ 283	\$ 267	\$ 250	\$ 233	\$ 217	\$ 200	\$ 183	\$ 168	\$ 154
DC	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500		-5.9%	-8.1%	-6.3%	-6.7%	-7.1%	-7.7%	-8.3%	-8.3%	-8.3%
Average of Other States																	
Force Average Parity (constant \$ decrease)	\$ 439	\$ 404	\$ 368	\$ 332	\$ 297	\$ 261	\$ 225	\$ 190	\$ 154	\$ 118	\$ 82	\$ 46	\$ 10	\$ -26	\$ -62	\$ -98	\$ -134
Percent change		-26.0%	-8.1%	-8.8%	-9.7%	-10.7%	-12.0%	-13.7%	-15.8%	-18.8%	-21.8%	-24.8%	-27.8%	-30.8%	-33.8%	-36.8%	-39.8%
Force Average Parity (constant % decrease)	\$ 435	\$ 382	\$ 335	\$ 294	\$ 259	\$ 227	\$ 199	\$ 175	\$ 154	\$ 133	\$ 112	\$ 91	\$ 70	\$ 50	\$ 30	\$ 10	\$ -10
Percent change		-26.8%	-12.2%	-12.2%	-12.2%	-12.2%	-12.2%	-12.2%	-12.2%	-12.2%	-12.2%	-12.2%	-12.2%	-12.2%	-12.2%	-12.2%	-12.2%
\$100 SACP by 2025	\$ 433	\$ 392	\$ 350	\$ 308	\$ 267	\$ 225	\$ 183	\$ 142	\$ 100	\$ 58	\$ 16	\$ -26	\$ -64	\$ -102	\$ -140	\$ -178	\$ -216
Percent change		-27.0%	-9.6%	-10.6%	-11.9%	-13.5%	-15.6%	-18.5%	-22.7%	-29.4%	-36.1%	-42.9%	-49.6%	-56.4%	-63.1%	-69.9%	-76.7%
\$100 SACP by 2021	\$ 400	\$ 325	\$ 250	\$ 175	\$ 100	\$ 100	\$ 100	\$ 100	\$ 100	\$ 100	\$ 100	\$ 100	\$ 100	\$ 100	\$ 100	\$ 100	\$ 100
Percent change		-32.7%	-18.8%	-23.1%	-30.0%	-42.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

3. The Prior-Established Eight-Year SACP is Inflated

Rate Counsel believes that a more aggressive future year schedule for SACP price reductions is necessary to correct for a number of significant deficiencies that have materialized since the original eight year SACP schedule was set.

Over the past several years, OCE has relied very heavily upon the modeling approach established by Summit Blue Consulting in the Generic SREC Proceedings.⁵ OCE's straw recommendation extending the current SACP values to 2025 are based upon a similar, albeit slightly different approach. While the approach and model are relatively sound, their accuracy depends on the assumptions made when applying the model.

New Jersey solar projects have historically depended upon four important revenue streams for investment recovery and return that include: (1) SREC revenues; (2) tax incentives; (3) Clean Energy Program (CEP) rebates; and (4) electricity savings. At this point, CEP rebates have been eliminated, increasing the relative importance of the other revenue streams.

Past solar analyses and policies have focused almost exclusively on SREC revenues as the revenue/financial support mechanism and have paid relatively little attention to electricity savings and the financial support role they play. Electricity savings can comprise close to half of the total financial support associated with a solar project.

Higher electricity savings result in higher returns and faster paybacks. These savings are a function of electricity prices, so if electricity prices increase rapidly, then other revenue streams (like rebates and SRECs) do not need to be as high in order to reach the same internal rate of return ("IRR") for a project.

OCE's original 8-year SACP schedule, approved by the Board in the 2005 Generic SREC Proceedings Order,⁶ was premised upon an assumption that electricity prices would increase by 3.34 percent per year. However, actual New Jersey electricity prices, as reported by Energy Information Administration ("EIA"), are much higher. In the last four years, rates have increased 10 percent, 12 percent, 11 percent, and then a decrease of 4 percent. This results in an annual average of 7.1 percent -- not 3.34 percent as assumed by OCE. Thus, the revenue streams that have accrued to solar energy developers over the past several years have been considerably in excess of what was needed to meet the threshold IRRs assumed by OCE. This difference has important implications for the estimation of SACP values, not only in the past, but on a forward-going basis, and serves as further support for Rate Counsel's recommendation of a more aggressive reduction in SACP values after 2016.

⁵ New Jersey BPU Docket No. EO06100744, Order dated December 6, 2007.

⁶ Ibid.

Future SACP values need to recognize that actual New Jersey electricity price escalation has averaged almost two times what was assumed in the original OCE models forming the basis for its original 8-year SACP recommendation. This simply means that SACP prices were set at levels considerably higher than necessary. Since the solar market has been in short-fall in every year since this 8-year SACP schedule was adopted, the SACP sets the opportunity cost for SREC scarcity, and therefore, developers have been allowed to “extract” extra profits from these unnecessarily high SACPs.

The following charts and tables provide a number of examples of how OCE’s past forecasting assumptions for setting SACPs proved to be incorrect and how the difference translates into both higher SREC prices and SACPs.

Figure 1. New Jersey Average Retail Electricity Price

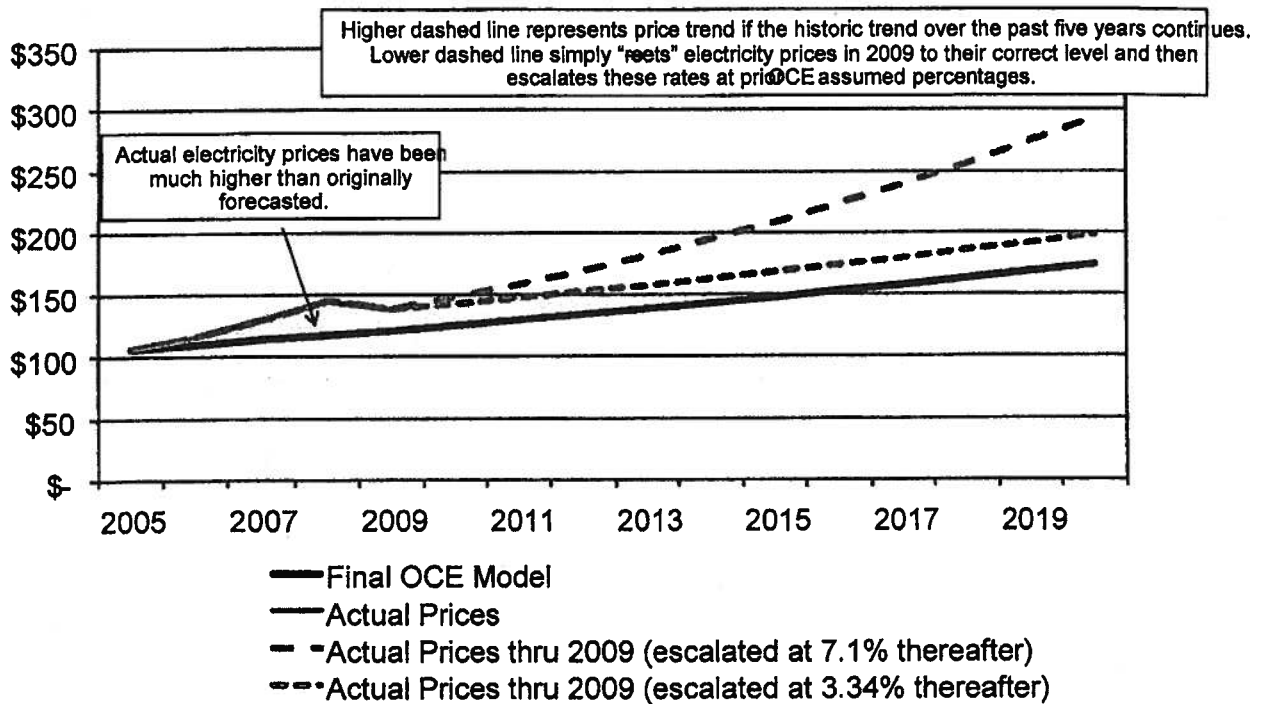
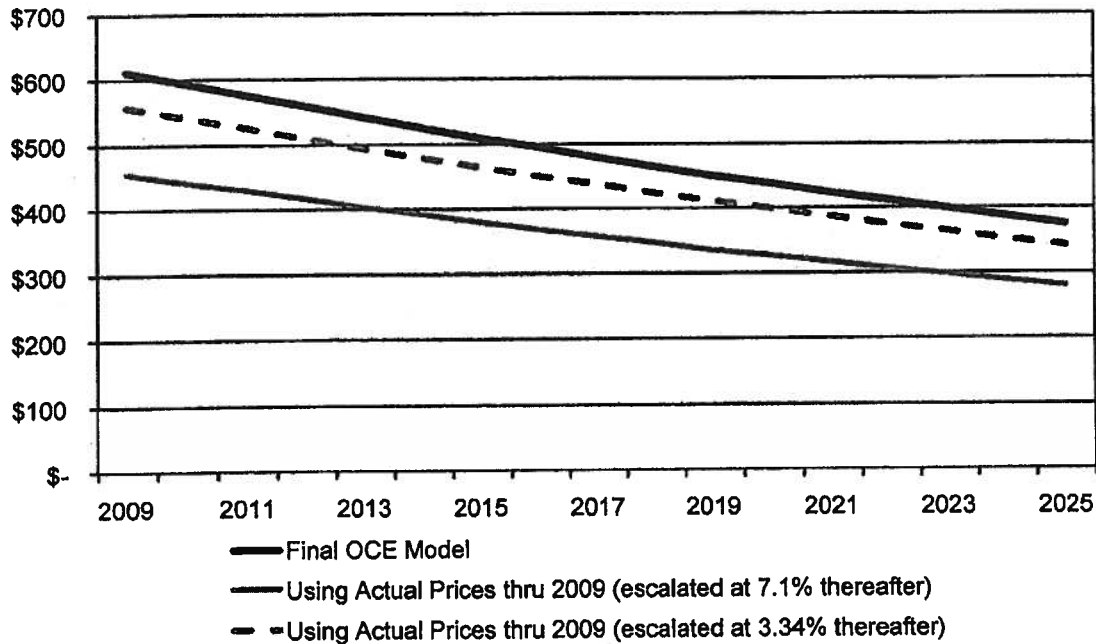
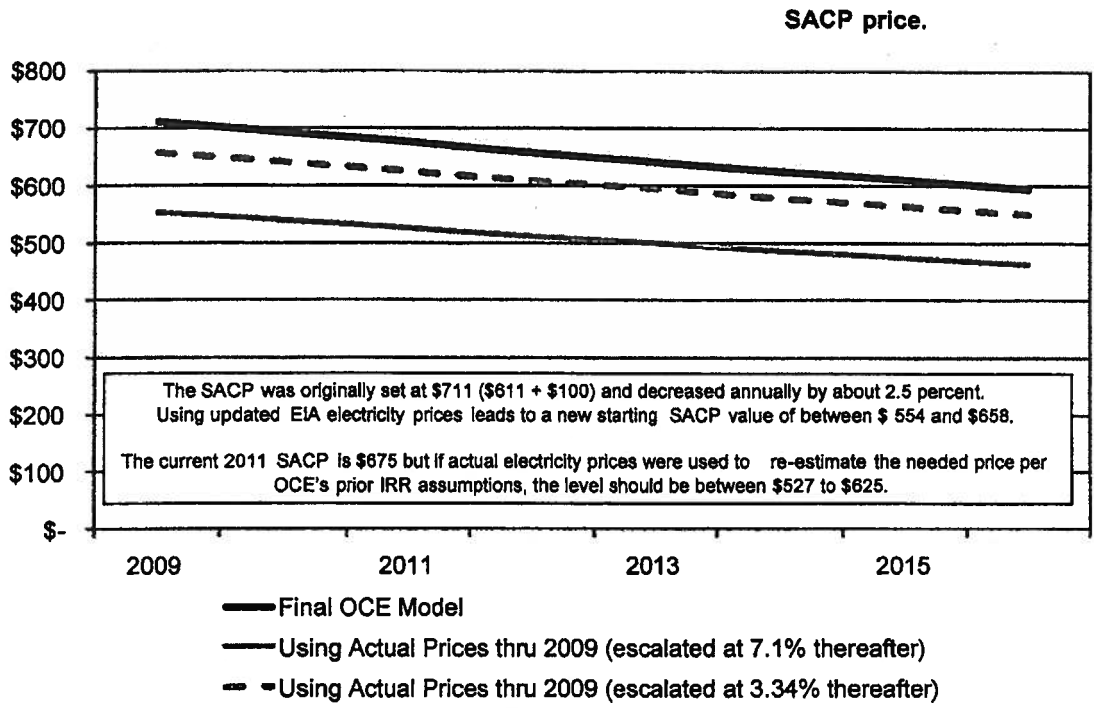


Figure 2. Forecasted Annual SREC Prices Under Different Electricity Price Scenarios and Forecasts



OCE's original SACP recommendations were based upon an assumed 12 percent IRR and target SREC price of \$611. If the model upon which this assumption were updated for actual electricity prices observed since 2005, target SREC prices should have started at a level between \$454 or \$558 (depending on electricity price escalation rate assumptions for 2010 and forward).

Figure 3. Forecasted Annual SACP Prices Under Different Electricity Price Scenarios and Forecasts



While OCE does not technically “set” the SREC prices, it does make SACP recommendations to the Board, who in turn sets SACP for an 8 year period. In a tight solar market, like the one that has existed over the past several years, owners of SRECs will have effective “market power”.

4. Conclusions and Recommendations

Rate Counsel suggests the Board take into account the numerous uncertainties associated with setting future SACP values and the restrictions that allow SACP values to increase, but never decrease. Rate Counsel believes that the existing eight-year SACP schedule is already in error relative to the assumptions upon which these prices were set and approved by the Board, and that future SACP levels should not compound that problem.

The uncertainties, and opportunities for compounded errors, suggest that the Board should choose a cautious and conservative approach at setting SACP values low. The fact that the SACP can be increased, but never decreased, creates asymmetrical risk

for ratepayers since developers always have the potential for increasing SACP prices, but ratepayers never have the opportunity for comparable decreases.

Given this asymmetrical risk, the Board needs to be conservative. The SACP values can be reconsidered for upwards revisions in the future if market conditions change and create a need to raise the ceiling.

The Board should, therefore set SACP prices with a policy goal of getting New Jersey's solar energy market prices into line with those in other Atlantic states, or alternatively, setting a date for grid parity in an attempt to force greater efficiencies and lower costs. Rate Counsel recommends the adoption of the option that would bring costs into line with other Atlantic states through a constant percentage decrease, but recognizes that all of the options set forth in Table 2 will assist in meeting the goals of the recently-released EMP which seeks to continue the state's progress in encouraging solar development which reducing the cost of solar energy for New Jersey ratepayers.

Thank you for the opportunity to provide these comments.

**COMMENTS OF THE MIDATLANTIC SOLAR ENERGY INDUSTRIES ASSOCIATION
ON THE OFFICE OF CLEAN ENERGY'S STRAW PROPOSAL
FOR A FIFTEEN YEAR SOLAR ALTERNATIVE COMPLIANCE PAYMENT SCHEDULE**

JULY 8, 2011

MSEIA respectfully submits these comments to the BPU Staff and members of the ACP Stakeholder Committee regarding the fifteen year Solar Alternative Compliance Payment schedule.

- A. The SACP does not set SREC prices, but is an incentive for compliance. SREC prices are set by supply and demand for SRECs during any one time period. The SACP level should be set at a level sufficient to encourage suppliers to enter into long-term contracts for SRECs.**

The SACP is a payment intended to encourage compliance with the RPS by encouraging LSEs to secure sufficient SRECs to meet their requirements. To be effective, it needs to be high enough to create an incentive to purchase or generate SRECs rather than pay the SACP. It should decline over time to reflect the expected decrease in the cost of solar electricity and its increasing cost-effectiveness.

Spot SREC prices remained high during the past three years due to a shortage of SRECs relative to demand, a function of industry time to ramp up development and construction, the scarcity of long terms SREC contracts to support project financing, and the withdrawal of equity investment from the market during part of that period. The rate of installations over the last 12 months has eliminated this imbalance, spot SREC prices have fallen, and this drop in prices will likely slow the rate of capacity additions. The pace of capacity additions is now resulting in SREC prices diverging from SACP prices.

- B. MSEIA believes the SACP recommendations by staff will not have a significant adverse impact on the industry's ability to deliver the solar RPS requirement.**

This statement assumes that Section 1603 is extended for at least another year, and that some level of enhanced solar ITC is enacted beyond 2016. The level of SREC prices needed to support continued solar growth is increasingly being decoupled from SREC prices. Solar costs continue to decline and this trend is expected to continue, given the increasing scale and reducing costs seen in the global solar electric industry, which will continue to support growth in the solar industry.

- C. The Board Order implementing a new SACP schedule should acknowledge that schedule is based on continuation of the 30% Federal Investment Tax Credit and that if the solar ITC is not extended in some form, the schedule should be reassessed.**

The 30% Federal Investment Tax Credit is expected to remain in place through 2016 and if not extended at some level, will impact project economics. MSEIA recommends that if the market does not in any one year fulfill the annual SREC requirement in terms of MW installed, the SACP levels should be evaluated to determine whether they need to be increased in light of other factors affecting the economics of solar generation.

**COMMENTS OF THE SOLAR ALLIANCE
ON THE OFFICE OF CLEAN ENERGY'S STRAW PROPOSAL
FOR A FIFTEEN YEAR SOLAR ALTERNATIVE COMPLIANCE PAYMENT
SCHEDULE**

JULY 9, 2010

INTRODUCTION AND SUMMARY OF POSITION

The Solar Alliance, a coalition of approximately 30 of the largest photovoltaic (PV) solar development and manufacturing companies in the United States dedicated to the advancement of state legislative and regulatory policies that support solar photovoltaic energy and help capture associated economic development opportunities, submits the following comments in support of a fifteen (15) year Solar Alternative Compliance Payment (SACP) schedule, pursuant to the Solar Energy Advancement and Fair Competition Act of 2010 (SEAFCA). The SACP is a critical element of New Jersey's groundbreaking market-based solar incentive program, and it is imperative that the schedule ultimately adopted by the Board of Public Utilities (BPU) reinforce its primary objective of inducing the long-term purchase and sale of available Solar Renewable Energy Credits (SRECs) at reasonable and appropriate prices.

Our comments are organized in two parts. First, we offer some general principles - based on the legal parameters established by the SEAFCA and market dynamics we have experienced as solar project developers and SREC market participants - to guide the Board's determination of an appropriate SACP schedule. Second, we offer our recommendation for a 15 year SACP schedule and sustainable rate of decline. In this context, we evaluate the straw proposal circulated by the Office of Clean Energy (OCE) prior to the June 29th meeting of the SACP Committee and offer our own independent analysis of this data and its implications for SACP levels.

Our conclusions and recommendations may be summarized as follows:

- The mandated timeframe for Board adoption of a SACP schedule is the fifteen year period commencing with Energy Year 2011.
- The Board should not disturb the remaining 6 years of the previously adopted 8 year SACP schedule, but should extend the schedule by the requisite number of years to arrive at a full 15 year SACP price trajectory.
- The Board should set the SACP at a level that encourages SREC long-term contracting. This, in contradistinction to an unwarranted *lowering* of the SACP, is the surest means of reducing overall solar RPS program costs.

- Historical data capturing PV installed cost trends, both at the national level and for New Jersey, support a steady state annual rate of decline in the SACP of approximately 2.54%.
- The Board should not base its long-term SACP on the rate of decline in solar costs demonstrated over the short-term (2008-10). Given the cyclical nature of the industry, and the much slower annual rate of decline over the life of the New Jersey solar incentive program, these near-term trends may not be a strong indicator of solar cost trends through 2025. However, should the Board chose to “true-up” the SACP based on more recent experience, the data justify no more than a 4.5% one-time adjustment in 2017.

I. GENERAL PRINCIPLES

A. The Board is obligated to adopt a 15-year rolling SACP schedule, commencing with EY 2011.

During the June 29th SACP Committee call, the question was raised as to when the 15-year SACP schedule begins and ends. In the Solar Alliance’s view, the Solar Energy Advancement and Fair Competition Act (SEAFCA) is clear in this regard: “The board shall determine an appropriate level of solar alternative compliance payment, and establish a 15-year solar alternative compliance payment schedule, that permits each supplier or provider to submit an SACP *to comply with the solar electric generation requirements of paragraph (3) of subsection d.* of this section.” By cross referencing the annual obligation schedule, the legislature intended the 15 year schedule to apply prospectively, commencing with the first Energy Year identified (i.e., EY2011) and extending for the subsequent 14 years. It is also important to point out that the solar targets are ongoing obligations, such that the SACP is to be set on an annual rolling basis.

B. The SACP adopted by the Board should not disturb its previously adopted 8 year schedule, but should extend the schedule by the requisite number of years to arrive at a full 15 year SACP price trajectory.

The Solar Alliance believes that it is absolutely critical that the efforts of this committee be directed to *extending* the current SACP schedule to the full fifteen years required by SEAFCA, and not to *revisiting* the SACP levels already established by the Board through 2016. This understanding is compelled by both the SEAFCA itself and the efficient and equitable operation of the nascent New Jersey solar marketplace – which places a premium on regulatory stability and certainty.

1. Retention of the existing SACP levels is consistent with the spirit, if not the letter of the Solar Energy Advancement Act.

One of the core operational principles of the SEAFCA is that once set, the Board is precluded from adjusting SACP levels downward. The Board may, however, increase existing SACP values. As the SEAFCA spells out: “The board may initiate subsequent

proceedings and adopt, after appropriate notice and opportunity for public comment and public hearing, an increase in solar alternative compliance payments, provided that the board shall not reduce previously established levels of solar alternative compliance payments...”

In the Solar Alliance’s view, this asymmetric treatment was quite deliberate and underscores the legislature’s desire to encourage suppliers and providers to enter into long-term SREC contracts. By ensuring that long-term contracts retain their value and will not be eroded by future Board action, market participants are provided a stable framework within which to conduct business.

Although this “non-backsliding” provision of the SEAFCA speaks directly to the 15 year SACP schedule set under authority of the legislation, we believe the spirit and clear intent is that this principle applies with equal force to the eight year SACP schedule already in place.

2. The Board should not disturb existing contractual arrangements between project developers and suppliers, which were predicated on the existing SACP schedule.

Non-reversal of the existing eight-year SACP schedule is also compelled by contractual arrangements already made by market participants and the need for regulatory certainty. Although clearly not the norm, some load serving entities have been willing to enter into SREC contracts for term. These contractual agreements were based on then-existing SACP levels, and LSE’s assumed some level of regulatory risk that the new market-based program rules would remain stable over time. This assumption of regulatory risk should be rewarded by the Board, insofar as it enabled solar developers to obtain necessary project finance and resulted in lower cost of compliance with the solar carve-out program.¹ Moreover, LSEs who have entered into such longer-term contracts must receive the benefit of their bargain if the Board harbors any hope of engendering a greater proportion of SRECs transacted through the medium- to long-term market in the future.

The premium placed on regulatory certainty and stability is reflected in an analogous provision of the SEAFCA, wherein long-term contracts entered into by *electric distribution companies* in conjunction with utility solar loan and SREC procurement programs, and approved by the Board, are to be honored: “k. The board may allow electric public utilities to offer long term contracts and other means of financing, including but not limited to loans, for the purchase of SRECs and the resale of SRECs to suppliers or providers or others, provided that after such contracts have been approved by the board, the board’s approvals shall not be modified by subsequent board orders.”

The flip side is that reducing existing SACP levels would be seen by LSE’s as tantamount to a change in law and will encourage attempts to renegotiate or, in extreme cases, abrogate existing contracts. The Board should be extremely wary of going down that path.

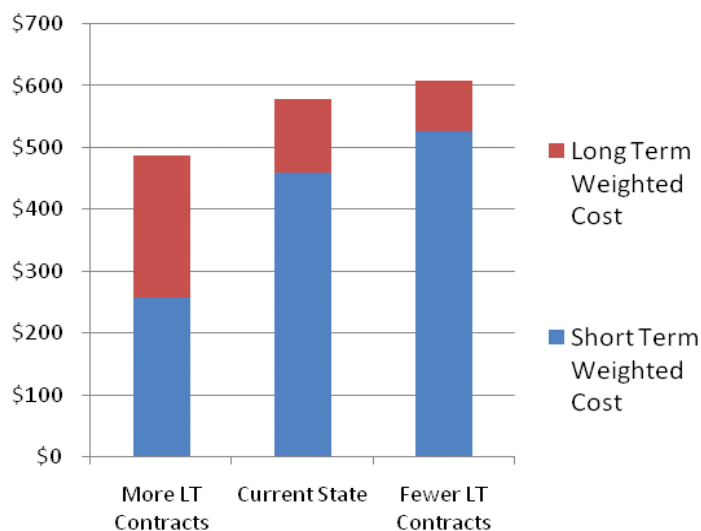
¹ See discussion at Section C.1., below.

C. The SACP level should be set at a level sufficient to encourage suppliers to enter into long-term contracts for SRECs.

1. Encouragement of LTCs is the surest path to reducing overall program costs.

The fundamental pricing of RECs is not determined by the ACP, but rather by the supply/demand dynamics in the market and the amount of speculative spot trades vs. long-term project based contracting. This is demonstrated not only within the more mature RPS market for Class I RECs, but is also borne out by the early results of the SREC program, which can be summarized as follows:

- As of the May 2010 Market Manager Report of the SRP, the year-to-date overall weighted average SREC price for all trades is \$573.77.
- According to Flett Exchange, a well-known broker of NJSRECs, the spot market has traded between \$640 and \$680 for this compliance year (CY'10).
- According to BPU reporting, trades in this range (spot trades) accounted for about two-thirds (68%) of all trades and the weighted average of these trades was \$667.
- We may assume then the other one-third (32%) was sold through long or short term contracts or auctions. Here the overall weighted average price was \$373. ***This contract/auction SREC price of \$373 is nearly half of the ACP (currently at \$693).***
- These reported trade prices for long-term SREC contracts is consistent with the results of the first three Utility SREC Finance bid rounds, where the average trade price for 10-15 year contracts is just over \$400.
- Together, this suggests there is an active market beyond spot trades...but it is not yet a sufficient percent of the total to drive overall SREC prices to more reasonable levels.
- A sensitivity analysis conducted by the Solar Alliance indicates that, based on these relationships, **for every 10% increase in the proportion of SRECs traded through longer-term contracts should translate into a \$30 decline in the overall weighted average price for SRECs.**



2. The SACP is not a price-setting mechanism.

The SACP is not a price setting mechanism, it is a payment intended to encourage compliance with the RPS instead of inaction. To be effective, it needs to be high enough to serve this purpose. It can and should decline over time but this should be done VERY carefully to keep its purpose intact.

3. The mechanism which returns non-compliance payments to ratepayers mitigates concerns over setting the SACP level too high.

In setting the 15-year SACP schedule, it is important to bear in mind another important change introduced by the SEAFCA. That is, any payments made by suppliers or providers in lieu of the purchase and retirement of SRECs in fulfillment of the solar RPS obligation are not ultimately borne by ratepayers. As the SEAFCA provides, “Any SACP payments collected shall be refunded directly to ratepayers...” Section 38, subsection j. This mechanism effectively holds ratepayers harmless for SACP payments, and for present purposes, suggests that the Board can set appropriate SACP levels assured that this will have no deleterious effect on ratepayers.²

4. A dramatic change in the SACP will exacerbate regulatory uncertainty.

The market is in an important transitional state that requires regulatory certainty. It is weathering dramatic changes to the rebate program and repeated pronouncements of changes to the Energy Master Plan and its underlying assumptions. Beyond the tactical implications of regulatory intervention and the legal consequences of frustrating the settled economic expectations of those who have entered into longer-term SREC contracts, dramatic changes to the SACP could compound these broader currents and create other unintended consequences.

II. SOLAR ALLIANCE RECOMMENDED 15-YEAR SACP SCHEDULE

The Solar Alliance believes that the methodology and reasoning presented in the Board Order of September 12, 2007 is still valid. In that Order, the OCE developed the original SACP schedule based on a projection that market prices will decline by 3% per annum (page (page 30)³ In examining the data on price declines since 2007, as well as in consideration of these broad principles, the Solar Alliance offers for the SACP Committee’s consideration the following 15 year (2011-2025) schedule:

² It has been argued that high SACP levels will be reflected in the LSE’s bid price in the BGS auction; however, a bid strategy that assumes full payment of the SACP is unlikely to be sustainable as solar program targets ramp up and the LSE risks being underbid by LSE’s that have undertaken prudent SREC portfolio management.

³ BPU Docket No. EOO6100744

<i>Recommended</i>															
Energy Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
SACP	\$ 675	\$ 658	\$ 641	\$ 625	\$ 609	\$ 594	\$ 579	\$ 564	\$ 550	\$ 536	\$ 522	\$ 509	\$ 496	\$ 484	\$ 471
% Change		-2.52%	-2.58%	-2.50%	-2.56%	-2.46%	-2.54%	-2.54%	-2.54%	-2.54%	-2.54%	-2.54%	-2.54%	-2.54%	-2.54%
Schedule Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

We believe the *methodology* adopted by the Office of Clean Energy and circulated to committee members on June 29th is, in general, a reasonable one, although, as described more fully below, we do have issues with the OCE’s specific *application* of this approach. We believe our recommendation both preserves the methodology and resolves these issues as described further below.

A. The Full NREL Analysis of PV Cost Trends Referenced by the OCE Does Not Support the Sharp SACP Drop Proposed by the OCE When Considering Long-term Trends.

We believe the OCE’s approach to establishing a long-term SACP schedule is basically sound. In particular, we support the OCE’s:

- Use of publicly available data to discern long-term trends in the installed cost of PV. Ideally the reference database should be comprehensive, validated and provide an accurate historical perspective from which one can reasonably extrapolate future cost trends.
- Delineation of the 15 year period beginning with Energy Year 2011 and running through Energy Year 2025 as the correct study period.
- Focus on appending to the existing SACP schedule through 2016, rather than making retroactive changes to the existing schedule.

That said, we do take issue with the OCE’s interpretation of these data. The basis for the step change of 18.8% in the OCE’s proposed schedule is identified as the National Renewable Energy Laboratory’s (NREL) 2008 Solar Technologies Market Report.⁴ More specifically, the OCE selects from a very narrow set of data in the 131 page report. Per the reference on page 115 and 116:

“Figure 5.9 shows forecasted global module and system prices through 2010. Module prices are expected to decrease from \$3.72/W in 2008 to \$2.45/W in 2010, a 2-year CAGR of –18.8%. System prices are expected to decrease by a slightly smaller proportion, from \$6.08/W in 2008 to \$4.21/W in 2010, a 2-year CAGR of –16.8%. By comparison, the average U.S. PV system cost was \$7.50/W in 2008.”

⁴ <http://www.nrel.gov/analysis/pdfs/46025.pdf>

However, the accompanying table clearly indicates these are global forecasts from 2009 which presents three concerns. First, the global market is far different from the U.S. market as referenced in the same paragraph and as demonstrated in a number of other studies. Second, these are forecasts, not actual price data. And third, the forecasts are as much as a year old now.

Attempting to still draw from this report as a source of factual information on solar price trends, we should look at a broader set of more relevant facts on the following pages:

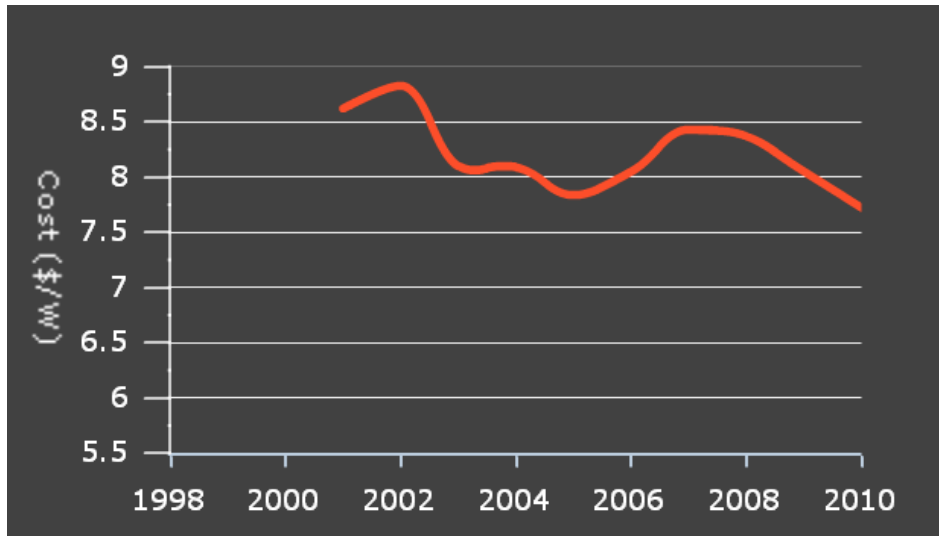
- As indicated on page 62, “Capacity-weighted average costs declined from \$10.80/W in 1998 to \$7.50/W in 2008. This represents an average annual reduction of \$0.30/W (i.e., a drop of 3.6% per year in real dollars).” While this is not NJ specific, it is U.S. price data and more reflective of our market than global data. It is also notably close to the 2.5% declines currently contemplated in other years of the SACP schedule.

- Reviewing figure 3.9, 5 of the 10 years show a marked decline in prices. However, 3 of the 10 years show a marked increase while two years appear relatively flat. This emphasizes that short-term price reductions can be off-set by periods of minimal change or even price increases. And it suggests that changing 15 year SACP schedule based on only a forecast decline over two years may be dangerous.

B. Other US and New Jersey Specific Cost Data Also Does Not Support the Sharp SACP Drop Proposed by the OCE When Considering Long-term Trends.

The Open PV Project⁵, a comprehensive database of PV installation data for the United States administered by the National Renewable Energy Laboratory (NREL), has collected cost data for 5,275 of the 6,032 New Jersey-based projects currently reported as completed by the Market Manager. These data cover the full lifecycle of the New Jersey program from 2001 through early 2010 and can be found at <http://openpv.nrel.gov/visualization/index>.

⁵ As explained by NREL, “The project is compiling a database of PV installations for the US. This database will be used to provide a web-based resource for users to easily explore and understand the current and past trends of the US PV industry.” < <http://openpv.nrel.gov/about>>



These data reveal an overall reduction in average installed PV costs of nearly \$1.00/w. since the inception of the program. However, this long-term trend somewhat obscures the fact that the annual rate of change has been more cyclical, ranging from one-year reductions of 4.0 % (2010) to one-year increases of 4.7% (2007), consistent with the U.S. data previously cited. The last eighteen months have seen declines of 3.8 % and 4.0 % for 2009 and 2010 respectively, but while these last two data points are encouraging, they in no way justify the steep 18% one-year true-up proposed by OCE. Further, calculating decline over the full period from 2001 to 2010 shows an absolute decline of 10.4% which translates to an annualized or CAGR decline of 1.22%. This is well below 3.6% decline for the U.S. (LBNL data referenced above) and is also well below the current schedule of 2.54% per year.

The OpenPV database also contains cost data for more than 700 projects representing more than 800MW of installed capacity across the U.S. A comparison of the U.S. and N.J. data is provided in the table below:

NREL OpenPV <i>openpv.nrel.gov</i>	Installed System Costs	
	N.J. Data	U.S. Data
Long-term Trends		
2001 Cost \$/W	\$ 8.62	\$ 10.38
2010 Cost \$/W	\$ 7.72	\$ 7.73
9 year Variance	-10.4%	-25.5%
9 Year CAGR	-1.22%	-3.22%
Short-term Variances		

2008 Cost \$/W	8.37	8.56
2009 Cost \$/W	8.05	7.93
<i>Variance</i>	-3.8%	-7.4%
2010 Cost \$/W	7.72	7.73
<i>Variance</i>	-4.1%	-2.5%
<i>2 year Variance</i>	-7.8%	-9.7%
2 Year CAGR	-4.0%	-5.0%

Taken together, U.S. and N.J. data create a range for long-term declining costs which the current SACP schedule clearly fits within. This is also generally consistent with the 3.6% decline in costs for the U.S. cited in the LBNL data referenced above. And none of these data sets support a permanent correction or step adjustment of the magnitude proposed by the OCE.

C. Should the Board Use Recent Declines in Installed Costs as the Basis for a Future SACP Adjustment, the Data Support no More than a One-Time 4.5% True-Up.

As argued above, we do not believe any departure from the current annual rate of decline is warranted by actual program experience to date. However, should the Board conclude that recent cost declines should be “recaptured” in future SACP levels, a much more moderate adjustment than the 18.8% adjustment proposed by OCE is warranted. If there were any rationale for a step adjustment, it could only be supported by the short term variances actually observed (not forecast) between 2008 and 2010. In N.J. the 2 year CAGR from 2008 to 2010 was 4% and across the U.S. it was 5% suggesting any step change should certainly be within this range.

Hence, the Solar Alliance could also support the following alternative:

<i>Alternate</i>																
Energy Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
SACP	\$ 675	\$ 658	\$ 641	\$ 625	\$ 609	\$ 594	\$ 567	\$ 553	\$ 539	\$ 525	\$ 512	\$ 499	\$ 486	\$ 474	\$ 462	
% Change		-2.52%	-2.58%	-2.50%	-2.56%	-2.46%	-4.50%	-2.54%	-2.54%	-2.54%	-2.54%	-2.54%	-2.54%	-2.54%	-2.54%	
Schedule Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	

III. CONCLUSIONS

The Solar Alliance encourages the Board to extend the existing SACP schedule through 2025, maintaining the annual rate of declination of 2.54%. In the alternative, should the Board believe it necessary and appropriate to adjust the schedule to reflect steeper near-term cost reductions, no more than a one-time true-up of 4.5% is justified.

Respectfully submitted,

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On Behalf of:
THE SOLAR ALLIANCE