

New Jersey Renewable Energy Solar Market Transition

Office of Clean Energy, Discussion Paper

August 2, 2007

The Office of Clean Energy has scheduled a stakeholder meeting for August 9, 2007 to discuss the next steps in the development of a staff proposal regarding the transition of the solar marketplace. Summit Blue will also attend the meeting to discuss its revised ratepayer impact report issued on July 31, 2007. This document is provided as background and to help focus the discussions at the August 9th meeting.

OCE's draft policy recommendations discussed below are preliminary in nature subject to further discussion at the August 9th meeting. A final OCE proposal will be issued by August 13th.

BACKGROUND

- New Jersey has established, in the Renewable Energy Portfolio Standard (RPS) regulations, a requirement to achieve the delivery of 22.5% of its electric sales from renewable energy systems by Energy Year 2021. 2% of this requirement must be delivered from solar PV systems.
- At the current rate of electricity usage this would require 1,800 MWac of solar by 2021. Implementation of Governor Corzine's 20% energy reduction goal would however significantly reduce the level of MW needed to achieve the RPS requirements.
- From 2001 through June 2007, 40 MWdc of solar has been installed. Under the current rebate system this has been installed at a cost of \$4.6 million per MWdc. At this rate it would cost \$10.9 billion to achieve the solar RPS requirement by 2021. The total retail electric market during this 13 year time period would be approximately \$146 billion.
- A more efficient and sustainable financing model to meet the solar RPS requirements needs to be developed.
- OCE's overall objective is to install sufficient solar capacity to meet the RPS requirements, at the lowest cost to ratepayers, taking into account other policy goals – fairness and equity to all ratepayer classes, job growth, improved reliability/security and improved environmental quality.
- There is sufficient funding through 2008 to install 50 MWdc of solar from the current queue waiting for a CORE rebate commitment approval. This will result in an estimated RPS solar shortfall in the Energy Year 2009 of 30 MW dc and a payment by suppliers of the SACP.

PROCESS & PROCEDURES

- In July 2006 OCE established a Renewable Energy Committee (REC) working group to begin the process to transition from rebates to a performance based, open market financing model for solar and other renewables.
- The REC work group developed models for discussion, guiding principles to evaluate the different models, and held several meetings with stakeholders to discuss the various advantages and disadvantages of the models.
- The standard practice to setting the Alternate Compliance Payment(ACP) and Solar ACP as set forth in the regulations is the Board appoints an ACP Committee consisting of members from the RE industry, business and environmental groups, electric suppliers and EDCs.¹ This group provides advice to staff on the SACP and ACP levels and Staff presents it's recommendations to the Board. However, since a longer term SACP at a higher rate would have resulted in a rate impact it was determine that a "rate-type" proceeding would be needed to address stakeholder comments and issues
- By Order dated January 19, 2007, In the Matter of the Renewable Portfolios Standard, Docket No. EO0600744, the Board initiated a proceeding and stakeholder process regarding Alternative Compliance Payment (ACP) and Solar Alternative Compliance Payment (SACP) levels for energy years 2009 and 2010 or longer.
- Summit Blue, which was contracted by the Board to perform a Renewable Energy Market Assessment, was requested to expand that approved contract to include an independent evaluation of the various models – reports were prepared and distributed for stakeholder review March 15, 2007, April 25, 2007 and July 31, 2007. Stakeholder meetings were held to review and take comments on the reports.
- Based on the Summit Blue report key findings, discussions of the various financing models from the REC working group, and comments/issues discussed by the stakeholders as part of the Summit Blue presentation on the reports, OCE prepared and circulated a straw proposal for consideration and comment as part of the ACP/SACP proceeding.
- The OCE Straw Proposal was just that a straw proposal designed to solicit public comment. The proposal was meant to be the starting point for the next phase in the stakeholder process and should not be considered the OCE's final recommendation for the solar market transition.
- Hearings, chaired by BPU Commissioner Fiordaliso, were held on June 6th and June 7th. Over 150 pages of comments were received and posted on line at NJCleanEnergy.com. Responses and rebuttals to these comments were submitted through July 16th.

¹ The ACP and the SACP are set by the Board and represent the price a supplier could opt to pay instead of going to the market to buy Certificates to document compliance with the RPS. The ACP/SACP are also available in case the market is short to provide a means to comply with the RPS. The ACP/SACP are set higher than the market rate for Certificates to encourage participation in the trading market.

POLICY DIRECTION

OCE believes there are 6 major policy issues that need to be addressed as follows:

- 1. The financial model to be implemented
- 2. The overall total cost and annual rate impact which is determined by three factors:
 - a. The length of time a project gets certificates, or a tariff, or other financial incentives (the qualification life QL)
 - b. The internal rate of return to be earned from the project, and
 - c. The initial incentive/certificate/tariff and the annual rate of decrease of this incentive
- 3. The treatment of legacy projects projects that received rebates
- 4. The vintage the trading period for the incentive/certificate and can these incentives be banked
- 5. Continuation of rebates and to what customer classes and size of projects
- 6. Monitoring and reporting

Each of these issues are discussed below.

Financial Models

Multiple models as developed through the REC work group were evaluated by staff and stakeholders including an auction model, hybrid tariff, feed-in tariff, commodity, and underwriter models as reported in the Summit Blue Report of March 15th, April 25th July 31st.

An analysis of ratepayer impacts was conducted and reported in the Summit Blue Report (April 25th,July 31st). The estimates of gross ratepayer impacts are based on total ratepayer expenditures associated with each model. These estimates do not account for or include the ratepayer benefits associated with solar resources – such as avoided energy, capacity, transmission and distribution costs.

Summit Blue modeled the OCE straw proposal (Multiple Year Schedule SACP) in its July 31, 2007 report. It is important to note that the ratepayer impact of the OCE straw proposal included in the July 31st report should <u>NOT</u> be considered in direct comparison to the other models because different/lower assumed Internal Rate of Returns (IRRs) were utilized and it was not modeled with the same assumptions used in the April 25th report. OCE's support for the Multiple Year Schedule SACP model is based upon consideration of multiple objectives as discussed below:

General guiding principles for the market transition formed the primary basis for developing the list of criteria used for evaluating the different models. The primary categories include:

- Sustained orderly development
- Transaction costs
- Ratepayer impact
- Support for other policy goals

Table 1 summarizes the results of the two Summit Blue reports evaluating the different models and the OCE straw proposal.

Table 1.	Matrix of	of M	odels	and	Criteria
----------	-----------	------	-------	-----	----------

	Sustained			Support for
	Orderly	Transaction	Ratepayer	Other
Model	Development	Costs	Impacts2	Policy Goals
1. Rebate/SREC no SACP			1	
Schedule		v	4	v
2. SREC Only			5	
3. Underwriter Model 15 yr	✓	✓	4	
4. Commodity Market Model	✓		5	\checkmark
5. Auction Model 3yr			2	\checkmark
6. Tariff Model 15 yr	✓	✓	2	\checkmark
7. Hybrid-Tariff	✓	✓	4	\checkmark
8. Straw: Rebate/SREC with SACP Multiple year Schedule	~	~	1	\checkmark

Minimizing regulatory risk emerged as one of the key criteria for the solar financing transition options, based on Summit Blue's research and the feedback from stakeholders,. The OCE considered this key point in developing its straw proposal and in further refinements of the proposal. Developers and project financers will be less likely to invest in projects where there is a high degree of uncertainty in the cash flow, i.e. the incentive stream, resulting from changes to the program structure and rules, including changes in the current infrastructure. But, the Board needs to develop a system that appropriately shares the risk.

Since the SREC Only model puts all of the risk on the project developer, this model is assigned a high risk premium by investors, further driving up the incentive costs under this model. The Auction Model, due to its three year contract length, will create very high SREC values as developers strive to meet their project returns in the three year period. In addition, there is no working example of a renewable energy auction. While there are examples of auctions but no working REC auctions. This infrastructure would need to be developed within the BPU and within the state.

The underwriter model (3) provides a floor to the SREC price, but stills leaves some uncertainty around the actual incentive value that the project developer will receive. The funding and implementation of the underwriter model is very uncertain and it may be difficult to identify a willing/appropriate underwriter entity without significantly increasing the SBC. One of the goals of this solar transition was to reduce the current SBC while increasing this new financing model rate impact – essentially netting out new rate impacts.

The Tariff model (6) meets all of the general criteria and had the lowest ratepayer impacts of the seven models evaluated in the initial Summit Blue report. Based on the Summit Blue reports and input from stakeholders, the OCE focused its review on the Rebate/SREC and the Tariff models.

 $^{^{2}}$ 5 = Highest and 1 - lowest

The Tariff model is very attractive to project investors because it eliminates the uncertainty in the incentive payments. The Tariff model will boost developers' confidence in the market and may attract more developers to the State.

However, the OCE believes the following aspects of the Tariff model make it less attractive to New Jersey's ratepayers than the proposed Rebate/SREC model discussed below:

- The Tariff model relies on a high degree of confidence in the regulatory fore-sight, primarily the ability to accurately set future tariff levels at the right level to support necessary market development.
- A downside to the tariff model is therefore a relatively high probability of either over or under subsidizing the projects.
- The OCE does not believe that the Tariff model is as effective as the Multiple year Rebate/SREC model in driving down system costs over time which is a key element of the Board's support for solar.
- Most states in the region are pursuing a REC based system for supporting renewable energy development. Staff's proposal is therefore more consistent with other regional efforts.
- There are issues around whether the Board has the legal authority to create a tariff to promote renewable generation. This could create the need for enabling legislation which could delay the implementation of a Tariff based model if this is the model selected by the Board.
- OCE is concerned about the implications of whether or not the NJ electric utilities would be willing to support a renewable generation tariff.

The SREC models (1, 2, and 8) provide a more market based approach to setting the proper incentive level. The SREC market will fluctuate automatically, without the need for regulatory intervention, based on the supply and demand required to meet the compliance requirements, resulting in incentive levels that more closely match required project economics. In addition, the competitiveness of a market-based approach will help drive down project cost, which would be more difficult to achieve under the Tariff model, which could benefit ratepayers significantly. The modeled ratepayer impact between all the models at the larger sized system is not significantly different. The current system has already invested infrastructure and experiences, to change that wholesale without significant need may not be accepted by the financial community.

Further, based on input from stakeholders and comments made at the public hearings, the OCE is recommending substantive changes to its straw proposal as discussed below.

OCE draft Position – adopt a Competitive, Multiple Year SACP Model with a rebates for smaller systems

Initial Value of the SACP

As discussed above there are three factors which impact overall cost and annual rate impact. In modeling to optimize these three factors to minimize total cost and annual rate impact two factors can be adjusted while holding the three constant. Table 3 below models a set SREC levels and adjusts the 1) SREC Qualification Life (QL) – how long a project can get SREC; and 2) the internal rate of return assumed to be earned by a project.

The Board sets the SACP which is the upper limit any supplier would pay for a certificate for solar RPS compliance. The actual Solar Renewable Energy Certificate price would be based on supply and demand for SRECs. Table 3 below models the three market segments LT 10, GT 10 and public at various levels of QL and IRR. It documents three issues

- o Small projects LT 10 kW need a rebate
- Large projects (GT 50 kW) need an IRR of 11+% to have a positive cash flow
- Larger projects (GT 100 kW) have better ecomonics

					1 st Year		Pr	oject Level	
Project Type	SACP Structure	Size (kW)	Qual. Life	SACP Yr 1	Rebate (\$/W)	IRR	Break Even Yr	Cum 20y Cashflow	NPV 20y @ 10%
≤10 kW Private	Straw	6.53	8	\$525	3.00	5%	11	\$20,583	(\$5,695.02)
≤10 kW Private	Straw	6.53	9	\$525	3.00	5%	10	\$21,870	(\$5,198.65)
≤10 kW Private	Straw	6.53	10	\$525	3.00	6%	10	\$23,123	(\$4,759.58)
≤10 kW Private	Straw	6.53	15	\$525	3.00	7%	10	\$27,935	(\$3,474.24)
≤10 kW Private	Straw	6.53	20	\$525	3.00	8%	10	\$32,132	(\$2,885.46)
				•					• • • •
>10 kW Private	Straw	51.30	5	\$525	3.00	7%	9	\$177,273	(\$23,075.23)
>10 kW Private	Straw	51.30	8	\$525	3.00	9%	7	\$206,232	(\$9,438.22)
>10 kW Private	Straw	51.30	10	\$525	3.00	10%	7	\$222,435	(\$3,471.47)
>10 kW Private	Straw	51.30	15	\$525	3.00	11%	7	\$253,129	\$4,727.19
>10 kW Private	Straw	51.30	20	\$525	3.00	11%	7	\$279,899	\$8,482.75
>10 kW Public	Straw	110.03	5	\$525	3.00	8%	7	\$404,767	(\$24,695.36)
>10 kW Public	Straw	110.03	8	\$525	3.00	10%	6	\$466,877	\$4,552.57
>10 kW Public	Straw	110.03	10	\$525	3.00	11%	6	\$501,628	\$17,349.74
>10 kW Public	Straw	110.03	15	\$525	3.00	12%	6	\$567,459	\$34,933.81
>10 kW Public	Straw	110.03	20	\$525	3.00	13%	6	\$624,875	\$42,988.52

 Table 3. Comparison of Qualification Life by Project Type

As set forth in Table 4 below, the longer the QL, the larger the total cost – the shorter the QL, the smaller the total cost. However, as discussed further below, the longer QL results in lower rate impacts since the costs are recovered over a longer period of time.

			RPS Level thr	u 2021
SACP Structure	Qual. Life	SACP Yr 1	Total RPI PV	RPI Increase
Straw	8	\$525.00	\$2,386,708,192	
Straw	9	\$525.00	\$2,527,388,371	6%
Straw	10	\$525.00	\$2,652,454,120	5%
Straw	15	\$525.00	\$3,092,198,592	17%
Straw	20	\$525.00	\$3,262,119,903	5%

Table 4. Comparison of Qualification Life by RPI

Table 6 and Figure 2 below looked to optimize the IRR and the QL and the initial SACP value. These tables document the following:

- Small projects without a rebate need a very high IRR or initial SACP value and reinforce the need for a rebate
- o Large projects need at least 12 % IRR and greater than 10 year QL
- o Larger projects do well at 12% IRR and greater than 10 year QL
- QL beyond 15 years, due to the impacts of discounting, does not reduce the required SREC.

	Qual.	SACD	חחו	Pay	Project	
Ploj Type	Life	SACP	IKK	Dack	NPV	RPIPV
>10 kW Private	5	\$475	6%	10	(\$29,006)	\$1,675,145,314
>10 kW Private	10	\$343	6%	10	(\$31,980)	\$1,733,388,207
>10 kW Private	15	\$301	6%	10	(\$33,906)	\$1,771,822,189
>10 kW Private	5	\$823	12%	5	\$12,534	\$2,901,499,206
>10 kW Private	10	\$642	12%	6	\$14,858	\$3,243,368,114
>10 kW Private	15	\$592	12%	6	\$16,308	\$3,487,983,465
					•	
>10 kW Private	5	\$1,096	18%	4	\$45,113	\$3,863,287,581
>10 kW Private	10	\$906	18%	4	\$56,243	\$4,577,537,176
>10 kW Private	15	\$862	18%	4	\$62,853	\$5,078,758,661
>10 kW Private	5	\$1,329	24%	3	\$72,868	\$4,682,651,957
>10 kW Private	10	\$1,147	24%	4	\$94,080	\$5,797,309,504
>10 kW Private	15	\$1,113	24%	4	\$106,055	\$6,555,286,520

Table 6. Optimal Year 1 SACP by Qualification Life and IRR(>10 kW Private at 50 kW)



Figure 1. Year 1 SACP by Qualification Life and IRR (>10 kW Private)



Proj Type	Qual. Life	SACP	IRR	Pay Back	Project NPV	RPI PV
Public	5	\$249	4%	13	(\$95,250)	\$879,081,511
Public	10	\$175	4%	13	(\$100,437)	\$881,986,536
Public	15	\$150	4%	13	(\$103,826)	\$881,038,192
		-		-		
Public	5	\$512	8%	7	(\$28,143)	\$1,802,781,614
Public	10	\$380	8%	8	(\$31,464)	\$1,918,732,734
Public	15	\$340	8%	9	(\$33,589)	\$2,000,272,134
Public	5	\$721	12%	5	\$25,572	\$2,542,159,265
Public	10	\$562	12%	6	\$29,938	\$2,841,676,745
Public	15	\$519	12%	6	\$32,662	\$3,055,996,601
		-		-		
Public	5	\$899	16%	4	\$70,998	\$3,167,432,870
Public	10	\$730	16%	5	\$86,210	\$3,687,494,662
Public	15	\$689	16%	5	\$95,395	\$4,055,664,594





Table 8 presents the range of potential options of IRR vs QL to set the first year SACP.

• As noted above, a longer QL will lower the required SREC and lower the rate impact, but increase the total cost

			G	Qualifica	tion Life)	
		10	11	12	13	14	15
	6%	\$343	\$332	\$323	\$314	\$307	\$301
	7%	\$396	\$384	\$374	\$365	\$358	\$351
	8%	\$448	\$435	\$425	\$415	\$407	\$400
IRR	9%	\$498	\$485	\$474	\$465	\$456	\$449
	10%	\$547	\$534	<mark>\$522</mark>	<mark>\$513</mark>	<mark>\$505</mark>	<mark>\$498</mark>
	11%	\$595	\$581	<mark>\$570</mark>	<mark>\$560</mark>	<mark>\$552</mark>	<mark>\$545</mark>
	12%	\$642	\$628	<mark>\$617</mark>	<mark>\$607</mark>	<mark>\$599</mark>	<mark>\$592</mark>

Table 8. > 10 kW Private Projects – Year 1 SREC Level

OCE draft Position – Based on consideration of the analysis performed by Summit Blue and the comments provided at the hearing the QL range would be 12 to 15 years

As stated in the April 25, 2007 draft Summit Blue report, "If New Jersey investors are to accept the level of risk offered by the New Jersey solar markets, they must see an acceptable level of return on investment. This requirement speaks to a variety of policy decisions, ranging from the structure of the incentive program itself, to the setting of SACP levels."

Higher rates of return are achieved in the model by increasing the SREC levels, which results in increased rate payer subsidies so it is a goal to select the minimum IRR that is necessary attract the level of private investment needed to meet the Board's RPS goals. Most of the comments suggested that the Board should set the SACP at a level that would achieve a 5 to 8 year payback for greater than 10 kW private projects. Summit Blue performed an analysis

that shows that an IRR of 12% results in a 6 year payback for a greater than 10 kW private projects.

OCE Position – 10 to 12% as the range for the assumed IRR for the purpose of setting SREC levels.

In order to assist in securitizing this system a fixed, eight year rolling schedule of SACP levels should be set. That is, every year, the first year on the schedule will have passed and the Board would add a new last year to the eight year schedule. The SACP values for the other years would remain unchanged.

There needs to be strong language outlining why it is critical that once set, any changes to the SACP schedule should be prospective only, should be made only in response to major changes to the market place such as new federal tax credits, and that changes should not apply to projects that made investment decisions based upon those schedules.

OCE draft Position - Utilize a 12 to 15 year SREC qualification life and IRR of 10 to 12% which results in the following SREC levels for greater than 10 kW private projects:

				Energ	y Year			
@10%	2008	2009	2010	2011	2012	2013	2014	2015
@ 10 yrs	\$522	\$506	\$491	\$476	\$462	\$448	\$435	\$422

The following are two examples are at 3% annual decline -

				Energ	y Year			
@12%	2008	2009	2010	2011	2012	2013	2014	2015
@ 15 yrs	\$592	\$577	\$560	\$543	\$526	\$511	\$496	\$481

For SREC values needed to achieve the desired IRR the SACP levels should be set above the required target SREC levels so that electric suppliers have an incentive to purchase SRECs instead of paying SACPs. SRECs have been trading in the range of 50 to 75% of the current \$300 SACP level in the past two years. OCE also notes that in a functional competitive market, the market will set SREC prices independent of the SACP. The SACP levels serve as a known cap on the potential costs to suppliers of meeting the Board's RPS requirements.

OCE draft Position – Set the SACP level at a percentage above the SREC level needed to achieve a 12% IRR which results in the following SACP levels:

In 2008, the Board would set the SACP level for EY 2016 and all other SACP values in the table above would remain unchanged.

Summit Blue estimated the rate payer impacts of the policy directions discussed above. The total cost of SRECs can be estimated by multiplying the number of SRECs needed to meet the Board's annual RPS goals by the SREC price needed to achieve the assumed IRR in that year. The impact on rates can be estimated by dividing the total cost of SRECs by the

assumed electric revenues in any giver year. The table below shows the results of those calculations.

				Ener	gy Year				
	2009 2011 2013 2015 2017 2019 2021								
SREC Costs in Year	\$61,317,895	\$132,852,311	\$225,197,656	\$351,338,947	\$513,982,817	\$718,899,764	\$960,885,323	\$903,313,247	
Estimated Retail Sales	\$9,608,480,224	\$9,898,896,539	\$10,198,090,687	\$10,506,327,978	\$10,823,881,741	\$11,151,033,567	\$11,488,073,556	\$11,835,300,580	
SRECs as a % of Retail Sales	0.6%	1.3%	2.2%	3.3%	4.7%	6.4%	8.4%	7.6%	

As shown in the table above, SREC costs and rate impacts increase gradually until reaching a peak of \$961 million and 7.6% in year 2021. After year 2021 SREC costs and rate impacts begin to decline since the RPS requirement does not increase after 2021. OCE notes that as discussed in previous analyses prepared by CEEEP, installation of solar systems could reduce system peaks and the wholesale price of electricity offsetting some of the rate increases shown above. However, this was beyond the scope of the analysis performed by Summit Blue.

OCE draft Position – Establish a set timeframe to eliminate all incentives based on PV installed cost reaching parity with the marginal cost of a natural gas fired unit – estimated to be 2015 or sooner.

Legacy projects

The treatment of solar RECs generated by the more than 2200 previously rebated solar installations is a small part of the overall transition issues but has the potential for negative publicity and public perception is a big concern. Tables 9 through 11 below document the significant increase in IRR from 6% to 30+ % and in some cases 120 % with a lower payback from 10 years to 3 years and in some cases 1 year for rebated projects. However, these projects were the innovators. The policy should maintain there economic benefit from SRECs without the perception that we are "changing the rules of the game".

							Pi	roject Level			RPS Level	
	SACP	Size	Oual.	SACP	1 st Year Rebate		Break Even	Cum 20v	NPV 20v		Additional RP Costs	% Additional RP Costs of Total Straw
Project Type	Structure	(kW)	Life	Yr 1	(\$/W)	IRR	Yr	Cashflow	@ 10%	Total RPI PV	Vs. Current	Costs*
?10 kW Private	Current	6.53	15	\$300	\$5.39	18%	5	\$32,252	\$4,532	\$251,082,033		
?10 kW Private	Straw	6.53	15	\$525	\$5.39	32%	3	\$42,643	\$10,526	\$307,243,823	\$56,161,790	2.241%
?10 kW Private	Straw	6.53	8	\$525	\$5.39	30%	3	\$34,878	\$7,942	\$272,626,813	\$21,544,780	0.860%
?10 kW Private	Straw	6.53	5	\$525	\$5.39	24%	3	\$29,746	\$5,284	\$246,515,245	(\$4,566,788)	-0.182%

Table 9. Potential Additional Profits and RPI of the Straw Proposal (For Project Completed thru 2006) - ?10 kW Private

* Average based on range of rebate blocks.

Table 10. Potential Additional Profits and RPI of the Straw Proposal (For Project Completed thru 2006) - >10 kW Private

							Pro	ject Level			RPS Level	
Project Type	SACP Structure	Size (kW)	Qual. Life	SACP Yr 1	1 st Year Rebate (\$/W)	IRR	Break Even Yr	Cum 20y Cashflow	NPV 20y @ 10%	Total RPI PV	Additional RP Costs Vs. Current	% Additional RP Costs of Total Straw Costs*
>10 kW Private	Current	51.30	15	\$300	\$4.62	32%	3	\$276,443	\$61,536	\$242,776,126		
>10 kW Private	Straw	51.30	15	\$525	\$4.62	51%	2	\$342,721	\$99,770	\$303,130,702	\$60,354,576	2.409%
>10 kW Private	Straw	51.30	8	\$525	\$4.62	50%	2	\$293,192	\$83,289	\$265,929,342	\$23,153,216	0.924%
>10 kW Private	Straw	51.30	5	\$525	\$4.62	46%	2	\$260,457	\$66,336	\$237,868,402	(\$4,907,724)	-0.196%

* Average based on range of rebate blocks.

Table 11. Potential Additional Profits and RPI of the Straw Proposal (For Project Completed thru 2006) - Public

						Project Level			RPS Level			
Project Type	SACP Structure	Size (kW)	Qual. Life	Yr 1 SREC	1 st Year Rebate (\$/W)	IRR	Break Even Yr	Cum 20y Cashflow	NPV 20y @ 10%	Total RPI PV	Additional RP Costs Vs. Current	% Additional RP Costs of Total Straw Costs*
Public	Current	110.03	15	\$300	\$4.94	63%	2	\$631,635	\$171,082	\$107,426,194		
Public	Straw	110.03	15	\$525	\$4.94	120%	1	\$773,783	\$253,084	\$132,950,624	\$25,524,429	1.019%
Public	Straw	110.03	8	\$525	\$4.94	120%	1	\$667,556	\$217,737	\$117,217,873	\$9,791,679	0.391%
Public	Straw	110.03	5	\$525	\$4.94	118%	1	\$597,348	\$181,377	\$105,350,679	(\$2,075,515)	-0.083%

* Average based on range of rebate blocks.

OCE draft position - Provide legacy projects with same QL as non-rebated financed projects but have the start date the EY in which the project received the rebate. In this manner the economic benefit to rebated projects is maintained and the additional profit is minimized.

SREC Vintage –

Currently, the NJ RPS rules provide for an SREC trading life or vintage of one year. Many of the other states in the Northeast with an RPS have longer vintages of two or more years. There are advantages and draw backs to keeping the one year trading vintage versus establishing a two plus year vintage

OCE Recommendation: Two year Trading life.

Multiple year schedule SACP with rebates would provide rebates for residential and small commercial or public systems LT 10kW. These systems have the highest installation cost per kW installed or kWh generated. The proposal specifies a performance based rebate. The rebate level would remain in place until a pre-set level of capacity (MW) was reached, thus eliminating queues and aligning incentives to our goals. In addition new installations in this category would be eligible to receive an SREC for 15 yrs.

Years	Rebates \$/W	Rebate Blocks (MW)	
2009	3.00	7	
2010	2.25	6	
2011	1.50	8	
2012	0.75	9	
	Total MW	30	
	Total Rebate RPI	\$ 53,250,000	

OCE Proposed Rebate Levels

Community-based Solar Program, which is strongly supported by stakeholders. Community-based Solar Systems, where residents or small businesses "buy" into a centrally located project as opposed to individual home installations. These projects would be interconnected to the distribution system of a NJ utility and would be eligible to receive SRECs regardless of whether the power is used on a customer's site or elsewhere.

In addition to the Community based Solar Program, OCE recommends that the RPS regulations be clarified to confirm that all solar systems connected to a NJ utility system are eligible for SRECs.

OCE is in the process of accessing whether any changes to existing rules, policies or procedures are required to implement these policies, including the appropriate program support.

Phase II Pilot – Direction should be established to extend or expand the Phase I pilot to include the provisions to implement the solar transition.

Long term monitoring - Direction should be established to monitor the decline in the installed cost to be able to close out all incentives based on a timeframe - 2015 or at a certain average installed costs – parity with the marginal cost for a natural gas fired unit.

Securitization: OCE recommends that the Board initiate a Phase II proceeding to investigate whether additional securitization can help to lower ratepayer costs or is otherwise warranted.

Proposed Schedule

1.	Stakeholder Meeting:	August 9, 2007
2.	OCE releases revised straw proposal:	August 13, 2007
3.	Informal comments on OCE straw to OCE:	August 20, 2007
4.	Staff updates Board at public meeting:	August 22, 2007
5.	BPU consideration of OCE recommendations:	September 12, 2007