

BEFORE THE STATE OF NEW JERSEY

BOARD OF PUBLIC UTILITIES

**I/M/O THE PETITION OF PUBLIC)
SERVICE ELECTRIC AND GAS COMPANY)
FOR APPROVAL OF A SOLAR ENERGY) BPU DKT. NO. EO07040278
PROGRAM AND AN ASSOCIATED COST)
RECOVERY MECHANISM)**

**SURREBUTTAL TESTIMONY OF DAVID E. DISMUKES
ON BEHALF OF THE
NEW JERSEY DEPARTMENT OF THE PUBLIC ADVOCATE,
DIVISION OF RATE COUNSEL**

**RONALD K. CHEN
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**SURREBUTTAL TESTIMONY OF
DAVID E. DISMUKES, PH.D.
ON BEHALF OF THE
NEW JERSEY DEPARTMENT OF THE PUBLIC ADVOCATE
DIVISION OF RATE COUNSEL
BPU DOCKET NO. EO07040278**

I. INTRODUCTION

8 Q. WOULD YOU PLEASE STATE YOUR NAME, TITLE, AND BUSINESS
9 ADDRESS?

10 A. My name is David E. Dismukes and I am a Consulting Economist with the
11 Acadian Consulting Group. My business address is 6455 Overton Street, Baton
12 Rouge, Louisiana, 70808. I am the same person that filed direct testimony
13 before the New Jersey Board of Public Utilities (“BPU” or “the Board”) on behalf
14 of the New Jersey Department of the Public Advocate, Division of Rate Counsel
15 (“Rate Counsel”) on September 21, 2007.

16 Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

17 A. The purpose of my surrebuttal is to respond to Public Service Electric &
18 Gas Company's ("PSE&G" or "the Company") criticisms of the rate impact
19 analysis, as well as other issues, included in my direct testimony. These
20 criticisms, which were provided in the rebuttal testimony of Mr. Frederick A. Lynk,
21 include:

4 (2) My direct testimony attempts to resuscitate issues previously
5 determined by the Board.

6 (3) The Company's rate impact analysis (provided in Schedule FAL-5) is a
7 more appropriate means of examining the costs of its proposed solar
8 energy program.

9 (4) My analysis failed to consider solar energy rebates that would be
10 available to PSE&G program participants.

11 (5) My original analysis did not use the appropriate market segments or the
12 appropriate market shares between these market segments.

13 (6) My original rate impact analysis did not use standardized internal rates
14 of returns (“IRR”) between each of the market segments.

17 (8) My analysis assumed maintenance costs are tax-deductible.

18 (9) My analysis used inappropriate risk premiums for assessing the rate
19 impacts of the Company's proposal.

20 The remainder of my surrebuttal testimony is organized into sections that
21 respond to each of these criticisms. After considering each of these criticisms
22 provided by the Company, it is still my conclusion that the Company's proposal is
23 a relatively expensive approach in developing solar energy. The costs of the

1 Company's proposal are greater than many of the other serious market designs
2 that continue to be considered by the Board as a means of reducing regulatory
3 risk, and the overall financial costs, of solar energy.

4 **Q. HAVE YOU PREPARED ANY EXHIBITS WITH YOUR TESTIMONY?**

5 A. Yes, I have four exhibits that were prepared by me or under my direct
6 supervision.

7 **II. SUMMARY OF RECOMMENDATIONS**

8 **Q. WOULD YOU PLEASE SUMMARIZE YOUR RECOMMENDATIONS?**

9 A. I continue to recommend that the Board reject the current solar energy
10 proposal offered by PSE&G. The proposal is not a relatively cost-effective
11 means of developing solar energy, creates unnecessary rate impacts for
12 ratepayers, and could have important unintended consequences relative to the
13 development of solar energy markets in New Jersey.

14 **Q. HOW WOULD YOU RESPOND TO THE COMPANY'S CRITICISMS?**

15 A. Each of the criticisms provided by the Company are without merit, and
16 even when they are accepted at face value, have no material impact on the
17 conclusions I reached in my direct testimony. In particular:

18 (1) Despite the Company's assertion, there are relevant parallels between
19 the securitization of solar energy and other high cost assets in past
20 utility regulation. One of the primary goals of securitization is to reduce
21 the overall financial cost of high cost assets from what they would have
22 been without such a mechanism. The Company's solar energy
23 proposal does the inverse – it offers a plan that would actually increase

1 costs for its ratepayers relative to the status quo.

2 (2) The Company's proposed solar energy plan is not a traditional utility
3 investment. It is a loan program and differs from traditional utility
4 investment in many significant ways.

5 (3) My direct testimony, and rate impact analysis, is not an attempt to
6 "forum shop" solar energy policy issues, but rather, to point out that
7 the Company's proposal is more expensive than other securitization
8 proposals at the Board's disposal. I would also disagree with the
9 Company's assertion that securitization (and the various models by
10 which this can be accomplished) is an issue that has already been
11 determined by the Board.

12 (4) The Company's proposed rate impact analysis (Schedule FAL-5) is an
13 inappropriate means of examining the implications of its proposal on
14 ratepayers.

15 (5) The inclusion of solar energy rebates does not materially change the
16 relative rate impacts of the Company's proposal. Even if rebates are
17 included in such an analysis, the Company's proposal is still relatively
18 more expensive than other possible market design alternatives.

19 (6) Changing the composition and shares of the market segments does
20 not have a material impact on the relative conclusions of my rate
21 impact analysis. Modifying the analysis to accommodate these market
22 segments, shows that the rate impact of the Company's proposal is still
23 larger than other market design opportunities.

- 1 (7) Standardizing the IRRs used in the respective market design models
2 does not have any material impact on the relative rate impacts.
- 3 (8) The administrative costs used in the rate impact analysis were the
4 same as those included in the Company's proposal. Holding these
5 administrative costs constant does not change the relative conclusions
6 of the rate impact analysis.
- 7 (9) My prior rate impact analysis did not assume maintenance costs were
8 tax-deductible, and even if they were, it would not have a meaningful
9 impact on the relative results.
- 10 (10) My analysis provided a zero risk premium analysis for the Company's
11 proposal. The results showed that the PSE&G proposal is still
12 relatively expensive.

13 **III. SECURITIZATION**

14 **Q. LET'S TURN TO THE COMPANY'S FIRST CRITICISM. CAN YOU
15 PLEASE EXPLAIN THE POINT YOU WERE TRYING TO MAKE REGARDING
16 SECURITIZATION?**

17 A. As I noted in my direct testimony, past utility regulation has recognized
18 and developed different means for linking the financial support of uneconomic
19 assets to lower-cost financial instruments through non-bypassable charges.
20 Under these types of mechanisms, the high cost asset is "secured" by the longer
21 run regulatory-guaranteed revenue stream. This mechanism reduces the
22 regulatory risk to financial markets since the securitization mechanism has been
23 sanctioned by regulation (or legislation) and is tied to a long run stable source of

1 revenue. Typically, ratepayers get a benefit under this type of approach (other
2 things being equal) because the costs associated with the financial instrument
3 used to support the uneconomic asset is typically much lower than standard
4 utility financial terms, which is usually based upon their overall allowed rate of
5 return.

6 **Q. HOW DOES THIS RELATE TO THE COMPANY'S PROPOSAL?**

7 A. Typically when an uneconomic or high cost asset is securitized,
8 ratepayers assume the regulatory risk of changing cost recovery policies in return
9 for a lower financial cost of paying off the assets in question. The Company's
10 proposal, as a means of securitizing solar investments, is inconsistent with
11 typical approaches since a lower-cost financial instrument is not being offered in
12 return for the ratepayer-guaranteed support of the solar installations. Rather
13 than financing these solar installations at something like a lower-cost long term
14 debt rate, the Company is proposing to use a higher rate based on its weighted
15 average cost of capital ("WACC") and a return on equity ("ROE") incentive
16 premium.

17 **Q. HOW DID THE COMPANY RESPOND IN THEIR REBUTTAL?**

18 A. The Company argues that the securitization comparison I provided in my
19 direct testimony is not appropriate since their solar energy proposal represents
20 an "investment in solar energy."

1 **Q. DOES THE COMPANY'S PROPOSAL REPRESENT A TYPICAL**
2 **UTILITY GENERATION INVESTMENT?**

3 A. No. If approved by the Board, the Company's proposal represents nothing
4 more than a loan program for solar energy that is backed up by the faith and
5 support of a Board Order and non-bypassable charges assessed to regulated
6 ratepayers. The Company will assume little to no risks in this program that are
7 comparable to other typical utility investments. For instance, the Company is
8 taking no capital cost risk associated with the development of these solar
9 installations. If the installed cost increases three-fold, the Company bears no
10 direct financial impact under its proposed program. The Company assumes no
11 operational or performance risk associated with any of the installations: there are
12 no direct financial implications to the Company if the solar installations run
13 exceptionally well or not. Most important, there is no regulatory risk associated
14 with cost recovery of the program if approved by the Board. If the Board were to
15 decide to abandon their commitment to solar energy in three years, the Company
16 would continue to get cost recovery of the installations financed under this
17 program.

1 **IV. COMPARING THE PSE&G PROPOSAL TO OTHER MARKET DESIGN**
2 **APPROACHES**

3 **Q. WHAT WAS THE PURPOSE OF COMPARING THE PSE&G**
4 **PROPOSAL TO THE MODELS DEBATED IN THE GENERIC SREC**
5 **PROCEEDING?**

6 A. A number of solar market designs for securitizing the solar energy
7 requirement under the Board's RPS have been discussed over the past year.
8 The purpose of comparing these market design models to the Company's
9 proposal was to show that PSE&G's method of supporting solar energy in its
10 service territory was expensive relative to other options that have been
11 commonly accepted as viable market design structure candidates. The purpose
12 of providing these rate impact comparisons was not an attempt to have the Board
13 adopt one of these mechanisms in lieu of the Company's proposal in this
14 proceeding. Rather, it was an attempt to show that the Board has other options
15 available to it, and a rushed decision on the PSE&G proposal is unnecessary.

16 **Q. DO YOU AGREE WITH THE COMPANY'S ASSERTION THAT THE**
17 **APPROPRIATE MODEL FOR SECURITIZATION IS AN ISSUE THAT HAS**
18 **BEEN COMPLETELY DETERMINED BY THE BOARD?**

19 A. No. Based upon my understanding of the Board's September meeting, it
20 left open the option to continue its examination of securitization, including the
21 review of some proposals initially examined in the generic SREC proceeding.
22 Which securitization proposal(s), however, is a little ambiguous at this time since
23 a Board Order has not been released. The Office of Clean Energy ("OCE")

1 recently convened a stakeholder meeting on the issue of securitization on
2 November 20, 2007 in Trenton. Three securitization models were discussed
3 during this meeting, two of which were initially proposed during the generic
4 SREC proceedings. The three models examined included: (1) the Underwriter
5 Model and the similarly-designed PSE&G proposal; (2) the Auction Model as
6 proposed by Rate Counsel; and (3) a strawman proposal offered by the OCE
7 based upon required long-term contracting in the Basic Generation Service
8 ("BGS") auction. Thus, the opportunities of utilizing other, lower-cost
9 mechanisms for securitizing solar energy is still available to the Board.

10 **V. PSE&G RATE IMPACT ANALYSIS (FAL-5)**

11 **Q. DO YOU THINK THE RATE IMPACT ANALYSIS OFFERED BY THE**
12 **COMPANY IN FAL-5 IS APPROPRIATE?**

13 A. No. The analysis presented in FAL-5 is nothing more than the net present
14 value of a constant stream of SREC prices and does not include the cost of
15 potential rebates, incentive returns, administrative costs, or lost revenues as
16 proposed by the Company. In fact, this SREC revenue stream, valued at a
17 constant \$475 rate, will likely only cover about 87 percent of the total program
18 revenue requirement as estimated by Mr. Fagan in his surrebuttal testimony.
19 Further, the analysis is not very instructive for use in comparing the Company's
20 proposal to other securitization options at the Board's disposal.

1 **Q. DID THE COMPANY COMPARE THIS RATE IMPACT TO ANY RECENT**
2 **OCE SREC PRICE ESTIMATES?**

3 A. Yes. The Company did compare its results to a stream of SREC values
4 estimated by the OCE under its recently approved solar market design and
5 concluded that their proposal resulted in slightly lower rate impacts. However,
6 even if this were an appropriate means of estimating rate impacts, it highlights a
7 flaw in the Company's proposal. The OCE market design is a non-securitized
8 approach while the PSE&G proposal, if approved, would be highly securitized.
9 Ratepayers should get a considerable benefit from assuming the regulatory risk
10 associated with securitizing this program. In fact, the rate impact models
11 provided in my testimony, on average, would suggest that the rate impacts from
12 a securitized program should be roughly 15 percent below a non-securitized
13 approach.

14 **Q. IS IT LIKELY THAT RATEPAYERS WILL SEE ANY RATE IMPACT**
15 **DISCOUNT FROM SECURITIZING SOLAR ENERGY UNDER THE PSE&G**
16 **PROPOSAL?**

17 A. No. In fact, given the analysis provided by Mr. Fagan in his surrebuttal
18 testimony, customers are likely to be paying a premium for solar energy
19 developed under this loan program. If SREC revenues are covering only 87
20 percent to 95 percent of program costs, then ratepayers are supporting a
21 premium for solar energy ranging from 5 percent to 13 percent.

1 **VI. SOLAR ENERGY REBATE ISSUES**

2 **Q. WHAT CRITICISMS DID THE COMPANY OFFER RELATIVE TO THE**
3 **ISSUE OF SOLAR ENERGY REBATES?**

4 A. One of the first analytic criticisms offered by the Company has been that
5 my rate impact analysis did not include the possibilities of rebates for solar
6 installations. As I noted in my direct testimony, rebates for solar installations
7 have been historically offered on a fixed contribution per installed kilowatt ("kW")
8 basis. These rebates can be important in determining overall project economics
9 particularly for small-scale installations. However, the nature of these rebates,
10 their levels, the overall funding amounts, and how those amounts will be
11 allocated among various different market segments are yet to be determined.
12 Given this uncertainty, I did not include any rebate amounts in my rate impact
13 analysis.

14 **Q. WHAT AMOUNTS WERE ASSUMED IN THE COMPANY'S PETITION**
15 **AND DIRECT TESTIMONY?**

16 A. Despite the protests in their rebuttal, the Company did not provide any
17 clear indication that rebates would be needed under their proposal, nor did they
18 clearly identify what they believed would be an appropriate rebate amount in their
19 application or testimony. In fact, there are several comments in the Company's
20 testimony and application which cast doubt on the amount of the rebates and
21 even if the rebates would be available for the PSE&G proposal. A listing of the
22 citations and quotes from the Company's Application raising questions about
23 solar rebates has been provided in Exhibit DED-15.

1 **Q. WOULD THE INCLUSION OF THE REBATE AMOUNTS HAVE ANY**
2 **MATERIAL INFLUENCE ON THE RELATIVE RATE IMPACT CONCLUSIONS?**

3 A. No. The inclusion of any rebate amount for smaller solar installations
4 could influence the overall SREC prices needed in each market design model,
5 but would have no meaningful impact on the relative differences in the rate
6 impact analysis since a rebate would be uniformly available under all market
7 structures under consideration.

8 **Q. CAN YOU EXPLAIN WHY THE TOTAL AND RELATIVE RATE**
9 **IMPACTS WOULD BE UNCHANGED BY THE INCLUSION OF REBATES FOR**
10 **SMALL SCALE INSTALLATIONS?**

11 A. Yes. The different market designs that were examined in my initial rate
12 impact analysis assumed that all of the financial support for the solar energy
13 installations comes from SREC revenues. Thus, for smaller installations, SREC
14 prices will need to be relatively high to offset (pay-off) the high initial cost of the
15 solar applications. This is true for all market design models that were examined
16 in the rate impact analysis. If the policy approach were assumed to change, and
17 financial support for smaller-scale solar installations were assumed to come from
18 a combination of SREC revenues and solar rebates, then the overall implied
19 SREC price needed in the market to facilitate these solar installations would be
20 lower.

21 **Q. HAVE YOU PREPARED AN EXAMPLE OF THIS?**

22 A. Yes. Exhibit DED-16 presents the results from a revised rate impact
23 analysis that includes an assumed \$3.00 per kW rebate for small solar

1 installations (i.e., less than 10 kW). The rate impact analysis shows the results
2 of the Company's proposal (with and without a risk premium) relative to other
3 market designs considered during the generic SREC proceeding. In this
4 analysis, rebates would be eligible under each market design in order to obtain
5 an apples-to-apples comparison. As seen from the analysis, the PSE&G
6 proposal is still relatively expensive when compared to other market design
7 proposals. Thus, the Company's claim that the inclusion of a rebate somehow
8 changes the relative rate impact conclusions is without merit.

9 **Q. ARE THERE ANY POLICY IMPLICATIONS ABOUT THE RATE
10 IMPACTS WHEN REBATES ARE INCLUDED?**

11 A. Yes. The rebates used to support solar installations under the PSE&G
12 proposal would be used as financial support to reduce all development costs
13 associated with the program. For PSE&G, this would include all the costs
14 associated with financing the various installations including the incentive return
15 embedded in this financing rate. Using rebate dollars to support these incentive
16 returns represents a wealth transfer, through the SBC, from customers to
17 PSE&G shareholders for financing solar energy.

18 **VII. MARKET SEGMENTS AND MARKET SHARES**

19 **Q. WOULD YOU PLEASE DISCUSS THE COMPANY'S CRITICISMS ON
20 THE MARKET SEGMENTS YOU USED FOR YOUR RATE IMPACT
21 ANALYSIS?**

22 A. The Company notes that my rate impact analysis breaks the market into
23 three different components that include installations of (1) private projects of less

1 than 10 kW in size ('small residential'); (2) private projects of greater than 10 kW
2 ("large private"); and (3) public projects. The market allocation, in terms of
3 installed capacity, was 40 percent to small residential, 42 percent to larger
4 private systems and 18 percent to public systems. The Company's proposal has
5 four market segments that include: residential applications (20 percent share);
6 low income residential (10 percent share); commercial (40 percent share); and
7 public installations (30 percent share).

8 **Q. WHY DID YOU BREAK YOUR MARKET SEGMENTS INTO THREE
9 CATEGORIES OF THE RESPECTIVE SHARES YOU JUST MENTIONED?**

10 A. I maintained the three market segments and market shares in order to
11 provide a basis of comparison between the PSE&G proposal and the market
12 design models examined in the generic SREC proceeding. Those models were
13 based upon the market segments and market shares I discussed earlier. In my
14 direct testimony and analysis, the PSE&G proposal was compressed to fit those
15 three market segments examined in the general SREC proceeding. However, an
16 inverse analysis could be easily conducted which divides the generic SREC
17 proceeding models into four categories of the market shares being proposed by
18 PSE&G.

19 **Q. HAVE YOU CONDUCTED ANY RATE IMPACT ANALYSIS THAT
20 CHANGES THESE MARKET SEGMENTS AND SHARES?**

21 A. Yes. Exhibit DED-17 presents the results of this analysis which
22 effectively brings the generic SREC model market segments and shares into line
23 with that being proposed by PSE&G. The results continue to support my earlier

1 conclusion that the PSE&G proposal is a relatively expensive means of
2 promoting solar energy development in New Jersey.

3 **VIII. STANDARDIZED INTERNAL RATES OF RETURN**

4 **Q. WOULD YOU PLEASE DISCUSS THE COMPANY'S CRITICISMS**
5 **REGARDING THE INTERNAL RATE OF RETURN ASSUMPTIONS YOU USED**
6 **IN YOUR RATE IMPACT MODELS?**

7 A. Yes. The Company's rebuttal claims that my earlier rate impact analysis
8 is flawed since it uses different internal rates of return for each customer
9 segment in the generic SREC models. The Company believes this is a modeling
10 flaw that results in a biased rate impact result.

11 **Q. WHY ARE DIFFERENT IRRS USED FOR THE GENERIC SREC**
12 **MODELS?**

13 A. This is part of the empirical methodology developed by Summit Blue
14 Consulting and used throughout the generic SREC proceedings in estimating the
15 rate impacts of the various different market models under consideration. Each
16 market segment was first modeled independently. Rate impacts for each
17 segment were ultimately determined by the acceptable returns on investment
18 needed to support the project. However, while the IRRs were allowed to vary,
19 the ultimate rate impact number is based upon a single weighted average based
20 upon market segments. The use of a weighted average in determining rate
21 impacts is the same as developing a weighted average IRR across all market
22 segments. So, while making individual market segment comparisons between
23 the generic SREC models and the PSE&G proposal is difficult (i.e., comparing

1 only the less than 10kW segments between models), comparing the weighted
2 average of these models with the PSE&G proposal on a total program basis is
3 appropriate.

4 **Q. THE COMPANY ALSO NOTED THAT IT WAS INAPPROPRIATE TO**
5 **CREDIT SREC REVENUES INTO THE CUSTOMER ECONOMICS. DO YOU**
6 **AGREE?**

7 A. No. As the Company notes, the financing costs of these systems has to
8 be supported by some means. Under the Company's proposal, SREC revenues
9 are used to pay down the loan taken out by program participants. The rate
10 impact models that I provided in my direct testimony essentially do the same
11 thing. However, the credit is directly applied by the customer, rather than
12 indirectly through the Company.

13 **IX. ADMINISTRATIVE AND MAINTENANCE COSTS**

14 **Q. WOULD YOU PLEASE DISCUSS THE COMPANY'S CRITICISMS OF**
15 **HOW YOU INCORPORATED ADMINISTRATIVE COSTS INTO YOUR RATE**
16 **IMPACT ANALYSIS?**

17 A. Yes. The Company alleges that my rate impact analysis is incorrect since
18 it applies a constant administrative cost to the generic SREC market design
19 models, but an increasing administrative cost burden on the Company's
20 proposal. The Company argues that this is inappropriate since the administrative
21 costs for the other models do not vary despite the fact that solar development
22 increases over time.

23 **Q. DO YOU SEE ANY PROBLEMS WITH THIS APPROACH?**

1 A. No. Again these were administrative costs that were developed by
2 Summit Blue Consulting in their initial analysis. These administrative costs were
3 estimated for serving the entire market, not one particular segment or utility
4 service territory. My interpretation of the cost estimates is that they were
5 developed on an average study-period basis comparable to a leveled cost.
6 Like any leveled cost, the actual costs may be higher in the early years of the
7 analysis and lower in the later years, but converge, on average, for the entire
8 period. Thus, the Company's criticisms are misplaced.

9 **Q. HAVE YOU PERFORMED ANY RATE IMPACT ANALYSIS WHERE**
10 **THE COMPANY'S ADMINISTRATIVE COSTS ARE HELD CONSTANT OVER**
11 **THE DEVELOPMENT PERIOD?**

12 A. Yes. These results have been provided in Exhibit DED-18. In this
13 example, I held the Company's total administrative costs constant, at its lowest
14 reported level (\$3 million per year), in order to estimate the overall rate impacts
15 of its proposal relative to other peer market designs. The results indicate that the
16 Company's proposal is still relatively more expensive than other options that
17 have been considered by the Board over the past several years.

18 **Q. WHAT ISSUES DID THE COMPANY RAISE REGARDING THE USE OF**
19 **MAINTENANCE COSTS IN YOUR RATE IMPACT ANALYSIS?**

20 A. The Company claims that my rate impact models assume that
21 maintenance costs for small residential applications are tax deductible thereby
22 skewing the resulting rate impact estimates.

1 Q. DID YOU MODEL THESE MAINTENANCE COSTS AS TAX-
2 DEDUCTIBLE?

3 A. No. These costs were not modeled as tax-deductible and even if they
4 were, and corrected, it would have a relatively small impact on the overall rate
5 impact results. The Company's proposal would still be relatively more expensive
6 than other market design proposals considered in the generic SREC
7 proceedings.

8 **X. RISK PREMIUM**

9 Q. WOULD YOU PLEASE DISCUSS THE COMPANY'S CRITICISM
10 REGARDING YOUR USE OF A RISK PREMIUM IN EXAMINING RATE
11 IMPACTS?

12 A. The Company is critical of the fact that at least one of the results included
13 in my rate impact analyses incorporated the use of a small risk premium
14 associated with the program. The Company's rebuttal objects to the use of any
15 risk premium in examining the rate impacts of their proposal since (a) SREC
16 revenues do not enter customer economics and (b) SRECs will be given to load
17 serving entities ("LSEs") to reduce overall RPS compliance costs.

18 Q. DID YOU PROVIDE AN EXAMPLE THAT INCLUDED A ZERO RISK
19 PREMIUM?

20 A. Yes. One result was based upon a zero risk premium and if the Board
21 agrees with the Company's conclusion about the nature of risk associated with its
22 program, then this would be the appropriate result to examine. The only reason I
23 included a set of results that incorporated a low risk premium example was that

1 the Company's approach is often associated as another form of an Underwriter
2 Model. As I noted earlier in my testimony, the Company's proposal was
3 categorized as an Underwriter Model-type approach in the recent stakeholder
4 workshop on securitization. When Summit Blue Consulting examined the
5 Underwriter Model, it included a small risk premium in estimating the rate
6 impacts. Thus, I included the low risk premium simply for comparability
7 purposes.

8 **Q. DO YOU AGREE WITH THE COMPANY THAT A ZERO RISK PREMIUM
9 IS THE MOST APPROPRIATE RESULT TO EXAMINE?**

10 A. Yes, in principle, but for reasons different than what was suggested by the
11 Company. If approved, there would be no regulatory cost recovery risk for the
12 Company thereby negating the need for any risk premium. In fact, as I noted
13 earlier in my testimony, there are virtually no risks to the Company under this
14 program as it is currently designed. Thus, examining the rate impacts of the
15 Company's proposal with a zero risk premium are the most appropriate.

16 **Q. DO YOU AGREE WITH THE COMPANY'S PREMISE THAT
17 SECURITIZATION-TYPE PLANS ELIMINATE RISK?**

18 A. No. Such plans simply shift risk away from one party (the solar energy
19 financing party) to another (regulated customers). The primary risk, as I noted in
20 my direct testimony, is the possibility that the Board, or the State of New Jersey
21 more broadly, could change policy direction and abandon their current
22 commitment to solar energy. If this change in policy direction were to occur,
23 solar installations basing their financial support on SREC revenues would be

1 placed in a precarious situation since the market for SRECs would be eliminated.
2 However, if solar installations were securitized through long-term contracts or
3 regulation, a change in future state solar energy regulatory policy would leave the
4 financial support for these applications unharmed. Under securitization, the
5 regulatory risk of a change in policy still exists, but the financial responsibility of
6 this regulatory change would shift from those financing the solar energy
7 installations to regulated customers. This is why ensuring that the most efficient,
8 least cost (ratepayer impact) solar energy program is important.

9 **XI. CONCLUSIONS AND RECOMMENDATIONS**

10 **Q. WOULD YOU PLEASE SUMMARIZE YOUR RECOMMENDATIONS?**

11 A. I recommend that the Board reject the current solar energy proposal
12 offered by PSE&G. The proposal is not a relatively cost-effective means of
13 developing solar energy, creates unnecessary rate impacts for ratepayers, and
14 could have important unintended consequences relative to the development of
15 solar energy markets in New Jersey. Even if these issues did not exist, the
16 Company's proposal is premature since a number of long-run solar market
17 structure issues are yet to be determined. If the Board disagrees with my
18 recommendations regarding the costs and rate impacts of this proposal, it should
19 consider holding this proposal in abeyance until these longer-run issues are
20 decided.

21 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY FILED ON**
22 **NOVEMBER 30, 2007?**

23 A. Yes.

Company Comments on Rebate Amount

New Jersey Department of the Public Advocate
Division of Rate Counsel
BPU Docket Number EO07040278
Exhibit DED-15

- Customers may be eligible for rebates from the BPU Clean Energy Program, if available. [Company application, page 5]
- The customer pays a portion of the project capital themselves, obtains a rebate from the Clean Energy Program (if available) or takes advantage of a tax credit (if approved by Congress). [Company application, page 13]
- For the residential segment, some level of rebate from the Clean Energy Program would likely be required. [Company application, page 13]
- The Program will assist the Board's transition of its renewable energy programs from a rebate-oriented approach to a market-based approach based on tradeable SRECs. [Company application, page 17]
- In addition to the lack of sufficient funding to meet future targets, all solar rebates through 2008 are already "spoken for." [Company application, page 18]
- The Program will mark a transition away from the current rebate/SREC funding mechanism for solar projects in NJ. Therefore, it is also appropriate to transition PSE&G's current funding mechanism for renewable energy programs. [Company application, page 23]
- Residential projects may take advantage of rebates that may be available from the BPU's Clean Energy Program. [Company application, Appendix page 3]

Ratepayer Impact with and without Rebate

New Jersey Department of the Public Advocate
 Division of Rate Counsel
 BPU Docket Number EO07040278
 Exhibit DED-16

	TOTAL RATEPAYER IMPACT (million \$)					
	<u><10 kW</u> <u>Private</u>		<u>>10 kW</u> <u>Private</u>		<u>Public</u>	<u>Weighted Average</u>
Rebate/SREC	\$ 5,707.0	\$ 4,128.0	\$ 2,986.4	\$ 4,547.1		
SREC Only	\$ 6,797.4	\$ 3,833.7	\$ 2,202.1	\$ 4,712.3		
Underwriter Model	\$ 5,921.3	\$ 3,461.7	\$ 1,974.3	\$ 4,166.9		
Commodity Market	\$ 6,177.7	\$ 3,701.3	\$ 2,365.6	\$ 4,440.4		
5-Year Auction	\$ 5,487.2	\$ 2,732.5	\$ 1,702.4	\$ 3,636.6		
15-Year Auction	\$ 5,464.5	\$ 3,220.8	\$ 1,801.5	\$ 3,852.9		
15-Year Tariff	\$ 5,463.6	\$ 3,219.9	\$ 1,800.6	\$ 3,852.0		
Hybrid-Tariff	\$ 5,594.3	\$ 3,377.4	\$ 1,929.9	\$ 3,993.8		
OCE Market Design	\$ 3,546.2	\$ 3,546.2	\$ 3,546.2	\$ 3,546.2		
OCE Market Design (with rebate)	\$ 6,373.4	\$ 3,546.2	\$ 3,546.2	\$ 4,664.0		
 PSE&G (w/ risk factor)	 \$ 8,546.6	 \$ 3,558.7	 \$ 3,132.2	 \$ 5,454.2		
Total SREC Cost	\$ 8,379.5	\$ 3,391.6	\$ 2,965.1	\$ 5,287.1		
Total Rebate Cost	\$ -	\$ -	\$ -	\$ -		
Total Administrative & Lost Revenue	\$ 167.1	\$ 167.1	\$ 167.1	\$ 167.1		
 PSE&G (w/o risk factor)	 \$ 8,053.0	 \$ 3,358.9	 \$ 2,957.6	 \$ 5,142.8		
Total SREC Cost	\$ 7,885.9	\$ 3,191.8	\$ 2,790.4	\$ 4,975.7		
Total Rebate Cost	\$ -	\$ -	\$ -	\$ -		
Total Administrative & Lost Revenue	\$ 167.1	\$ 167.1	\$ 167.1	\$ 167.1		
 PSE&G with Rebate (w/ risk factor)	 \$ 7,249.2	 \$ 3,558.7	 \$ 3,132.2	 \$ 4,941.2		
Total SREC Cost	\$ 4,254.8	\$ 3,391.6	\$ 2,965.1	\$ 3,656.2		
Total Rebate Cost	\$ 2,827.2	\$ -	\$ -	\$ 1,117.9		
Total Administrative & Lost Revenue	\$ 167.1	\$ 167.1	\$ 167.1	\$ 167.1		
 PSE&G with Rebate (w/o risk factor)	 \$ 6,998.5	 \$ 3,358.9	 \$ 2,957.6	 \$ 4,725.9		
Total SREC Cost	\$ 4,004.2	\$ 3,191.8	\$ 2,790.4	\$ 3,440.9		
Total Rebate Cost	\$ 2,827.2	\$ -	\$ -	\$ 1,117.9		
Total Administrative & Lost Revenue	\$ 167.1	\$ 167.1	\$ 167.1	\$ 167.1		

Note: The original modeling done by Summit Blue Consulting used a rebate amount of \$3.80/watt for the Rebate/SREC Model.

Ratepayer Impact Changing Market Shares

New Jersey Department of the Public Advocate
 Division of Rate Counsel
 BPU Docket Number EO07040278
 Exhibit DED-17

TOTAL RATEPAYER IMPACT (million \$)			
	Weighted Average		
	Generic Proceeding	PSE&G Market Segments	
Rebate/SREC	\$ 4,547.1	\$ 4,259.2	
SREC Only	\$ 4,712.3	\$ 4,233.3	
Underwriter Model	\$ 4,166.9	\$ 3,753.4	
Commodity Market	\$ 4,440.4	\$ 4,043.5	
5-Year Auction	\$ 3,636.6	\$ 3,249.9	
15-Year Auction	\$ 3,852.9	\$ 3,468.1	
15-Year Tariff	\$ 3,852.0	\$ 3,467.2	
Hybrid-Tariff	\$ 3,993.8	\$ 3,608.2	
OCE Market Design	\$ 3,546.2	\$ 3,546.2	
OCE Market Design (with rebate)	\$ 4,664.0	\$ 4,394.3	
PSE&G (w/ risk factor)	\$ 5,454.2	\$ 4,927.1	
Total SREC Cost	\$ 5,287.1	\$ 4,760.0	
Total Rebate Cost	\$ -	\$ -	
Total Administrative & Lost Revenue	\$ 167.1	\$ 167.1	
PSE&G (w/o risk factor)	\$ 5,142.8	\$ 4,646.7	
Total SREC Cost	\$ 4,975.7	\$ 4,479.6	
Total Rebate Cost	\$ -	\$ -	
Total Administrative & Lost Revenue	\$ 167.1	\$ 167.1	
PSE&G with Rebate (w/ risk factor)	\$ 4,941.2	\$ 4,537.9	
Total SREC Cost	\$ 3,656.2	\$ 3,522.6	
Total Rebate Cost	\$ 1,117.9	\$ 848.2	
Total Administrative & Lost Revenue	\$ 167.1	\$ 167.1	
PSE&G with Rebate (w/o risk factor)	\$ 4,725.9	\$ 4,330.4	
Total SREC Cost	\$ 3,440.9	\$ 3,315.1	
Total Rebate Cost	\$ 1,117.9	\$ 848.2	
Total Administrative & Lost Revenue	\$ 167.1	\$ 167.1	

Ratepayer Impact Administrative Costs

New Jersey Department of the Public Advocate
 Division of Rate Counsel
 BPU Docket Number EO07040278
 Exhibit DED-18

	TOTAL RATEPAYER IMPACT (million \$)					
	≤10 kW		>10 kW		Weighted Average	
	Private	Public	Private	Public		
Rebate/SREC	\$ 5,707.0	\$ 2,986.4	\$ 4,128.0	\$ 1,974.3	\$ 4,547.1	
SREC Only	\$ 6,797.4	\$ 2,202.1	\$ 3,833.7	\$ 1,702.4	\$ 4,712.3	
Underwriter Model	\$ 5,921.3	\$ 2,365.6	\$ 3,461.7	\$ 1,702.4	\$ 4,166.9	
Commodity Market	\$ 6,177.7	\$ 2,365.6	\$ 3,701.3	\$ 1,702.4	\$ 4,440.4	
5-Year Auction	\$ 5,487.2	\$ 1,702.4	\$ 2,732.5	\$ 1,702.4	\$ 3,636.6	
15-Year Auction	\$ 5,464.5	\$ 1,801.5	\$ 3,220.8	\$ 1,801.5	\$ 3,852.9	
15-Year Tariff	\$ 5,463.6	\$ 1,800.6	\$ 3,219.9	\$ 1,800.6	\$ 3,852.0	
Hybrid-Tariff	\$ 5,594.3	\$ 1,929.9	\$ 3,377.4	\$ 1,929.9	\$ 3,993.8	
OCE Market Design	\$ 3,546.2	\$ 3,546.2	\$ 3,546.2	\$ 3,546.2	\$ 3,546.2	
OCE Market Design (with rebate)	\$ 6,373.4	\$ 3,546.2	\$ 3,546.2	\$ 3,546.2	\$ 4,664.0	
PSE&G (w/ risk factor)	\$ 8,475.0	\$ 3,487.1	\$ 3,060.6	\$ 5,382.7		
Total SREC Cost	\$ 8,379.5	\$ 2,965.1	\$ 3,391.6	\$ 2,965.1	\$ 5,287.1	
Total Rebate Cost	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Administrative & Lost Revenue	\$ 95.6	\$ 95.6	\$ 95.6	\$ 95.6	\$ 95.6	
PSE&G (w/o risk factor)	\$ 7,981.5	\$ 3,287.4	\$ 2,886.0	\$ 5,071.3		
Total SREC Cost	\$ 7,885.9	\$ 2,790.4	\$ 3,191.8	\$ 2,790.4	\$ 4,975.7	
Total Rebate Cost	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Administrative & Lost Revenue	\$ 95.6	\$ 95.6	\$ 95.6	\$ 95.6	\$ 95.6	
PSE&G with Rebate (w/ risk factor)	\$ 7,177.6	\$ 3,487.1	\$ 3,060.6	\$ 4,869.7		
Total SREC Cost	\$ 4,254.8	\$ 2,965.1	\$ 3,391.6	\$ 2,965.1	\$ 3,656.2	
Total Rebate Cost	\$ 2,827.2	\$ -	\$ -	\$ -	\$ 1,117.9	
Total Administrative & Lost Revenue	\$ 95.6	\$ 95.6	\$ 95.6	\$ 95.6	\$ 95.6	
PSE&G with Rebate (w/o risk factor)	\$ 6,927.0	\$ 3,287.4	\$ 2,886.0	\$ 4,654.3		
Total SREC Cost	\$ 4,004.2	\$ 2,790.4	\$ 3,191.8	\$ 2,790.4	\$ 3,440.9	
Total Rebate Cost	\$ 2,827.2	\$ -	\$ -	\$ -	\$ 1,117.9	
Total Administrative & Lost Revenue	\$ 95.6	\$ 95.6	\$ 95.6	\$ 95.6	\$ 95.6	