

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO**

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**IN THE MATTER OF THE APPLICATION OF)
PUBLIC SERVICE COMPANY OF COLORADO) DOCKET NO. 11A-___E
FOR APPROVAL OF ITS 2012 RENEWABLE)
ENERGY STANDARD COMPLIANCE PLAN)**

DIRECT TESTIMONY OF PAMELA J. NEWELL

ON

BEHALF OF

PUBLIC SERVICE COMPANY OF COLORADO

May 13, 2011

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1 A. Yes. A description of my qualifications, duties, and responsibilities is included
2 as Attachment A.

3 **Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?**

4 A. In my testimony I cover the Solar*Rewards programs and contract changes
5 that resulted from the recent Settlement in Docket 11A-135E. I explain the
6 Solar*Rewards pricing and acquisition proposals set forth in the plan. I also
7 discuss the Company's proposed solar garden product, Solar*Rewards
8 Community.

9 **II. SOLAR*REWARDS SETTLEMENT PROGRAM**

10 **Q. HOW WOULD YOU CHARACTERIZE THE SOLAR*REWARDS PROGRAM**
11 **AS A RESULT OF THE SETTLEMENT DECISION C11-0304?**

12 A. The most significant program change was the move to Performance-based
13 Incentives (PBI's) for all programs eventually. It is significant in that the
14 upfront Rebate was removed from all programs, except the Small Customer-
15 owned, where it is being phased out over time. This performance-based
16 incentive model is used in other states as well, most notably California.

17 **Q. WHAT ARE THE BENEFITS OF BASING INCENTIVES STRICTLY ON**
18 **PBI'S?**

19 A. First of all, it mitigates the large and immediate financial impact to the RESA.
20 Spreading the incentives out over time, instead of paying for 20 years of
21 RECS and large rebates upfront, allows for a more predictable and
22 sustainable spending pattern, by removing the large front-end loaded costs

1 from the RESA account and allows the Company to better monitor and
2 manage the dollars available to spend on renewable energy.

3 Secondly, PBI's provide more financial incentive to the solar panel
4 owners to keep their systems producing optimally throughout the 20 year term
5 of the contract. The Company also gets a better picture of the production
6 from all systems, as opposed to the estimates relied upon previously through
7 the upfront purchase of the RECs.

8 **Q. WHY IS THE SMALL CUSTOMER-OWNED PROGRAM BEING**
9 **TRANSITIONED TO A FULL PERFORMANCE-BASED INCENTIVE,**
10 **WHEREAS THE OTHER PROGRAMS WERE IMMEDIATELY CONVERTED**
11 **TO PERFORMANCE-BASED PROGRAMS?**

12 A. The Small Customer-owned program is the oldest and longest running of the
13 four existing solar programs. One of the reasons for its popularity, generally
14 speaking, is that it is the simplest program, providing incentives for the
15 simplest systems. Many solar companies participate exclusively in this
16 market, selling and installing smaller systems directly to home and small
17 business owners. Removing the upfront rebate abruptly would have had a
18 dramatic impact on those businesses which relied on the upfront payments as
19 opposed to arranging for financing to fund the projects that would be paid for
20 over time.

21 **Q. WERE OTHER PROGRAM CHANGES IMPLEMENTED AS A RESULT OF**
22 **THE SETTLEMENT?**

1 A. There were two major changes that apply only during the settlement period,
2 which ends with a Commission order on this 2012 Compliance Plan or May 1,
3 2012, whichever comes first. During the settlement period, Public Service will
4 cap the amount spent on each Solar*Rewards program. In order to manage
5 these programs effectively in the short-term, the Company also changed the
6 point in the process at which a REC price is guaranteed with respect to an
7 individual application. Pricing is now confirmed at the time the application is
8 successfully reviewed as opposed to when the application was approved
9 under Stage 1.

10 **Q. WHAT DOES THAT MEAN?**

11 A. An application is reviewed after the deposit and deposit form are received.
12 The review process entails an administrative check on certain items, such as
13 customer and premise information and a check for compliance with the 120%
14 size limitation under the law. After passing these screens, the REC pricing is
15 guaranteed. This means that customers and installers now know earlier in
16 the process, prior to Engineering and Metering approval, the REC price (and
17 Rebate level if appropriate) they are being offered.

18 **Q. IS THE COMPANY GOING TO MAINTAIN THIS PRACTICE AFTER THE**
19 **SETTLEMENT PERIOD HAS EXPIRED?**

20 A. Yes. This is something installers have asked for in the past because it
21 reduces the time during which there is uncertainty about pricing. At the same
22 time, it also reduces the amount of uncertainty around the number of
23 applications and associated kW could be waiting for confirmation.

1 **Q. PLEASE EXPLAIN.**

2 A. The standard offers under the Solar*Rewards program decline, in a series of
3 capacity “steps”, as more and more kilowatts of on-site solar capacity are
4 reserved by application. The issue becomes the point at which kilowatts get
5 counted against each pricing step and when the specific pricing offer
6 available to the applicant is confirmed by the Company. Previously the
7 Company applied kilowatts against a step and confirmed pricing to the
8 applicant at the time an application was approved by Xcel Energy’s
9 Engineering and Metering groups, called Stage 1. With this 2012 Plan, we
10 are proposing to continue the timing change implemented with the
11 Settlement, so that the kilowatts are applied and the pricing is confirmed
12 when the customer and premise load information on the application have
13 been confirmed. This approval will now come days earlier in the process that
14 had previously taken longer, which should benefit all applicants. The pricing
15 charts, therefore, will be much closer to “real time” than before, while at the
16 same time, we hope to avoid the volatility created by applications that may
17 have been submitted but then are removed from the queue prior to price
18 confirmation.

19 **Q. DO INSTALLERS KNOW HOW MUCH CAPACITY HAS BEEN**
20 **CONFIRMED AND HOW MUCH IS REMAINING IN ANY GIVEN PROGRAM**
21 **STEP?**

22 A. Yes. As we have been doing since the implementation of this declining REC
23 price structure in 2009, is showing acquisition charts with the MW confirmed

1 and the capacity remaining in each step. These are updated daily and
2 available on the Company's solar website.

3 **Q. OUTSIDE OF THE CHANGES DISCUSSED ABOVE, IS THE COMPANY**
4 **MAKING ANY OTHER CHANGES TO THE PROGRAM STRUCTURES?**

5 A. We are consolidating the 2 Medium programs into a single Medium program
6 for systems 10.001 – 500 kW. Because we are no longer making any upfront
7 rebates under the Medium programs, there is no longer a need to separate
8 these programs based upon system size. These programs primarily serve
9 our commercial and industrial customers.

10 **III. SOLAR*REWARDS ACQUISITION AND PRICING**

11 **Q. THE COMPANY SETS FORTH THREE DIFFERENT ACQUISITION AND**
12 **PRICING SCENARIOS IN ITS PLAN. WHY IS THAT?**

13 A. We wanted to present a range of options for discussion in this docket. That
14 being said, the Company strongly endorses the mid-range option, which we
15 call our Recommended Plan. The Company has been very successful in
16 administering the Solar*Rewards program as evidenced by the growth of the
17 solar industry in Colorado. The high degree of participation has resulted in
18 the Company being on target to meet or exceed the Retail DG compliance
19 standards, as pointed out in Ms. Kittel's testimony. The Company looked at
20 what it would need to meet future compliance standards. (This is the
21 schedule called "Minimum Compliance Plan" depicted in Section 5.) We then
22 developed two other potential plans, each with successive increases in the
23 amount of megawatts that would be available through standard offer

1 programs each year. The Company is seeking approval of what we call the
2 Recommended Plan, which targets 36 MW of solar acquisitions per year, with
3 6 megawatts of that reserved for community solar gardens. We also present a
4 High Plan, where we target 60 MW of solar acquisitions per year, again with 6
5 megawatts of that reserved for community solar gardens.

6 **Q. PLEASE EXPLAIN HOW THE COMPANY'S RECOMMENDED PLAN**
7 **WOULD WORK?**

8 A. The Recommended Plan takes a page from the Settlement play book in that
9 we have designed a series of pricing steps for each of three programs:
10 Small customer-owned (10 kw or less); Small Third Party- Owned and
11 Medium programs. The Recommended Plan also caps the megawatts within
12 the two small programs and the medium program that can be acquired in any
13 year. If a program does not fully use its allocated megawatts in a year, they
14 can be carried forward to a subsequent year and the unused megawatts from
15 the prior year's step can be used at that price in the subsequent year.

16 **Q. WHAT ABOUT THE PRICING AND MW STEPS ESTABLISHED BY THE**
17 **SETTLEMENT AGREEMENT IN DOCKET NO. 11A-135E?**

18 A. Public Service will continue to use the Settlement Agreement steps until they
19 are fully subscribed, even after the termination of the settlement period. The
20 steps of the Recommended Plan will begin after the steps in the Settlement
21 have been exhausted.

1 **IV. CONTRACTS**

2 **Q. PLEASE BRIEFLY DESCRIBE SOME OF THE MODIFICATIONS BEING**
3 **MADE TO THE CONTRACTS IN ORDER TO IMPLEMENT THE CHANGES**
4 **TO THE PROGRAMS SET FORTH IN THE COMPANY’S FILING.**

5 A. The removal of the rebate from the incentive structure has removed the need
6 for some of the previously required agreements. There is now a need for
7 essentially 3 contracts:

- | | | |
|----|--------------------------|-------------------------------|
| 8 | 1. Small Customer-owned | Rebate/ REC purchase combined |
| 9 | 2. Medium Customer-owned | REC purchase |
| 10 | 3. Third Party Developer | REC purchase |

11 **Q. HOW ARE THESE AGREEMENTS DIFFERENT FROM BEFORE?**

12 A. Payments to the customer are more spread out over time based on pay for
13 performance. The Small Customer-owned contract is quite similar to previous
14 versions, except that it provides for REC payments over time as opposed to
15 upfront. These agreements still carry the rebate repayment obligation.

16 **Q. AT THE PRESENT TIME, IF THE CUSTOMER DOES NOT OWN THE**
17 **SYSTEM, DOES HE/SHE HAVE TO ENTER INTO AN AGREEMENT WITH**
18 **PUBLIC SERVICE?**

19 A. No. At this time, the developer, as owner/operator of the system, enters into
20 the Interconnection Agreement and the REC purchase agreement with Public
21 Service. As part of that second contract, the developer represents that
22 he/she has obtained permission from the property owner to site the system in
23 that location for the contract term of 20 years.

1 As part of this filing we are including modifications to the REC
2 purchase contract with third-party developers. The modifications require the
3 customer to be a signatory to the REC purchase contract. As part of the
4 contract, the customer acknowledges the developer's obligation under
5 contract to operate and maintain the PV System on the customer's premises
6 at the Service Address for a term of 20 years after the PV System becomes
7 commercially operational. The customer also grants consent for the
8 developer to enter on the customer's property as necessary to perform its
9 obligations under the contract. Finally, the customer agrees not to take any
10 action that would interfere with the continued operation of the PV System and
11 the uninterrupted production of energy from the System during the twenty-
12 year Term of the contract.

13 **Q. HAVE YOU MAINTAINED THE EXCEPTIONS FOR COMMERCIAL**
14 **TENANTS?**

15 A. Yes. Those have been in place previously pursuant to PUC Rule 3658
16 (VII)(C).

17 **Q. IS THE COMPANY CONTINUING TO USE THE EXISTING CONTRACTS?**

18 A. Yes. The Company will maintain the existing contracts until such time as
19 system applications submitted before the Settlement are complete. I have
20 included all the contracts in Volume 3.

1 **V. SOLAR*REWARDS COMMUNITY**

2 **Q. HOW DID THE SOLAR GARDENS CONCEPT COME TO BE A REALITY?**

3 A. House Bill 10-1342 is the legislative action that formalized the “community
4 solar garden” concept in Colorado. The bill also sets forth a number of
5 objectives and requirements for these projects.

6 **Q. ACCORDING TO THE PLAN, PUBLIC SERVICE IS GOING TO**
7 **INTRODUCE A SOLAR GARDENS PROGRAM. HOW WILL THIS**
8 **PROGRAM BE STRUCTURED?**

9 A. We will call our program “Solar*Rewards Community”. The standard offers
10 available under these programs are designed to resemble the Solar*Rewards
11 on-site standard offers. The designations of Small, Medium and Large
12 categories have carried over as well, although the sizing parameters vary
13 slightly, with Small being 10 – 50 kW, the Medium 50.01 – 500 kw, and Large
14 500.01 – 2000 kW.

15 **Q. ARE THE PRICING STRUCTURES SIMILAR BETWEEN**
16 **SOLAR*REWARDS AND SOLAR*REWARDS COMMUNITY?**

17 A. For the Medium program offers, the pricing schedules are the same. The
18 pricing structure for the Solar*Rewards Community Small program begins
19 3¢/kwh higher than Solar*Rewards.

20 **Q. WHY DOES THAT PRICING BEGIN HIGHER?**

21 A. The Company recognizes that the Medium systems can take greater
22 advantage of economies of scale in construction. In order to “jump-start” the
23 market for the Small Solar*Rewards Community systems, the incentive was

1 increased. This is the same philosophy the Company employed when
2 launching the Solar*Rewards Small Third Party Developer program in 2009.

3 The Company also believes that many of the systems under the Small
4 program will qualify as Community Based projects which would provide the
5 Company with a multiplier of 1.5¹ applied to the RECs available for
6 compliance from these systems.

7 **Q. HOW ARE PAYMENTS MADE UNDER THE SOLAR*REWARDS**
8 **COMMUNITY PROGRAM?**

9 A. The system owner will receive a REC payment in exchange for the metered
10 RECs produced by the system. This will be a monthly payment based on the
11 contracted price per kilowatt hour. The subscribing customer receives a
12 “Solar Rewards Community” credit or “SRC” displayed on the customer’s bill
13 as a monetary credit based upon the production from the solar garden that is
14 allocated to that subscriber by the owner of the solar garden. Mr. Brockett
15 testifies as to how the Company will calculate this credit.

16 **Q. WILL GENERATION FOR THE MONTH OF APRIL, FOR EXAMPLE, SHOW**
17 **UP ON A CUSTOMER’S APRIL BILL?**

18 A. No. It will show up on the next month’s bill. Several factors prevent the type
19 of synchronous presentation that would allow concurrent credits. First of all,
20 there will be a lag of a few days from the time the monthly data is collected
21 from the system until it can be translated to the customers’ accounts.
22 Second, all customers on a garden may not have their meters read and billed

¹ Rule 3652 (c) and 3654 (f).

1 on the same day of any given month. In order to reduce confusion and
2 eliminate unnecessary cost, SRC credits will represent generation from the
3 prior month.

4 **Q. ONCE A PROJECT IS ACCEPTED IN EITHER THE SOLAR GARDEN
5 STANDARD OFFER OR THE RFP, IS IT GUARANTEED TO BE FUNDED?**

6 A. No. As with the Solar*Rewards program, if the project is not completed within
7 twelve months of the contract being executed, the project will be removed
8 from the queue. Additionally, if the applicant does not respond to the
9 Company's issuance of the reservation form within one month, the project will
10 be removed from the queue.

11 **Q. THAT SECOND PROVISION SEEMS HARSHER THAN THE TIMING
12 PROVISIONS THAT EXIST FOR SOLAR*REWARDS. WHY IS THAT?**

13 A. The amount of Solar*Rewards Community capacity that is available is limited.
14 The Company seeks to make sure that as much as possible, interested
15 parties with viable projects can participate. Timelines such as these remove
16 non-viable projects from the queue, increasing opportunities for the
17 participation.

18 **Q. CAN ANYONE "SUBSCRIBE" TO A SOLAR GARDEN UNDER THIS
19 PROGRAM?**

20 A. Solar garden owners must have at least ten (10) qualified subscribers in order
21 to apply to the program, and each subscriber would be "allocated" a
22 percentage of the monthly output from the solar garden system in accord with

1 the subscriber's agreement with the owner of the solar garden. The three
2 primary considerations are:

- 3 1. The sum of the subscribers' percentages cannot be greater than 100%
4 of the solar garden's capacity;
- 5 2. Any given customer cannot subscribe to a generation amount that
6 exceeds 120% of the annual consumption at the addresses to which
7 the credit is to be applied.
- 8 3. The subscriber's premises (one or more) to which the credit is applied
9 must be located in the same county as the community solar garden,
10 with some limited exceptions.

11 **Q. HOW WILL THOSE REQUIREMENTS BE MONITORED?**

12 A. An on-line system is being developed that will facilitate subscriber
13 management and validation from both the Company's and the developer's
14 perspectives.

15 **Q. WHEN WILL MORE INFORMATION REGARDING THIS PROGRAM BE
16 AVAILABLE?**

17 A. The Company expects to have the program offers available during the fourth
18 quarter (4Q) of 2011. At this time we are awaiting the final Commission order
19 on the Rules governing solar gardens so that more details, including the RFP
20 documents and contracts, can be created.

21 **Q. DOES THAT MAKE THIS TESTIMONY PREMATURE?**

22 A. No. The Company believes there is great interest and pent-up demand for
23 this offering. We wanted to present the program framework, pricing

1 schedules and general guidelines as part of this Plan so that interested
2 parties could begin or continue planning in preparation.

3 **Q. DOES THAT COMPLETE YOUR DIRECT TESTIMONY?**

4 A. Yes.

Attachment A

Statement of Qualifications

Pamela J. Newell

I am a Product Portfolio Manager and am employed by Xcel Energy Services. My responsibility is for the management of the portfolio of Customer-Sited solar programs, with a current focus on the products available in Colorado. I lead the team accountable for the acquisition of RECs through the Solar*Rewards' Small, Medium and RFP programs.

I have been with the Company for twenty-four years. During that time, I have worked in various business areas, including Customer Care, General Accounting, Account Management and Training. Most recently, I have been working with Solar*Rewards since its launch in March 2006. I have a Bachelors degree in German and English from the University of Wisconsin-Eau Claire and a Masters degree in Management from St. Mary's University of Minnesota. I currently serve on the Board of Directors for the Solar Electric Power Association (SEPA).