



IN THE MATTER OF THE APPLICATION
OF PUBLIC SERVICE COMPANY OF
COLORADO FOR APPROVAL OF ITS 2009
RENEWABLE ENERGY STANDARD
COMPLIANCE PLAN

DOCKET NO. 08A-_____E

DIRECT TESTIMONY AND EXHIBITS

OF

PAMELA J. NEWELL

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

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1 I. INTRODUCTION

2 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

3 A. My name is Pamela J. Newell. My business address is 5050 N Service
4 Drive, Winona, Minnesota.

5 Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT POSITION?

6 A. I am employed by Xcel Energy Services, Inc., a wholly-owned subsidiary
7 of Xcel Energy Inc., the parent company of Public Service Company of
8 Colorado. My job title is Product Portfolio Manager.

9 Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?

10 A. I am testifying on behalf of Public Service Company of Colorado ("Public
11 Service" or the "Company").

**12 Q. HAVE YOU INCLUDED A DESCRIPTION OF YOUR QUALIFICATIONS,
13 DUTIES, AND RESPONSIBILITIES?**

14 A. Yes. A description of my qualifications, duties, and responsibilities is
15 included as Attachment A.

1 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

2 A. The purpose of my testimony is to provide further explanation regarding
3 the sections of the Compliance Plan relating to the On-Site solar
4 requirements and acquisition. I will specifically address the Small
5 Program's performance in 2008 and the resulting impact for 2009 and
6 beyond. I present a revised look at On-Site Acquisition going forward and
7 update the table presented in the 2008 Colorado Resource Plan. Finally I
8 will present some new and/or expanded components of the Small
9 Program and briefly review the Program Administration.

10 **Q. HOW WOULD YOU CHARACTERIZE THE ACTIVITY IN THE SMALL**
11 **PROGRAM DURING 2008?**

12 A. The Small Program experienced volume levels that far surpassed the
13 Company's projections as identified in its 2008 Plan. Original forecasts
14 considered approximately 2.5 additional MW of capacity from systems
15 under 10 kW to be added in 2008. That level was achieved by the end of
16 June, with capacity installation remaining above 500 kW each month for
17 July through September.

18 **Q. HOW DO YOU EXPLAIN THIS OVERACHIEVEMENT?**

19 A. In retrospect, the projected 2.5 MW may have been too low. It did not
20 predict a natural level of market growth from the previous year, growth that
21 would have been present absent extraordinary circumstances.

22 **Q. DID EXTRAORDINARY CIRCUMSTANCES OCCUR?**

1 A. Yes. The status of the Federal Incentive Tax Credit (ITC) played a large
2 role in the level of 2008 acquisition. The number of new applications to
3 the Small Program began to rise in April, with increasing numbers each
4 month. This was due to the fact that the ITC was set to expire on
5 December 31, 2008, and several attempts to extend it had already failed.
6 Customers were motivated to install PV systems prior to the end of 2008
7 so that they could receive the credits. At the same time, system prices
8 were slowly declining overall, so customers were experiencing greater
9 economic value from purchasing PV systems. The ITC legislation that
10 passed on October 3, 2008, caused even greater demand for PV systems.

11 **Q. PLEASE EXPLAIN.**

12 A. That legislation extended the ITC for solar for 8 years and removed the
13 \$2,000 limit on the amount of the tax credit a residential system owner
14 could claim.

15 **Q. WHAT DID THIS MEAN FOR RESIDENTIAL CUSTOMERS**
16 **PURCHASING PV?**

17 A. As a result of this change in the federal ITC, if Public Service did not
18 adjust the standard offer for SO-RECs under our small program (under 10
19 kW), the customer installing an average system would only pay for roughly
20 31% of the full system price, with Public Service and the tax credit funding
21 the remaining 69%.

22 **Q. HOW DID THE COMPANY RESPOND TO THIS?**

1 A. Before the change in the tax law, the average small customer was paying
2 approximately 38% of the total cost of installing these small systems.
3 We wanted the customer's total cost at about the same level, taking into
4 account the increased subsidy provided by the federal tax law change.
5 Because we are working with a limited budget for these solar subsidies,
6 we believe it is in the public interest to reduce the subsidy provided by
7 Public Service's customers in response to the increased subsidy provided
8 by the federal government. When the federal government increased its
9 share of the subsidy, it gave us the opportunity to reduce the Company's
10 share – freeing up more funds for the acquisition of more SO-RECs and
11 other RECs.

12 Please refer to my Exhibit No. PJN-1. Scenario B on that exhibit shows
13 the customer's cost for the solar systems prior to the passage of the new
14 tax law with the \$2.50 SO-REC payment from Public Service. Scenario D
15 shows the customer's cost for the solar systems after the passage of the
16 new tax law and with the reduced \$1.50 SO-REC payment from Public
17 Service. Both of these scenarios result in the average small PV customer
18 under our Solar*Rewards program paying for approximately 38%-39% of
19 the total installed cost of their PV system. Please note, however, that the
20 reduction in the SO-REC payment offered by Public Service reduced the
21 percentage of the small PV installation cost that is paid by Public Service
22 from the RESA funds from 56% to 44%. This reduction gives Public
23 Service the opportunity to buy more Eligible Energy overall.

1 We have heard in past cases that the Colorado solar industry wants
2 to avoid “boom-bust” cycles in their industry. We believe that the best way
3 to do this is to keep the overall subsidy at a fairly consistent level. After
4 the federal law passed, we took swift action to curb the over-subsidy to
5 help avoid a “boom-bust” cycle in the industry. We notified the
6 Commission and the installers that we were going to reduce the price paid
7 for Small Program RECs from \$2.50 to \$1.50 per watt, effective within
8 about 32 hours of that notification.

9 **Q. WAS THAT TOO SHORT A NOTICE PERIOD?**

10 A. Retrospectively, what we know for sure is that we received 1,000 new
11 applications in that 32-hour period. It is reasonable to assume that the
12 number would have only increased with a longer notice period.

13 **Q. WHAT ABOUT CUSTOMERS WHO CANNOT TAKE ADVANTAGE OF**
14 **THE FEDERAL INVESTMENT TAX CREDIT?**

15 A. Since the beginning of the Solar*Rewards program, there have been
16 customers who had no federal taxable income, so that the federal
17 investment tax credit did not provide any value. These customers have
18 always been disadvantaged (in terms of overall subsidy related to solar
19 panel installation) compared to tax paying customers.

20 In our 2009 RES Plan, we are proposing a new offering for tax-
21 exempt customers. Upon proof of tax-exempt status of the owner of the
22 solar panels, Public Service will pay \$2.90 per SO-REC. This will equalize

1 the overall subsidy provided to tax exempt customers with the subsidy
2 available to taxpaying customers.

3 **Q. YOU MENTIONED EARLIER THAT OVER 1,000 SMALL SYSTEM**
4 **APPLICATIONS WERE RECEIVED BEFORE THE REC PRICE**
5 **CHANGE DEADLINE. WHAT IS THE IMPACT OF THAT KIND OF**
6 **VOLUME ON THE ACQUISITION PLAN?**

7 A. Approximately 7 MW of capacity was submitted via Small program
8 applications in October alone. As of October 29, 2008, reports from the
9 on-line application program showed 12.7 MW of Small program
10 installations in our "pipeline". Considering that only systems installed
11 within 2009 would be eligible for the original \$4.50 per watt upfront
12 payment, this pipeline volume would fulfill our entire 2009 projected
13 acquisition for all 3 programs – Small, Medium and Large – combined.

14 **Q HOW DOES THE COMPANY PLAN TO ACCOMMODATE THAT**
15 **APPLICATION BUBBLE?**

16 A. It is going to require an adjustment to the longer-range acquisition table
17 set forth in the 2007 Colorado Resource Plan. Below are two tables -- the
18 table that was presented in Docket No. 07A-447E, and a revised table
19 adjusting for the application bubble.

From 2007 CRP	
Year	On-Site Solar (MW added)
2008	18
2009	12
2010	8.5
2011	3
2012	8
2013	3
2014	8
2015	3
2016	8
2017	2.5
2018	7.5
2019	2.5
2020	7.5
total	91.5

REVISED	
Year	On-Site Solar (MW added)
2008	18.2
2009	17.5
2010	8
2011	8
2012	3
2013	8
2014	3
2015	8
2016	2.5
2017	7.5
2018	2.5
2019	7.5
2020	2.5
total	96.1

1 **Q. HOW DOES THAT BREAK DOWN INTO SMALL, MEDIUM AND LARGE**
2 **ACQUISITION?**

3 **A. The following table provides that break down for the revised SO-REC**
4 **acquisition.**

	Small (MW)	Medium (MW)	RFP (MW)	Total
2008	6.02	0.68	11.50	18.20
2009	8.20	3.00	6.20	17.40
2010	4.00	2.00	2.00	8.00
2011	2.00	1.00	5.00	8.00
2012	2.00	1.00	-	3.00
2013	2.00	1.00	5.00	8.00
2014	2.00	1.00	-	3.00
2015	2.00	1.00	5.00	8.00
2016	2.00	0.50	-	2.50
2017	2.00	0.50	5.00	7.50
2018	2.00	0.50	-	2.50
2019	2.00	0.50	5.00	7.50
2020	2.00	0.50	-	2.50

5 **Q. ARE YOU CONCERNED ABOUT THE 50% DROP IN NEW**
6 **ACQUISITIONS FROM 2009 TO 2010?**

1 A. No. While the changes in those specific annual targets appear dramatic,
2 the combined 2009-2010 acquisition in the revised plan is actually 5 MW
3 greater than we proposed in our 2007 Colorado Resource Plan. The fact
4 is that 2009 is artificially inflated to address the application bubble that
5 resulted from our allowing a 32-hour period before we dropped the level of
6 our SO-REC offer. In these tables, we have estimated that 80% of those
7 applications will actually be realized; should that amount be substantially
8 different from these projections, we will need to adjust the estimates in our
9 2010 Plan.

10 The other factor to consider is that while there will be an RFP
11 solicitation for larger solar systems toward the end of 2009, our RFP will
12 be soliciting SO-RECs from these large systems beginning in 2011. We
13 believe that this RFP better reflects the development timeline required by
14 the developers of these large projects. Public Service plans to issue
15 subsequent large on-site system RFPs every other year assuming the
16 same 14-month development period for these projects.

17 **Q. GIVEN THE LARGE AMOUNT OF ACQUISITIONS COMING FROM THE**
18 **SMALL PROGRAM, DOES THE COMPANY FORESEE THE NEED TO**
19 **CURTAIN THIS PROGRAM SO THAT THERE IS MONEY AVAILABLE**
20 **FOR LARGER ON-SITE INSTALLATION?**

21 A. At this time, the Company would prefer not to limit participation in the
22 Small Program. We try to forecast the acquisitions under the small
23 program based on historical data as well as any new market information,

1 such as the change in the federal tax incentive. Our experience is telling
2 us that as customers become more aware of PV applications, there are a
3 greater number of customers willing to invest in solar. Since the program
4 started, we have seen greater participation in the small program than we
5 have forecasted. This may or may not continue; however, as PV systems
6 come down in cost, we could continue to see increased levels of
7 participation. Demand remains high, indicating customers are looking for
8 ways to directly and personally contribute to the renewable energy effort.
9 In fact, we continue to look for ways to accommodate customers beyond
10 the individual residential homeowner.

11 **Q. PLEASE EXPLAIN.**

12 A. In this 2009 RES Plan, the Company has assumed that in multi-unit
13 buildings, the solar panels must be owned by either the owner of the
14 building in a rental situation or by the owner of a condominium in a non-
15 rental situation. This conforms to the Commission's ruling in our 2008
16 RES Plan. However, the Company will support a change to this practice
17 in the pending rulemaking proceeding in Docket No. 08R-424E to provide
18 greater participation by renters, so long as there are sufficient contractual
19 protections to assure the delivery of solar power into our system for the full
20 20 years of the contract.

21 **Q. WHY IS THAT IMPORTANT?**

1 A. With the small systems, the full 2- year REC payment is made up-front.
2 The Company believes that we need to have adequate assurance that we
3 will actually obtain RECS for the full 20 years.

4 **Q. CAN THE COMPANY "COUNT" THE RECs EVEN IF THE SMALL**
5 **SYSTEM DOES NOT REMAIN OPERATIONAL FOR THE FULL 20**
6 **YEARS?**

7 A. Yes. The rules do allow for this. However, the Company believes we
8 should take reasonable steps to design a process where there are built-in
9 incentives that make it likely the solar systems will continue to produce for
10 20 years. Currently, we rely on the fact that customers who own the solar
11 panels, and who have net metering, will see it is in their own best
12 economic interest to keep those panels in working order. We are willing to
13 look at other factors that would give us similar assurances in rental
14 situations.

15 **Q. HOW IS PROGRAM ADMINISTRATION IMPACTED BY THE**
16 **INCREASED VOLUME OF THE SMALL PROGRAM?**

17 A. Our staff working on the Solar*Rewards program is quite diligent in our
18 administration of the program and application fulfillment. In fact, a recent
19 internal audit conducted by the Company, which was completed in July of
20 2008, revealed that the program is meeting requirements in terms of
21 documentation, customer payments, and billing accuracy. At the same
22 time, the Public Service continues to address opportunities to improve

1 processes and keep turn-around times in accord with prescribed
2 guidelines.

3 **Q. HOW HAVE PUBLIC SERVICE'S PROGRAMS FARED IN TERMS OF**
4 **ADMINISTRATIVE COSTS FOR ALL PROGRAMS?**

5 A. According to the September 2008 budget report filed with the PUC, the
6 RESA Administrative and General Expense year-to-date total represented
7 less than 2% of the total RESA collected during the same time period
8 (\$417,536 spent compared to \$23,049,580 collected.) This falls far below
9 the 10% administrative cost ceiling.

10 **Q. MOST OF THIS TESTIMONY FOCUSES ON THE SMALL PROGRAM.**
11 **IS THE COMPANY PROPOSING ANY CHANGES TO THE MEDIUM**
12 **ON-SITE PROGRAM?**

13 A. Not at this time.

14 **Q. IS THE COMPANY PROPOSING ANY CHANGES TO THE LARGE**
15 **PROGRAM?**

16 A. As I noted above, we will still have an RFP solicitation in 2009 for
17 competitive bids for 5 MW. The offering will come out later in the year,
18 targeting commercial operation dates in 2011.

19 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

20 A. Yes.

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 SO-RECs through the Solar*Rewards' Small, Medium and RFP programs.

I have been with the Company for twenty 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, responsible for the Medium programs and the implementation of projects awarded in the June and December 2006 RFPs. 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.

Exhibit No. PJN-1

IMPACTS TO CUSTOMERS ON PV PRICING AND COMBINED SUBSIDY DIFFERENCES

A This scenario is based on assumptions and conditions that existed at the beginning of the program in March, 2006.

watts	rebate	rec	system cost @ \$9/watt	Rebate	REC	Net System Cost	% covered by RESA	30% ITC tax amount w/ \$2000 CAP	final cost	% system customer pays	% from ITC
4500	\$2.00	\$ 2.50	\$ 40,500.00	\$ 9,000.00	\$ 11,250.00	\$ 20,250.00	50%	\$ 2,000.00	\$ 18,250.00	45%	10%

B This scenario shows the impact of PV system cost reduction from \$9 to \$8 per watt but retention of the \$2000 tax credit cap.

watts	rebate	rec	system cost @ \$8/watt	Rebate	REC	Net System Cost	% covered by RESA	30% ITC tax amount w/ \$2000 CAP	final cost	% system customer pays	% from ITC
4500	\$2.00	\$ 2.50	\$ 36,000.00	\$ 9,000.00	\$ 11,250.00	\$ 15,750.00	56%	\$ 2,000.00	\$ 13,750.00	38%	6%

C This scenario shows the current condition WITHOUT a change to the REC price but the removal of the \$2000 cap.

watts	rebate	rec	system cost @ \$8/watt	Rebate	REC	Net System Cost	% covered by RESA	30% ITC tax amount on NET system cost*	final cost	% system customer pays	% from ITC
4500	\$2.00	\$ 2.50	\$ 36,000.00	\$ 9,000.00	\$ 11,250.00	\$ 15,750.00	56%	\$ 4,725.00	\$ 11,025.00	31%	13%

D This scenario shows the condition WITH the proposed REC price reduction to \$1.50/watt and removal of the \$2000 cap.

watts	rebate	rec	system cost @ \$8/watt	Rebate	REC	Net System Cost	% covered by RESA	30% ITC tax amount on NET system cost*	final cost	% system customer pays	% from ITC
4500	\$2.00	\$ 1.50	\$ 36,000.00	\$ 9,000.00	\$ 6,750.00	\$ 20,250.00	44%	\$ 6,075.00	\$ 14,175.00	39%	17%

*NET system cost calculated as system cost LESS Rebate and REC payments, actual tax treatment may be different.
Data based on data and assumptions as of 10/2008.