

Section 5 – Acquisition Plans

A. On-Site Systems

Solar*Rewards Program

In 2009, Public Service proposes to continue the acquisition of On-Site Solar RECs (SO-RECs) from Eligible Energy from these three market segments: “Small” (0.5 kW – 10.0 kW), “Medium” (over 10 kW to 100.0 kW) and “Large” (over 100 kW – 2.0 MW) through two standard offers and one competitive solicitation. All programs will maintain their existing structures in terms of payment schedule for the Standard Rebate Offer and payment for the RECs (up-front versus monthly). The Standard Rebate Offer is currently set forth in the Company’s Photovoltaic Service - Schedule PV.

Tracking Customer Participation in the Solar*Rewards Program

Public Service utilizes an online application and tracking system and a rebate operations payment system for administering the Small and Medium programs. The online system is the public interface to the dataset that includes all on-site customer and system details needed to manage the program. Public Service will continue to submit monthly reports to the Commission.

Solar*Rewards Contracts

Public Service is not proposing changes to the terms and conditions of the Solar*Rewards contracts which were approved in part by the Commission in Decision No. C08-0559, at paragraph 25. In that decision, the Commission approved the changes to the contracts submitted in the 2008 RES Compliance Plan and the rebate and REC prices, but did not decide any real estate issues that may be implicated in the standard contract. Recently, Public Service reduced the SO-REC payment from \$2.50 per watt to \$1.50 per watt, when the federal investment tax credit for residential applications was increased.

Goals for the On-Site Solar Program

Projections of the acquisition of SO-RECs are set forth on Tables 4-2, 4-3, and 4-4. The anticipated costs of these programs are included in the On-Site Solar Costs set forth on Table 6-3 and 6-4.

Solar*Rewards Small Program (systems .5 kW – 10 kW)

Results

The Small Program continues to be the offer serving the vast majority of customers participating in Solar*Rewards. The chart below shows the year-to-date comparisons between 2008 and 2007, as of the end of September in each year.

	2007	2008	% change
Number of applications received	877	1,414	+ 68%
Number of projects completed (paid)	572	946	+ 65%

As a result of this increased participation, 5.06 MW of capacity has been added through this offer this year alone, as compared with 4.12 MW added in 2006 and 2007 combined.

In October 2008, the U.S. Congress passed the Emergency Economic Recovery Act of 2008 that extended the federal investment tax credit ("ITC") and increased the amount of subsidies available to residential customers installing solar on their homes from a cap of \$2,000 to 30 percent of the installed cost. This change caused an increase in the number of Solar*Rewards applications in the small program. This increased federal subsidy allowed Public Service to reduce our payment for SO-RECs leaving more money to spend on more Eligible Energy Resources including On-Site Solar.

Program Changes

In response to the changes in the Federal tax laws, which were passed on October 3, 2008, Xcel Energy reduced the price offered for SO-REC purchases under the small program from \$2.50 per watt to \$1.50 per watt. Internal evaluation indicated that customers would be paying roughly the same percentage of the actual system cost after this offer price reduction, when both the increased Federal Tax Credit and the Company's offer were taken into account.

Public Service has attempted to broaden our customer base for the Small Solar*Rewards Program by reviewing and refining our approaches to multi-unit buildings. Public Service has implemented processes and documentation requirements to accommodate condominium owners who want to own PV as well as building owners who want to provide PV and net metering benefits to their tenants. This offering was approved by the Commission in Decision No. C08-0559, at paragraph 33. Key to these arrangements is the fact that the owner of the building or unit is also the owner of the PV.

Solar*Rewards Medium Program (systems >10 kW – 100 kW)

Results

The Medium program has not seen the activity the Company forecasted for 2008. While, as of the end of September 2008, 68 new applications have come in, only 5 projects have been completed, for a 2008 YTD acquisition of 0.28 MW.

Program Changes

Public Service continues to support the need for the Medium program. This program offers timing flexibility. This Medium program accommodates projects for incorporating solar in new construction or businesses who decide to invest in solar technology. The alternative to keeping this program would be to include this size

of on-site application in an RFP. The Medium Program sized projects are typically unsuccessful in the competitive acquisition process because they cannot compete against the larger projects. Public Service recommends no changes to the Medium Solar*Rewards Program.

Solar*Rewards Large (RFP) Program (systems >100 kW – 2 MW)

Results

Projects are still coming on-line from the 2006 June RFP. As of the end of September, four projects have become operational, with at least nine more expected by the end of the year. Projects selected in the 2008 RFP are expected to come on-line in 2009.

Program Changes

In Public Service's experience with the competitive acquisition process for the large program, winning bidders require approximately 14 months to construct their projects. In 2009, we plan to issue an RFP for 5 MW, but we do not expect these projects to come on-line until late 2010 or sometime in 2011.

Third Party Developers

Applications for the Solar*Rewards Medium and Large programs are still available to Third-Party Developers to own and maintain installations on customer sites. As the owner/operator of the PV system, the Developer enters into the SO-REC contract with Public Service to receive the monthly SO-REC payments directly. The Developer makes arrangements with the end-use customer for the receipt of the generation. To make this arrangement possible, a "Sale of Electricity" waiver from Public Service must be signed by the Developer and acknowledged by Public Service. As the equipment owner, the Developer is the party who enters into the Interconnection Agreement with Public Service. The Public Service retail electric customer is still the rebate recipient and must enter into the Solar*Rewards Rebate

Contract with Public Service. However, the customer does have the option to designate an Alternate Rebate Recipient, which could be the Developer if desired. The retail customer is also able to elect net metering according to the tariff, and it is the retail customer who will receive any financial benefit of any excess generation returned to the grid. Payment for excess generation will be made within 60 days after the end of the calendar year or 60 days after the termination of service.

The Company proposes to continue offering the Third Party Developer arrangement under the Medium and Large program offers only. The Third Party Developer option is specifically not offered in the small category due to the nature of the full up-front REC and Rebate payments. Public Service does not believe the Third Party Developer model is appropriate or necessary for the continued success of the Solar*Rewards Small program.

SO-REC Acquisition

Tables 4-2 through 4-4 set forth the projected totals for Standard Offer RECs and other REC purchases. RECs acquired through the Small, Medium and Large programs are provided on the Standard Rebate Offer RECs category. REC only purchases from our one-time offer to purchase SO-RECs in compliance with Rule 3658 (b) fall in to the Other REC Purchases category.

Optimization of the Solar*Rewards Offerings

Optimizing the Solar*Rewards offerings means considering several components and features of the programs. For each program, Xcel Energy evaluated price points, customer segment participation, customer and installer feedback, and projections for program sustainability and goal attainment through 2020. Major features of each program segment are discussed below.

The goal of the Solar*Rewards Small Program is to provide the opportunity for residential and small commercial customers to install PV on their homes and businesses. The rebate is prescribed by legislation and, as of October 25, 2008, a new REC price offer of \$1.50 per watt was established. As mentioned previously, this new price was established in light of changes to laws governing federal tax credits, and was designed to keep customers paying relatively the same amount of “out-of-pocket” for their PV systems. This adjustment avoided overuse of the RESA at a time when customer participation was high and PV systems prices are trending downward. The upfront payment is still attractive to customers, and installers still have the guaranteed payment as a type of security.

In response to the drop in the REC price in October, the Company received over 1,400 Small Program applications in just October alone. As noted above, applications had been coming in at high volumes throughout the year, resulting in approximately 12 MW of capacity under the Small Program alone, as of the end of October. Taking this into consideration along with the increased acquisition during 2008, the Company shows increasing the amount of capacity it adds from the Small Program in 2009 and 2010.

Performance-based payments, as found in the Medium and Large programs, are still not necessarily cost-effective for systems under 10 kW, since the monthly production, in MWh, can easily result in payments which are less than the cost of issuing and cashing a check. The Small program, as with the Medium and Large programs, offers customers the option to use net metering and to reduce their monthly cost of electricity.

The Medium program offering, a direct result of responding to customer feedback and demand, has not produced the results expected upon program launch. While installers and customers indicated a desire for a more predictable program, the participation rate has been below expectation. Discussions have begun and will

continue through 2009 to identify program improvements to make this offer more attractive. In the meantime, overachievement in the Small Program is allowing the Company to continue acquiring RECs toward compliance. While the Small Program RECs are generally considered more expensive, this situation of over- and underperformance has allowed the Company to avoid having to set a “cap” on Small Program participation.

Finally, the Large program calls for 5 MW of installed capacity, approximately 7,155 MWh, to be acquired through installation of projects over 100 kW in size. Originally this was to have come on-line in 2009, but, instead, the Company is forecasting it for late 2010 to 2011. The 5 MW from the 2008 RFP will be realized in 2009.

Public Service’s approach is still to use a mix of all three offerings to encourage broad-based participation in the on-site solar programs, but at the same time to keep the programs stable and reasonable enough to entice participation, responsible enough to move toward industry self-sustainability, and flexible enough to meet changing demands and conditions.

Here is a summary of the proposed 2009 Program acquisitions:

Table 1. On-Site Solar Acquisition Optimization

	2008 (original estimate)			2008 (revised estimate)			2009 (estimate)		
	Small	Medium	Large	Small	Medium	Large	Small	Medium	Large
Number Installations	430	48	20	1,240	10	13	1,500	35	7
Annual MWh (incremental)	3,991	4,699	16,129	8,614	613	11,530	11,734	2,731	6,447
Projected Cost (000's)	\$9,675	\$10,161	\$8,417	\$27,090	\$1,037	\$6,183	\$36,300	\$6,388	\$3,217

The numbers in this chart reflect the number of On-Site solar installations in each year for purposes of seeing visually the distribution of projects and costs for each On-Site solar program offering. The original 2008 estimates as presented in the 2008 Compliance Plan have been added here to underline the impacts of the dramatic increase in Small Program participation. The undetermined status of the ITCs drove Small applications up during the year, and the change in REC price sent applications far above expectations. Again, delays in bringing the RFP projects on the system with the minimal participation in the Medium program, are allowing the Company to manage the Solar*Rewards program activities. However, 2009 projections for the Small Program are far above what was considered in the Acquisition Plan laid forth in the Company's 2007 Resource Plan in Docket No. 07A-447E. Shifting the large program RFP solicitation to later in 2009 will provide the financial relief on the RESA to allow all these projects to move forward.

Near-Term S-REC Acquisition Plans

On January 11, 2008, Public Service released its 2008 Solar Resource RFP as part of the Company's 2008 Renewable Energy Standard Compliance Plan. Through this solicitation, the Company requested proposals for approximately 25 MW of solar resources that could provide 60,000 renewable energy credits and would achieve commercial operation prior to December 31, 2012. On April 11,

2008, the Company received twenty-three (23) proposals from a total of eighteen (18) developers totaling 400 MW (AC) and approximately 890,000 MWh of first year generation. Pursuant to 4 CCR 723-3-3655(n), the Company timely informed all bidders whether their bids met the bid submission criteria within the required fifteen (15) day period. Pursuant to 4 CCR 723-3-3655(o), the Company timely informed all bidders on July 11, 2008 of its intention to pursue or not pursue final negotiations with that bidder.

Currently, the Company is conducting contract negotiations with multiple developers on its shortlist as final due diligence reviews and final proposed contract pricing estimates are obtained. The Company intends to bring one executed contract representing roughly 48,000 MWh of annual energy to the Commission for approval before the end of 2008; the Company will seek the Commission's review and approval pursuant to 4 CCR 723-3-3655(c) as directed in the Commission's final order approving the Company's 2008 Renewable Energy Standard Compliance Plan (Decision No. C08-0559).

In Decision No. C08-0929, the Commission approved with modifications the Company's 2007 Colorado Resource Plan (CRP), which includes resource acquisitions (including potential solar resource acquisitions) that become commercial prior to the end of 2015. Subject to restrictions imposed by the retail rate impact limit, the Company intends to acquire no more than 850 MW of new, intermittent renewable generation from the 2008 Wind RFP, the 2008 Solar Resource RFP, and the 2009 All Source RFP; and any Company-owned proposals submitted at the same time as the All-Source RFP bids; intermittent solar generation includes photovoltaics and solar thermal (CSP) without storage or gas backup. Specifically addressing solar facilities with storage, the Commission agreed that the benefits of experience and developmental progress of a solar generation facility with energy storage warrants the acquisition of a minimum of 200 MW of solar with storage as part of the Company's resource acquisition plans.

In Decision No. C08-1153, the Commission confirmed its prior decision that all portfolios submitted to the Commission should contain 200 MW of solar with storage so long as proposals are received with “reasonable prices”.

In Decision No. C08-0929, the Commission found that a solar facility with storage qualifies as a Section 123 resource. In Decision No. C08-1153, the Commission noted that the issue of whether RECs from a Section 123 resource can be used for compliance would be addressed in the RES rulemaking docket, Docket No. 08R-424E. Whether or not the Company might acquire RES-compliant, S-RECs from a solar facility with storage will depend upon the outcome of Phase II of the Company’s 2007 Resource Plan and the outcome of whether or not Section 123 resources can generate RES compliance RECs. The Company expects to issue an All-Source RFP early January 2009 with RFP bids and any Company-owned proposals due back in early April 2009.

C. Company-Owned PV

The Company proposes to own and operate utility rate-based PV Solar systems on customer property. The Company will invest approximately \$15 million in 2009 to install PV Solar systems within our service territory, with a specific interest in serving government entities such as city, state, and federal facilities.

The Company seeks to own and operate Eligible Energy Resources authorized by C.R.S. 40-2-124 (1) (f) (I) and Commission Rule 3660(e). Under these provisions, Public Service is authorized to own up to 25 percent of new Eligible Energy Resources if it can do so at reasonable cost compared to similar Eligible Energy Resources available in the market. In addition, the Company is not required to acquire this rate-based property by competitive bidding. In accord with Rule 3660(e), Public Service plans to file an application with the Commission once the independent evaluator has reviewed the Company’s proposal, in accord with Rule
2009 Renewable Energy Standard Compliance Plan *Volume 1*

3660(e)(V).n The Commission ruled in Docket No. 07A-447E that the IE hired to evaluate bids in that docket will also serve in the role of the IE under Rule 3660 (e).

Public Service will target Government customers initially, requesting those interested entities to submit site proposals to Public Service for such projects. The Company will establish and publish project goals, minimum site requirements, and terms for types of sites the Company feels are appropriate for PV Solar systems. The Company will evaluate the sites and select the best sites based on the criteria established in advance of the solicitation. The Company will issue RFPs to PV Solar system contractors to engineer, procure, and construct PV Solar systems on selected sites on behalf of the Company. Contractors will be selected based on price, performance risk, and system performance. The Company will also issue RFPs to contractors for ongoing PV Solar system maintenance.

The Company's projected cost for this program has been included in the RES/No RES modeling presented in Tables 6-1 and 6-2.

Non-Solar RECs

As a result of acquiring electricity from wind and biomass projects that Public Service acquired under the Company's 2005 All Source RFP (2003 LCP), as well as other generation owned or contractually acquired by the Company in prior periods, Public Service will have sufficient Non-solar RECs to meet the RES for the 2009 Compliance Year. Public Service projects it will have sufficient Non-solar RECs from existing Eligible Energy Resources for compliance through 2020 under the current RES rules. However, beginning in 2020, the level of new Non-solar RECs required by the Company to meet compliance is significant and would prove challenging to integrate all at once. Public Service will be issuing an "All Source" solicitation on January 9, 2009 from which the Company expects to receive numerous bids for new Eligible Energy Resources. In Commission Decision No. C08-929 in Docket No. 07A-447E, the Commission approved Public Service's

plans to incrementally add up to 850 MW of intermittent resources by 2015. Public Service has included the cost of the new Eligible Energy Resources consistent with the resource plan presented in Docket No. 07A-447E under the RESA budget through 2020.

D. Tracking, Counting and Trading of RECs

Public Service will track and count all RECs generated and/or purchased through its REC tracking system ("RTS") developed in 2006. The RTS certifies, tracks and counts all RECs by generator, type of renewable resource, date of generation, and location where the REC was generated. RECs are issued from meter data except for On-Site Solar Systems of 10 kW or less, where the RECs will be determined by the PVWATTS program at the time of contracting. The system also monitors REC inventory balances (e.g., REC vintages and expirations) and can integrate forecasted generation to support long-term planning. The RTS tracks transactions for all RECs retired (for compliance) or transferred. Additionally, if a market for trading RECs develops, the system has the capability to track such transactions.

The system was also designed to ensure compatibility with regional REC tracking systems that were under development at the time. Western Renewable Energy Generation Information System ("WREGIS"), a regional REC tracking system for the western states including Colorado, launched in June 2007. Public Service believes that WREGIS and other regional REC tracking and verification systems will add significant credibility to and aid in the development of REC markets. As such, Public Service is a registered WREGIS Account Holder and will register all Eligible Energy Resources in WREGIS soon. WREGIS currently requires revenue-quality meter data for all classes of generators, including customer-sited distribution generation. Therefore, the On-Site Solar Systems of 10 kW or less can not currently be registered in WREGIS. Public Service is planning to submit a

WREGIS Change Control and Issues Request Form to propose this functionality to WREGIS.