

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO

DOCKET NO. 08A-532E

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

**ANSWER TESTIMONY AND EXHIBITS OF WILLIAM J. DALTON
STAFF OF THE COLORADO PUBLIC UTILITIES COMMISSION**

February 23, 2009

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1 **I. IDENTIFICATION OF WITNESS AND PURPOSE OF TESTIMONY**

2
3 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

4 **A.** My name is William J. Dalton and my business address is 1560 Broadway
5 Suite 250, Denver, CO 80202.

6
7 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

8 **A.** I am employed by the Colorado Public Utilities Commission
9 (Commission) as a Professional Engineer.

10
11 **Q. HAVE YOU PREPARED A STATEMENT OF YOUR**
12 **EXPERIENCE AND QUALIFICATIONS?**

13 **A.** Yes. It is attached as Appendix A to this testimony.

14
15 **Q. ARE YOU GENERALLY FAMILIAR WITH THE FILINGS IN**
16 **DOCKET NO. 08A-532E?**

17 **A.** Yes.

18
19 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

20 **A.** The purpose of my testimony is to provide Staff’s analysis of the 2009
21 Renewable Energy Standard Compliance Plan (the “2009 RES Plan”)
22 proposed by Public Service Company of Colorado (the “Company”, or

1 “PSCo”). I also provide Staff’s recommendations on whether the
2 Commission should approve PSCo’s 2009 RES Plan.

3

4 **Q. DOES STAFF HAVE CONCERNS WITH THE COMPANY’S 2009**
5 **RES PLAN?**

6 **A.** Yes. This plan includes incremental resource costs that could exceed the
7 two-percent annual retail rate impact limit for 2009. The On-Site Solar
8 acquisitions themselves for 2009 are projected to incur acquisition costs or
9 incremental costs that could exceed the two-percent retail rate impact limit
10 for 2009. In addition, the Company is now acquiring small on-site solar
11 RECs at such a rate as to limit any other resource, regardless of cost in
12 2009.

13

14 **Q. CAN YOU SUMMARIZE YOUR RECOMMENDATIONS?**

15 Staff has completed the review and assessment of Public Service’s 2009
16 RES Plan. Staff recommends that the Commission accept Public
17 Service’s 2009 RES Plan conditioned on the following recommendations:

18

19 1. Defer the decision to consider the ECA cost recovery as proposed by
20 the Company until the new ECA docket is filed, which is expected to
21 be filled late 2009 per Commission Decision C06-1379.

- 1 2. Do not approve the Company’s proposal to offer new Solar*Rewards
2 products to tax exempt and rental customers. Defer consideration until
3 2010 RES Compliance Plan.
- 4 3. Require the Company to file an amended Compliance Plan per Rule
5 3657 when actual results to date indicate that the approved On-Site
6 Solar Program Acquisition Budget will exceed the forecast by 5
7 percent for 2009.
- 8 4. Allow cost recovery of the WiP through the RESA account and order
9 the Company to provide annual integration costs associated with
10 intermittent resource on the Company’s system.
- 11 5. Require the Company to report annual avoided fossil fuel cost and
12 associated generation saving in annual RES budget and that these
13 annual savings be used to offset the ongoing costs of the renewables.
- 14 6. Require the Company to provide a copy of Company procedures and
15 policies to the Commission that demonstrate the Company’s
16 commitment to not share market or bid information with its
17 Home*Smart subsidiary.
- 18 7. Recommend that PSCo submit the 2009 third party audit report as
19 required by Rule 3659 (l) (IV) as an attachment to either its 2008 RES
20 Compliance Report or 2010 RES Compliance Plan.
- 21

1 **II. COLORADO RENEWABLE ENERGY STANDARDS**

2 **Q. WHAT ARE THE COLORADO RENEWABLE ENERGY**
3 **STANDARDS (RES)?**

4 **A.** In November 2004, Colorado voters passed Amendment 37 that
5 established Renewable Energy Standards (“RES”) for certain Colorado
6 electric utilities also defined as Qualifying Retail Utilities (“QRUs”).
7 Public Service is a Colorado QRU because it has more than 50,000 retail
8 customers in Colorado.

9 In its 2007 legislative session, the Colorado General Assembly
10 increased the RES by the passage of House Bill (HB) 07-1281, which
11 doubled the amount of renewable energy a QRU must acquire. HB 07-
12 1281 requires Public Service to generate or cause to be generated
13 electricity from eligible energy (EE) resources in the following minimum
14 amounts:

15

Year	RES Requirement As % of Retail Electric Sales
2008 – 2010	5 %
2011 – 2014	10 %
2015 – 2019	15 %
2020 and thereafter	20 %

16

17 In addition to meeting the percentages in Table 1, an investor
18 owned QRU must derive at least four percent (4%) of the RES from solar

1 electric generation technologies, and at least one-half of that four percent
2 must further be derived from on-site solar systems located at customers’
3 facilities.

4

5 **Q. HOW DOES PUBLIC SERVICE COMPLY WITH THE RES?**

6 **A.** Rule 3659(a) of the Commission’s RES Rules, 4 *Code of Colorado*
7 *Regulations* (CCR) 723-3-3659(a), requires that Renewable Energy
8 Credits (“RECs”) be used to comply with the RES. The Commission
9 Rules defines a REC as a “contractual right to the full set of non-energy
10 attributes, including any and all credits, benefits, emissions reductions,
11 offsets, and allowances, howsoever entitled, directly attributed to a
12 specific amount of electric energy generated from an eligible energy
13 resource.”¹ One REC results from each megawatt-hour (MWh) of electric
14 energy generated from an eligible energy resource.²

15

16 **Q. WHY IS PUBLIC SERVICE SUBMITTING THIS COMPLIANCE**
17 **PLAN?**

18 **A.** Commission Rule 3657 requires every QRU such as Public Service to file
19 an annual application with the Commission for approval of its proposed
20 plan detailing how the utility intends to comply with the RES rules during

¹ Commission Rule 3652(n)

1 the next compliance year. Each annual RES Plan must include a
2 description of how the Company complies with the following rules as well
3 as compliance tariffs, if applicable:

- 4 1. Determination of the retail rate impact pursuant to rule 3661;
- 5 2. Estimate of its retail electricity sales;
- 6 3. Estimate of the eligible energy that the QRU already has
7 acquired and the QRU's estimate of the additional eligible
8 energy that will be needed to meet the renewable energy
9 standards;
- 10 4. Estimate of the funds that the QRU will have available to
11 generate, or cause to be generated, additional eligible energy
12 under the retail rate impact rule;
- 13 5. Plan to acquire additional eligible energy given the
14 constraints of the retail rate impact rule, including the
15 allocation of the funds available under the retail rate impact
16 rule to acquire eligible energy or RECs from each of the
17 following: on-site solar systems; solar renewable energy
18 systems that are not on-site solar systems; and non-solar
19 eligible energy;
- 20 6. Standard rebate offer and the QRU's estimate of the eligible
21 energy that will be acquired under the standard rebate offer;
- 22 7. Plan to track how the QRU is responding to customers
23 participating in the standard rebate offer program. The QRU
24 shall track from the start of the application process to when
25 the photovoltaic system commences generation;
- 26 8. Plan to acquire the additional eligible energy, including the
27 QRU's use of competitive acquisitions to obtain the
28 additional solar eligible renewable energy it needs to meet
29 the renewable energy standard;

² Id.

- 1 **9.** The proposed request for proposal including any standard
2 contracts to be included with the acquisition for all eligible
3 energy that the QRU plans to acquire by competitive
4 acquisition;
- 5 **10.** Proposed ownership investment, if any, in eligible energy
6 resources and estimate of whether its investment will provide
7 net economic benefits to the QRU’s customers, entitling the
8 QRU to extra profit on its investment, pursuant to rule 3660.
- 9 **11.** The competitive acquisition process for eligible energy
10 resources, pursuant to rule 3655;
- 11 **12.** The establishment of the initial level and adjustments to the
12 standard rebate offer for solar electric generation resources,
13 pursuant to rule 3658;
- 14 **13.** The treatment, tracking, counting and trading of RECs,
15 pursuant to rule 3659;
- 16 **14.** The establishment of a cost recovery mechanism, pursuant to
17 rule 3660;
- 18 **15.** The net metering for renewable energy resources, pursuant to
19 rule 3664; and
- 20 **16.** The interconnection of renewable energy resources, pursuant
21 to rule 3665.

22
23 The Commission's rules implementing the Renewable Energy Standard
24 are provided in 4 CCR 723-3-3650 *et seq.*

25
26 **Q. HAS STAFF PERFORMED A REVIEW OF COMPLIANCE PLAN**
27 **BASED ON THE REQUIREMENTS IN 4 CCR 723-3-3657?**

28 **A.** Yes.

29

1 **Q. WHEN DOES THE COMMISSION VERIFY RES COMPLIANCE**
2 **BY A QRU?**

3 **A.** On June 1, each QRU such as PSCo must file a Compliance Report to the
4 Commission for the prior compliance year. The Annual Compliance
5 Report Requirements are provided in Rule 3662. PSCo’s 2009
6 Compliance Report is due June 1, 2010.

7 To date, the Company has filed one Compliance Report. The 2007
8 Compliance Report was filed with the Commission on June 2, 2008. Staff
9 provided a review and a recommendation of acceptance to the
10 Commission of the 2007 report on August 15, 2008. The Commission
11 accepted Staff’s recommendation on the Company’s 2007 Report in
12 Decision C08-1035 on September 10, 2008.

13
14

15 **III. REQUIRED RENEWABLE ENERGY**

16
17 **Q. HAS PSCO PROVIDED AN ESTIMATE OF THE ELIGIBLE**
18 **ENERGY (EE) REQUIRED BY RULE 3657(c)?**

19 **A.** Yes, as provided in Table 4-1 of PSCo’s 2009 RES Compliance Plan,³
20 PSCo has provided estimated retail sales and corresponding renewable
21 energy requirements for the period 2008 through 2020. The renewable

1 energy requirements are further divided down to into Solar RECs (S-
2 RECs), On-Site Solar (SO-RECs), Central Solar, and Non-Solar (NS-
3 RECs). This is the same updated load forecast prepared for the December
4 1, 2008 Colorado Resource Plan ordered in Decision No. 08-0929.⁴

5

6 **Q. HAS PSCO IDENTIFIED ITS LONG TERM PLAN TO ACQUIRE**
7 **ADDITIONAL ENERGY OR RECS UNDER 3657(e)?**

8 **A.** Yes. Table 4-4 from PSCo 2009 RES Plan shows PSCo's long-range plan
9 for acquisition of RECs through 2020 and is based upon Commission
10 Decision C08-0929 regarding the Company resource plan filed in Docket
11 07A-447E. Pending the outcome of phase II of the Company's Energy
12 Resource Plan, Docket No. 07A-447E and any changes to RES rules, the
13 information provided in Table 4-4 is subject to change; however the
14 information presented at the time of the 2009 RES Plan filing does provide
15 the long range planning required of PSCo for the 2009 RES Compliance
16 Plan - Planning Period 2009 thru 2019.

17

18

IV. NON-SOLAR RES

19 **Q. HOW DOES PSCO MEET THE NON-SOLAR RES ACQUISITION**
20 **REQUIREMENTS OF 3657(c)?**

³ Public Service Company of Colorado, 2009 Renewable Energy Standard Compliance Plan, Volume 2, December 1, 2008, Table 4-1.

1 A. PSCo tracks and counts all RECs generated and/or purchased through its
2 REC tracking system (“RTS”). The RTS tracks and counts all RECs by
3 generator, type of renewable resource, date of generation, and location
4 where the REC was generated. RECs are issued from meter data except
5 for On-Site Solar Systems of 10 kW or less, where the RECs will be
6 determined by the PVWATTS program at the time of contracting. RTS
7 also monitors REC inventory balances (e.g., REC vintages and
8 expirations) and can integrate forecasted generation to support long-term
9 planning. The RTS tracks transactions for all RECs retired (for
10 compliance) or transferred. Additionally, if a market for trading RECs
11 develops, the system has the capability to track such transactions.

12 The system was also designed to ensure compatibility with
13 regional REC tracking systems that were under development at the time.
14 Western Renewable Energy Generation Information System (“WREGIS”),
15 a regional REC tracking system for the western states including Colorado,
16 launched in June 2007. PSCo believes that WREGIS and other regional
17 REC tracking and verification systems will add significant credibility to
18 and aid in the development of REC markets.

19 In response to Discovery Request CPUC 5-45, the Company stated
20 that to date, they have registered six of the wind generators in WREGIS.

⁶ Public Service Company of Colorado, 2009 Renewable Energy Standard Compliance Plan,
Volume 2, December 1, 2008, Table 4-2, pages 1 and 2.

1 The Company plans to register the remaining resources (with the
2 exception of on-site solar) and obtain WREGIS approval by April 16,
3 2009, to enable production from January 1, 2009 to be reported to
4 WREGIS.

5
6 **Q. DOES PSCO PROVIDE RECS TO THEIR WHOLESALE**
7 **CUSTOMERS?**

8 **A.** Yes. PSCo must plan for the transfer of RECs to its wholesale customers
9 based upon each wholesale customer's load ratio share of PSCo's total
10 retail and wholesale energy deliveries. In addition, pursuant to Rule
11 3660(i), wholesale energy providers such as PSCo must offer its wholesale
12 customers that are cooperative electric associations the opportunity to
13 purchase their load ratio shares of the wholesale energy provider's
14 electricity from eligible energy resources.
15 PSCo has offered to its wholesale customers the opportunity to purchase
16 RECs, both Solar RECs and Non-Solar RECs. Currently, all of the
17 wholesales customers have declined the Solar RECs purchase. The
18 Company expects to transfer non-solar RECs to each of the eight
19 wholesale customers – Black Hills/Colorado Electric , Grand Valley Rural
20 Power Lines, Inc. ("Grand Valley"), Holy Cross Energy ("Holy Cross"),
21 Intermountain Rural Electric Association ("IREA") and Yampa Valley

1 Electric Association, Inc. (“Yampa Valley”), City of Burlington; Town of
2 Julesburg and Town of Center.

3
4 **VI. SOLAR REQUIREMENT OF THE RES**

5 **Q. DOES PSCO MEET THE SOLAR REQUIREMENT OF THE RES**
6 **FOR 2009?**

7 **A.** PSCo meets the solar requirement of the RES through its Solar REC (S-
8 REC) and On-Site (SO-RECs) programs.

9
10 **Q. PLEASE EXPLAIN THE ON-SITE SOLAR RESOURCES (SO-**
11 **RECS) PROGRAM.**

12 **A.** In March 2006, the Company initiated a Standard Rebate Offer program
13 for new small (10 kW and less) On-site Solar Systems. Through the end
14 of December 2008, PSCo had processed cumulatively 4,775 small solar
15 applications for standard rebates. PSCo plans to continue the Standard
16 Rebate Offer program in 2009. Company Witness Newell⁷ notes however
17 that based on experience, the Company estimates that only 80 percent of
18 applications result in actual PV installation.

19

⁷ P.Newell Testimony, page 8, line 6 through line 9.

1 **Q. IS PSCO BORROWING FORWARD SOLAR RECS IN ITS 2009**
2 **COMPLIANCE PLAN TO MEET THE 2009 SOLAR ENERGY**
3 **REQUIREMENTS?**

4 A. Yes. PSCo’s 2009 RES Plan relies on “borrowing forward” to meet the
5 Central Solar requirement for 2009. As provided in Table 4-2, page 3 of
6 9, row 11 of PSCo 2009 RES Plan, PSCo projects borrowing forward
7 13,407 S-RECs from 2010. This compares to 2008 RES Plan borrowing
8 forward of 4,399 S-RECs from 2009. Staff attributes the increase in year
9 over year S-REC borrowing to the Company’s disproportionate
10 acquisition of On-Site Solar Resources in 2008. Staff notes that
11 Commission Rule 3654 (k) allows for such borrowing; however the
12 borrowing provision expires with the 2010 Compliance year.

13
14 **Q. WHAT IS PSCO’S PLAN FOR CENTRAL SOLAR ENERGY**
15 **ADDITIONS?**

16 A. PSCo released a RFP in January 2008 for approximately 60,000 MWh of
17 S-RECs (approximately 25 MW AC) from new or existing non-On-Site
18 solar facilities starting in the 2009 - 2012 time frame. The Company states
19 in this filing that the results of this RFP are still under evaluation. Once
20 the evaluation and contract negotiations are final, Public Service plans to
21 file the winning contract(s) with the Commission for approval under Rule

1 3655(c). Public Service believes the contract(s) will provide S-RECs and
2 eligible energy within the 2011 time-frame.

3 As mentioned earlier, Staff notes that with nearly the all of the
4 2009 two percent rate impact dollars the Company is allocating to small
5 on-site solar acquisition in 2009, the Company is delaying the Central
6 Solar RECs resources that today should be less costly on a per dollar REC
7 acquisition beyond year 2009.

8

9 **Q. IS THE COMPANY PLANNING ANY ADDITIONAL SOLAR**
10 **RECS ACQUISITIONS IN THIS RES PLAN?**

11 A. Yes, Public Service plans to issue one solar RFP in late 2009 for the
12 competitive acquisition of SO-RECs from Large On-Site Solar systems of
13 100 kW up to 2 MW. The Company expects that the selected projects will
14 be completed in late 2010 or 2011 time frame. The Company states that
15 based on its experience with the RFP process, bidders on the large
16 programs require approximately 14 months to construct their projects.⁸

17

18 **VII. SOLAR REC AND REBATE PAYMENTS**

19

20 **Q. WHAT ARE PSCO'S PV SYSTEM REBATE AND REC**
21 **PAYMENTS?**

1 performance was significantly below the Company's expectation for new
2 enrollments, the Company provided no explanation¹¹ for lack of
3 participants and any recommended changes to improve participation. The
4 Company stated that it still supports¹² this product and recommends not
5 changing product offering.

6
7 **Q. PLEASE PROVIDE A BRIEF SUMMARY OF THIRD PARTY**
8 **DEVELOPER PROGRAMS**

9 **A.** Applications for the Solar*Rewards Medium program are available to
10 Third-Party Developers to own and maintain installations on customer
11 sites. As the owner/operator of the PV system, the Developer enters into
12 the SO-REC contract with PSCo to receive the monthly SO-REC
13 payments directly. The Developer makes arrangements with the end-use
14 customer for the receipt of the generation. To make this arrangement
15 possible, a "Sale of Electricity" waiver from PSCo must be signed by the
16 Developer and acknowledged by PSCo. As the equipment owner, the
17 Developer is the party who enters into the Interconnection Agreement with
18 PSCo. The PSCo retail electric customer is still the rebate recipient and
19 must enter into the Solar*Rewards Rebate Contract with PSCo. However,
20 the customer does have the option to designate an Alternate Rebate

¹⁰ Answer Testimony P. Newell, page 9, line 9 – 10.

1 Recipient, which could be the Developer if desired. The retail customer is
2 also able to elect net metering according to the tariff, and it is the retail
3 customer who will receive any financial benefit of any excess generation
4 returned to the grid. Payment for excess generation will be made within
5 60 days after the end of the calendar year or 60 days after the termination
6 of service.

7

8 **Q. IS STAFF SATISFIED WITH PSCO’S SOLAR INCENTIVES?**

9 **A.** Yes, Staff agrees with PSCO’s Solar Incentives for 2009 REC payment
10 and rebate amounts. However, Staff is concern with the consequences of
11 the Company’ sudden and abrupt change in REC payment without lack of
12 regard to consequences to program participants, retail rate impact and
13 existing Compliance Plans.

14 For future REC payment adjustments, Staff recommends the
15 Commission order the Company to consider other viable transition periods
16 to avoid wild swings in enrollment and impacts to system providers.

17

18 **Q. DOES STAFF HAVE CONCERNS WITH THE COMPANY’S NEW**
19 **SOLAR*REWARDS OFFERING PROPOSED IN THIS DOCKET?**

¹¹ Discovery Response CPUC 5-57.

¹² PSCO RES Compliance Plan, Volume 1, section 5, page 3.

1 **A.** Yes. Public Service has proposed new Solar*Rewards On-Site product
2 offerings for tax exempt identities and rental class customers. Staff’s
3 review of the Company Compliance Plan concludes that the Company has
4 not provided sufficient information demonstrating the demand exists for
5 these customers nor did they provide any estimate of the market size or
6 PV system requirement or program management to support these
7 customers.

8 Regarding Tax Exempt Customers, the Company provided no
9 information on this market need, market size and program specifics. In
10 response to Discovery Request CPUC 2-3 regarding tax-exempt
11 customers, the Company could not provide information supporting their
12 claim that tax exempt customers are disadvantaged. In addition, in
13 response Discovery Request CPUC 2-4, the Company could not provide
14 information regarding participants’ tax status as a determinate in Solar*
15 Rewards Programs. Finally, in Discovery Request CPUC 2-16 requesting
16 the basis for offering tax exempt participants a SO-REC price of \$ 2.90,
17 the Company could not provide program details.

18 Regarding Rental Customers, the Company did not provide
19 information on this market need, market size and program specifics. In
20 response to Discovery Request CPUC 2-26, the Company could not
21 provide information supporting their claim that renters are under-

1 represented in Solar*Rewards program. In addition, in response to
2 Discovery Request CPUC 2-27, the Company could not provide
3 information regarding any market research to identify market size or
4 potential. Finally, in Discovery Request CPUC 2-30, requesting the
5 clarification on who would own such a system, renter or facility owners,
6 the Company defers the answer pending the outcome of the Renewable
7 Energy Standard Rule Making Docket, 08R-424E.

8 Staff is concern that the Company proposes to expand the
9 Solar*Rewards product offering while at the same time not being
10 cognizant of annual funding limitations¹³ to support the new and existing
11 programs along with other eligible resource acquisitions the Company
12 proposes to acquire.

13 Staff recommends to the Commission that the Company be
14 required to first demonstrate stabilization and control of the existing
15 Solar*Rewards Program offerings, subscription levels and management,
16 before being approved to provide product offerings and plans to
17 accommodate other customer groups.

18
19 **Q. DOES STAFF SUPPORT EXPANDING SOLAR*REWARDS**
20 **PROGRAMS TO THESE CUSTOMER CLASS?**

¹³ Answer Testimony P. Newell, page 8, line 17 through line 22.

1 A. Yes, Staff recognizes that the tax-exempt and rental class customers
2 should have solar programs available to them should they choose to
3 participate. However Commission Rules restrict incremental cost for
4 resources added to less than two-percent retail impact limit for first year of
5 RES plan, in this Docket it is 2009. Even if the Company provided
6 program details for these groups; for 2009, there may be not sufficient
7 funding under the two percent retail rate cap to support the incremental
8 additions.

9 Staff recommends to the Commission that it defer to the 2010 RES
10 Compliance Plan filing any approval (and presumption of prudence) to
11 offer these products and services. Staff believes this would allow the
12 Company to identify what in the potential market size is, how they plan to
13 manage subscriptions, costs to ratepayers and allow the retail rate impact
14 limit revenue to provide the available funding.

15

16 **Q. DOES THE COMPANY PROPOSE COMPANY OWNERSHIP OF**
17 **CUSTOMER SITED SOLAR PV SYSTEMS?**

18 A. Yes. The Company presents a discussion in Section 5 of Volume 1 of the
19 Compliance Plan on possible Company owned and operated PV systems
20 located at customers' sites. The Company would first file a separate
21 application to the Commission for this acquisition. The Company will

1 invest approximately \$15 million in 2009 to install PV Solar systems
2 within their service territory, with a specific interest in serving
3 government entities such as city, state, and federal facilities. The
4 Company would seek to own and operate Eligible Energy Resources
5 authorized by C.R.S. 40-2-124 (1) (f) (I) and Commission Rule 3660(e).

6 When asked in Discovery Request CPUC 5-14, for more specifics
7 than provided, the Company response was this acquisition is not fully
8 developed and has not proceeded to an application phase. If the Company
9 plans to proceed forward, then a separate application will be filed to
10 address specifics.

11 Staff agrees that project specifics and merits could be better
12 answered in a separate filing; there is nothing to rule on at this time
13 regarding Company ownership of PV systems.

14 **VIII. RETAIL RATE IMPACT**

15 **Q. DID THE COMPANY PERFORM A RETAIL RATE IMPACT**
16 **CALCULATION AS REQUIRED IN RULE 3657 AND RULE 3661?**

17 **A.** The Company explains in its application and the testimony of Company
18 witness(s) Warren, Walsh, and Ahrens how it determined to perform that
19 calculation and the methods it used to do that calculation. Staff
20 recommends that to determine the Net Retail Rate impact for year 2009,
21 the Company needs to add to the Retail Revenue Amount or RESA
22

1 revenues, the expected revenue from Windsource Premiums and
2 Wholesale customer sales to be collected during 2009. This additional
3 calculation will provide the expected total revenue available for eligible
4 energy acquisitions for 2009.

5
6 **Q. WAS A DECISION IN THE WINDSOURCE DOCKET 08A-260E**
7 **ISSUED?**

8 **A.** Yes, Decision R09-0117, issued on February 5, 2009, approves revisions
9 to the Company's Windsource Program and the stipulation and settlement
10 agreement filed on January 3, 2009 in that docket. At the time of this
11 testimony, Staff is assuming that this Decision will become the final
12 Commission decision. Therefore Staff analysis is based on the
13 Windsource Case or the RES budget presented in Table 6.4 of RES plan.

14
15 **Q. DOES STAFF BELIEVE THAT THE RETAIL RATE IMPACT**
16 **CALCULATION IS THE ONLY CRITERIA THE COMPANY**
17 **MUST MEET?**

18 **A.** No. Staff believes that actual costs acquiring incremental eligible
19 resources in a given compliance plan must also be considered. Although
20 the above calculations provide guidance as to quantity of eligible
21 resources available to acquire over the RES planning period, the law

1 requires that incremental annual additions and costs shall be at or below
2 two-percent of customer's bill during the first year of a compliance plan
3 filing. In this proposed plan filed by the Company, the costs of planned
4 acquisitions in 2009 will be extremely close to the two-percent retail limit.

5
6 **Q. WHAT WILL THE COMPANY'S RENEWABLE ENERGY**
7 **STANDARD ADJUSTMENT (RESA) BE FOR 2009?**

8 **A.** Effective January 2009, the RESA will be at 2 percent, the maximum
9 allowed by law and this was approved by the Commission in Decision
10 C08-1262. Previously, the RESA was at 1.46 percent since March 2008.

11
12 **Q. WHAT ARE THE FUNDING MECHANISMS FOR RES**
13 **COMPLIANCE AT THE PRESENT TIME?**

14 **A.** PSCo recovers cost associated with RES compliance from ratepayers thru
15 the RESA Rider and ECA cost recovery mechanisms.

16
17 **Q. WHAT IS PSCO'S RES PLAN?**

18 **A.** PSCO RES Plan is a portfolio of resources including Eligible Energy
19 Resource (EE) for 2009 through 2020. PSCO's RES Plan file in this
20 application includes the EE resources from the Company's 2007 Resource
21 Plan in Docket 07A-447E, approved by the Commission in Decision C08-

1 0929. This RES Plan meets and exceeds the Company’s Renewable
2 Energy Standard obligations for non-solar RECs for 2009 through 2019.

3

4 **Q. WHAT IS PSCO’S NO RES PLAN?**

5 **A.**PSCo’s NO RES Plan is a portfolio of energy resources for the same
6 period of time that does not include any EE resources. The NO RES Plan
7 replaces all of the renewable energy resources with alternative non-
8 eligible resources that are currently reasonably available. As in PSCo
9 approved previous RES Plans, PSCo has restricted its choice of
10 alternatives to natural gas fueled combustion turbine(s) and combined
11 cycle unit(s).

12 Staff notes that in the No-Res Plan¹⁴, the Company would not
13 require a conventional resources addition until 2013, a resource the
14 Company identifies as a Combine Cycle unit, four years into RES
15 Planning period. However, the RES plan, that includes acquired
16 renewable energy resources, also shows the same resource addition in
17 2013.

18

19 **Q. WHAT IS THE PURPOSE OF RES AND NO RES PLANS?**

¹⁴ 2009 RES Compliance Plan, Volume 1, Section 6, page 7

1 **A.** PSCo uses the RES and NO RES Plans to determine certain incremental
2 costs. These incremental costs are considered to be the difference in the
3 annual Total System Costs between the RES and NO RES Portfolio as
4 determined by PSCo’s STRATEGIST Economic modeling software.
5 Total System Costs are the costs associated with meeting the Company
6 annual load requirement (retail and wholesale loads) and the costs of all
7 generation resources used to meet the load.

8

9 **Q.** **HOW DOES PSCO DEFINE “INCREMENTAL COSTS” IN DOING**
10 **ITS RES AND NO RES PLANS?**

11 **A.** PSCo’s position is that this “Incremental Cost” is the annual incremental
12 cost of EE and is subject to recovery through the RESA.

13

14 **Q.** **DOES PSCO’S RESA RECOVER ALL THE COST OF EE?**

15 **A.** No, the RESA only recovers the incremental portion of the cost of EE.

16

17 **Q.** **HOW DOES PSCO RECOVER THE REMAINING COSTS?**

18 **A.** PSCo performs an additional calculation to determine the costs and the
19 method of recovery. The differences between the Incremental Costs and
20 the Total Costs of the Eligible Energy Resources in the RES Plan are then
21 calculated by spreadsheet; these are the Avoided Costs of the non-

1 renewables or what PSCo refers to its 2009 Compliance Plan as the ECA
2 Costs.

3

4 **Q. HOW ARE THESE ECA COSTS RECOVERED?**

5 **A.** These costs are determined annually from PSCo's RES Plan forecast and
6 are recovered on a monthly basis in the ECA.

7

8 **Q. HAS THE COMMISSION APPROVED THIS COST RECOVERY**
9 **MECHANISM?**

10 **A.** Yes. This recovery mechanism was approved by the Commission in
11 Decision No.C07-0676, approving PSCo 2007 RES Compliance Plan.

12

13 **Q. WHAT COSTS ARE RECOVERED FROM THE REVENUE**
14 **DERIVED FROM THE RESA?**

15 **A.** PSCo uses the RESA revenue to pay for acquisition cost of EE, purchased
16 REC costs, program and administration costs. A RESA deferred account
17 has been established to record revenues costs and accrued interested for
18 the program.

19

20 **Q. IS THE RESA REVENUE A FIXED AMOUNT EACH YEAR?**

1 A. No, PSCo has projected growth in retail energy sales and increased sales
2 revenue. Although the Company projects energy sales to increase an
3 average of 1.1 percent through 2025¹⁵, the Company sales revenue
4 projection increases an average of 4.7 percent through 2020¹⁶.

5

6 **Q. YOU PREVIOUSLY DISCUSSED THE ECA COSTS. ARE THESE**
7 **ECA COSTS LIMITED OR RESTRICTED IN ANY WAY?**

8 A. No. The ECA Costs are recovered in a manner similar to the existing
9 ECA cost recovery rider. The ECA has been used by PSCo to recover
10 purchase power fuel and energy costs. The ECA for the RES Plan is the
11 avoided costs of the non-renewable resources. PSCo determines the ECA
12 as the difference between the Incremental Costs (NO RES and RES) and
13 total costs of the Eligible Energy Resources. In Table 6-4 of PSCo
14 Application, PSCo is estimating an annual ECA cost in 2009 of
15 approximately \$ 6,294,789. This amount grows exponentially to
16 approximately \$ 725,423,842 in 2020.

17 This ECA Cost amount growth tracks the proposed renewable
18 energy resources PSCo seeks to acquire due to the increased RES
19 requirements, its plan to acquire more resources than required for actual
20 compliance with the RES, and the corresponding larger portfolio of

¹⁵ PSCo 2008 RES Plan, December 1, 2008, Volume 1, section 3.

¹⁶ Discovery Response CPUC 7-1, Attachment CPUC 7-1, RES Table 6.4, cell Y10 through Y24.

1 renewable energy resources and their costs. The actual annual EE ECA
2 adjustments and RESA account balance will be determine on the based
3 actual portfolios during the given year.

4

5 **Q. WHY IS THE DISTINCTION BETWEEN RECOVERY OF**
6 **CERTAIN RENEWABLE ENERGY COSTS FROM RESA**
7 **REVENUE AND RECOVERY IN THE ECA SO IMPORTANT?**

8 **A.** It is important because the renewable energy costs projected by the
9 Company (see Column G of Table 6.4) for obtaining renewable energy
10 that complies with and exceeds compliance with the RES, are not
11 exclusively recovered from RESA revenue. Thus these costs are not
12 limited by the limitation of the 2% maximum retail impact. In the later
13 years the costs of renewables recovered in the ECA will dominate the
14 costs borne by rate payers for the renewable energy.

15

16 **Q. WAS THE RETAIL RATE IMPACT LIMIT OF TWO PERCENT**
17 **INTENDED TO PROVIDE RECOVERY FOR COMPANY OWNED**
18 **EE ASSETS?**

19 **A.** Staff believes so. At the time the RES rules where implemented, PSCo
20 was not building to own any generation assets besides the Comanche 3
21 unit. Essentially, PSCo was using Purchase Power Contracts with outside

1 Developers to supplement Company owned generation, including
2 renewable resources such as wind and solar. The cost recovery for these
3 assets would be through rate base and the associated rate filing(s). The
4 Retail Rate Impact calculation would need to account for Company owned
5 EE assets and this would be decided in future filings.

6

7 **Q. DOES THE COST OF THE RES INCREASE IN THE PLAN**
8 **PRESENTED BY THE COMPANY IN THIS DOCKET?**

9 A. Yes, over time and as presented in Table 1, PSCo must increase the
10 amount of energy produced by renewable energy resources. Since some
11 of these resources have yet to be procured, their cost will be added as
12 they become commercially operational¹⁷.

13

14 **IX. REC PAYMENT ADJUSTMENT**

15 **Q. WHAT IS THE REC PAYMENT ADJUSTMENT?**

16 A. On October 23, 2008, the Company announced an adjustment to the REC
17 payment for small solar systems (less than 10 kW). The adjustment
18 decreased the REC payment from \$ 2.50 to \$ 1.50 per watt.

19

¹⁷ Table 6.4, PSCo 2009 RES Compliance Plan, December 1, 2008, column G.

1 **Q. DID STAFF REVIEW THE RATIONAL OF THE COMPANY IN**
2 **THE OCTOBER LETTER TO THE COMMISSION TO REDUCE**
3 **REC PAYMENT FOR SMALL SOLAR?**

4 **A.** Yes. Staff has reviewed the letter, impact of IRS rule changes and
5 supporting calculation. Staff believes the rational was reasonable to offer
6 lower REC payments. Commission Rule 3658 (XI) allows the QRU to
7 adjust REC payment. However, the Company chose to unilaterally
8 implement the REC price changed with 32-hour notice. Staff believes that
9 as a direct result of the Company’s actions on the REC payment
10 implementation, they created a surge in applications to create a backlog,
11 effectively shutting down other solar acquisitions for 2009 and possibly
12 longer. In essence, the Company actions set the 2009 Compliance Plan
13 acquisitions prior to Commission consideration of the 2009 RES Plan.

14
15 **Q. ARE THERE ANNUAL LIMITS ON FUNDS AVAILABLE FOR**
16 **ELIGIBLE RESOURCE ADDITIONS?**

17 **A.** Yes, Commission Rule 3661 (h) (II) provides for a two-percent retail rate
18 impact. That is the cost of renewable acquisitions in for first year of a
19 compliance plan shall be not exceed two percent of customers’ bills.

20

1 **Q. WHAT POSITION DID THE COMPANY TAKE REGARDING A**
2 **SET ASIDE FOR THE SOLAR*REWARD PROGRAM DURING**
3 **THE 2008 RES COMPLIANCE PLAN**

4 A. The Company strongly opposed a set aside advocated by CoSEIA during
5 the 2008 RES Compliance Plan (Docket 07A-462E) hearing. The
6 Company’s position was that the Rules do not require such an allocation
7 and no specific analysis was provided by CoSEIA supporting such
8 allocations. In addition, the Company stated that on-site solar is currently
9 more expensive than other forms of renewable generation and the RES
10 requires only that 2 percent be from on-site solar. If a significant portion
11 of the RESA were allocated to small projects, either the RESA would need
12 to be increased or fewer RECs would be generated, which is not in the
13 interest of the ratepayers.

14 However, the Company’s actions to date have been just the
15 opposite of what they advocated during the hearing. The Company’s
16 Solar* Rewards program has been managed to accommodate the
17 residential program almost exclusively. To illustrate, Table 6.4 provided
18 in Volume 2 of the 2009 RES Compliance Plan show the costs associated
19 with Renewable Energy Compliance. Under Column B, On-Site Solar
20 cost are provided, Column M provides the estimated two-percent RESA

1 rider revenue and this is set at the maximum retail rate impact limit of two
2 percent for 2009.

3
4

TABLE 2			
	On-Site Solar Cost ¹⁸	RESA Revenue ¹⁹	Percent of On-Site Solar Cost to RESA Revenue (1)/(2)
	(1)	(2)	(1)/(2)
2008	\$ 29,535,819	\$ 32,085,721	92.1%
2009	\$ 50,309,000	\$ 50,015,046 ²⁰	100.6%

5

6 **Q. WHAT WAS THE COMPANY'S SOLAR ACQUISITION**
7 **STRATEGY AS PRESENTED IN DOCKET 07A-432E, THE 2008**
8 **RES COMPLIANCE PLAN DOCKET?**

9 A. Company Witness Kittel in her rebuttal testimony submitted in that docket
10 stated²¹ :

11 In our 2008 RES Compliance Plan Public Service requests Commission
12 approval of the Company's 2008 solar acquisition strategy for meeting the
13 solar renewable energy standard. This strategy includes our 2008 On-Site
14 Solar acquisition strategy, including the targeted acquisitions among our
15 small, medium and large Solar*Rewards programs. Public Service seeks
16 approval of the On-site solar RFPs and the model contracts included in the
17 plan.

18 In addition, Public Service's 2008 RES Compliance Plan sets forth the
19 Company's strategy for minimizing the costs of solar resources by
20 acquiring more S-RECs from central solar facilities in addition to the

¹⁸ Table 6-4, Volume 1, PSCo 2009 RES Compliance Plan, December 1, 2008, Column B

¹⁹ Ib. Column M

²⁰ 2009 Retail Rate Impact is at the maximum allow by Commission Rule 3661, two-percent, Company filed advice Letter 1526 – Electric requesting change and Commission Approved the Company's request in Decision C08-1262.

²¹ Rebuttal Testimony of R.Kittel, Docket 07A-462A, March 17, 2008, page 2, line 9 to line 19.

1 SunE Alamosa facility, rather than relying on more expensive SO-RECs to
2 meet the solar standard.
3
4

5 **Q. DID THE COMPANY APPLY FOR CHANGES TO THE**
6 **APPROVED 2008 RES COMPLIANCE PLAN UNDER RULE 3657**
7 **(c)²²?**

8 **A.** No. The Company filed the October 23, 2008²³ letter with the
9 Commission announcing reducing the SO-REC Payment and did nothing
10 to amend the 2008 Compliance Plan approved by the Commission in
11 Decision C08-0559. The application activity since the letter did result in a
12 brief surge stopped only by the Company's 32-hour²⁴ cut-off period.
13 Unintentional or not, this changed the acquisition plan from the approved
14 2008 Compliance Plan and has predetermined a significant portion of the
15 2009 Compliance Plan acquisition.

16 The reference letter and notice did result in material changes to the
17 Company's on-site solar acquisitions. Staff believes that Company should
18 have applied to the Commission to modify the 2008 RES Plan based on
19 October 2008 subscription level. The 2008 Compliance Plan submitted by

²² Rule 3657 (c) The investor owned QRU may apply to the Commission at any time for approval of amendments to an approved compliance plan.

²³ Letter R. Kittel, PSCo to D. Dean, Colorado PUC, RE: Reducing the SO-REC Payment Under Solar*Rewards, October 23, 2008.

²⁴ Email P. Newell to Solar Program, Subject Announcement of new SO-REC pricing for Small Solar*Rewards projects, Thursday, October 23, 2008 4:25 PM.

1 the Company and approved by the Commission was changed materially by
2 the Company actions.

3

4 **Q. WHAT DOES STAFF RECOMMENDS WHEN THE COMPANY**
5 **INCURS CHANGES TO PLAN AS IN OCTOBER 2008?**

6 **A.** Staff recommends that the Company be required to file amended
7 Compliance Plan per Rule 3657 when actual results to date indicate that
8 approved the On-Site Solar Program Acquisition Budget will exceed the
9 forecast by 5 percent for 2009. This will allow the Company to provide
10 explanation, assessment and the actions they plan to take to minimize cost
11 impact. Staff also points out that the Company is now collecting at the
12 maximum retail rate impact limit of 2 percent and allocation over-runs in
13 one year will impact future year acquisitions.

14

15 **Q. AFTER THREE RES COMPLIANCE PLAN FILINGS, WHAT IS**
16 **STAFF ASSESSMENT OF THE SOLAR*REWARDS PROGRAM**
17 **MANAGEMENT?**

18 **A.** It appears that the Solar*Rewards program is experiencing growing pains
19 and not always meeting expectations. The estimates for the first three
20 years have been underestimated for small solar and overestimated for
21 medium and large solar programs. Actions taken by the Company to

1 reduce REC payment amount within hours, had the opposite effect of
2 increasing applications and corresponding cost allocations. Staff is
3 concern that if the Company’s execution of the Solar*Rewards program
4 remains problematic it could create additional funding issues in the future
5 as the RES requirements increase. Staff believes the Company’s actions
6 to date suggest the inability²⁵, lack of foresight or market intelligence to
7 create, manage and execute a program within Rule 3661 parameters, that
8 is the retail rate impact and to acquire eligible resources in cost effective
9 programs.

10
11 **Q. SHOULD THE COMMISSION DIRECT THE COMPANY ON**
12 **WHAT ON-SITE SOLAR RESOURCES SHOULD BE ACQUIRED?**

13 **A.** No. Staff believes the responsibility of the plan development and
14 execution remains with the Company. This includes Company
15 responsibility in executing the plan to inform potential participants of the
16 funding limitations and the Company’s responsibility to work within the
17 funding limits. As part of the RES, the Company provides acquisition
18 plans to the Commission for approval that identify resource acquisitions
19 that will not exceed the two-percent retail rate impact limit. As mentioned

²⁵ Public Service Witness P.Newell, Direct Testimony, page 7, line 5 to page 8, line 9 and page 8
line 17 to page 9 to line 10.

1 earlier, the 2009 On-Site Solar acquisition for 2009 may result in
2 acquisitions exceeding the two-percent retail rate impact.

3 The unintended consequences of the Company's reduction of the
4 REC payment from \$2.50 to \$1.50 is an application bubble created within
5 32-hour period of notice²⁶. This has created a situation where Staff
6 believes the Company has to defer other less costly Solar REC
7 procurement so to avoid exceeding the two-percent retail rate impact limit.
8 The Company indirectly implies that this is the case, choosing to defer the
9 central solar RECs to later years.

10 The Company's prior year installation estimates have been
11 underestimated and Staff believes the Company's forecasting errors could
12 continue. For example during 2008, the Company experienced a 188
13 percent increase in number of small solar installed, increasing the budget
14 spent on small systems by \$ 17 million or 180 percent. Although the
15 Company is forecasting increase for 2009 on all Solar* Rewards
16 programs, if the small system installs exceed the projected installs of 1500
17 and \$ 36.3 million budget forecast, other acquisitions would need to be
18 curtailed.

19

²⁶ Email P. Newell to Solar Program, Subject Announcement of new SO-REC pricing for Small Solar*Rewards projects, Thursday, October 23, 2008 4:25 PM.

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X. PROPOSED ECA COST RECOVERY

Q. ARE THE ECA COSTS BEING TRUED UP ANNUALLY?

A. No. The Commission in Decision No. C07-0676, accepting PSCo’s 2007 RES Plan did not require ECA true up. Commission in this order allowed the split cost recovery only for the 2007 through 2009 Compliance Plan. Any variation in actual cost recovery (RESA Rider plus ECA revenues) vs. the model forecast recovery will be address by adjusting the RESA.

Q. WITH RESA NOW AT ALLOWED MAXIMUM 2 PERCENT, HOW DOES THE COMPANY PROPOSE TO TRUE UP COSTS ANNUALLY?

A. The Company proposes²⁷ to true up actual eligible energy costs annually via the ECA cost recovery mechanism. This would allow for cost recovery and variation in cost associated with an increasingly larger wind generation portfolio. The Company believes that wind generation is never consistent year-to-year, generation costs likewise will vary year-to-year and the ECA could be adjusted to account for cost variation.

Q. WHAT DOES STAFF RECOMMEND?

²⁷ D. Ahrens answer testimony, page 12 line 16 though page 14 line 7.

1 A. Staff recognizes the possible dilemma that the Company could face with
2 the RESA account used for balancing wind energy costs and incremental
3 costs. Staff notes however that this dilemma the Company presents has
4 not yet occurred and may not materialize in the future. Staff recommends
5 that the Commission defer the decision to consider the proposed ECA cost
6 recovery as proposed by the Company until the new ECA docket is filed,
7 which is expected to be filed late in 2009 per Commission Decision C06-
8 1379²⁸.

9

10 **XI. ELIGIBLE ENERGY CONTRIBUTION TO RESA ACCOUNT**

11

12 **Q. DOES THE RES PLAN INCLUDE EE RESOURCES THAT**
13 **DISPLACE ENERGY OTHERWISE GENERATED BY**
14 **CONVENTIONAL, FOSSIL FUELED RESOURCES?**

15 A. Yes. In section 6, Page 7 of Volume I of the RES Plan, the Company does
16 provide an overview for the EE resources added over the RES Planning
17 period.

18

19 **Q. DID THE COMPANY PROVIDE THE QUANTITY OF ENERGY**
20 **AND ITS COSTS DISPLACED BY THE EE RESOURCES?**

²⁸ Commission Decision No. C06-1379, Docket 06S-234EG paragraph 73, page 27.

1 A. In response to Discovery Request CPUC 5-2, the Company response was
2 that specific displacement (generation unit or fuel type) of non-renewable
3 energy with renewable energy resources is not identifiable. The Company
4 provided Attachment CPUC 5-2 that indentifies the additional EE energy
5 added and the generic EE type added over the planning period.

6 In response to Discovery Request CPUC 5-1 the Company
7 response was that costs of the non-renewable energy displaced by the EE
8 resources are the ECA cost column or column I of Table 6.4 of RES Plan.
9 The Company could not specify (generation units or fuel type) of non-
10 renewable energy that matches these costs.

11 Company Witness Ahrens Testimony on page 5, lines 18 through
12 21 states regarding the ECA, “The remaining (non-incremental) costs of
13 the Eligible Energy, i.e., the costs that match the costs that would have
14 been incurred to acquire the non-renewable resources that will be
15 displaced by renewable resources, will continue to be recovered through
16 the ECA.”

17 Staff notes that in the No-Res Plan²⁹, the Company would not
18 require conventional resources addition until 2013, a resource the
19 Company identifies as a Combine Cycle unit, four years into RES
20 Planning period. However, if the RES plan derived ECA cost is suppose

²⁹ 2009 RES Compliance Plan, Volume 1, Section 6, page 7

1 to match energy resources cost from the No-RES plan, then what are these
2 No-RES resources that are avoided? In response to Discovery Request
3 CPUC 6-14, the Company response that prior to No-RES capacity
4 additions in 2013, these RES ECA costs are avoided fossil fuel generation
5 costs.

6 Staff believes that it is indeterminate what impact the EE resources
7 have today and in the future on the non-renewable portion of the existing
8 generation portfolio. Staff can not determine if the energy provided by the
9 EE replaces 1:1 fossil fuel generation energy and the corresponding costs
10 of this energy. If it is true as the Company states that EE ECA costs
11 match displaced non-renewable costs, the Company should be able to
12 indentify the fuel type, energy and cost. Staff agrees that the EE have
13 costs and provide energy but the Company calculation is only allocating
14 EE costs to the portfolio.

15
16 **Q. WHY IS THIS IMPORTANT TO KNOW AND BE ACCOUNTED**
17 **FOR?**

18 **A.** On an on going basis, the renewable energy resources are displacing
19 conventional fueled resources; coal and gas generation units, then the
20 operating costs, variable costs, emission cost and CO2 emission costs, are
21 avoided and should be credited against the RESA account the Company

1 presents in Table 6.4. No where in this table does the displaced fuel cost
2 or avoided conventional generation cost show up as savings.
3

4 **Q. PLEASE PROVIDE AN EXAMPLE**

5 **A.** In Docket 09A-021E, the Company submitted an application for
6 Commission approval of a new wind energy contract or Renewable
7 Energy Purchase Agreement (REPA). Documentation submitted in
8 support of this application includes a present value calculation³⁰. The PV
9 calculation provides Avoided Energy Costs, Cost of the Wind Energy and
10 a Wind Integration Costs. The avoided energy costs, \$ 458 million over
11 the 25-year term of contract, were estimated using the Strategist Model,
12 the same model used in the RES and No-RES determination.

13 In this application the Company provides an avoided energy saving
14 for conventional resources. In the same application, on page 13 of Exhibit
15 No. JFH-1 (attached as Exhibit WJD-2), the Company provides the same
16 analysis with the following statement: “The net savings result from the
17 displacement by this project’s wind energy of higher priced energy
18 generated from natural gas facilities.”³¹

³⁰ Docket 09A-021E, Application of PSCo for Approval of A Renewable Energy Purchase Agreement with Northern Colorado Wind Energy, LLC, January 16, 2009, page 5.

³¹ Docket 09A-021E, Testimony of J. Hill, January 16, 2009, Exhibit No. JFH-1, page 13.

1 No where in the RES and No-RES Plan calculations does the
2 Company present any annual conventional fuel and associated costs
3 savings directly attributable to renewable energy resources.

4

5 **Q. WHAT DOES STAFF RECOMMEND?**

6 **A.** Staff recommends to the Commission that it require the Company to
7 report annual fuel cost and associated generation savings in its annual RES
8 budget and that these annual savings be used to offset the ongoing costs of
9 the renewables.

10 Staff believes that not accounting for the annual avoided costs of
11 conventional fuel increases the cost of the renewables while ignoring the
12 cost benefits using less conventional fuel and generation. The reduction in
13 conventional fuel consumption and generation is a direct result of
14 renewables and the RESA account should account for and record these
15 savings.

16

17 **XII. WIND PREDICTOR**

18 **Q. WHAT IS WiP?**

1 A. The Company has purchased³² a wind-forecasting tool, (hereinafter
2 “WiP”), to more accurately project electricity production sourced from
3 wind farms.

4

5 **Q. DID THE COMPANY CONSIDERED WIP COST RECOVERY IN**
6 **RECENTLY FILED RATE CASE?**

7 A. Yes, Company Witness D. Ahrens³³ notes that the revenue requirement for
8 the WiP was in the Phase I (Docket 08A-520E) rate case but chose this
9 docket for recovering the revenue requirements.

10

11 **Q. HOW DOES THE COMPANY PROPOSE COST RECOVERY OF**
12 **THE WiP?**

13 A. The Company proposes to recover revenue requirement through the RESA
14 revenue. The Company justifies cost recovery because they believe that it
15 is a program expense relating to the wind energy portion of the eligible
16 energy portfolio. In response to Discovery Request CPUC 3-3, the
17 Company considers this an eligible expense recoverable through Rule
18 3660(a).

19

³² Discovery Response CPUC3-1.

³³ D. Ahrens Testimony, page 17 line 23 to page 18 line 4.

1 **Q. CURRENTLY, ARE THERE ANY WIND COSTS RECOVERED**
2 **THROUGH THE RESA?**

3 A. No. Company Witness Ahrens states that no there are no wind costs that
4 are recovered through the RESA, only solar costs³⁴.

5
6 **Q. WHAT COSTS DOES THE COMPANY BELIEVES THIS TOOL**
7 **WILL REDUCE?**

8 A. It will not reduce wind energy costs incurred based on actual wind
9 generation. The Company believes that this tool will reduce wind
10 integration costs, cost incurred³⁵ at non-wind and non-renewable facilities,
11 facilities that would provide back-up generation and the costs incurred at
12 these facilities when wind production changes unexpectedly. These costs
13 are also referred to as ancillary costs.

14
15 **Q. DOES THE COMPANY IN THE RES BUDGET TABLES**
16 **PROVIDE ANNUAL INTEGRATION COST OF INTERMITTENT**
17 **RENEWABLE RESOURCES SUCH AS WIND AND SOLAR?**

³⁴ D. Ahrens Answer Testimony, page 13, line 6 and 7.

³⁵ Discovery Response CPUC 3-9, Attachment WJD-XYZ

1 A. No, these costs are not broken out individually based on resource. The
2 estimated integration costs associated with wind are included in the Total
3 System Cost for the RES Portfolio³⁶.

4

5 **Q. WHAT WIND INTEGRATION COSTS DOES THE COMPANY**
6 **CURRENTLY USE?**

7 A. As required by the Commission in Decision C08-0929, the Phase I
8 Decision in the Company’s Resource Plan Docket 07A-447E, the
9 Company provided an updated wind integration study³⁷, which provided a
10 Base case \$8.80 (unsmoothed) \$ per MWh wind generation.

11

12 **Q. DOES STAFF BELIEVE THAT INTEGRATION COST SHOULD**
13 **BE TRACK ANNUALLY?**

14 A. Yes. Staff believes it would be beneficial to the Commission to know
15 what the actual integration costs are being incurred due to an increase in
16 the level of intermittent resources including wind and solar on the system.
17 This will provide the additional system costs incurred above the cost of
18 generation from the intermittent resources and attributable to the
19 intermittent resource generation variability.

³⁶ Discovery Response CPUC 3-15, Attachment WJD-XYZ

³⁷ Xcel Energy, Wind Integration Study for Public Service of Colorado, Addendum, Detailed Analysis of 20% Wind Penetration, December 1, 2008, page 22.

1

2 **Q. DOES STAFF BELIEVE THAT THE DECEMBER 1ST UPDATE**
3 **PROVIDES SUFFICIENT INTEGRATION COST VALUES?**

4 **A.** For planning and modeling purposes, Staff believes it does provide a
5 placeholder value to use. However, this is based on studies, historical and
6 hypothetical system conditions and does not capture ongoing actual costs.
7 Staff believes tracking actual costs provides the validation needed to
8 accurately assess integration costs associated with intermittent resources.

9

10 **Q. WHAT DOES STAFF RECOMMEND?**

11 **A.** Staff recommends that the Commission allow cost recovery of the WiP
12 through the RESA account and order the Company to provide annual
13 integration costs associated with intermittent resource on the Company
14 system as part of the annual Compliance Plan filing. This would provide
15 Company cost recovery and allow for the Commission to track actual
16 integration costs.

17

18

XIII. HOME SMART

19 **Q. WHAT IS HOME SMART?**

1 **A.** Home Smart is an unregulated subsidiary of PSCo. The primary business
2 has been in appliance repair and servicing. The Commission has no
3 jurisdiction over Home Smart. Currently Home Smart has expanded into
4 the role of PV system installer, competing with the other PV installers.

5

6 **Q.** **WHY IS THERE CONCERN WITH HOME SMART AND THE**
7 **SOLAR REWARD PROGRAM?**

8 **A.** The Company as administrator of the Solar*Rewards program has market
9 information that if not protected from the Home*Smart entity could
10 provide an unfair competitive advantage. Information collected as the
11 program administrator includes system costs, number of installs provided
12 by specific installer, geographic location and application to complete
13 install time. Although Home*Smart is unregulated by the PUC, the
14 Company believes it can own a Company involved with PV installation
15 and not report this to the Commission.³⁸

16

17 **Q.** **DOES THE COMPANY PLAN TO RESTRICT HOME*SMART**
18 **INSTALLATIONS TO SMALL SOLAR MARKET?**

³⁸ Discovery Response CPUC 4-5.

1 **A.** No. The Company’s response to discovery³⁹ suggests the Company can
2 install any size system and act as a third party developer. Staff points out
3 that on larger systems, greater than 100 kW, competitive RFPs are used to
4 identify and select winning bids for PV projects, propriety bid information
5 is collected by the regulated Company and is not publicly shared with any
6 outside party. This could create a conflict of interest or perception of one
7 to the competitive project developer market, if the program administrator
8 is a direct or indirect competitor. Without a competitive market for PV
9 installations, ratepayers could end up paying higher cost for Solar
10 Acquisitions.

11
12 **Q. WHAT DOES STAFF RECOMMEND?**

13 **A.** Regarding PSCo’s Home Smart affiliate, Staff recommends that the
14 Commission require:
15 1. The Company to provide a copy of Company procedures and
16 policies that demonstrate the Company’s commitment to not
17 share market or bid information and that adequate controls are
18 in place to prevent sharing.
19 2. The Company must adhere to Commission rules and
20 regulations regarding cost allocations between the regulated

³⁹ Discovery Request CPUC 4-10.

1 and non-regulated per Commission Rule 3503. Cost
2 Assignment and Allocation Manuals.
3

4 **XIV. OTHER ISSUES**
5

6 **Q. IS PSCo SUBMITTING MONTHLY REPORTS AS REQUIRED BY**
7 **COMMISSION ORDER NO. C07-0676?**

8 **A.** Yes, PSCo is submitting the required monthly reports. Staff recommends
9 that Commission require PSCo to continue submitting monthly reports to
10 the Commission.
11

12 **Q. IS PSCO CHANGING ITS NET METERING TARIFFS OR**
13 **INTERCONNECTION REQUIREMENTS?**

14 **A.** There are no changes to Net Metering tariffs. The Company has proposed
15 one change to its interconnection requirements -- to relieve 10 kW and
16 smaller PV systems of the requirement to have an external AC disconnect
17 switch (“EDS”). The Company believes that there is no longer a need to
18 require AC EDS for solar systems below 10 kW, so long as the solar system
19 has an Underwriters Laboratory (“UL”) 1741 standard certified inverter.
20 Staff concurs with PSCo position.
21

- 1 3. Require the Company to file an amended Compliance Plan per
2 Rule 3657 when actual results to date indicate that the approved
3 On-Site Solar Program Acquisition Budget will exceed the forecast
4 by 5 percent for 2009.
- 5 4. Allow cost recovery of the WiP through the RESA account and
6 order the Company to provide annual integration costs associated
7 with intermittent resource on the Company's system.
- 8 5. Require the Company to report annual avoided fossil fuel cost and
9 associated generation saving in annual RES budget and that these
10 annual savings be used to offset the ongoing costs of the
11 renewables.
- 12 6. Require the Company to provide a copy of Company procedures
13 and policies to the Commission that demonstrate the Company's
14 commitment to not share market or bid information with its
15 Home*Smart subsidiary.
- 16 7. Recommend that PSCo submit the 2009 third party audit report as
17 required by Rule 3659 (l) (IV) as an attachment to either its 2008
18 RES Compliance Report or 2010 RES Compliance Plan.

19
20 **Q. DOES THIS CONCLUDE YOUR TESTIMONY AT THIS TIME?**

21 **A. Yes.**

APPENDIX A

STATEMENT OF QUALIFICATIONS OF WILLIAM J. DALTON, P.E.

I am a graduate of the State University of New York at Buffalo with a Bachelor of Science Degree in Chemical Engineering. I have a Masters in Business Administration Degree from Canisius College (Buffalo, NY). I am licensed Professional Engineer in Colorado and New York. I am a Certified Energy Manager and a Certified Sustainable Development Professional, as issued by the Association of Energy Engineers.

I joined the Colorado Public Utilities Commission in January 2007 as a Professional Engineer. In my present position, I have responsibility to analyze and make recommendations to the Commission on Renewable Energy Standards Programs, and to review and evaluate applications filed by regulated utilities to ensure compliance with generally accepted Rules and practices of the Commission. To date, I have provided testimony in Commission Docket Nos. 06S-656G, 07A-108EG, 07A-356E, 07A-462E, 08A-260E, 08A-346E and 08A-470E.

My professional experience includes project, consulting, and development engineering roles in regulated industries, primarily in the areas of public utility and nuclear waste remediation.

Prior to joining the Colorado Public Utilities Commission, I worked at Xcel Energy for 6 years, most recently as a Generation Modeling Analyst. In this role, I was involved in evaluation of multiple cost impacts to Xcel Energy generation and resource portfolio using various modeling software. Initially at Xcel Energy, I was a Technical Consultant, providing technical expertise on new product offerings and customer implementation requirements.

Prior to joining Xcel Energy, my responsibilities included Project Engineering, process design supervision and oversight for waste retrieval and treatment system design for Department of Energy (DOE) facilities. I prepared and presented project documentation, status reports, technical evaluations and updates to management, client, subcontractors and vendors, state regulatory agencies, the DOE and Nuclear Regulatory Commission (NRC). I ensured compliance with environmental regulations and contract requirements. I provided resolution, costing, justification, and program changes as required.

As a consulting engineer, I managed assignments involving process development, design and evaluations, environmental compliance and market studies. I evaluated and made recommendations to improve client operations, process analysis, material flow, equipment and facility layouts. I determined capital and operating costs, designed process operations and materials handling systems. I have performed the following responsibilities: mass and energy balances, material and equipment selection/assessment, environmental permitting and compliance.

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO

DOCKET NO. 08A-532E

RE: IN THE MATTER OF THE APPLICATION OF PUBLIC SERVICE COMPANY OF COLORADO
APPROVING ITS 2009 RENEWABLE ENERGY STANDARD COMPLIANCE PLAN.

**AFFIDAVIT OF WILLIAM J. DALTON
STAFF OF THE COLORADO PUBLIC UTILITIES COMMISSION**

I, William J. Dalton, being duly sworn, state that the attached testimony was prepared by me or under my supervision, control, and direction; that the testimony is true and correct to the best of my information, knowledge and belief; and that I would give the same testimony orally if asked under oath.



William J. Dalton

Subscribed and sworn to before me in the County of Denver, State of Colorado, this 23rd day of

February 2009.



NOTARY PUBLIC

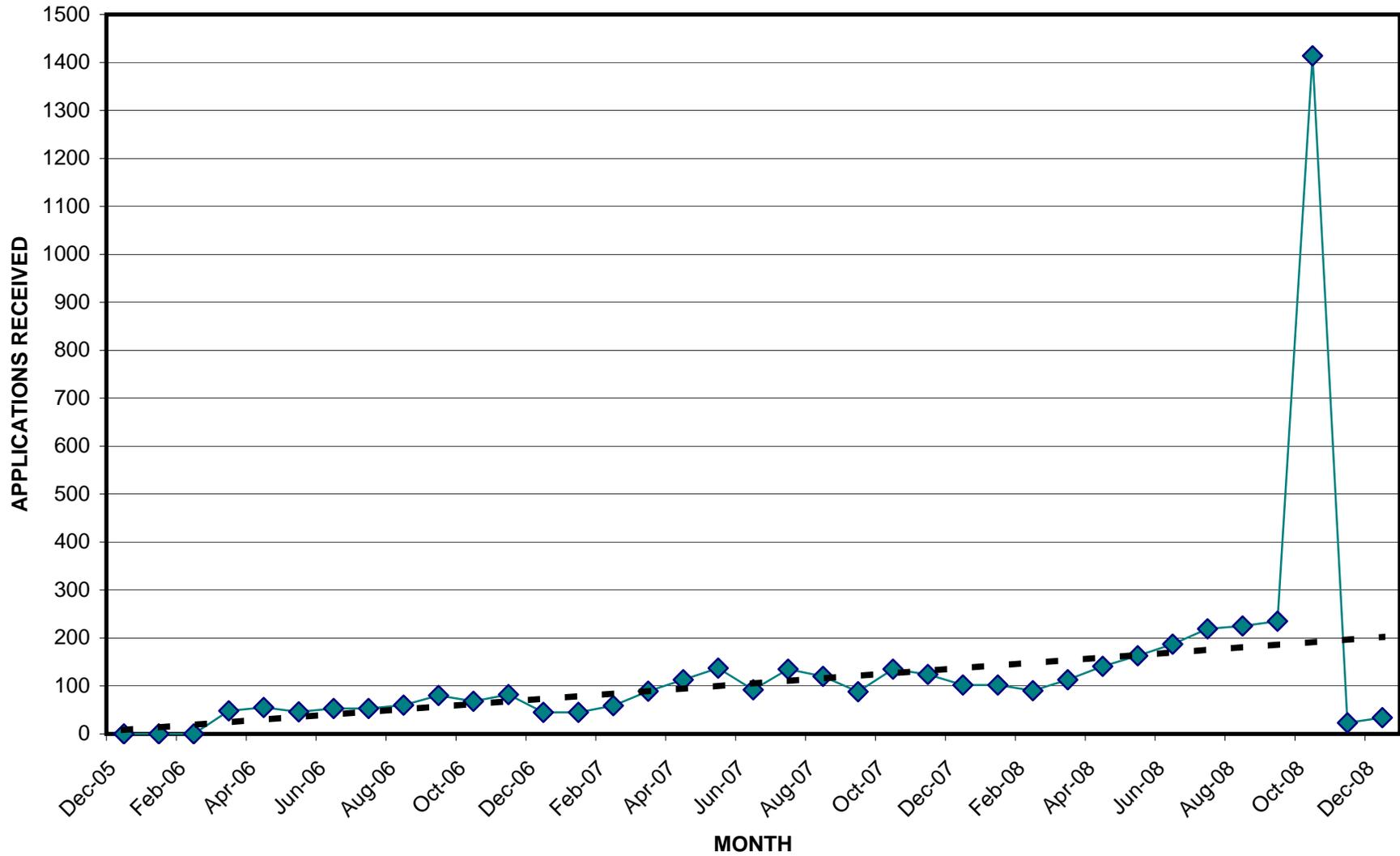
My Commission expires:

My Commission Expires August 28, 2012



EXHIBIT –WJD-1 (1 PAGE)
EXHIBIT –WJD-2 (1 PAGE)

PSCO SOLAR*REWARDS CUMULATIVE THROUGH 2008 < 10 kW SYSTEMS



Source Docket 06S-016E Monthly Reports:
December 2006, filed 2/1/07, December 2007, filed 2/4/08, December 2008, filed 2/2/09

Exhibit No. JFH-1

were exchanged on about September 6th, September 25th, October 20th and November 18th.

Bid W003 was the most economic of bids in all analyses. Public Service determined through its due diligence that bid W003 was a viable and robust bid suitable for selection as the best resource in the Early Wind RFP. Public Service estimates that the net savings for W003 are \$99 million over the twenty-five year life of the contract. The net savings result from the displacement by this project's wind energy of higher priced energy generated from natural gas facilities. The net savings are calculated as follows:

	<u>2008 PV\$</u>
Avoided Energy Savings	\$458 million
Cost of Wind Energy under REPA	(279) million
<u>Cost to Integrate Wind</u>	<u>(80) million</u>
Net Impact of REPA	\$99 million of savings

The REPA was ultimately finalized by the negotiation team on December 17, 2008 and received the approval of the Xcel Energy Transaction Review Committee on December 18, 2008. The PPA was submitted to the Public Service board for approval and received approval on January 5, 2009. Representatives of the developer and Public Service signed the REPA on January 14, 2009. The REPA is attached as Exhibit 4.