



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

DANIEL S. AHRENS

BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF COLORADO

\* \* \* \* \*

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PUBLIC SERVICE COMPANY OF )	DOCKET NO. 08A-____E
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\* \* \* \* \*

DOCKET NO. 08A-\_\_\_\_E

**DIRECT TESTIMONY OF  
DANIEL S. AHRENS**

## I. INTRODUCTION

2

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

A. My name is Daniel S. Ahrens. My business address is 1225 Seventeenth Street, Suite 1000, Denver, Colorado 80202.

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

A. I am employed by Xcel Energy Services, Inc., a wholly-owned subsidiary of Xcel Energy Inc., the parent company of Public Service Company of Colorado. My job title is Pricing Consultant, Pricing and Planning.

**Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THE PROCEEDING?**

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

Service” or the “Company”).

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

## DUTIES, AND RESPONSIBILITIES?

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

included as Attachment A.



1 Under law and the current RES Rules, Public Service is required to  
2 generate or cause to be generated from eligible energy resources in the  
3 following amounts:

- 4 • 2008 through 2010 – 5 percent of Colorado retail electric sales;
- 5 • 2011 through 2014 – 10 percent of Colorado retail electric sales;
- 6 • 2015 through 2019 -- 15 percent of Colorado retail electric sales.
- 7 • 2020 forward -- 20 percent of Colorado retail electric sales.

8 Additionally, at least four percent of the RES must be derived from solar  
9 electric generation technologies, and at least one-half of that amount must  
10 be generated from on-site solar systems as defined in the RES Rules.

11 Under the RES Rules, compliance with these standards is accomplished  
12 by the acquisition and retirement of Renewable Energy Credits or “RECs.”

13 **Q. HOW DOES PUBLIC SERVICE PLAN TO MEET THESE**  
14 **THRESHOLDS?**

15 A. Table 4-1 in Volume 2 of the Plan quantifies the RECs that the Company  
16 must acquire in each year to meet each part of the Renewable Energy  
17 Standard. However, these amounts by statute are the minimum RECs  
18 that must be acquired. Neither the RES Rules nor the Statute limit the  
19 Company to acquiring *only* the minimum Eligible Renewable Energy  
20 Resources needed in any Compliance Year. Rather, the only limitation on  
21 eligible energy resource acquisition is that the utility cannot exceed the  
22 retail rate impact limit of two percent on customer bills. In fact, the  
23 legislative declaration accompanying Amendment 37 provided that “it is in

1 the best interests of the citizens of Colorado to develop and utilize  
2 renewable energy resources to the maximum practicable extent. “ HB07-  
3 1281 provided: “If the retail rate impact does not exceed the maximum  
4 impact permitted by this paragraph [C.R.S.§40-2-124(1)(g)], the qualifying  
5 utility may acquire more than the minimum amount of eligible energy  
6 resources and renewable energy credits required by this section.” Public  
7 Service believes that the Colorado General Assembly intended to  
8 encourage Colorado utilities to acquire more renewable resources than  
9 set forth in the Renewable Energy Standard, so long as the two percent  
10 retail rate impact limit is not exceeded. We explain in our 2009 Plan how  
11 Public Service proposes to exceed the minimum levels of RECs required  
12 to comply with the RES, while remaining under the two percent retail rate  
13 impact limit identified in C.R.S. §40-2-124(1)(g)(I) and by Commission  
14 Rules and orders.

15           Contemporaneous with the filing of this Plan, the Company has  
16 also made an advice letter filing requesting the Renewable Energy  
17 Standard Adjustment (“RESA”) be increased to the full two percent  
18 allowed by law. Consistent with the last two RES Plans filed by the  
19 Company (in Docket Nos. 06A-478E and 07A-462E) and approved by the  
20 Commission (by Decision Nos. C07-0676 and C08-0559), Public Service  
21 has designed the RESA to collect only the incremental costs of Eligible  
22 Energy, i.e., the costs in excess of what would have been paid to acquire  
23 new non-renewable resources reasonably available at this time, plus the

1 program administrative costs. These are the costs that must pass the  
2 retail rate impact test in C.R.S.§40-2-124(1)(g).

3 The purposes of using this adjustment clause are two fold. First,  
4 the statute requires that the maximum retail rate impact be no more than  
5 two percent “of the total electric bill annually for each customer.” Given  
6 the cost allocation and rate design methods that are used to set electric  
7 rates, the only way to assure that this statutory directive is met is to  
8 measure each customer’s bill impact through a adjustment that applies to  
9 all elements of the bill. This is how the RESA is applied to each  
10 customer’s bill. Second, although not required by law, the RESA furthers  
11 the policy goals of this statute because it provides a mechanism for  
12 funding larger, lumpy investments in Eligible Energy Resources while still  
13 keeping the impact on annual electric bills within the two percent rate  
14 impact limit. By “prefunding” later year acquisitions through the RESA  
15 account, Public Service is able to consider larger, more cost-effective  
16 eligible energy resource additions in later years than we would be able to  
17 consider were we to be limited to a year-by-year acquisition strategy.

18 The remaining (non-incremental) costs of the Eligible Energy, i.e.,  
19 the costs that match the costs that would have been incurred to acquire  
20 the non-renewable resources that will be displaced by renewable  
21 resources, will continue to be recovered through the ECA. In that way, a  
22 portion of the costs of Eligible Energy is recovered through the ECA and a

1       portion of the costs of Eligible Energy (plus program administrative costs)  
2       is recovered through the RESA.

3               As in prior year RES Compliance Plans, Public Service determines  
4       the incremental costs of Eligible Energy by comparing, through a  
5       sophisticated computer model of our utility system, a RES Plan scenario  
6       that contains the new Eligible Energy Resources proposed by this Plan  
7       with a No-RES Plan scenario that assumes new non-renewable resources  
8       in lieu of the new Eligible Energy Resources. The incremental costs of the  
9       RES Plan over the No-RES Plan for each year are the costs that are  
10      recovered through the RESA. Public Service then subtracts these  
11      modeled incremental costs of the Eligible Energy from the total projected  
12      costs of the new Eligible Energy Resources to derive the Estimated ECA  
13      costs. We use the Estimated ECA costs when we project the 2009 ECA.

14   **Q.   DOES THIS COMPLIANCE PLAN MEET THE RENEWABLE**  
15   **STANDARD RULES?**

16   A.   Yes. The Company's Plan contains all the information required by Rule  
17       3657. In addition, the Company's Plan is consistent with the Company's  
18       2007 Colorado Resource Plan ("2007 CRP"), approved by the  
19       Commission in Docket No. 07A-447E. Our 2009 RES Plan meets or  
20       exceeds the requirements of the RES, and is within the retail rate impact  
21       limits for Eligible Energy Resources.



1   **Q.   PLEASE GIVE A HIGH LEVEL SUMMARY OF THE COMPANY'S**  
2       **PROPOSED ACQUISITIONS OF ELIGIBLE ENERGY RESOURCES**  
3       **THAT ARE SET FORTH IN THIS PLAN.**

4   A.   The Company proposed in our 2007 CRP, (and the Commission approved  
5       this proposal), to acquire 850 MW of additional intermittent resources  
6       (which will likely be primarily non-solar resources like wind) through the  
7       All-Source RFP to be issued in January 2009. We project that the RECs  
8       from those new resources, plus the non-solar eligible energy resources  
9       already acquired by Public Service, will be sufficient to meet the non-solar  
10      RES requirements through at least 2020. Public Service already has  
11      sufficient non-solar RECs to meet the RES for 2009.

12           Public Service plans to continue to acquire additional SO-RECs  
13      from on-site solar systems at or above the levels outlined by Ms. Newell in  
14      her Rebuttal Testimony presented in Docket No. 07A-447E. In fact, the  
15      2009 SO-REC acquisitions from small on-site systems under the standard  
16      offer will likely be greater than we anticipated in Docket No. 07A-447E,  
17      because the Company experienced a large increase in applications under  
18      our small solar rewards program when we announced that we were  
19      reducing the offered SO-REC payment due to the increase in the federal  
20      subsidy for these systems. Ms. Newell's projected on-site solar  
21      acquisitions are discussed in her testimony and in Section 5, Volume I of  
22      the 2009 RES Plan.

1           In addition to the acquisitions discussed by Ms. Newell in Docket  
2       No. 07A-447E, Public Service plans to develop and own as utility rate-  
3       based grid-sited distributed solar generation. Under Rule 3660(e) a QRU  
4       is allowed to make this investment, without being required to competitively  
5       bid, for up to twenty-five percent of the total new eligible energy resources  
6       that the QRU acquired, if the Commission determines that the QRU-  
7       owned resources can be constructed at a reasonable cost compared to  
8       the cost of similar eligible energy resources available in the market. For  
9       purposes of this 2009 RES Compliance Plan, we have included a cost of  
10      \$1,465,425 of utility rate-based investment in the RES Plan. As can be  
11      seen on Tables 6-3 and 6-4, the Company's distributed generation  
12      investment can be accommodated within the retail rate impact limit  
13      without diminishing the other resource acquisitions discussed in Docket  
14      No. 07A-447E.

15           By contrast, Public Service is short of the S-RECs that we could  
16      use to comply with the solar Renewable Energy Standard in 2009. While  
17      we could satisfy the full solar RES standard using SO-RECs, we believe  
18      that it is cheaper to satisfy one-half of the solar RES with S-RECs and we  
19      propose to do so. To that end, we propose to "borrow forward" some of  
20      the S-RECs needed to comply with the 2009 RES, as permitted by Rule  
21      3654(k). Public Service issued an RFP for up to 25 MW of central solar  
22      power (which would generate S-RECs) in early 2008. We received 23  
23      responses, have evaluated the bids, and are in the process of contract

1 negotiations. If contract negotiations prove successful, we plan to file the  
2 contract for approval with the Commission under Rule 3655(c) in the near  
3 future. The Company anticipates a commercial availability of this project  
4 by January 1, 2011. This will be early enough to allow Public Service to  
5 use S-RECs to meet the solar RES in both 2009 and 2010 for much lower  
6 cost than we would incur if forced to rely solely on SO-RECs in these two  
7 compliance years.

8 **III. PLAN SECTIONS AND WITNESS INTRODUCTIONS**

9 **Q. PLEASE DESCRIBE HOW THE PLAN MEETS THE FILING**  
10 **REQUIREMENTS OF RULE 3657, DESCRIBE THE SECTIONS, AND**  
11 **IDENTIFY THE OTHER COMPANY WITNESSES.**

12 **A.** Each section of the Plan is designed to respond to specific filing  
13 requirements under Rule 3657.

14 Section 3 describes Public Service's retail energy forecast used to  
15 estimate the Company's retail electric sales from 2008 through 2020.  
16 This section fulfills the requirements of Rule 3657(a)(I)(B) and is  
17 sponsored by Ms. Jannell Marks.

18 Section 4 describes the Company's estimates of RECs that the  
19 must be acquired to meet the RES, and describes the Company's  
20 projected transfer of RECs to its wholesale customers consistent with the  
21 requirements of Rule 3657(a)(I)(C). Ms. Kari Chilcott Clark sponsors  
22 Section 4.

1           Section 5 describes the Company's plan to acquire Eligible Energy  
2           from various categories of solar and non-solar resources and the tracking  
3           of RECs, responding to Rule 3657 (a)(I)(E), (F), (G), (H); Rule 3657 (a)(II);  
4           Rule 3657(a)(III); and Rule 3657(a)(IV). Company Witness Clark testifies  
5           about the REC tracking system and RECs acquired from the non-solar  
6           Eligible Energy Resources. Ms. Pam Newell testifies to the acquisition of  
7           on-site solar resources.

8           Section 6 describes the retail rate impact over a 12-year period per  
9           Rule 3661(h) for acquiring the Eligible Energy Resources presented in the  
10          Company's 2007 CRP. Mr. Ken Walsh explains that the RESA was  
11          purposefully designed to recover the incremental costs of the new Eligible  
12          Energy and he demonstrates that the Company is within the retail rate  
13          impact as that term is defined by the law and Commission rules. Mr.  
14          Walsh shows how the Company intends to spend the two percent RESA  
15          to acquire Eligible Energy. Section 6 is responsive to Rule 3654(a)(I)(A)  
16          and (D). Mr. Walsh shows the predicted balances in the RESA account  
17          if the RESA is raised to two percent on July1, 2009.

18          Mr. Art Warren sponsors testimony supporting the RES Plan and  
19          No RES Plan modeling. This modeling provides the basis for the  
20          calculation of the incremental retail rate impact and for the calculation of  
21          the "Estimated ECA Costs", consistent with how the Company is  
22          proposing to recover costs in this Plan.

1           Company Witness Keith A. Parks discusses the Company's  
2           proposal to recover the costs for a new wind-forecasting tool, referred to  
3           as Wind Predictor ("WiP"), through the RESA. This new wind-forecasting  
4           tool should allow Public Service to reduce our wind integration costs.  
5           These costs are used in the RES/ No RES modeling.

6           Finally, I explain how the Company's pending Windsource  
7           proposal in Docket No. 08A-260E will impact the RESA and how those  
8           impacts will be reflected in the RES Compliance Plans each year.

9           Section 7 describes the cost recovery mechanisms used for  
10          acquiring Eligible Energy as required by Rule 3657(a)(V). I am supporting  
11          this section.

12          Section 8 states that the existing net metering tariff and provisions  
13          approved by the Commission in Decision No. C07-0676 will continue and  
14          the Company proposes no changes to the net metering of various solar  
15          project categories and the tariffs associated with implementing such  
16          projects. Section 8 complies with Rule 3657 (a)(VI).

17          Section 9 states that we are proposing to relieve 10 kW and  
18          smaller PV systems of the requirement to have an external AC disconnect  
19          switch ("EDS").

20          The Company is proposing no changes to our standard On-Site  
21          Solar contracts.

22          Per Rule 3657(a)(I)(J), Public Service is developing distributed PV  
23          generation across our system to enable governmental and non-profit

1 entities to incorporate renewable energy resources within their plans. This  
2 information is presented in Section 5, Volume I and addressed by me.

3 Mr. Chris Pardington explains the Company's revised position on  
4 the need for an external AC disconnect switch on small on-site solar  
5 systems.

6 **IV. COST RECOVERY MECHANISM**

7 **Q. THE COMPANY'S PROPOSED COST RECOVERY MECHANISM IS**  
8 **IDENTIFIED IN THE PLAN. COULD YOU SUMMARIZE THE**  
9 **COMPANY'S PROPOSAL?**

10 A. Yes. The Commission agreed with Public Service's request to split the  
11 cost recovery treatment for Eligible Energy between the ECA and RESA  
12 for Compliance Plans from 2007 through 2009.<sup>1</sup> Therefore, for the past  
13 two Compliance plans and for this 2009 Plan, the Company has  
14 presented the cost recovery of Eligible Energy and RES Program  
15 Administrative Costs through these two rate mechanisms.

16 The RESA is used to recover the projected incremental costs of the  
17 Eligible Energy, plus program administrative costs. The ECA recovers the  
18 projected non-incremental costs of the Eligible Energy. In past years, in  
19 the annual Compliance Report, the actual costs of the Eligible Energy  
20 have been reported and differences between the projected total cost of  
21 the Eligible Energy and the actual total cost of the Eligible Energy have  
22 been "trued up" by adjustments to the RESA deferred account. This year

1 Public Service is suggesting a change to that true-up procedure. Instead  
2 of adjusting the RESA deferred account to true up the projected costs of  
3 Eligible Energy to the actual costs of Eligible Energy, we now propose to  
4 use the ECA deferred account for that purpose.

5 **Q. WHY IS THE COMPANY PROPOSING THIS CHANGE?**

6 A. Currently there are no wind costs that are recovered through the RESA,  
7 only solar costs. As wind comes on line to meet RES requirements, the  
8 Company is concerned that there will likely be more significant variations  
9 in the actual output versus the output that was modeled. For example, the  
10 RES model going forward will model wind at some costs for energy with  
11 some average output profile. Since the RESA is currently the balancing  
12 rate mechanism, if there is more (or less) wind production than what was  
13 projected, the RESA deferred balance will be impacted by the full cost of  
14 that increased (reduced) generation as opposed to only the incremental  
15 cost of that generation. Since the Company pays for excess wind on a  
16 per kWh basis, the full cost of any excess generation will go against the  
17 RESA deferred balance. This holds true for solar as well. Since the  
18 RESA has been designed to recover only the incremental costs, using the  
19 RESA as the balancing rate mechanism may result in large impacts to the  
20 RESA deferred balance because of the payment of excess generation.  
21 This has not been an issue to date, but wind is variable and, as noted,  
22 there are no wind generation costs currently being recovered through the

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<sup>1</sup> Commission Decision No. C07-0676, paragraphs 75.

1 RESA. To be consistent with how the RESA was designed, to identify  
2 only the incremental costs of renewable resources over what Public  
3 Service would have otherwise supplied, it is appropriate that only the  
4 incremental costs are recovered through the RESA. In order to reflect  
5 only the incremental costs in the RESA, the variations caused by  
6 increases or decreases in Eligible Energy production should be  
7 accomplished through adjustments to the ECA, not the RESA.

8 **Q. HOW WOULD THE RESA COSTS BE ESTABLISHED?**

9 A. The RESA Costs in any one-year will be the differences between the RES  
10 and No-RES scenarios plus program and administration costs less  
11 projected credits from Windsource sales. This formula will better  
12 represent the additional costs to the Company's retail customers from the  
13 acquisition of renewable energy resources.

14 **Q. PUBLIC SERVICE DISCUSSED BUILDING COMPANY-OWNED**  
15 **GENERATION IN DOCKET NO. 07A-447E. IF NEW RATE-BASED**  
16 **ELIGIBLE ENERGY RESOURCES ARE ADDED TO THE PUBLIC**  
17 **SERVICE SYSTEM, HOW DOES THE COMPANY PROPOSE THAT**  
18 **THOSE COSTS BE TRACKED AND RECOVERED?**

19 A. To comply with the statutory directive to assure that the incremental costs  
20 of Eligible Energy have a maximum retail rate impact of no more than two  
21 percent of the total electric bill annually for each customer, the  
22 incremental cost of rate-based renewable generation (over non-renewable  
23 generation) will still need to be calculated through the RES Plan/ No RES



1 Plan analyses. To assure that no customer bill is impacted by more than  
2 two percent, the incremental cost of rate-based renewable resources will  
3 likewise need to hit the RESA accounting. Public Service believes that  
4 the best way to track and recover these costs would be to determine the  
5 annual revenue requirements of a rate-based eligible energy resource –  
6 include the incremental costs of those annual revenue requirements in the  
7 RESA and collect the non-incremental costs through the ECA. While this  
8 would result in the recovery of some capital costs through the ECA, I  
9 believe that the costs of Eligible Energy Resources are primarily energy-  
10 related costs and therefore are appropriately recovered through the ECA  
11 and the RESA.

12 **Q. WHY DO YOU BELIEVE THAT RES COSTS SHOULD BE**  
13 **CONSIDERED ENERGY RELATED?**

14 A. A basic rate design principle is for rates to follow “cost causation”  
15 principles. If, for example, the Company were making an investment to  
16 serve demand needs, the appropriate cost recovery mechanism would be  
17 a demand-based charge (were administratively feasible). RES costs are  
18 not being incurred to meet demand needs. The Company is making RES  
19 expenditures to meet RES requirements, which are based on energy  
20 sales. For example, the Company is required to obtain 5 percent of its  
21 retail energy sales through Eligible Energy Sources. Therefore, I believe  
22 that it is not necessary to separately recover any capacity-related costs  
23 through a third rate recovery mechanism – simply because the costs are

1 best categorized as being energy related, not capacity related and the  
2 RESA and ECA are appropriate mechanisms to recover RES costs.

3 **Q. CAN YOU PROVIDE AN EXAMPLE THAT DEMONSTRATES THAT AN**  
4 **ENERGY BASED RECOVERY MECHANISM PROVIDES GREATER**  
5 **EQUITY (FAIRNESS)?**

6 A. Yes. As an example, assume two Secondary General customers, each  
7 with a maximum billing demand of 72 kW. However, these customers  
8 have differing load factors, where customer A uses 27,000 kWh, but  
9 customer B uses 13,500 kWh. Since the RES requirements are based on  
10 energy usage, customer B requires the Company to procure one-half the  
11 Eligible Energy that Customer A causes to be procured. If the Company  
12 recovered its RES costs on a demand basis, both customers would pay  
13 the same amount, even though customer B has half the RES cost  
14 responsibility.

15 **Q. DOESN'T CHARGING THE RESA ON A PERCENTAGE OF THE**  
16 **CUSTOMER'S BILL CAUSE SOME INEQUITIES?**

17 A. Yes, since a customer's total bill will be energy, demand and service and  
18 facility charges, there are some inequities by charging the RESA on a  
19 percentage basis instead of just a customer's energy usage. However,  
20 since the enabling legislation identifies the retail rate cap based on the  
21 customer's bill, it makes sense that incremental RES costs that are  
22 collected through the RESA also be based on a percentage of the

1 customer's bill. Otherwise, it would be very difficult to identify if the RESA  
2 is within the prescribed cap.

3 **Q. WOULD THE SAME REASONING HOLD FOR PROGRAM AND**  
4 **ADMINISTRATIVE CAPITAL EXPENDITURES?**

5 A. Yes – although we recover those costs through the RESA, not the ECA.  
6 However, we are proposing to recover the costs of the new wind  
7 forecasting tool that we anticipate will reduce wind integration costs by  
8 adding the annual revenue requirements associated with that capital  
9 investment to the RESA. Mr. Parks explains why the Company is  
10 investing in this forecasting tool and why we believe it will be a cost-  
11 effective investment.

12 **Q. PLEASE PROVIDE FURTHER INFORMATION ABOUT THE COST**  
13 **RECOVERY FOR THE WIND FORECASTING TOOL THAT IS**  
14 **DESCRIBED BY MR. PARKS IN HIS TESTIMONY.**

15 A. Because we believe that this wind forecasting tool will reduce the costs of  
16 integrating Eligible Energy into our system, we propose to recover the  
17 revenue requirements associated with the WiP tool as a program expense  
18 through the RESA. We project that the 2009 revenue requirements of this  
19 forecasting tool will be \$35,343.00 and we have included this amount in  
20 our program and administrative expense column for 2009 shown on  
21 Tables 6-3 and 6-4. These projected amounts will be trued-up to actual  
22 2009 revenue requirements in the 2009 compliance report that we file in  
23 June 2010. I further note that Public Service made an adjustment in our

1 recently filed Phase I electric rate case to remove these projected 2009  
2 revenue requirements for the WiP tool from the 2009 forward-looking test  
3 year used to set base rates, on the assumption that the better place to  
4 reflect these monies was in the RESA.

5 **Q. WHAT IS THE COMPANY PROPOSING TO RECOVER THROUGH THE**  
6 **RESA IN 2009?**

7 A. Table 6-3 of the Compliance Plan identifies RESA Costs for 2009 of  
8 \$55,413,029. The Company proposes to use this value for the RESA.

9 **Q. COULD YOU PLEASE DESCRIBE HOW THE COMPANY PROPOSES**  
10 **TO TRUE-UP THE RES COSTS TO REVENUES RECEIVED?**

11 A. Yes. The Company now proposes to reflect the actual costs and  
12 revenues of Eligible Energy through the ECA deferred account.

13 **Q. HOW DOES THE COMPANY PROPOSE TO TREAT WHOLESALE**  
14 **REVENUES?**

15 A. The Company proposes to net against the deferred account any revenue  
16 received from wholesale customers for non-solar Eligible Energy and any  
17 applicable administrative costs included in the RESA calculation.

18 **Q. HOW WILL THE COMPANY TREAT WINDSOURCE PREMIUMS, IF**  
19 **THE COMPANY'S PROPOSAL IN DOCKET NO. 08A-260E IS**  
20 **ACCEPTED BY THE COMMISSION?**

21 A. We propose to credit these revenues against the RESA for the reasons  
22 discussed in Docket No. 08A-260E.

1 Q. LOOKING AT TABLE 6-4, IT APPEARS IN THE EARLY YEARS THAT  
2 THE WINDSOURCE COSTS ARE AT TIMES GREATER THAN THE  
3 PREMIUMS. IS THAT CORRECT?

4 A. The Windsource costs in Column F1 identify the estimated total  
5 Windsource revenue requirement for the existing Windsource portfolio,  
6 whereas the premiums are based on the incremental renewable costs (on  
7 a \$/kWh basis) times the projected. It is not an apples-to-apples  
8 comparison.

9 V. TIME FENCE

10 Q. IN THE PAST TWO PLANS, THE ISSUE OF A TIME FENCE HAS BEEN  
11 RAISED. PLEASE DESCRIBE THIS TIME FENCE ISSUE.

12 A. The current rules do not treat the costs and the benefits symmetrically  
13 between RES and No-Res scenarios. Specifically:

14 The last sentence of Rule 3661(h)(I) states:

15 For purposes of this rule, new eligible renewable energy means  
16 eligible energy from resources, which are not commercially  
17 operational at the time these two modeling scenarios are  
18 performed.

19 The last sentence of Rule 3661(h) (II) provides:

20 In calculating the annual net retail rate impact in each compliance  
21 plan of the first compliance year of the RES planning period, the  
22 QRU shall take into account the on-going annual costs of all  
23 eligible energy that the QRU has contracted to acquire under the  
24 standard rebate offer under rule 3658 and all eligible energy from  
25 resources that were constructed by the QRU or contracted for by  
26 the QRU after the effective date of these rules.  
27

1 The Commission recognized this conflict and granted Public Service a  
2 permanent waiver to 3661(h)(1) to ensure that both the costs and benefits  
3 of new Eligible Energy resources are taken into consideration in the RES  
4 Plan/ No RES Plan analyses.

5 Public Service believes further clarification through defining a “time  
6 fence” is necessary to ensure the costs and benefits of Eligible Energy  
7 resources at the time of acquisition are maintained throughout the life of  
8 that resource. While the waiver granted in the 2008 RES Plan docket took  
9 care of the concern that the existing rules would count the costs, but not  
10 the benefits of the resources that Public Service has acquired to meet the  
11 Renewable Energy Standard, the Company now has a new concern that it  
12 impacts our ability to acquire renewable resources.

13 **Q. WHAT IS THAT NEW CONCERN?**

14 A. We are concerned that we will project at the time of resource acquisition  
15 that an Eligible Energy resource has a specific net incremental cost to our  
16 system over the cost of a non-renewable resource and allocate RESA  
17 dollars based upon that projection. However, it may turn out that the  
18 incremental cost of the acquisition is greater than projected (because gas  
19 prices turn out to be lower than projected). As we contract for and build  
20 more and more Eligible Energy Resources, we are concerned that if  
21 forced to continually recalculate incremental costs that are driven by  
22 uncertain gas price projections, we could be in a situation where the  
23 RESA funds become inadequate to pay for those incremental costs.

1           We believe this issue is similar to the regulatory issue of prudent  
2           investment. That principle judges a utility action by reviewing the  
3           information reasonably available at the time that the investment decision  
4           had to be made. We think that the same principle should apply here,  
5           namely, the impact on the RESA from the acquisition of an Eligible Energy  
6           Resource should be calculated at the time that the acquisition decision is  
7           made (and not continually revisited). In this way, if gas prices decrease  
8           from forecasted values, the RESA funds are not impacted. Similarly, if  
9           natural gas prices are higher than projected, the RESA funds are not  
10          impacted.

11   **Q.   HOW DOES THE COMPANY PROPOSE TO ACCOUNT FOR THIS**  
12       **“LOCKING DOWN” OF THE INCREMENTAL COST OF A NEW**  
13       **ELIGIBLE ENERGY RESOURCE?**

14   A.   Each time the RES/No RES modeling is performed, the incremental costs  
15       of proposed resource acquisitions will be determined. When the  
16       Commission approves a RES Compliance Plan, acquisitions in  
17       accordance with that plan are deemed prudent. Therefore, the  
18       incremental costs that affect the RESA (the net costs over benefits  
19       associated with those acquisitions) should be set for the life of that facility.

20   **Q.   WHEN DOES THE COMPANY PROPOSE TO “LOCK DOWN” THE**  
21       **BENEFITS?**

22   A.   The Company proposes to lock down the Net Costs (or Net Benefits) of  
23       each Eligible Energy Resource at either the time we files our Compliance

1 Report or at the time we sign a contract. The purpose of allowing for  
2 these two options is administrative feasibility. For the smaller additions, it  
3 does not make sense to continually re-run computer models to identify the  
4 net benefits of each small resource addition. For larger projects, the  
5 Company may wish to lock the net costs or net benefits at the time we  
6 sign a power purchase agreement or contract for the major components of  
7 a self-build project. Irrespective of whether the lock-in occurs at the time  
8 of the annual compliance report of earlier, the calculations supporting the  
9 lock-ins will be provided with the annual compliance reports.

10 **Q. DOES THIS 2009 COMPLIANCE PLAN FILING INCLUDE ANY**  
11 **LOCKED-IN NET COSTS OR NET BENEFITS?**

12 A. Yes. As Mr. Art Warren describes, he projected the net costs (costs over  
13 benefits) of the SunE Alamosa facility and the on-site solar projects that  
14 the Company will acquire through December 31, 2008. These are shown  
15 on his Tables 6-1 and 6-2 in the last column of each exhibit. These net  
16 costs are then imported into Mr. Walsh's Tables 6-3 and 6-4 and are  
17 recovered with RESA dollars.

18 **VI. WINDSOURCE**

19 **Q. IN DOCKET NO. 08A-260E THE COMPANY FILED WITH THE**  
20 **COMMISSION AN APPLICATION TO CHANGE THE PRICING AND**  
21 **ACCOUNTING OF OUR VOLUNTARY RENEWABLE ENERGY RATE,**  
22 **BETTER KNOWN AS WINDSOURCE. COULD YOU PLEASE**  
23 **SUMMARIZE THE COMPANY'S PROPOSAL IN THAT DOCKET?**



1 A. The Company is proposing that the Windsource program be served from  
2 the Company's portfolio of renewable resources. The existing  
3 Windsource generation portfolio would be merged with the Company's  
4 other renewable assets. Windsource customers would pay a premium  
5 based on the projected incremental costs of new eligible renewable  
6 resources. The revenue generated from the premiums would be credited  
7 against the RESA.

8 **Q. HAS THE COMPANY INCLUDED A SCENARIO IN THIS FILING THAT**  
9 **DEMONSTRATES HOW THE WINDSOURCE PROPOSAL WOULD BE**  
10 **TREATED IN A COMPLIANCE PLAN?**

11 A. Yes. The Company has included a scenario consistent with the  
12 Company's proposed changes to the Windsource program.

13 **Q. PLEASE DESCRIBE WHAT CHANGES ARE INCLUDED IN THE**  
14 **WINDSOURCE SCENARIO.**

15 A. There are three changes. First, Ms. Clark shows how the Company  
16 proposes to retire RECs to close out the current Windsource program.  
17 She then shows how we will retire RECs equal to the projected  
18 Windsource sales, so that they are not available for meeting the RES  
19 requirement. Second, the costs of the existing Windsource portfolio are  
20 included in the overall costs of renewable resources on Tables 6-3 and 6-  
21 4, since these resources would now be part of a common renewable  
22 resource portfolio. Finally the projected Windsource premiums (projected  
23 sales times the projected premium) are shown on Tables 6-3 and 6-4 and

1 are credited to the RESA deferred account. The projected additional  
2 funds made available by Windsource each year can be seen by  
3 comparing Tables 6-3 and 6-4.

4 **Q. DOES TABLE 6-4, WHICH INCLUDES THE WINDSOURCE**  
5 **REVENUES, INCLUDE ANY ADDITIONAL ELIGIBLE ENERGY**  
6 **RESOURCES THAT ARE MADE POSSIBLE AS A RESULT OF THE**  
7 **WINDSOURCE PREMIUMS?**

8 A. Not yet. The problem we have here is a chicken and egg problem. We  
9 have been required to file this 2009 RES Plan prior to knowing whether  
10 the Commission will approve the Windsource proposal in Docket No. 08A-  
11 260E and prior to having any information with respect to the customer  
12 response to this new program. Currently, new customer subscriptions are  
13 frozen. Once we have Commission approval for our new program and we  
14 are able to market it to our customers, we will be able to better project the  
15 revenues that will be available to acquire additional renewable resources  
16 and we will set forth our planned acquisitions that will be made possible,  
17 in whole or in part, by Windsource premiums.

18 **Q. WHAT DO YOU MEAN WHEN YOU SAY THAT ADDITIONAL**  
19 **RESOURCES MAY BE MADE POSSIBLE IN WHOLE OR IN PART BY**  
20 **WINDSOURCE PREMIUMS?**

21 A. As we described in Docket No. 08A-260E, one of the reasons the  
22 Company is proposing to merge the Windsource generation portfolio with  
23 the Company's renewable resource portfolio is to achieve cost reductions

1 through economies of scale. We envision using the Windsource premium  
2 dollars to increase overall the Eligible Energy Resources that we acquire.  
3 But, it may not be possible to say that certain discrete generators came  
4 from Windsource premiums. It is more likely that we will be able to show  
5 an overall increase in the portfolio as a whole.

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

7 **A.** Yes, it does.

## **Statement of Qualifications**

### **Daniel S. Ahrens**

I received a Bachelors of Science Degree in Economics in 1985 and a Masters of Science Degree in Economics in 1988, both from the University of Wyoming. I have attended a number of classes and seminars, including the NARUC studies program at Michigan State University, and the EEI transmission-pricing course at the University of Wisconsin.

I began my professional career in 1989 with the Minnesota Attorney General, as a Rate Analyst in the Residential and Small Business Utilities Division, where I was responsible for reviewing and analyzing utility filings in both the energy and telecommunications industries.

In 1993, I joined the Minnesota Department of Public Service, where I was a Senior Analyst responsible for review of energy filings concerning such matters as PURPA avoided costs, competitive all-source bidding, economic development pricing, review of large power contracts, as well as the preparation, submittal and defense of cost-of-service studies and rate design analyses.

In 1996, I joined Sierra Pacific Power Company as a Senior Regulatory Economist. In 1997 I was promoted to Staff Economist. While at Sierra, I performed analysis and sponsored testimony concerning the identification of competitive services and the unbundling of rates for electric services as well as developed prices for natural gas transportation services.

In 1998 I joined Energy and Resource Consulting Group as a Senior Consultant. My responsibilities included rate design and cost-of-service analyses. I managed several projects that included prudence reviews, and the review of the public interest of utility restructuring.

In December 2000, I joined Xcel Energy Services as a Principal Pricing Analyst, responsible for various rate design, cost of service and other regulatory matters. In March 2003 I was promoted to my current position, Pricing Consultant.

I have filed testimony in California, Colorado, Minnesota, Nevada, New Mexico, Texas, Wyoming and the City of New Orleans.