### Code of Colorado Regulations 4 CCR 723-3,

### **Section 3662 - Annual Compliance Report**

- (a) Each investor owned and cooperative electric association QRU shall file an annual compliance report no later than June 1 to report on the status of the QRU's compliance with the renewable energy standard for the most recently completed compliance year. Unless expressly noted otherwise, the annual compliance report of each investor owned and cooperative electric association QRU shall provide the following information for the most recently completed compliance year:
  - (I) The total megawatt-hours sold by the QRU to its retail customers in Colorado and the associated eligible energy required for compliance with the renewable energy standard, including the requirements for retail renewable distributed generation and wholesale renewable distributed generation, as applicable;
  - (II) The total amount and source of eligible energy and RECs acquired by the QRU during the compliance year for to meet the renewable energy standard, including the requirements for retail renewable distributed generation and wholesale renewable distributed generation, as applicable. The QRU shall separately identify amounts of eligible energy and RECs by each type of resource, including residential retail renewable distributed generation and nonresidential renewable distributed generation, as applicable;
  - (III) The total amount of RECs by category acquired by the investor owned QRU during the compliance year and the total amount and source of eligible energy generated by the QRU-owned eligible energy resources;
  - (IV) The total amount of eligible energy and RECs borrowed forward, pursuant to paragraph 3654(j), in previous compliance years that

- were made up during the compliance year to achieve compliance with each component of the renewable energy standard;
- (V) The total amount of eligible energy and RECs borrowed forward, pursuant to paragraph 3654(j), from future compliance years to achieve compliance with each component of the renewable energy standard in the compliance year;
- (VI) The total amount and source of eligible energy and RECs the QRU is carrying back from the year following the compliance year under subparagraph 3654(h)(I) to achieve compliance with each component of the renewable energy standard in the compliance year;
- (VII) The total amount of eligible energy and RECs the QRU has carried forward from prior calendar years under subparagraph 3654(h)(III) to apply in the compliance year for each component of the renewable energy standard.
- (VIII) The total amount of eligible energy and RECs the QRU has acquired in the compliance year that the QRU proposes to carry forward under subparagraph 3654(h)(III) to future years for each component of the renewable energy standard;
- (IX) The total amount of eligible energy and RECs the QRU has counted toward compliance with the renewable energy standard, including the requirements for retail renewable distributed generation and wholesale renewable distributed generation, as applicable, in the compliance year. The QRU shall separately identify amounts of renewable energy by each type of resource;
- (X) The total amount of renewable energy or RECs acquired by the QRU during the compliance year pursuant to the SRO program;
- (XI) The total amount of RECs retired by the investor owned QRU during the compliance year pursuant to a voluntary green pricing program;

Attachment A Rule Requirements 2012 RES Compliance Report Page 3

- (XII) The total amount of RECs sold or traded by the investor owned QRU during the compliance year along with the profit and losses of such transactions and the method for calculating these margins;
- (XIII) Whether the QRU has invested in any eligible energy resource and whether that resource is under construction or in operation; and
- (XIV) The funds expended from the RESA account and other revenue sources and the retail rate impact of the eligible energy and RECs acquired by the investor owned QRU. If the investor owned QRU has not acquired sufficient eligible energy and RECs to meet the renewable energy standard under rule 3654 or the requirements for renewable distributed generation under rule 3655 due to the retail rate impact cap under rule 3661, the retail rate impact cap shall be recalculated based on the actual compliance year values. To the extent the recalculation of the retail rate impact cap demonstrates that additional funds are available based on actual compliance year values, the investor owned QRU shall use those additional funds to acquire RECs, to the extent necessary, to achieve the compliance levels set forth in rules 3654 and 3655 or until the additional funds have been spent if the investor owned QRU intends to claim that the retail rate impact cap prevented it from achieving compliance with the standard.
- (XV) A description of the method used to develop the retail rate impact calculation.
- (XVI) The proposed calculation of on-going annual net incremental costs for eligible energy resources that will come on line prior to the end of the following compliance year that have not been locked down pursuant to an investor owned QRU's compliance plan filing.
- (XVII) The funds advanced by the investor owned QRU during the compliance year, if any, to augment the amounts collected from retail customers through the RESA.

Attachment A Rule Requirements 2012 RES Compliance Report Page 4

- (XVIII) The average hourly incremental cost of electricity during the compliance year, the total number of CSG kilowatt-hours which were unsubscribed for each CSG during that period, and the total kilowatt-hours and corresponding billing credits paid to CSG subscribers during the compliance year by each retail rate class for each CSG.
- (b) In the annual compliance report, the QRU must explain whether it achieved compliance with the renewable energy standard, including the requirements for retail renewable distributed generation and wholesale renewable distributed generation, as applicable, during the most recently completed compliance year, or explain why the QRU had difficulty meeting the renewable energy standard or the requirements for retail renewable distributed generation and wholesale renewable distributed generation, as applicable.
- (c) If, in its annual compliance report, the QRU did not comply with its renewable energy standard as a direct result of absolute limitations within a requirements contract from a wholesale electric supplier, then the QRU must explain whether it acquired a sufficient amount of either eligible RECs or documented and verified energy savings through energy efficiency and/or conservation programs, or both to rectify the noncompliance so as to excuse the investor owned QRU from any administrative fine or other administrative action.
- (d) On the same date that the QRU files its annual compliance report, the QRU shall post an electronic copy of its annual compliance report excluding confidential material on its website to facilitate public access and review.

Attachment A Rule Requirements 2012 RES Compliance Report Page 5

(e) On the same date that the QRU files its annual compliance report, it shall provide the Commission with an electronic copy of its annual compliance report excluding confidential material. The Commission may place the non-confidential portion of each QRU's annual compliance report on the Commission's website in order to facilitate public review. Attachment B
Public Service Company of Colorado
2012 Actual Energy Sales and Resulting RES Compliance Requirements
2012 Renewable Energy Standard Compliance Report

			RES DG	Retail DG	Wholesale	Non-DG
Calendar Year	Retail Sales (MWhs)	RES <sup>1</sup> (RECs)	Requirement (RECs)	Minimum (RECs)	Maximum (RECs)	Requirement (RECs)
2012	28,783,143	3,453,977	287,831	143,916	143,916	3,166,146

2012 12% Retail Sales with 1% coming from DG half of which must be Retail DG

<sup>&</sup>lt;sup>1</sup> RES Requirements

2012 Renewable Energy Standard Compliance Report Public Service Company of Colorado Attachment C - Inputs 2012 Renewable Energy Standard Compliance Report

### 2012 Forecasted Renewable Energy Standard Compliance Amounts

Row				<u>Notes</u>
1	Colorado Retail Electric Sales	28,783,143	MWh	
2	Total RES Requirement	3,453,977	RECs	12% x (1)
3	DG Requirement	287,831	RECs	1% x (1)
4	Retail DG RES Requirement	143,916	RECs	50% x (3)
5	Wholesale DG RES Requirement	143,915	RECs	(3) - (4)
6	Non-DG RES Requirement	3,166,146	RECs	(2) - (3)

#### Attachment C - Renewable Energy Credit Compliance Summary Public Service Company of Colorado 2012 Renewable Energy Standard Report Table 4-2

Row	Renewable Resources Column Reference Calculation	RECs Carried Forward 2008-2011 (1)	REC Adjustments 2008-2011 (2)	Retail RECs Available 2012	RECs Retired for Windsource 2012 d	REC <u>Sales</u> e	Total RECs Available 2008-2012 f (a + b + c - d - e)	In-State REC Bonus Applied (3) g (f x 0.25)	Additional Community REC Bonus <u>Applied</u> h	Total RECs Available for 2012 RES <u>Compliance</u> i (f + g + h)	Renewable Energy Standard <u>2012</u> j	RECs Retired For 2011 RES Compliance	RECs Retired For 2012 RES Compliance	RECs Carried Forward After 2012 RES Compliance m (i - k - l)
1 2 3 4 5 6 7 8 9	Retail DG Solar Systems Small Customer-Owned (<10 kW) Small Third Party Developer (<10 kW) Medium 1 (10 - 100 kW) Medium 2 (101 - 500 kW) RFP REC Only Total Retail DG Solar Wholesale DG Solar Systems	19,461 7,390 18,938 15,455 35,136 1,499 97,879	(2,737) 581 321 850 312 0 (673)	58,481 22,462 30,916 29,137 46,475 1,499 188,970	6,054 6,054	-	75,205 30,433 50,175 45,442 75,869 2,998 280,122	11,286 4,579 8,117 7,247 12,612 517 44,358 16%		86,491 35,012 58,292 52,689 88,481 3,515 324,480	143,916		86,491 11,663 23,489 19,880 566 1,827 143,916	0 23,349 34,803 32,809 87,915 1,688 180,564
11 12 13 14 15 16 17 18	Power Purchase w/RECs: SunE Alamosa Cameo Solar Cogentrix Greater Sandhill San Luis Solar SunE at SolarTAC Amonix at SolarTAC Total Wholesale DG Solar	10,402 - 446 40,429 3,640 - 677 55,594	0	9,113 - 65,841 43,128 77,567 281 775			19,515 - 66,287 83,557 81,207 281 1,452 252,299	4,879 - 16,572 20,889 20,302 70 363 63,075	-	24,394 - 82,859 104,446 101,509 351 1,815 315,374			- - - - - -	24,394 0 82,859 104,446 101,509 351 1,815 315,374
20 21 22 21 22 23 24 25 26 27 28	Wholesale DG Wind Company Owned Generation Ponnequin II-VI Power Purchase w/RECs: Northern Colorado Wind II NREL Siemens Ponnequin I Ridgecrest Total Wholesale DG Wind	63,266 111,217 2,822 14,655 142,628 334,588	17	43,913 69,271 2,666 3,554 70,083 189,487	18,673 18,673	-	88,506 180,488 5,488 18,226 212,711 505,419	22,127 45,122 1,372 4,557 53,178 126,356		110,633 225,610 6,860 22,783 265,889 631,775			1,791 - - 1,368 - 3,159	108,842 225,610 6,860 21,415 265,889 628,616
29 30 31 32 33 34 35	Wholesale DG Biomass Power Purchase w/RECs: 75th St Digester WM Denver/Aurora Disposal Site Total Wholesale DG Biomass Wholesale DG Hydropower Company-Owned Generation:	56,669 56,669	0	- 19,825 19,825	-	-	- 76,494 76,494	- 19,124 19,124	-	95,618 95,618			- 11,874 11,874	0 83,744 83,744
36 37 38 39 40 41 42	Company-Owned Generation: Armes Georgetown Palisade Salida Shoshone Tacoma	30,115 13,536 24,664 7,971 175,394 39,595	(11)	8,121.00 2,354.00 - 1,425.00 47,788.00 11,832.00			38,236 15,890 24,653 9,396 223,182 51,427	9,559 3,973 6,163 2,349 55,796 12,857		47,795 19,863 30,816 11,745 278,978 64,284			9,469 3,004 10,371 3,563 42,217 7,513	38,326 16,859 20,445 8,182 236,761 56,771

Attachment C - Renewable Energy Credit Compliance Summary Public Service Company of Colorado 2012 Renewable Energy Standard Report Table 4-2

	Table 4-Z	RECs Carried Forward	REC Adjustments	Retail RECs Available	RECs Retired for Windsource	REC	Total RECs Available	In-State REC Bonus	Additional Community REC Bonus	Total RECs Available for 2012 RES	Renewable Energy Standard	RECs Retired For 2011 RES	RECs Retired For 2012 RES	RECs Carried Forward After 2012 RES
	Renewable Resources Column Reference	2008-2011 (1)	2008-2011 (2)	2012	<u>2012</u> d	Sales	2008-2012 f	Applied (3)	Applied h	Compliance	<u>2012</u>	Compliance k	Compliance	Compliance
	Calculation	а	D	С	ď	е		g (f x 0.25)	n	(4)	J	К	1	m (i - k - l)
Row	Calculation						(a + b + c - d - e)	(I X U.25)		(f + g + h)				(I - K - I)
43	Power Purchase w/RECs:													
43	Bridal Veil	4,259		340.00			4.599	1,150		5.749			1.200	4.549
45	Betasso/Silver Lake/Lakewood	43,706		13,655.00			57,361	14,340		71,701			8,665	63,036
46	Boulder Canyon	15,952		13,033.00			15,952	3,988		19,940			3,715	16,225
47	Kohler	1,013		335.00			1,348	337		1,685			234	1,451
47	Maxwell	791		253.00			1,348	261		1,305			234	1,451
49	Orodell	950		131.00			1,044	270		1,351			367	984
50	Sunshine	4,556		1,849.00			6,405	1,601		8,006			667	7,339
51	Dillon Dam	27,957		7,639.00			35,596	8,899		44,495			6,049	38,446
52	Foothills	17,357		7,100.00			24,457	6,114		30,571			1,481	29,090
53	Hillcrest	20,938		9,047.00			29,985	7,496		37,481			2,558	34,923
54	Roberts Tunnel	37,695		26,354.00			64,049	16,012		80,061			6,863	73,198
55	Strontia Springs	18,768		7,208.00			25,976	6,494		32,470			4,004	28,466
56	Gross Reservoir	48,238		14,612.00			62,850	15,713		78,563			6,084	72,479
57	Lake George	3		14,012.00			3	10,710		70,000			4	0
58	Ouray	5,578					5.578	1,395		6,973			309	6,664
59	Vallecito Dam			_			-	-		-			-	0,004
60	Redlands	20,946		6,568.00			27,514	6,879		34,393			4,814	29,579
61	Stagecoach	10,497		2,212.00			12,709	3,177		15,886			2,226	13,660
62	Grand Valley	5,123		3.991.00			9,114	2,279		11,393			2,220	11,393
63	Orchard Mesa	5.123		3.991.00			9,114	2,279		11,393			_	11,393
64	Mt. Elbert	10,571	1	-			10,572	2,643		13,215			3.301	9,914
65	Total Wholesale DG Hydropower	591,296	(10)	176,805.00		-	768,091.00	192,025.00		960,116			128,889	831,227
66		,	(/	,				,		,			,	,
67	Total Wholesale DG	1,038,147	7	582,822	18,673	-	1,602,303	400,580	-	2,002,883	143,915		143,922	1,858,961
68														
69	Non-DG Wind													
70	Cedar Creek	1,330,117	8	837,376		360,727	1,806,774	451,694		2,258,468			1,066,689	1,191,779
71	Cedar Creek II	410,104	6	790,068			1,200,178	300,045		1,500,223				1,500,223
72	Cedar Point	299,009		867,709			1,166,718	291,680		1,458,398			-	1,458,398
73	Colorado Green	574,404	(44)	263,647	162,178		675,829	168,957		844,786			231,660	613,126
74	Foote Creek III	155,844		67,158			223,002	-		223,002			76,390	146,612
75	Limon Wind			125,796			125,796	31,449		157,245			-	157,245
76	Limon Wind II			77,971			77,971	19,493		97,464			-	97,464
77	Logan	774,846		467,564		168,713	1,073,697	268,424		1,342,121			387,740	954,381
78	Northern Colorado Wind I	610,017		440,806		94,848	955,975	238,994		1,194,969			283,201	911,768
79	Peetz Table	1,114,319		644,495		239,156	1,519,658	379,915		1,899,573			701,557	1,198,016
80	Spring Canyon	311,091		214,495		93,305	432,281	108,070		540,351			128,779	411,572
81	Twin Buttes	475,791	47	264,831		19,993	720,676	180,169		900,845			290,130	610,715
82	Total Non-DG Wind	6,055,542	17	5,061,916	162,178	976,742	9,978,555	2,438,890	0	12,417,445	3,166,146	0	3,166,146	9,251,299
83														
84														
85	Total Renewable Resources	7,191,568	(649)	5,833,708	186,905	976,742	11,860,980	2,883,828	0	14,744,808	3,453,977	0	3,453,984	11,290,824

- Notes:

  (1) RECs presented are net of transfers and do not include in-state bonus
  (2) Solar Rewards and WREGIS adjustments
  (3) No bonus applied to Foote Creek generation.

  Grandfathered bonus only applied to 2011-2012 RECs for retail DG based on purchase transactions entered into prior to August 11, 2010.

  Complete 25% bonus applied to RECs carried forward from 2008-2010

Attachment C - Renewable Energy Credits Acquired/Transferred Public Service Company of Colorado 2012 Renewable Energy Standard Report Table 4-3

		Capacity	RECs Acquired	City of Boulder Transfers	Wholesale Wind Purchases	Wholesale Allocation	Total Retail RECs RECs Available
	Renewable Resources	(MW) (1)	2012	2012	<u>2012</u>	2012	<u>2012</u>
	Column Reference	а	b	С	d	е	f
_	Calculation						(b - c - d - e)
Row							
1	Retail DG Solar Systems Small Customer-Owned (<10 kW)	44.63	58,481	0	0	0	58.481
3	Small Third Party Developer (<10 kW)	22.49	22,462	0	0	0	22,462
4	Medium 1 (10 - 100 kW)	23.80	30,916	0	0	0	30,916
5	Medium 2 (101 - 500 kW)	23.68	29,137	0	0	0	29,137
6	RFP	27.53	46,475	0	0	0	46,475
7	REC Only	2.14	1,499	ō	0	0	1,499
8	Retail DG Solar		188,970	0	0	0	188,970
9							
10	Wholesale DG Solar Systems	Nameplate					
11	Power Purchase w/RECs:	Capacity					
12	SunE Alamosa	6.20	17,596	0	0	8,483	9,113
13	Cameo Solar		0	0	0	0	0
14	Cogentrix	30.00	65,841	0	0	0	65,841
15	Greater Sandhill	19.00	49,130	0	0	6,002	43,128
16 17	San Luis Solar SunE at SolarTAC	30.00 0.19	77,567 281	0	0	0	77,567 281
18	Amonix at SolarTAC	0.19	775	0	0	0	775
19	Total Wholesale DG Solar	0.40	211,190	0	0	14.485	196,705
20	Total Wildiesale DO Golai		211,130	· ·	· ·	14,400	130,703
21	Wholesale DG Wind						
22	Company Owned Generation						
23	Ponnequin II-VI	26.40	54,279	0	10,366	0	43,913
24	Power Purchase w/RECs:						
25	Northern Colorado Wind II	22.50	70,735	0	0	1,464	69,271
26	NREL Siemens	2.30	2,666	0	0	0	2,666
27	Ponnequin I	5.25	4,762	0	1,208	0	3,554
28	Ridgecrest	29.70	74,794	0	0	4,711	70,083
29	Total Wholesale DG Wind		207,236	0	11,574	6,175	189,487
30							
31	Wholesale DG Biomass						
32	Power Purchase w/RECs:						
33 34	75th St Digester WM Denver/Aurora Disposal Site	0.69 3.28	0 21,272	0	0	0 1.447	10.035
35	Total Wholesale DG Biomass	3.20	21,272	0	0	1,447	19,825 19,825
36	Total Wildlesale DG Biolilass		21,212	U	U	1,447	19,023
37	Wholesale DG Hydropower						
38	Company-Owned Generation:						
39	Ames	3.60	8,210	0	0	89	8,121
40	Georgetown	1.44	2,415	0	0	61	2,354
41	Salida	1.31	1,460	0	0	35	1,425
42	Shoshone	14.40	60,019	0	0	12,231	47,788
43	Tacoma	4.50	12,542	0	0	710	11,832
44	Power Purchase w/RECs:						
45	Bridal Veil	0.50	340	0	0	0	340
46	Betasso/Silver Lake/Lakewood	10.00	27,310	13,655.00	0	0	13,655
47	Boulder Canyon	10.00	0	-	0	0	0
48 49	Kohler Maxwell	0.15 0.07	669 506	334.00 253.00	0	0	335 253
50	Orodell	0.07	263	132.00	0	0	131
51	Sunshine	0.22	3.698	1,849.00	0	0	1.849
52	Dillon Dam	1.90	7,639	1,049.00	0	0	7,639
53	Foothills	2.30	7,100	0	0	0	7,100
54	Hillcrest	2.30	9,047	0	0	0	9,047
55	Roberts Tunnel	6.10	26,354	0	0	0	26,354
56	Strontia Springs	1.20	7,208	ō	0	0	7,208
57	Gross Reservoir	8.10	14,612	0	0	0	14,612
58	Lake George	-	0	0	0	0	0
59	Ouray		0	0	0	0	0
60	Vallecito Dam	-	0	0	0	0	0
61	Redlands	1.40	6,568	0	0	0	6,568
62	Stagecoach	0.80	2,212	0	0	0	2,212
63	Grand Valley	1.50	3,991	0	0	0	3,991
64	Orchard Mesa	1.50	3,991	0	0	0	3,991
65	Mt. Elbert	-	0	16 222	0	12.126	176 905
66 67	Total Wholesale DG Hydropower		206,154	16,223	0	13,126	176,805
68	Total Wholesale DG		645,852	16,223	11,574	35,233	582,822
			0.0,002	.0,220	,574	55,255	332,022

Attachment C Renewable Energy Credits Acquired/Transferred Table 4-3 Page 1 of 2 Attachment C - Renewable Energy Credits Acquired/Transferred Public Service Company of Colorado 2012 Renewable Energy Standard Report Table 4-3

		Capacity	RECs Acquired	City of Boulder Transfers	Wholesale Wind Purchases	Wholesale Allocation	Total Retail RECs RECs Available
	Renewable Resources	(MW) (1)	<u>2012</u>	2012	2012	2012	2012
	Column Reference	а	b	С	d	e	f
	Calculation						(b - c - d - e)
Row							
69							
70	Non-DG Wind						
71	Cedar Creek	300.50	837,376	0	0	0	837,376
72	Cedar Creek II	250.80	790,068	0	0	0	790,068
73	Cedar Point	252.00	867,709	0	0	0	867,709
74	Colorado Green	162.00	519,507	0	0	255,860	263,647
75	Foote Creek III	24.75	72,496	0	0	5,338	67,158
76	Limon Wind	200.00	125,796	0	0	0	125,796
77	Limon Wind II	200.00	77,971	0	0	0	77,971
78	Logan	201.00	602,780	0	0	135,216	467,564
79	Northern Colorado Wind I	151.80	440,806	0	0	0	440,806
80	Peetz Table	199.50	644,495	0	0	0	644,495
81	Spring Canyon	60.00	214,495	0	0	0	214,495
82	Twin Buttes	75.00	264,831	0	0	0	264,831
83	Total Non-DG Wind		5,458,330	0	0	396,414	5,061,916
84							
	Total Renewable Resources		6,293,152	16,223	11,574	431,647	5,833,708

#### Notes:

Attachment C Renewable Energy Credits Acquired/Transferred Table 4-3 Page 2 of 2

<sup>(1)</sup> Retail DG solar capacity presented in DC; all other generators presented in AC

# Attachment C - Comparison Public Service Company of Colorado 2012 Renewable Energy Standard Report

### **RECs Acquired**

		2012	2012	
		RES Compliance	RES Compliance	Percent
	Renewable Resources	<u>Plan*</u>	Report	<b>Difference</b>
	Column Reference	a	b	С
	Calculation			(b-a)/a
Row				
1	Retail DG Solar Systems	244,162	188,970	-23%
2				
3	Wholesale DG Solar Systems	206,570	211,190	2%
4				
5	Wholesale DG Wind	209,778	207,236	-1%
6				
7	Wholesale DG Biomass	18,457	21,272	15%
8				
9	Wholesale DG Hydro	234,914	206,154	-12%
10				
11	Non-DG Wind	5,407,817	5,458,330	1%
12				
13	Total Renewable Resources	6,321,697	6,293,152	0%

### Attachment D

Public Service Company of Colorado 2012 Renewable Energy Standard Compliance Report

	Α	В	С	D	E	F		G	Н	ı	K	L	M	N	0	P	Q
	Total Renewable Energy Costs				RESA Relate	d Revenues			RES	SA Related Exp	enditures		RESA B	alance			
	New On-Site Solar Costs	NEW Central Solar Costs	NEW Wind Energy Costs	New Total Renewable Energy Costs	RESA Rider Revenue		Wholesale REC Revenue	Carbon Offset Funds	REC Margins	Total RESA Revenue	Incremental Costs	Ongoing Incremental	RESA/ WRGIS/ Windsource ADM	Annual Deficiency	Interest	Annual Deficiency w/Interest	Rolling Balance
														Deferred Rolling E	Balance at Decen	nber 31, 2011	(51,367,416)
Model 2012	\$24,144,998	\$21,190,886	\$102,897,709	\$148,233,593	\$53,042,098	\$4,686,729			\$2,800,000	\$60,528,827	\$84,918,257	\$5,154,124	\$1,673,276	(\$25,725,407)	(\$4,817,359)	(\$30,542,766)	(\$81,910,182)
Adjusted Actual 2012	\$18,610,055	\$17,110,622	\$104,747,310	\$140,467,987	\$51,021,885	\$4,316,710	\$22,267	\$7,248,069	\$38,615,999	\$101,224,930	\$75,324,438	\$5,859,587	\$2,013,085	\$18,027,820	(\$2,614,693)	\$15,413,127	(\$35,954,289)
Delta	(\$5,534,943)	(\$4,080,264)	\$1,849,601	(\$7,765,606)	(\$2,020,213)	(\$370,019)	\$22,267	\$7,248,069	\$35,815,999	\$40,696,103	(\$9,593,819)	\$705,463	\$339,809	\$43,753,227	\$2,202,666	\$45,955,893	\$45,955,893

New Solar Onsite Group C 80,189 Amonix	м	lodeled and Ongoi	ng Incremental Costs	Ongoing Solar	Rewards Incr	emental Costs	
Group C         80,189 Amonix           RECs Rebate         \$11,252,132 28,798 SunE Solar TAC	On-site On-site Avoided	18,610,055 (6,243,991)	4,936,524 (4,616,992)	Group A	Total Cost 3,005,170	Avoided Cost -2,955,480	Ongoing Inc Cost 49,690
Total \$18,610,055 6,353,358 Greater Sand 17,110,622 New Wind	On-site Inc Sandhill SunE NCWI NCWII	12,366,064 4,032,532	319,532 2,088,516 2,733,248 718,291	Group B Total	1,931,354 4,936,524	-1,661,512 -4,616,992	269,842 319,532
5,205,618 Ponnequin Purchased 337,913 Ponnequin Owned 3,832,793 Ridgecrest 128,501 Siemens Energy 33,979 NREL Wind 52,459,104 Cedar Point Wind 37,555,033 Cedar Creek II 50,063 Alstom Power	Ponn/Owned Ridge Siemens/NREL Cedar Point Cedar Creek II Amonix Solar San Luis Limon I Limon II	4,847,364 1,698,134 63,624 27,892,107 17,124,294 45,270 7,048,151 331,622 -141,855	710,271				
3,165,185 Limon I 1,979,121 Limon II 104,747,310	SUN E Solar TAC  Total	17,131 <b>75,324,438</b>	5,859,587 <i>81,184,0</i>	125			

Attachment E - 2010

### **Public Service Company of Colorado**

Renewable Energy Service Adjustment (RESA)

Renewable Energy Incremental Costs Ajusted Compared to the RESA Budget Reporting for 2010

### 2012 RES Compliance Report

				2	2010 Incremental	Cost			
					Α	В	С		
2010 Rate	NCWE I NCWE II Ponnequin 151 MW 23 MW PPA & Ownership			Ridgecrest	SunE Alamosa	Greater Sand Hill	Solar Rewards Prior to 1/1/2009	Solar Rewards 1/1/2009 to 9/30/2009	Solar Rewards after 9/30/2009
GL 2010	\$ 5.88	\$ 9.51	\$ 55.15	\$ 2.81	\$ 188,500			\$	(82,083)
Adjusted 2010	\$ 5.88	\$ 9.51	\$ 55.15	\$ 2.81	\$ 188,500	\$ (7.59)	\$ (238,338)	\$ (71.24)	\$ (49.27)

				Volu	ıme 2010 GL vs <i>i</i>	Adjusted			
Volumes GL	438,412	72,669	56,601	72,974	17,622	6,922	-	-	-
Volumes	400 440	<b>-</b> 2 222		<b></b>	47.000	- 404	00 =04	04.440	0.4.0.40
Adjusted	432,412	72,669	57,743	72,974	17,622	7,404	29,784	21,418	34,243
Delta	(6,000)	-	1,142	-	-	482	29,784	21,418	34,243

		Total 2010 RESA Costs GL vs Adjusted															
GL\$	\$ 2,221,333	\$	595,504	\$	2,912,627	\$	192,060	\$	2,111,218	\$	505,329			\$		(984,996)	\$ 7,553,075
2009 adj	\$ 432,629	\$	65,962														\$ 498,591
Adjusted \$	\$ 2,192,679	\$	595,977	\$	2,962,552	\$	191,780	\$	2,106,354	\$	(48,463)	\$	(2,860,056)	\$	(1,525,747)	\$ (1,687,151)	\$ 1,927,925
Delta	\$ (461,283)	\$	(65,489)	\$	49,925	\$	(281)	\$	(4,864)	\$	(553,792)	\$	(2,860,056)	\$	(540,751)	\$(1,687,151)	\$ (6,123,742)

Positive numbers are costs to the RESA and negative numbers are credts to the RESA from the ECA

Changes in volumes or cost factors
Changes only in RJA factor

### Attachment E-2011

Delta

### **Public Service Company of Colorado**

Renewable Energy Service Adjustment (RESA)

Renewable Energy Incremental Costs Ajusted RESA Compared to the RESA Budget Reporting for 2011

### 2012 RES Compliance Report

2011 RATE							2	011 Incrementa	al Cost (\$/MWh	)							
2011 RATE   NCWE I   151 MW   23 MW   PONNequin PPA & Ownership   PONNequin PPA & Ownership   PPA &													Α	В	С		
NCWE I   151 MW   NCWE II   151 MW   PPA & Ownership   PPA & Own						-											
Adjusted 2011   \$ 5.11   \$ 8.80   \$ 51.30   \$ 2.61   \$ 22.71   \$ 14.81   \$ 8.42   \$ 183,417   \$ 84.25   \$ 53.35   \$ 23.79   (246,503.17)   (74.50)   (246,503.17)   (246,	2011 RATE	I F I		PPA &			Wind LCC/Test/I	II LLC/Test/In		Sand Hill	Solar Estimate	Solar	Rewards Prior	Rewards 1/1/2009 to			
Adjusted 2011 \$ 5.11 \$ 8.80 \$ 51.30 \$ 2.61 \$ 22.71 \$ 14.81 \$ 8.42 \$ 183,417 \$ 84.25 \$ 53.35 \$ 23.79 (246,503.17) (74.50) (	GL2011	\$ 5.11	\$ 8.80	\$ 55.15	\$ 16.53	\$ -			\$ 188,500	\$ 84.72	\$ 40.00	\$ -		\$	(82,083)		
\$ 32.51   \$ 18.89	Adjusted 2011	11 \$ 5.11	\$ 8.80	\$ 51.30	\$ 2.61	\$ 22.71		•	\$ 183,417	\$ 84.25	\$ 53.35	\$ 23.79	(246,503.17)	(74.50)	(74.29)		
Volumes GL 482,416 79,004 67,814 78,715 3,103 367,930 581,530 17,814 49,646 550 3,630		-	•		•	•	\$ 32.51	\$ 18.89	-								
Volumes GL 482,416 79,004 67,814 78,715 3,103 367,930 581,530 17,814 49,646 550 3,630							,	/aluma 2011 (	N. vo Adivotod							1	
	Volumes GL	482.41	79.004	67.814	78,715	3,103					550	3,630	_	-	-		
					,	,			·	·		,		21,112	87,622		
Delta (1,694) (267) (1,178) 0 (280) (51,072) (128,746) 0 (784) 129 10 29,745 21,112	Delta	(1,69	l) (267	(1,178)	0	(280)	(51,072)	(128,746)	0	(784)	129	10	29,745	21,112	87,622		
Total 2011 Total RESA vs Adjusted									Total 2011 Tota	I DESA ve A	diuetod						
	GL\$	\$ 2,172,72°	\$ 612,768	\$ 3,296,310	\$ 1,146,817	<b> \$</b> -	\$ 6,079,913					\$ -		\$	(984,996)	Γ	
															<u> </u>	\$	4,153
Adjusted \$ \$ 2,165,398 \$ 610,779 \$ 3,013,347 \$ 181,099 \$ 56,513 \$ 6,080,748 \$ 4,805,086 \$ 1,940,184 \$3,628,808 \$ 31,933 \$ 76,334 \$ (2,958,038) \$ (1,572,848) \$ (6,50,10)		<del> </del>		£ 2.042.247	¢ 191 000	¢ 56 513	\$ 6.080.748	\$ 4.805.086	\$ 1 940 184	\$3 628 808	\$ 31 933	\$ 76.334	\$ (2.958.038)	\$ (1.572.848)	\$ (6.509.437)	9	3 -

(53,496) \$ (78,303) \$ 12,543 | \$

76,334 \$ (2,958,038) \$ (1,572,848) \$ (5,524,441)

Positive numbers are cost transfers to the RESA and negative numbers are transfers from the RESA to the ECA

56,513 \$

835 \$

60,105 \$

Changes in volumes or cost variables
Cedar Point and Cedar Creek II received test energy in 2011

### Attachment E 2012

### **Public Service Company of Colorado**

Renewable Energy Service Adjustment (RESA)

Renewable Energy Incremental Costs Adjusted RESA Compared to the RESA Budget Reporting for 2012

2012 RES Compliance Report

								2012 In	cremental Cos	st GL Variables	s vs. Adjusted									
2012 Rate	NCWE I 151 MW	NCWE II 23 MW	Ponnequin PPA & Ownership	Ridgecrest	Siemens Energy	NREL Wind (No RECs)		Cedar Creek II LLC/Test	Alstom Power Inc. Wind (NO RECs)	GAMESA Wind( No RECs)	Limon I	Limon II	SunE Alamosa	Greater Sand Hill	Amonix Solar Estimate	San Luis Solar	SunESolar TAC	On-Site	Avoided Costs On-Site SolarGroup B	Avoided Costs On-Site SolarGroup C
GL 2012	\$ 4.97	\$ 9.18	\$ 88.45	\$ 24.46	\$ 25.71	\$ 20.67	\$ 34.63	\$ 23.35	\$ 9.71	\$ 1.71	\$ 2.84	\$ (1.96)	\$ 163,583	\$ 88.42	\$ 62.77	\$ 97.89	\$ 62.77		\$	(82,083)
Adjusted 2012	\$ 6.68	\$ 10.94	\$ 88.45	\$ 24.46	\$ 25.71	-	\$ 34.63	\$ 23.35	\$ -	\$ -	\$ 2.84	\$ (1.96)	\$ 187,500	\$ 88.42	\$ 62.77	\$ 97.89	\$ 62.77	\$ (246,289.67)	\$ (77.42)	\$ (45.91)
										Volumes 20	12 GL vs Adjus	sted								
Volumes GL	441,241	70,908	58,614	74,793	2,570	755	867,710	792,436	1,471	640	115,672	88,095	17,596	49,133	776	77,568	294	-	-	-
Adjusted Volumes	440,807	70,734	59,041	74,793	2,666	-	867,710	790,081	-	-	125,797	77,971	17,596	49,133	776	77,568	294	30,007	21,459	136,006
Delta	(434)	(174)	427	_	96	(755)	-	(2.355)	(1,471)	(640)	10.125	(10.124)		_		_	_	30.007	21,459	136.006

											Tot	al RESA Costs	GL vs Adjuste	d										
Total GL 12/31/	\$ 2,025,6	45 \$	601,270	\$ 4,788,838	\$ 1,689,853	\$ 61,033	\$ 14,414	\$ 27,756,074	\$ 17,091,571	\$ 13,194	\$ 1,012	\$ 303,443	\$ (159,49	2) \$ 1,813	,224 \$	4,012,865 \$	44,994	\$7,013,777	\$ 17,048		(\$984,996)		\$	66,103,767
Total Adjusted																							1	
\$	\$ 2,733,2	48 \$	718,291	\$ 4,847,364	\$ 1,698,134	\$ 63,624	\$ -	\$ 27,892,107	\$ 17,124,294	\$ -	\$ -	\$ 331,622	\$ (141,85	5) \$ 2,088	,516 \$	4,032,532 \$	45,270	\$7,048,151	\$ 17,131	\$ (2,955,476	\$ (1,661,512	(6,243,991)	) \$	57,637,446
Delta	\$ 707,6	03 \$	117,021	\$ 58,526	\$ 8,281	\$ 2,591	\$ (14,414	\$ 136,033	\$ 32,723	\$ (13,194)	\$ (1,012)	\$ 28,179	\$ 17,63	7 \$ 275	,292 \$	19,667 \$	276	\$ 34,374	\$ 83	(2,955,476	\$ (676,516	) \$ (6,243,991)	) \$	(8,466,321)
2012 Adjust																							\$	(406,599)
Total 2012																								
Transfer																							\$	(8,872,920)

Positive numbers are costs to the RESA and negative numbers are credits to the RESA from the ECA

Resources marked in green do not provide RECs and are not eligible for the RESA

Show only RJA adjustments

Adjustments in volumes or costs factors

Denotes an adjustment in the 2013 for 2012 needing to be readjusted

Account Number Technology	Contract	Generator	2010 Total Cost	2010 RESA Cost	2010 ECA Co	st	2010 Total Cost	2010 Adjusted	2010
632000 Biomass/LT	WM Renewable Energy, LLC	WM Renewable Energy \$	1,037,649.00		\$ 1,037	649.00	\$ 1,037,649.00	-	\$ 1,037,649.00
632200 Hydro	City of Boulder	75th St. \$	(99,589.00)			589.00)	\$ (99,589.00)		\$ (99,589.00)
632200 Hydro	City of Boulder	Betasso/Silverlake \$	1,962,059.00		\$ 1,962	059.00	\$ 1,962,059.00		\$ 1,962,059.00
632200 Hydro	City of Boulder	Kohler \$	34,481.00		\$ 34	481.00	\$ 34,481.00		\$ 34,481.00
632200 Hydro	City of Boulder	Maxwell \$	28,844.00		\$ 28	844.00	\$ 28,844.00		\$ 28,844.00
632200 Hydro	City of Boulder	Orodell \$	28,048.00		\$ 28	048.00	\$ 28,048.00		\$ 28,048.00
632200 Hydro	City of Boulder	Sunshine \$	169,335.00		\$ 169	335.00	\$ 169,335.00		\$ 169,335.00
632200 Hydro	Eric R. Jacobson	Bridal Veil \$	89,376.00		\$ 89	376.00	\$ 89,376.00		\$ 89,376.00
632200 Hydro	Eric R. Jacobson	Ouray \$	105,256.00		\$ 105	256.00	\$ 105,256.00		\$ 105,256.00
632200 Hydro	Redlands Water and Power Company	Redlands \$	198,900.00		\$ 198	900.00	\$ 198,900.00		\$ 198,900.00
632200 Hydro	STS Hydropower, Ltd.	STS - Mt. Elbert \$	172,707.00		\$ 172	707.00	\$ 172,707.00		\$ 172,707.00
632200 Hydro	Upper Yampa Water Conservancy Distr	rict Stagecoach \$	98,571.00		\$ 98	571.00	\$ 98,571.00	_	\$ 98,571.00
		\$	3,825,637.00		\$ 3,825	637.00	\$ 3,825,637.00		\$ 3,825,637.00
632000 Hydro/not QF	City of Boulder	BOULDER \$	253,074.00		\$ 253	,074.00	\$ 253,074.00		\$ 253,074.00
632000 Hydro/not QF	Denver Water Board	Dillon Dam \$	411,090.00		\$ 411	,090.00	\$ 411,090.00		\$ 411,090.00
632000 Hydro/not QF	Denver Water Board	Foothills \$	456,960.00		\$ 456	960.00	\$ 456,960.00		\$ 456,960.00
632000 Hydro/not QF	Denver Water Board	Gross Reservoir \$	1,315,964.00		\$ 1,315	964.00	\$ 1,315,964.00		\$ 1,315,964.00
632000 Hydro/not QF	Denver Water Board	Hillcrest \$	484,097.00		\$ 484	,097.00	\$ 484,097.00		\$ 484,097.00
632000 Hydro/not QF	Denver Water Board	Roberts Tunnel \$	974,263.00		\$ 974	263.00	\$ 974,263.00		\$ 974,263.00
632000 Hydro/not QF	Denver Water Board	Strontia Springs \$	366,140.00		\$ 366	140.00	\$ 366,140.00		\$ 366,140.00
		\$	4,261,588.00		\$ 4,261	588.00	\$ 4,261,588.00		\$ 4,261,588.00
634500 Solar	Greater Sandhill I, LLC	SNDHL \$	877,254.00	\$ 505,329	\$ 371	925.00	\$ 877,254.00	\$ (48,463)	\$ 925,717.00
634500 Solar	Miscellaneous Retail Solar Purchases	Miscellaneous Retail So \$	234,615.00		\$ 234	615.00	\$ 234,615.00		\$ 234,615.00
634500 Solar	SunEAlamosa	SunEAlamosa \$	3,859,147.00	\$ 2,111,218	\$ 1,747	929.00	\$ 3,859,147.00	\$ 2,106,354	\$ 1,752,793.00
		Total Solar Costs \$	4,971,016.00	\$ 2,616,547.00	\$ 2,354	469.00	\$ 4,971,016.00	\$ 2,057,891.00	\$ 2,913,125.00
634000 Wind 634000	Cedar Creek	CdrCrk \$	41,485,637.00		\$ 41,485	637.00	\$ 41,485,637.00	;	\$ 41,485,637.00
632000 Wind	Foote Creek III, LLC	LT FootCreek Wind \$	4,082,451.00		\$ 4,082	451.00	\$ 4,082,451.00	:	\$ 4,082,451.00
634000 Wind	Logan	Logan \$	25,490,868.00		\$ 25,490	868.00	\$ 25,490,868.00		\$ 25,490,868.00
634000 Wind	National Renewable Energy Laboratory	National Renewable En \$	1,617.00		\$ 1	617.00	\$ 1,617.00		\$ 1,617.00
634000 Wind	Northern CO Wind Energy II	NCoWndII \$	3,987,500.00	\$ 661,466	\$ 3,326	034.00	\$ 3,987,500.00	\$ 595,977	\$ 3,391,523.00
634000 Wind	Northern Colorado Wind Farm	NCoWnd \$	22,410,414.00	\$ 2,653,962	\$ 19,756	452.00	\$ 22,410,414.00	\$ 2,192,679	\$ 20,217,735.00
634000 Wind	PacifiCorp	COLOGREEN \$	19,879,670.00		\$ 19,879	670.00	\$ 19,879,670.00		\$ 19,879,670.00
634000 Wind	Peetz Table	Peetz Table \$	27,359,173.00		\$ 27,359	173.00	\$ 27,359,173.00		\$ 27,359,173.00
634000 Wind	Ponnequin	PONN \$	588,798.00	\$ 452,481	\$ 136	317.00	\$ 588,798.00	\$ 452,621	\$ 136,177.00
634000 Wind	Ridge Crest Wind Partners, LLC	RIDGECREST \$	3,556,077.00	\$ 192,061	\$ 3,364	016.00	\$ 3,556,077.00	\$ 191,780	\$ 3,364,297.00
634000 Wind	Siemens Energy, Inc.	Siemens Energy, Inc. \$			\$ 1	798.00	\$ 1,798.00		\$ 1,798.00
634000 Wind	Spring Canyon Energy LLC (Invenergy)	SprCanWind \$	7,672,272.00		\$ 7,672	272.00	\$ 7,672,272.00		\$ 7,672,272.00
634000 Wind	Twin Buttes	TWNBTS \$			\$ 10,691		\$ 10,691,420.00		
		Ponnequin Owned \$ Total Wind Costs \$	4,976,351.00	\$ 3,959,970.00 \$ 2,460,146 \$ 6,420,116.00	\$ 2,516	205.00	\$ 167,207,695.00 \$ 4,976,351.00 \$ 172,184,046.00	\$ 2,509,931	\$ 163,774,638.00 \$ 2,466,420.00 \$ 166,241,058.00
			, . ,						
		Total Wind and Solar Costs \$	177,155,062.00	\$ 9,036,663.00	\$ 168,118,3	399.00	\$177,155,062.00	\$ 8,000,879.00	\$ 169,154,183.00
Onsite Onsite Onsite	Avoided Costs Common to All Programs Customer Sited Solar < 10 kW	\$		\$ (984,996) \$ 37,733,050	\$ 984	996.00	\$ 37,733,050.00	\$ (6,072,954) \$ 37,733,050	\$ 6,072,954
Onsite Onsite	Customer Sited Solar > 10 kW -500 kW	\$					\$ 10,478,467.00		
Onsite	Customer Sited Solar Large RFP Small 3rd Party Developer	\$ \$	15,241,920.00 3,878,945.00				\$ 15,241,920.00 \$ 3,878,945.00		
	,	Total Onsite Solar \$			\$ 984	996.00	\$ 67,332,382.00		\$ 6,072,954.00
		Total Solar, Wind & Onsite \$	244,487,444.00	\$ 75,384,049.00	\$ 169,103	395.00	\$ 244,487,444.00	\$ 69,260,307.00	\$ 175,227,137.00

Total Hydro Biomass \$ 8,087,225.00
Total Renewables \$ 252,574,669.00

2013 Adj. for 2010 \$ 1,035,784.00 Solar Rewards Adj. \$ 5,087,958.00 \$ 6,123,742.00

#### Attachment F Adjusted - 2011 Public Service Company of Colorado Renewables 2012 RES Compliance Report

2012 RES Compliance Report						2011						
2012 RES Compliance Report  Account number Technology 632200 Hydro 632200 Hydro/not QF 632000 Biomass/LT	Contract City of Boulder Eric R. Jacobson Eric R. Jacobson Orchard Mesa Grand Valley Redlands Water and Power Company STS Hydropower, Ltd. Upper Yampa Water Conservancy Dis City of Boulder Denver Water Board Denver Water Boa	Kohler Maxwell Orodell Sunshine Bridal Veil Ouray Orchard Mesa Grand Valley Redlands STS - Mt. Elbert Stagecoach  BOULDER Dillon Dam Foothills Gross Reservoir Hillcrest Roberts Tunnel Strontia Springs Grand Valley Water Users Asso Orchard Mesa Irrigation District	2011 Total Cost \$ 1,939,026.00 \$ 34,007.00 \$ 15,289.00 \$ 15,289.00 \$ 53,626.00 \$ 4,409.00 \$ 242,072.00 \$ 171,953.00 \$ 242,072.00 \$ 2842,311.00 \$ 28,687.00 \$ 1,527,690.00 \$ 1,306,098.00 \$ 1,306,098.00 \$ 204,887.00 \$ 204,887.00 \$ 1,205,619.00 \$ 1,205,619.00 \$ 6,755,290.00	20 RESA	A Cost	2011 ECA Cost \$ 1,939,026.00 \$ 34,007.00 \$ 15,289.00 \$ 15,289.00 \$ 15,289.00 \$ 4,409.00 \$ 4,409.00 \$ 242,072.00 \$ 171,953.00 \$ 2842,311.00 \$ 288,687.00 \$ 458,728.00 \$ 1,306,098.00 \$ 1,306,098.00 \$ 204,887.00 \$ 204,887.00 \$ 204,887.00 \$ 1,205,619.00 \$ 1,205,619.00 \$ 1,205,619.00	\$	2011 Total Cost 1,939,026.00 34,007.00 26,575.00 15,289.00 173,438.00 36,626.00 4,409.00 242,072.00 171,953.00 2,842,311.00 288,687.00 622,209.00 458,728.00 1,621,465.00 372,001.00 204,887.00 204,887.00 204,887.00 204,887.00 1,205,619.00 6,755,290.00	1		2011 ECA Cost \$ 1,939,026.00 \$ 34,007.00 \$ 16,575.00 \$ 15,289.00 \$ 173,438.00 \$ 4,409.00 \$ 2,842,072.00 \$ 171,1953.00 \$ 2,842,311.00 \$ 2,842,311.00 \$ 622,209.00 \$ 470,709.00 \$ 1,306,098.00 \$ 1,306,098.00 \$ 204,887.00 \$ 204,887.00 \$ 204,887.00 \$ 1,205,619.00 \$ 1,205,619.00 \$ 1,205,619.00 \$ 6,755,290.00	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
634500 Solar 634500 Solar 634500 Solar 634500 Solar 634500 Solar 634500 Solar 634500 Solar 634500 Wind 634000 Wind	Amonix Solar Greater Sandhill I, LLC Miscellaneous Retail Solar Purchases SunEAlamosa San Luis Solar LLC Sun E Solar - TAC Solar  Cedar Creek Cedar Creek II Cedar Point Wind, LLC Foote Creek III, LLC Logan National Renewable Energy Laborato Northern CO Wind Energy II Northern Colorado Wind Farm PacifiCorp Peetz Table Ponnequin (Windsource) Ridge Crest Wind Partners, LLC Siemens Energy, Inc. Spring Canyon Energy LLC (Invenerg Twin Buttes Alstom Power Inc	SNDHL siniscellaneous Retail Solar Purc SunEAlamosa Cogentrix of Ala San Luis Solar LLC Sun E Solar - TAC Solar Total Solar Costs  CdrCrk Cedar Creek II Cedar Point Wind, LLC LT FootCreek Wind Logan National Renewable Energy Lab NCoWndI NCoWnd COLOGREN Peetz Table PONN RIDGECREST Siemens Energy, Inc. 95prCanWind TWNBTS Alstom Power Inc	\$ 3,901,036.00 \$ 28,422.00 \$ 397,336.00 \$ 645.00 \$ 10,881,917.00 \$ 43,761,809.00 \$ 19,787,772.00 \$ 15,291,784.00 \$ 5,033,825.00 \$ 26,772,905.00	\$ 3 \$ 1 \$ 5 \$ 4 \$ 6 \$ 2 \$ 1 \$ 1 \$ 2	,993,680 , <b>720,181</b> ,744,981 ,079,913 612,768 ,172,729 303,898 ,146,817	\$ 45,716.00 \$ 2,546,749.00 \$ 235,452.00 \$ 397,396.00 \$ 645.00 \$ 645.00 \$ 5,161,736.00 \$ 43,761,809.00 \$ 15,042,791.00 \$ 9,211,871.00 \$ 5,033,825.00 \$ 26,772,905.00 \$ 22,425,369.00 \$ 18,997,6619.00 \$ 193,935,935.00 \$ 193,955,923.12 \$ 1,876,031.88 \$ 1,958,039.88	\$	65,106.00 6,253,860.00 23,5452.00 3,901,036.00 28,422.00 397,396.00 10,881,917.00 43,761,809.00 15,291,784.00 5,033,825.00 26,772,905.00 54,489.00 24,598,098.00 24,598,098.00 3,708,961.00 3,708,968.00 3,708,968.00 3,708,968.00 28,042,101.00 42,861.00 28,042,101.00 42,861.00 28,042,101.00 42,861.00 28,042,101.00 42,861.00 28,042,101.00 42,861.00 28,042,101.00 43,868.00 29,901,555.108.00 209,015,029.00 4,868,444.00 213,883,473.00	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	1,940,184 76,334 5,677,259 4,805,086 6,080,748 610,779 2,165,398 282,722 181,099 56,513	\$ 2,625,052,00 \$ 1,960,852,00 \$ 28,422,00 \$ 28,422,00 \$ 645,00 \$ 5,204,658,00 \$ 14,982,686,00 \$ 9,211,036,00 \$ 5,033,825,00 \$ 26,772,905,00 \$ 3,668,008,00 \$ 22,432,700,00 \$ 18,997,619,00 \$ 18,997,619,00 \$ 28,042,101,00	00 00 00 00 00 00 00 00 00 00 00 00 00
		Total Wind and Solar Costs	\$ 224,765,390.00	\$ 23,77	3,699.00	\$ 200,991,691.00	\$	224,765,390.00	\$ 2	2,590,229.00	\$202,175,161.00	)
Onsite Onsite Onsite Onsite Onsite Onsite Onsite	Avoided Costs Common to All Programs Customer Sited Solar < 10 kW Customer Sited Solar > 10 kW -500 kV Customer Sited Solar Large RFP Small 3rd Party Developer	Total Onsite Solar Total Solar, Wind & Onsite	\$ 70,816,681 \$ 295,582,071 \$ 9,597,601.00	\$ 11 \$ 21 \$ 28 \$ 9 \$ 69	,359,694 ,125,326	\$ - \$ - \$ - \$ - \$ 984,996	201	11,846,956 21,484,705 28,359,694 9,125,326 <b>70,816,681</b> <b>295,582,071</b> 1 Adj. for 2010 ar Rewards Adj. er	\$ \$	28,359,694 9,125,326	\$ - \$ - \$ - \$ - \$ 11,040,323	3

Adjustment \$ 8,466,321.00 2013 Adj. for 2012 \$ 406,599.00 \$ 8,872,920.00

Solar Rewards Adj. \$ (9,875,987.00) Other \$ 1,003,067.00 \$ (8,872,920.00)

### I. INTRODUCTION

In Commission Decision No. C11-1080 approving the Company's 2010 RES Compliance Plan, the Company was directed to provide in its future RES compliance plan reports a comparison between the forecasted and the actual incremental costs of eligible energy resources assessed against the Renewable Energy Standard Adjustment ("RESA") deferred account. The Company was also directed to explain any significant deviations between the Company's forecasted and actual incremental costs. This Attachment G is being provided in compliance with this requirement.

Two attachments to this report are the primary focus of this Attachment G: Attachment D and Attachment F. Attachment D of this report generally presents the differences between the forecasted incremental costs set forth in Table 7-3 in the 2012 RES Compliance Plan as filed and the actual incremental costs. Attachment D is a RESA cost view only; it shows the total incremental costs of all eligible energy resources that are charged to the RESA deferred account.

Attachment F of this report shows the total costs of all renewable resources allocated between the ECA and the RESA as required by Decision Nos. R12-0261 and C12-0606. For purposes of this 2012 Report, the need to perform certain adjustments as the result of the Company's investigation of the accounting entries used to allocate costs between the RESA and the ECA deferred accounts explains some of the most significant differences between the forecasted and the actual incremental costs of eligible energy resources assessed against the RESA deferred account

### II. Company Investigation and Actual Cost Adjustment

In order to adequately describe the Company's investigation and the resulting accounting adjustments, some background is needed concerning how the ECA and the RESA are used to account for the incremental costs of eligible energy resources.

## A. Rule 3661, RESA and ECA Accounting and Monthly RESA Reports

In accordance with Rule 3661, the RESA is only charged the incremental costs of the eligible energy resources on our system. Rule 3661 details the architecture for how we are to use our computer models to determine the difference in costs between two alternative scenarios of electric resources. The first scenario ("RES Plan") includes the eligible energy resources we propose to acquire. The second scenario (the "No RES Plan") removes the eligible energy resources we propose to acquire and replaces them with those reasonably available nonrenewable resources necessary to replace the eligible energy resources so that the Company can meet its capacity and energy requirements. The cost difference between these two model runs equals the incremental costs of the renewable energy we propose to acquire. These incremental costs are allocated to the RESA. The costs calculated as part of the No RES model run are considered "Avoided Energy Costs" and are allocated to the ECA. These costs are considered "avoided" because our acquisition of generation produced from eligible energy resources permits us to avoid, to some extent, acquiring generation from new non-renewable resources, such as additional gas-fired capacity (either combustion turbine or combined cycle generation), and/or re-dispatching existing resources to satisfy the energy needs of the system.

The process outlined above generally describes the manner in which the costs of energy -- including the incremental costs of eligible energy resources -- are calculated and the accounts to which those costs are ultimately charged. However, the accounting process used to ensure that the proper costs are allocated between the RESA and the ECA requires further explanation. That process is described in Section IV of the Introduction to this 2012 RES Compliance report and is incorporated into this Attachment G by reference.

Each month the Company submits to the Commission a "Monthly RESA Report." The Monthly RESA Report sets forth, among other things, all of the incremental costs for eligible energy resources that are charged to the RESA. These incremental costs charged to the RESA are set forth within the "Summary" tab of the Monthly RESA Report. The monthly "Incremental Costs" of the eligible energy resources acquired under the Solar\*Rewards® programs is set forth under the heading "Expenditure by Type".

The Solar\*Rewards® portion of the Monthly RESA Report also specifies the total -- not just incremental -- costs of each Solar\*Rewards® program by program size. The total costs are the annual REC and rebate costs for the entire Solar\*Rewards® program. These total costs are set forth in the "Summary" Tab but are also detailed in the Monthly RESA Report in separate Tabs for the small, medium and large programs. The total monthly incremental costs charged to the RESA is also set forth in the Summary page of the Monthly RESA Report.

### B. Company Investigation

On March 15, 2012, the Company's internal audit team issued an audit report concerning, among other things, the Company's RESA expenditures. After its review our internal auditors questioned that the Avoided Energy Costs for the Solar\*Rewards® program were not updated accurately during the audit period, which was July 1, 2010 to October 31, 2011. Thus, although the Company had timely performed the transfers between the ECA and the RESA to pay for its acquisitions under the Solar\*Rewards® and Solar\*Rewards® Community programs, the Company had not used the correct "avoided energy cost" factors when calculating the "Avoided Energy Cost" amount to be transferred from the RESA to the ECA. The internal auditors also found that no formal process existed to provide Regulatory Accounting with the appropriate avoided cost factors for the resources acquired under the Solar\*Rewards® program.

The response of the Company's management to this audit finding was to assemble a team from multiple departments to: 1) investigate and determine why Regulatory Accounting had not been provided with the appropriate avoided cost factors for these resources; 2) develop processes to be used on a going forward basis to ensure that Regulatory Accounting is provided with the appropriate avoided cost factors in the future; and, 3) to correct the avoided cost calculations for the Solar\*Rewards® programs. The team completed these tasks last month. In addition, the team thoroughly investigated and reviewed all incremental costs charged to the RESA for all applicable eligible energy resources for the time period from 2010 to 2012.

The adjustments the team made as part of its investigation of the accounting for the 2012 Compliance Year are as follows:

### 1. Incremental Costs for SunE Alamosa and Northern Colorado Wind I and II

In the 2012 RES Compliance Plan, Table 7-5 of Volume II provides the incremental costs by resource on a \$/MWh basis. These incremental costs are then applied to the production from those plants to derive the costs that are ultimately charged to the RESA. As part of its investigation and in preparing this 2012 RES Compliance Report, the Company discovered that because a surplus capacity credit was improperly added for these resources, the incremental costs used for SunE Alamosa and Northern Colorado Wind I and II were incorrect for the 2012 Compliance year. Attachment F RESA Adjusted 2012 provides the amount of costs charged to the ECA and RESA. The amount of the adjustment for these three resources is shown on the far right of Attachment F RESA Adjusted 2012.

### 2. Verification and Correction of Volumes of All Resources that Impact the RESA

The team reviewed and corrected the volumes of all resources whose incremental costs impact the RESA for 2010 through 2012. The cost adjustments related to these corrected and verified volumes are also reflected on Attachment F Adjusted 2010, Attachment F Adjusted 2011 and Attachment F Adjusted 2012.

### 3. Incremental Costs of 3 Small Wind Resources Incorrectly Charged to the RESA

Three small wind resources -- NREL Wind, Alstom Wind, and Gamesa Wind turbines installed at the NREL National Wind Technology Center were incorrectly charged to the RESA in 2012. Because the Company does not receive the RECs

associated with the production of these three resources, they do not contribute to its compliance with the RES and their costs should not be charged to the RESA but should be charged to the ECA. The adjustment to the RESA to reflect the removal of the costs of these three resources is reflected in Attachment F Adjusted 2012

4. RESA Charged for A Full 20 Years of Incremental Costs Attributable to Solar\*Rewards® On-Site Solar Systems in the Year the Systems Were Installed

Prior to 2011, customers that installed on-site solar systems installed as part of the Solar\*Rewards® program were paid rebates and REC payments up front. The team discovered that as a result of this fact, the Company charged all 20 years worth of the energy costs attributable to these systems to the RESA in the year the system was installed, although the RECs attributable to these systems are accrued over the full 20 year period. At the time that these costs were recognized in the RESA balance, annual transfers between the RESA and the ECA in the amount of the Avoided Energy Costs attributable to these systems began. However, although the transfers occurred, the correct amount of Avoided Energy Costs were not transferred from the RESA to the ECA. In order to make this adjustment, the Company will transfer the monthly avoided energy cost from the RESA deferred account to the ECA deferred account using the production of these systems over their 20 year term. All of these adjustments are detailed in Attachment E 2010, Attachment E 2011, Attachment E 2012 and Attachment F Renewable Costs Adjusted 2010, Attachment F RESA Adjusted 2011, and Attachment F RESA Adjusted 2012.

5. The Avoided Costs Attributable to the Resources Acquired Under the Solar\*Rewards® Programs in 2009 and Before Should be Transferred from the RESA to the ECA.

The team discovered that for on-site solar systems installed in 2010 and before, the "Avoided Energy Costs" attributable to those systems was not transferred to the ECA. The necessary adjustment to account for this issue is complicated somewhat by the fact that as a result of a previous Commission Decision, there are three lock down periods that apply to systems installed under the Solar\*Rewards® program, depending upon when the system was installed. The three lock down period are: 1) systems installed prior to 2009; 2) systems installed January 1 – September 2009; and, 3) systems I installed October 1, 2009 and beyond. The Avoided Energy Costs applicable to these three lock down periods have been used to re-calculate the annual avoided energy cost transfers from the ECA to the RESA. These transfers are reflected in Attachments E 2010 through 2012.

Prior to the investigation, the Solar\*Rewards® "Avoided Energy Costs" transferred from the RESA to the ECA in 2012 was \$984,996. As the result of the investigation, the Company has discovered that the total "Avoided Energy Costs" for the Solar\*Rewards® program that should have been transferred from the RESA to the ECA for 2012 was \$10,860,983 million. Offsetting this adjustment is the fact that the remaining adjustments described above, which are associated with the verification of the costs of eligible energy resources other than those acquired under the Solar\*Rewards® program, require that the RESA be charged an additional \$1,409,666 million in incremental costs for 2012. As a part of normal accounting

practices, adjustments are periodically made to the general ledger as a result of prior period entries. A 2012 accounting adjustment was recorded in 2013 of \$406,599. The net result of these calculations is that for 2012 the RESA was over-charged by \$8,872,920 in 2012, while the ECA was under charged by this same amount.

Similar adjustments for 2010 and 2011 are reflected in Attachments E and F for the corresponding years. The net result of all of these adjustments is that between 2010 and 2012, the RESA was over-charged by \$26.2 million while the ECA was under charged by this same amount for those years.

The corrections discussed above have been incorporated into the calculations used for administering the ECA and RESA cost recovery allocation for 2013.<sup>1</sup>

### III. Variance Between Forecast and Actual RESA Costs in Attachment D

The below comparison of actual costs to forecasted costs are based upon the updated costs as discussed above.

#### A. Column A - New On-Site Solar Costs

Column A of Attachment D is labeled New On-site Solar Costs. This column reflects the Company's expenditures on its Solar\*Rewards® on-site solar program for systems installed after September 30, 2009. The difference between the forecasted expenditures for 2012 and the actual expenditures for 2012 are attributable to the fact that the Company acquired less on-site solar through its Solar\*Rewards® program than it originally forecasted. The Company forecasted

<sup>&</sup>lt;sup>1</sup> In addition, all resources except Solar\*Rewards® reflect the annual Retail Jurisdictional Allocation (RJA). The RJA or the retail customer's share of certain renewable costs are charged on an estimated basis for each calendar and reconciled when total annual sales are known. For the 2012 RES Report the actual RJA was used.

that it would spend \$24.14 million to acquire 72 MWs of capacity. The actual acquisition of on-site solar in 2012 was 32 MWs.

The reasons for the difference are that the Company prepared its 2012 RES Compliance Plan forecast in 2011 after the Commission approved the Solar\*Rewards® settlement in Decision No. C11-0304 in Docket No. 11A-135E. The Company anticipated all of the applications submitted during the settlement period would result in completed systems. In fact, almost 40% of the applications accepted from that period did not result in completed systems.

### B. Column B - New Central Solar Costs

Column B labeled New Central Solar Costs also reflects a difference between modeled and actual costs. The Company anticipated spending \$21.2 million to acquire new central solar resources in 2012; however, it only spent \$17.1 million. \$3.9 million of the \$4.1 million difference can be explained by the fact that when the forecast was developed, SunE Alamosa was erroneously included as a new resource in the modeling. SunE Alamosa is not a new resource; it was acquired prior to 2012 and locked down in the 2009 RES Plan in Docket No. 08A-532E. The solar projects that should be and are now included in this cost category are the Greater Sandhill project, Amonix Solar, SunE Solar TAC facility and the San Luis Valley Solar project.

The remaining \$200,000 difference between forecasted and actual costs is due to small corrections to the volumes for other resources. Though the total costs for new eligible energy resources were not forecasted correctly, the incremental

costs for SunE were modeled correctly. The adjustment has no impact on the RESA expenditures or revenues.

### C. Column C - New Wind Energy Costs

Column C labeled New Wind Costs reflects a difference in costs of \$102.9 million forecasted *vs.* \$104.7 million actual, resulting in a total difference of \$1.8 million. Although the \$1.5 million is not significant, one key factor does explain the difference in costs. Limon II was not included in the forecast for the 2012 RES Plan although it did generate in 2012. The total cost of the Limon II generation was \$1.9 million.

### D. Column D - New Total Renewable Energy Costs

Column D labeled New Total Renewable Energy Cost simply totals the numbers set forth in Columns A through C. The differences between the actual and forecasted costs reflected in Column D are explained in the narratives set forth above concerning Columns A through C.

### E. Column H - REC Margins/Carbon Offsets

Column H labeled REC Margins/Carbon Offsets reflect the customers' share of the margins generated from the selling of RECs. In 2011 our forecast contemplated that most of the customers' share of the margins from REC sales would be used to acquire Section 123 resources, and would not otherwise be credited to the RESA. In May 2011, after the Company had forecasted the REC margins and carbon offset credits for the 2012 RES Plan, the Commission approved a modification to the settlement in the REC Trading Docket which directed that REC margins reserved for the acquisition of Section 123 resources be transferred to the

RESA. See Decision No. C11-0573 in Docket No. 09A-602E. In Decision C12-0294 in Docket No. 11A-510E, the Commission approved the Company's request to move the carbon offset funds to the RESA. The amount shown in Columns G and H reflects the transfer of REC margins and carbon offset funds to the RESA deferred account of approximately \$45.9 million in 2012.

### F. Column I - Total RESA Revenue

The difference between actual and forecasted Total RESA Revenue reflected in Column I is primarily due to the addition of the REC margins and carbon offsets funds described above and reflected in Column H.

#### G. Column K - Incremental Costs

Column K reflects the RESA costs associated with the acquisition of new renewable resources from October 1, 2009 to present. The incremental costs of these new resources have not been locked down in a RES Plan. Column K includes the RESA share of the costs for all new renewable energy resources including onsite solar, central solar and wind resources. We originally forecast that these incremental costs would total \$85 million in 2012. The actual costs for Column K are \$75.3 million for 2012.

Three resources accounted for the bulk of the \$9.6 million difference between the forecasted incremental cost and the actual incremental cost. Cedar Creek II is a large wind facility and had an incremental cost \$2.6 million less than was forecasted. This was due to a decrease in volume. The forecasted volume was 845,236 MWhs and the actual volume was only 790,081 MWhs.

Another wind generator Cedar Point accounted for \$2.8 million of the difference. Again this was due to the fact that the volume forecasted for this facility was 882,851 MWhs while the actual volume was only 867,710 MWhs. The other large contributor to the difference was the incremental cost of new solar. As set forth in the discussion of Column A – New On-Site Solar Costs, the Company forecasted that it would acquire 72 MW of on-site solar but only acquired 32 MWs. The difference in incremental cost was over \$3 million. The total Incremental difference between the forecast and actual for the three resources adds up to \$8.4 of the \$9.6 million difference in costs. The other \$1.2 million difference was due to small differences between the forecasted and actual volumes of the other resources.

### H. Column L - Ongoing Incremental Costs

Table 7-3 of the 2012 RES Compliance Plan forecast that the ongoing incremental costs of eligible energy resources would be \$5.2 million. The actual ongoing incremental costs were approximately \$5.9 million as shown in Attachment D.

During its investigation, the team discovered the need to perform an adjustment to the calculation of the on-going incremental costs for 2012. This adjustment resulted in a 1.8 million increase in the modeled ongoing incremental costs for 2012. Thus, the forecast of ongoing incremental costs of eligible energy resources set forth in Table 7-3 of the 2012 RES Compliance should have been \$7.0 million.

The difference between the actual ongoing incremental costs of \$5.9 million and the corrected forecast of \$7.0 million can be explained as follows.

Approximately half of the difference -- over \$500,000 -- was due to the fact that the actual costs to acquire the onsite solar RECs and energy from the Solar\*Rewards locked down acquisitions from 2006-2008 was less than forecast. This grouping of acquisitions is shown as Group A in the Attachment D. The total cost of the Group A resources in 2012 was less than the incremental costs that were forecasted when the Group A incremental costs were locked down in 2009. Using actual total costs and the Commission approved modeled avoided costs, the incremental costs for Group A were over \$500,000 lower than the modeled or forecasted costs.

Another difference that contributed to the over \$1 million difference was SunE Alamosa. The total locked down incremental costs of SunE Alamosa used in the model was \$2.25 million. The actual incremental costs of SunE Alamosa -- adjusted for the retail jurisdictional allocation (RJA) which is our wholesale customers' share of eligible energy resources on our system -- was \$150,000 less for a total of \$2.1 million in actual incremental costs. Thus \$150,000 less in incremental costs was actually charged to the RESA than we originally forecast. These two resources accounted for almost \$700,000 of the \$1.1 million difference between the ongoing modeled incremental costs and the actual ongoing incremental costs of this resource. The rest of the difference is split between Northern Colorado Wind I & II and the Solar\*Rewards® acquisitions locked down from January 1 – September 30, 2009 incremental costs. The differences were caused by minor differences between the actual and modeled volumes of these resources.

### I. Column N - Annual Deficiency

Column N labeled Annual Deficiency reflects the actual and forecasted amounts of the annual deficiency in the RESA balance. This Column simply reflects the difference between Column I - Total RESA Revenues minus the amounts in Columns J through M (RESA Related Expenditures)

The difference between the actual and the forecasted amounts in Column N can be explained by two key factors. First, \$2 million less in RESA revenue was collected from our customers than we originally forecast. However, we also transferred \$35.8 million more in REC margins and \$7.2 million in Carbon Offset Funds into the RESA. These REC margins and Carbon Offset Funds were not included in our 2012 forecast. As a result, \$40.7 million more revenues were deposited into the RESA account than the Company projected as part of the 2012 RES Compliance Plan.

Also, the actual incremental costs assessed against the RESA were less than forecasted. See Column K labeled Incremental Costs plus Column L labeled Ongoing Incremental Costs and the narrative above concerning these Columns. The result was \$9 million less in annual incremental costs being charged to the RESA than the Company originally forecast in 2012.

### J. Column Q - Rolling Balance

The total shown on Attachment D reflects the actual costs as compared to the forecasted costs, and does not include the adjustments for 2010 and 2011 detailed above. The differences described above result in a year end balance to the RESA

of (\$36 million) which is \$46 less than that forecasted as part of the 2012 RES Compliance Plan.

### **Attachment H**

A portion of this attachment has been deemed Highly Confidential and filed under seal with the Colorado Public Utilities Commission.

Attachment H
Public Serivce Company of Colorado
2012 Solar\*Rewards Community Project List
2012 Renewable Energy Standard Compliance Report

**Standard Offer Program** 

	Developer	Street	City	County	kW
	Clean Energy Collective	10200 Smith Road	Denver	Denver	500
	Clean Energy Collective	7581 E Academy Blvd.	Denver	Denver	400
	Clean Energy Collective	Candelas (exact TBD)	Arvada	Jefferson	108
	Clean Energy Collective	1600 66th St	Boulder	Boulder	500
	Clean Energy Collective	710 Wellington Rd	Breckenridge	Summit	500
	Clean Energy Collective	13920 CO Highway 9	Breckenridge	Summit	500
	Clean Energy Collective	4250 Hudson Mile Road	Aurora	Arapahoe	497
		760 East County Line Road Parcel Number			
	Community Energy Solar, LLC	146536000054	Lafayette	Boulder	499
	Solar Power Financial	46231 County Rd. X	Saguache	Saguache	497
		710 East County Line Road Parcel Number			
_	Community Energy Solar, LLC	146536000031	Lafayette	Boulder	499
R	FP Program				
	Developer	Street	City, State, Zip	County	kW
	Clean Energy Collective	Candelas Filing 1, Block 1, Tract A1	Arvada	Jefferson	571
	Ecoplexus, Inc.	12101 Highway 61	Sterling	Logan	1997
	Ecoplexus, Inc.	510 24 Road	Clifton	Mesa	1997

PUBLIC Attachment H
Public Serivce Company of Colorado
2012 Solar\*Rewards RFP Bidder List
2012 Renewable Energy Standard Report

					DEC Duine		Estimated	
Bid #	Developer	Customer	Street	City, State, Zip	REC Price	kW	<b>Completion Date</b>	Awarded?
1	REC Solar Inc.					623	7/22/2013	yes
2	Oak Leaf					2000	11/28/2013	yes
3	Oak Leaf					2000	11/28/2013	no
4	Martifer Solar					789.36	7/1/2013	no
5	Aerospace Data Facility					1501	1/31/2014	no
6	Ecoplexus					1997	7/31/2013	no