2012 Renewable Energy Standard Compliance Plan

Public Service Company of Colorado

Volume 2

MAY 13, 2011

Table 4-1 - Renewable Energy Standard (RES) Forecast
Public Service Company of Colorado
2012 Renewable Energy Standard Compliance Plan

Calendar Year	Retail Sales (MWhs)	RES[1] (RECs)	RES DG Requirement (RECs)	Retail DG Minimum (RECs)	Wholesale DG Maximum (RECs)	Non-DG Requirement (RECs)
2012	28,909,450	3,469,134	289,095	144,547	144,547	3,180,040
2013	29,298,376	3,515,805	366,230	183,115	183,115	3,149,575
2014	29,715,159	3,565,819	371,439	185,720	185,720	3,194,380
2015	30,177,552	6,035,510	528,107	264,054	264,054	5,507,403
2016	30,692,895	6,138,579	537,126	268,563	268,563	5,601,453
2017	31,104,035	6,220,807	622,081	311,040	311,040	5,598,726
2018	31,512,163	6,302,433	630,243	315,122	315,122	5,672,189
2019	31,929,275	6,385,855	638,585	319,293	319,293	5,747,269
2020	32,353,042	9,705,912	970,591	485,296	485,296	8,735,321
2021	32,692,550	9,807,765	980,777	490,388	490,388	8,826,989

[1]RES Requirements

	Total	DG
2012	12%	1.00%
2013	12%	1.25%
2014	12%	1.25%
2015	20%	1.75%
2016	20%	1.75%
2017	20%	2.00%
2018	20%	2.00%
2019	20%	2.00%
2020	30%	3.00%
2021	30%	3.00%
2022	30%	3.00%

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

Row	Renewable Resources	RECs Carried Forward After 2011 RES Compliance (1)	RECs Available 2012 (2)	In-State REC Bonus Applied (2)	Additional Community REC Bonus Applied	Total RECs Available for 2012 RES Compliance	Renewable Energy Standard 2012	RECs Retired For 2010 RES Compliance	RECs Retired For 2012 RES Compliance (3)	RECs Carried Forward After 2012 RES Compliance
	Column Reference	a	b	c	d	e	f	g	h	i
	Calculation			(b x 0.25)		(a + b +c + d))				(e - h)
1	**Retail DG**									
2	Total Retail DG	134,127	235,726	29,990	0	399,844	144,547	0	144,547	255,296
3										
4	**Wholesale DG**									
5										
6	Total Utility Solar		183,761	45,940	0					
7	Total Biomass		17,006	4,252	0					
8	Total Small Hydropower		201,143	50,286	0					
9	Total Wholesale DG Wind		179,076	44,769	0					
10										
11	Total Wholesale DG	1,084,602	580,987	145,247	0	1,810,835	144,547	0	144,547	1,666,288
12										
13	**Non-DG**									
14	Total Non-DG	7,535,280	3,792,085	931,399	0	12,258,764	3,180,040	0	3,180,040	9,078,724
15										
16	**Total Non Retail DG Renewable Resources**	8,619,882	4,373,071	1,076,646	0	14,069,599	3,324,587	0	3,324,587	10,745,012
17	**Total Renewable Resources**	8,754,009	4,608,798	1,106,636	0	14,469,443	3,469,134	0	3,469,134	11,000,309

Notes
(1) Includes in-state bonus
(2) No bonus applied to Foote Creek generation. Bonus applied to retail DG based on purchase transactions entered into prior to August 11, 2010.
(3) Estimated; final values will be determined in the 2012 RES Compliance Report

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

Row	Renewable Resources	RECs Carried Forward After 2012 RES Compliance (1)	RECs Available 2013 (2)	In-State REC Bonus Applied	Additional Community REC Bonus Applied	Total RECs Available for 2013 RES Compliance	Renewable Energy Standard 2013	RECs Retired For 2013 RES Compliance (3)	RECs Carried Forward After 2013 RES Compliance
	Column Reference	j	k	l	m	n	o	p	q
	Calculation			(k x 0.25)		(j + k + l + m)			(n - p)
1	**Retail DG**								
2	**Total Retail DG**	255,296	311,741	29,990	0	597,028	146,492	146,492	450,536
3									
4	**Wholesale DG**								
5									
6	**Total Utility Solar**		197,849	49,462	0				
7	**Total Biomass**		17,026	4,256	0				
8	**Total Small Hydropower**		194,626	48,656	0				
9	**Total Wholesale DG Wind**		174,170	43,543	0				
10									
11	**Total Wholesale DG**	1,666,288	583,671	145,917	0	2,395,875	146,492	146,492	2,249,384
12									
13	**Non-DG**								
14	**Total Non-DG**	9,078,724	4,493,488	1,106,817	0	14,679,030	3,222,821	3,222,821	11,456,208
15									
16	**Total Non Retail DG Renewable Resources**	10,745,012	5,077,159	1,252,734	0	17,074,905	3,369,313	3,369,313	13,705,592
17	**Total Renewable Resources**	11,000,309	5,388,900	1,282,724	0	17,671,933	3,515,805	3,515,805	14,156,128

Notes
(1) Includes in-state bonus
(2) No bonus applied to Foote Creek generation. Bonus applied to retail DG based on purchase transactions entered into prior to August 11, 2010.
(3) Estimated; final values will be determined in the 2013 RES Compliance Report

Table 4-3 - Renewable Energy Credits Acquired/Transferred
Public Service Company of Colorado
2012 Renewable Energy Standard Compliance Plan

Row	Renewable Resources	Capacity (MW) (1)	RECs Acquired 2012	City of Boulder Transfers 2012	Wholesale REC Allocation 2012 (2)	RECs Retired for Windsource 2012 (3)	RECs Sold 2012 (4)	Total RECs Available 2012
	Column Reference	a	b	c	d	e	f	g
	Calculation							(b - c - d - e - f)
1	**Retail DG**							
2	Small (<10 kW)	61.00	75,034	0				
3	Small Third Party Developer (<10 kW)	29.17	29,509	0				
4	Medium 1 (10 - 100 kW)	34.02	39,710	0				
5	Medium 2 (101 - 500 kW)	32.22	39,070	0				
6	Solar Gardens Medium (10 - 50 kW)	0.60	429	0				
7	Solar Gardens Large (50 - 500 kW)	5.40	3,861	0				
8	Solar Gardens RFP	6.00	4,290	0				
9	Large RFP (PSCo)	32.83	48,108	0				
10	Large RFP (non-PSCo)	2.06	2,652	0				
11	REC Only	N/A	1,499	0				
12	**Total Retail DG**		244,162	0	0	8,436	0	235,726
13								
14	**Wholesale DG**							
15								
16	**Utility Solar**							
17	Power Purchase w/RECs:							
18	SunE Alamosa	6.20	17,695	0				
19	Greater Sandhill	19.00	47,886	0				
20	SolarTAC	1.16	2,239	0				
21	Cogentrix	30.00	59,893	0				
22	San Luis Solar	30.00	78,857	0				
23	**Total Utility Solar**		206,570	0	16,233	6,576	0	183,761
24								
25	**Biomass**							
26	Power Purchase w/RECs:							
27	75th St Digester	0.69	0	0				
28	WM Denver/Aurora Disposal Site	3.28	18,457	0				
29	**Total Biomass**		18,457	0	1,450	0	0	17,006
30								
31	**Small Hydropower**							
32	Company-Owned Generation:							
33	Ames	3.60	10,000	0				
34	Georgetown	1.44	3,230	0				
35	Palisade	3.00	12,746	0				
36	Salida	1.31	4,000	0				
37	Shoshone	14.40	85,000	0				
38	Tacoma	4.50	10,989	0				
39	Power Purchase w/RECs:							
40	Bridal Veil	0.50	273	0				
41	Betasso/SL/Lakewood	7.50	28,117	14,059				
42	Boulder Canyon	10.00	0	0				
43	Kohler	0.15	769	384				
44	Maxwell	0.07	548	274				
45	Orodell	0.22	676	338				
46	Sunshine	0.81	3,121	1,560				
47	Dillon Dam	1.90	11,134	0				
48	Foothills	2.30	5,500	0				

Table 4-3 - Renewable Energy Credits Acquired/Transferred
Public Service Company of Colorado
2012 Renewable Energy Standard Compliance Plan

Row	Renewable Resources	Capacity (MW) (1)	RECs Acquired 2012	City of Boulder Transfers 2012	Wholesale REC Allocation 2012 (2)	RECs Retired for Windsource 2012 (3)	RECs Sold 2012 (4)	Total RECs Available 2012
	Column Reference	a	b	c	d	e	f	g
	Calculation							(b - c - d - e - f)
49	Hillcrest	2.30	6,863	0				
50	Roberts Tunnel	6.10	10,812	0				
51	Strontia Springs	1.20	6,555	0				Page 2
52	Gross Reservoir	8.10	17,287	0				
53	Lake George	0.22	0	0				
54	Ouray	0.50	0	0				
55	Vallecito Dam	5.00	0	0				
56	Redlands	1.40	7,895	0				
57	Stagecoach	0.80	3,902	0				
58	Mt. Elbert	2.50	5,496	0				
59	**Total Small Hydropower**		234,914	16,616	17,155	0	0	201,143
60								
61	**Wind**							
62	Company Owned Generation							
63	Ponnequin II-VI	26.40	47,712	0				
64	Power Purchase w/RECs:							
65	NREL Siemens	2.30	3,635	0				
66	Northern Colorado Wind II	22.50	72,889	0				
67	Ponnequin I	5.25	7,094	0				
68	Ridgecrest	29.70	78,448	0				
69	**Total Wholesale DG Wind**		209,778	0	16,485	14,216	0	179,076
70								
71	**Total Wholesale DG**		669,718	16,616	51,324	20,792	0	580,987
72								
73	**Non-DG**							
74								
75	**Wind**							
76	Power Purchase w/RECs:							
77	Cedar Creek	300.50	910,058	0				
78	Cedar Creek II	250.80	845,236	0				
79	Cedar Point	252.00	882,851	0				
80	Colorado Green	162.00	500,654	0				
81	Foote Creek III	24.75	72,158	0				
82	Logan	201.00	614,824	0				
83	Northern Colorado Wind I	151.80	433,739	0				
84	Peetz Table	199.50	632,841	0				
85	2012 RFP Wind	200.00	40,000					
86	Spring Canyon	60.00	210,805	0				
87	Twin Buttes	75.00	264,651	0				
88	**Total Non-DG**		5,407,817	0	424,970	172,162	1,018,600	3,792,085
89								
90								
91	**Total Non Retail DG Renewable Resources**		6,077,535	16,616	476,294	192,954	1,018,600	4,373,071
92	**Total Renewable Resources**		6,321,697	16,616	476,294	201,390	1,018,600	4,608,798

Notes

(1) Retail DG capacity presented in DC; all others in AC

(2) Wholesale RECs transferred based on projected production and forecast wholesale load ratio share. Actual RECs transferred will be presented in the 2012 RES Report.

(3) Windsource retirement method will use proportional allocation of Retail DG, Wholesale DG and non-DG and third-party verified generation.
REC vintages from the last half of the prior year could be used for Windsource retirement, per Green-e Standards. Actual RECs retired will be presented in the 2012 RES Report.

(4) Currently executed REC sales. Actual REC sales will be sourced from multiple wind generators, but generation from specific generators is unknown at the time of this filing.

Table 4-3 - Renewable Energy Credits Acquired/Transferred
Public Service Company of Colorado
2012 Renewable Energy Standard Compliance Plan

Row	Renewable Resources	Capacity (MW) (1)	RECs Acquired 2013	City of Boulder Transfers 2013	Wholesale REC Allocation 2013 (2)	RECs Retired for Windsource 2013 (3)	RECs Sold 2013 (4)	Total RECs Available 2013
	Column Reference	h	i	j	k	l	m	n
	Calculation							(I - j - k - l - m)
1	**Retail DG**							
2	Small (<10 kW)	66.00	90,806	0				
3	Small Third Party Developer (<10 kW)	34.17	45,282	0				
4	Medium 1 (10 - 100 kW)	42.02	54,367	0				
5	Medium 2 (101 - 500 kW)	40.22	51,797	0				
6	Solar Gardens Medium (10 - 50 kW)	0.90	1,073	0				
7	Solar Gardens Large (50 - 500 kW)	8.10	9,653	0				
8	Solar Gardens RFP	9.00	10,725	0				
9	Large RFP (PSCo)	36.83	53,812	0				
10	Large RFP (non-PSCo)	2.06	2,626	0				
11	REC Only	N/A	1,499	0				
12	**Total Retail DG**		321,640	0	0	9,899	0	311,741
13								
14	**Wholesale DG**							
15								
16	**Utility Solar**							
17	Power Purchase w/RECs:							
18	SunE Alamosa	6.20	17,556	0				
19	Greater Sandhill	19.00	47,537	0				
20	SolarTAC	1.35	2,606	0				
21	Cogentrix	30.00	75,489	0				
22	San Luis Solar	30.00	78,098	0				
23	**Total Utility Solar**		221,287	0	17,157	6,282	0	197,849
24								
25	**Biomass**							
26	Power Purchase w/RECs:							
27	75th St Digester	0.69	0	0				
28	WM Denver/Aurora Disposal Site	3.28	18,457	0				
29	**Total Biomass**		18,457	0	1,431	0	0	17,026
30								
31	**Small Hydropower**							
32	Company-Owned Generation:							
33	Ames	3.60	11,000	0				
34	Georgetown	1.44	4,430	0				
35	Palisade	3.00	12,746	0				
36	Salida	1.31	4,199	0				
37	Shoshone	14.40	85,000	0				
38	Tacoma	4.50	9,990	0				
39	Power Purchase w/RECs:							
40	Bridal Veil	0.50	0	0				
41	Betasso/SL/Lakewood	7.50	28,119	14,059				
42	Boulder Canyon	10.00	0	0				
43	Kohler	0.15	768	384				
44	Maxwell	0.07	548	274				
45	Orodell	0.22	674	337				
46	Sunshine	0.81	3,120	1,560				
47	Dillon Dam	1.90	11,134	0				
48	Foothills	2.30	5,500	0				

Table 4-3 - Renewable Energy Credits Acquired/Transferred
Public Service Company of Colorado
2012 Renewable Energy Standard Compliance Plan

Row	Renewable Resources	Capacity (MW) (1)	RECs Acquired 2013	City of Boulder Transfers 2013	Wholesale REC Allocation 2013 (2)	RECs Retired for Windsource 2013 (3)	RECs Sold 2013 (4)	Total RECs Available 2013
	Column Reference	h	i	j	k	l	m	n
	Calculation							(I - j - k - l - m)
49	Hillcrest	2.30	6,863	0				
50	Roberts Tunnel	6.10	10,809	0				
51	Strontia Springs	1.20	6,555	0				Page 4
52	Gross Reservoir	8.10	17,287	0				
53	Lake George	0.22	0	0				
54	Ouray	0.50	0	0				
55	Vallecito Dam	5.00	0	0				
56	Redlands	1.40	7,895	0				
57	Stagecoach	0.80	960	0				
58	Mt. Elbert	2.50	0	0				
59	**Total Small Hydropower**		227,598	16,615	16,358	0	0	194,626
60								
61	**Wind**							
62	Company Owned Generation							
63	Ponnequin II-VI	26.40	47,585	0				
64	Power Purchase w/RECs:							
65	NREL Siemens	2.30	3,626	0				
66	Northern Colorado Wind II	22.50	72,669	0				
67	Ponnequin I	5.25	0	0				
68	Ridgecrest	29.70	78,210	0				
69	**Total Wholesale DG Wind**		202,089	0	15,668	12,251	0	174,170
70								
71	**Total Wholesale DG**		669,432	16,615	50,613	18,533	0	583,671
72								
73	**Non-DG**							
74								
75	**Wind**							
76	Power Purchase w/RECs:							
77	Cedar Creek	300.50	907,417	0				
78	Cedar Creek II	250.80	842,904	0				
79	Cedar Point	252.00	880,900	0				
80	Colorado Green	162.00	499,714	0				
81	Foote Creek III	24.75	71,788	0				
82	Logan	201.00	612,968	0				
83	Northern Colorado Wind I	151.80	432,413	0				
84	Peetz Table	199.50	630,922	0				
85	2012 RFP Wind	200.00	810,000	0				
86	Spring Canyon	60.00	210,148	0				
87	Twin Buttes	75.00	264,131	0				
88	**Total Non-DG**		6,163,305	0	477,844	174,972	1,017,000	4,493,488
89								
90								
91	**Total Non Retail DG Renewable Resources**		6,832,736	16,615	528,457	193,505	1,017,000	5,077,159
92	**Total Renewable Resources**		7,154,377	16,615	528,457	203,404	1,017,000	5,388,900

Notes

(1) Retail DG capacity presented in DC; all others in AC

(2) Wholesale RECs transferred based on projected production and forecast wholesale load ratio share. Actual RECs transferred will be presented in the 2013 RES Report.

(3) Windsource retirement method will use proportional allocation of Retail DG, Wholesale DG and non-DG and third-party verified generation.
REC vintages from the last half of the prior year could be used for Windsource retirement, per Green-e Standards. Actual RECs retired will be presented in the 2013 RES Report.

(4) Currently executed REC sales. Actual REC sales will be sourced from multiple wind generators, but generation from specific generators is unknown at the time of this filing.

Table 4-4 - Planned Procurement of RECs
Public Service Company of Colorado
2012 Renewable Energy Standard Compliance Plan

Row	Calendar Year	Retail DG RECs	Retail DG RECs Retired for Windsource	Retail DG RECs Sold (2)	In-State Bonus RECs (3)	Community-Based Bonus RECs	Retail DG Total RECs	Wholesale DG RECs (1)	New Wholesale DG RECs (1)	Wholesale DG RECs Retired for Windsource	Wholesale DG RECs Sold (2)	In-State Bonus RECs	Wholesale DG Total RECs	Existing Non-DG RECs (1)	New Non-DG RECs (1)	Non-DG RECs Retired for Windsource	Non-DG RECs Sold (2)	Non-DG Bonus RECs (4)	Non-DG Total RECs
	Column Reference	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r
	Calculation						(a - b - c + d + e)					((g + h - i - j) * 0.25)	(g + h - i - j + k)						(m + n - o - p + q)
1	**2012**	244,162	8,436		29,990	0	265,716	601,779		20,792	-	145,247	726,234	4,945,989.99	36,856.62	172,162.00	1,018,600.00	931,399.00	4,723,484
2	**2013**	321,640	9,899		29,990	0	341,731	602,204		18,533	-	145,917	729,588	4,938,260.24	747,200.24	174,972.00	1,017,000.00	1,106,817.00	5,600,305
3	**2014**	372,562	11,502		29,990	0	391,050	600,727	-	18,547	-	145,545	727,725	4,927,553	753,345	175,389		1,364,982	6,870,491
4	**2015**	423,230	12,568		29,990	0	440,652	585,687	-	17,392	-	142,074	710,369	4,854,894	758,359	166,687		1,361,642	6,808,209
5	**2016**	473,645	14,042		29,990	0	489,593	571,209	-	16,935	-	138,569	692,843	4,890,541	763,892	167,637		1,371,699	6,858,494
6	**2017**	523,810	15,784		29,990	0	538,016	514,155	-	15,493	-	124,666	623,328	4,860,162	759,182	169,323		1,362,506	6,812,527
7	**2018**	573,725	17,334		29,990	0	586,381	499,976	-	15,106	-	121,218	606,088	4,871,290	760,920	170,166		1,365,511	6,827,555
8	**2019**	623,392	19,252		29,990	0	634,130	498,670	-	15,400	-	120,818	604,088	4,743,626	760,412	169,979		1,333,515	6,667,574
9	**2020**	672,812	19,464		29,990	0	683,338	497,174	-	14,383	-	120,698	603,489	4,722,666	759,068	158,583		1,330,788	6,653,939
10	**2021**	721,985	20,972		29,990	0	731,003	486,809	-	14,140	-	118,167	590,836	4,722,944	759,212	159,242		1,330,728	6,653,641

Notes:
(1) RECs presented are net of wholesale transfers, City of Boulder transfers and wholesale wind purchases and do not include in-state bonus
(2) RECs sold based on executed transactions
(3) Bonus applied to retail DG based on purchase transactions entered into prior to August 11, 2010
(4) Removes Foote Creek from RECs eligible for bonus

Exhibit 6-1 Calculation of Windsource Premium
Public Service Company of Colorado
2012 Renewable Energy Standard Compliance Plan

		5-Year 2013-2017 Averages			
	Total Incremental Cost $/MWh	$22.32			
	2011 Retail %	12%	2009 Rate	$/MWh Change	Percent change
	WindSource Premium $/MWh	$19.64	$21.58	-$1.94	-9%

1	2	3	4	5
YEAR	Incremental Cost $	Incremental GWH	Incremental Cost $/MWh	
2013	$10,174,730	350,400	$29.04	
2014	$18,174,195	700,800	$25.93	
2015	$22,513,846	1,051,200	$21.42	
2016	$23,543,132	1,054,110	$22.33	
2017	$19,515,631	1,051,200	$18.57	
5 year Total	$93,921,534	4,207,709	**$22.32**	

Windsource Premium Calculation

To determine the final Windsource premium, spread the Incremental Cost $/MWh for the non-renewable energy MWh (1-Retail %) over 100% of the MWh.
Windsource Premium = Incremental Cost (5 year average) multiplied by the ratio of (100% - Retail %)/100%
(100%-12% renewable energy in PSCo's general portfolio)*Incremental average cost of future renewables ($22.32/MWh) =
(100%-12%)*$22.32=$19.64/MWh Windsource premium

Table 7-1
Public Service Company of Colorado
Renewable Energy Standard Adjustment Estimate
For the Years 2011-2021

Table 7-1

Modeled Generation Costs
Base Case (no Carbon)
($000)

Year	No RES Plan	RES Plan	Modeled RES Incremental Costs	Total Renewable Energy Costs	Derived ECA Costs	Ongoing Costs
2011	$1,439,419	$1,535,324	$95,905	$135,635	$35,280	$4,450
2012	$1,442,405	$1,527,323	$84,918	$153,388	$63,315	$5,154
2013	$1,581,212	$1,643,109	$61,898	$175,762	$109,097	$4,768
2014	$1,728,861	$1,778,582	$49,720	$178,765	$126,517	$2,528
2015	$1,909,038	$1,937,761	$28,724	$181,670	$151,921	$1,025
2016	$2,036,977	$2,066,432	$29,455	$183,394	$152,999	$940
2017	$2,235,327	$2,261,654	$26,327	$213,398	$183,402	$3,669
2018	$2,504,911	$2,504,877	($34)	$216,268	$212,774	$3,529
2019	$2,669,123	$2,658,259	($10,863)	$219,180	$226,609	$3,434
2020	$2,853,542	$2,826,856	($26,685)	$222,490	$246,098	$3,077
2021	$2,936,987	$2,900,945	($36,042)	$224,997	$258,106	$2,933

Table 7-2

Public Service Company of Colorado
Renewable Energy Standard Adjustment Estimate
For the Years 2011-2021

Table 7-2

Modeled Generation Costs
Alternate Case (2014 Carbon)
($000)

Year	No RES Plan	RES Plan	Modeled RES Incremental Costs	Total Renewable Energy Costs	Derived ECA Costs	Ongoing Costs
2011	$1,439,419	$1,535,324	$95,905	$135,635	$35,280	$4,450
2012	$1,442,405	$1,527,323	$84,918	$153,388	$63,315	$5,154
2013	$1,581,212	$1,643,109	$61,898	$175,762	$109,097	$4,768
2014	$2,353,019	$2,347,829	($5,191)	$178,765	$181,428	$2,528
2015	$2,581,102	$2,549,116	($31,986)	$181,670	$212,631	$1,025
2016	$2,706,829	$2,678,995	($27,835)	$183,394	$210,288	$940
2017	$2,946,229	$2,906,806	($39,423)	$213,398	$249,152	$3,669
2018	$3,231,845	$3,152,566	($79,280)	$216,268	$292,019	$3,529
2019	$3,449,114	$3,358,759	($90,355)	$219,180	$306,101	$3,434
2020	$3,698,959	$3,582,706	($116,253)	$222,490	$335,666	$3,077
2021	$3,854,244	$3,721,489	($132,755)	$224,997	$354,819	$2,933

Table 7-3
Public Service Company of Colorado
Renewable Energy Standard Adjustment Estimate
For the Years 2011-2021

RESA Revenue %	
0.600%	2007
1.460%	2008
2.000%	2009
2.000%	2010

RESA Revenue %	
2.000%	2009
2.000%	2013
2.000%	2016

2012 Renewable Compliance Plan
NO CARBON CASE

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
	Total RES Renewable Energy Costs					RESA Related Revenues		RESA Related Expenditures						
	On-Site Solar Costs	NEW Central Solar Costs	NEW Wind Energy Costs	NEW Other Renewables Costs	Total RES Renewable Energy Costs (B thru E)	RESA Rider Revenue	Premium Windsource Credits	REC Margins		Modeled Incremental Costs	Ongoing Incremental Costs	Purchased RECs	RESA Program & Admin Costs	Windsource Program & Admin Costs
2011	71,592,992	10,052,689	49,539,500	0	131,185,181	52,114,460	4,640,326	52,700,000		95,904,841	4,450,093		1,423,714	322,544
2012	24,144,998	21,190,886	102,897,709	0	148,233,593	53,042,098	4,686,729	2,800,000		84,918,257	5,154,124		1,673,276	325,769
2013	23,861,998	21,169,349	125,963,262	0	170,994,609	53,986,247	4,733,596			61,897,509	4,767,584		959,004	329,027
2014	27,291,998	21,222,402	127,722,965	0	176,237,365	54,947,202	4,780,932			49,720,173	2,527,502		977,024	332,317
2015	29,709,002	21,242,346	129,693,851	0	180,645,199	55,925,262	4,828,742			28,723,736	1,024,587		1,255,624	335,640
2016	31,118,000	21,336,557	129,998,952	0	182,453,508	56,920,732	4,877,029			29,454,859	940,447		1,025,196	338,996
2017	32,114,000	21,358,220	156,257,220	0	209,729,440	57,933,921	4,925,799			26,327,396	3,669,000		1,034,315	342,386
2018	32,534,000	21,382,186	158,823,023	0	212,739,210	58,965,145	4,975,057			(34,497)	3,529,000		1,305,267	345,810
2019	32,898,002	21,404,489	161,443,400	0	215,745,891	60,014,724	5,024,808			(10,863,320)	3,434,000		1,053,881	349,268
2020	33,260,000	21,582,208	164,570,463	0	219,412,670	61,082,987	5,075,056			(26,685,280)	3,077,000		1,092,129	352,761
2021	33,621,000	21,534,581	166,908,529	0	222,064,110	62,170,264	5,125,807			(36,041,647)	2,932,544		1,047,728	356,289

	P	Q	R	S	T	U	V	W	X	Y
	Totals									
	Total Renewable Energy Costs (F + L)	Total Incremental Costs (J+K+L)	RES ECA Costs (P-Q)	Wholesale Jurisdictional Split	Total RESA Revenue (G+H+I)	Total RESA Costs (J+K+L+M+N+O)	Annual Excess/ (Deficiency) (S+T U)	Interest	Annual Excess/ (Deficiency) w/ Interest (V+W)	Rolling Balance (Deferred)
2010										(46,574,129)
2011	135,635,274	100,354,934	35,280,340	4,334,769	109,454,786	102,101,191	11,688,364	(2,654,458)	9,033,906	(37,540,224)
2012	153,387,717	90,072,381	63,315,336	5,817,193	60,528,827	92,071,426	(25,725,407)	(4,813,882)	(30,539,289)	(68,079,512)
2013	175,762,193	66,665,093	109,097,100	4,777,389	58,719,843	67,953,124	(4,455,892)	(5,519,219)	(9,975,111)	(78,054,623)
2014	178,764,866	52,247,674	126,517,192	3,690,159	59,728,134	53,557,016	9,861,277	(5,188,832)	4,672,446	(73,382,178)
2015	181,669,786	29,748,323	151,921,463	2,470,414	60,754,004	31,339,587	31,884,831	(3,157,533)	28,727,298	(44,654,880)
2016	183,393,955	30,395,306	152,998,649	2,538,955	61,797,761	31,759,498	32,577,218	(918,989)	31,658,229	(12,996,651)
2017	213,398,440	29,996,396	183,402,044	2,877,557	62,859,720	31,373,097	34,364,180	1,625,855	35,990,035	22,993,385
2018	216,268,210	3,494,503	212,773,707	1,256,477	63,940,202	5,145,581	60,051,098	6,318,855	66,369,953	89,363,338
2019	219,179,891	(7,429,320)	226,609,210	808,199	65,039,532	(6,026,170)	71,873,901	12,268,542	84,142,443	173,505,781
2020	222,489,670	(23,608,280)	246,097,950	95,997	66,158,043	(22,163,390)	88,417,429	19,929,737	108,347,167	281,852,947
2021	224,996,655	(33,109,102)	258,105,757	(58,736)	67,296,070	(31,705,085)	98,942,419	28,974,719	127,917,139	409,770,086

	Z	AA
	Shut Off Rider Revenue	
	RESA Rider Revenue	Rolling Balance (Deferred)
2010		
2011	52,114,460	(37,540,224)
2012	53,042,098	(68,079,512)
2013	53,986,247	(78,054,623)
2014	54,947,202	(73,382,178)
2015	55,925,262	(44,654,880)
2016	56,920,732	(12,996,651)
2017	57,933,921	22,993,385
2018	0	25,911,535
2019	0	40,644,685
2020	0	73,151,660
2021	0	118,287,919

Rolling Balance ($M)	
Rolling Balance (Deferred)	Rolling Balance if Rider Shut Off
-38	-38
-68	-68
-78	-78
-73	-73
-45	-45
-13	-13
23	23
89	26
174	41
282	73
410	118

Table 7-4
Public Service Company of Colorado
Renewable Energy Standard Adjustment Estimate
For the Years 2011-2021

RESA Revenue %	
0.600%	2007
1.460%	2008
2.000%	2009
2.000%	2010

RESA Revenue %	
2.000%	2009
2.000%	2013
2.000%	2016

2012 Renewable Compliance Plan
2014 CARBON CASE

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
	Total Renewable Energy Costs					RESA Related Revenues		RESA Related Expenditures						
	On-Site Solar Costs	NEW Central Solar Costs	NEW Wind Energy Costs	NEW Other Renewables Costs	Total RES Renewable Energy Costs (B thru E)	RESA Rider Revenue	Premium Windsource Credits	REC Margins		Modeled Incremental Costs	Ongoing Incremental Costs	Purchased RECs	RESA Program & Admin Costs	Windsource Program & Admin Costs
2011	71,592,992	10,052,689	49,539,500	0	131,185,181	52,114,460	4,640,326	52,700,000		95,904,841	4,450,093		1,423,714	322,544
2012	24,144,998	21,190,886	102,897,709	0	148,233,593	53,042,098	4,686,729	2,800,000		84,918,257	5,154,124		1,673,276	325,769
2013	23,861,998	21,169,349	125,963,262	0	170,994,609	53,986,247	4,733,596			61,897,509	4,767,584		959,004	329,027
2014	27,291,998	21,222,402	127,722,965	0	176,237,365	54,947,202	4,780,932			(5,190,618)	2,527,502		977,024	332,317
2015	29,709,002	21,242,346	129,693,851	0	180,645,199	55,925,262	4,828,742			(31,985,736)	1,024,587		1,255,624	335,640
2016	31,118,000	21,336,557	129,998,952	0	182,453,508	56,920,732	4,877,029			(27,834,782)	940,447		1,025,196	338,996
2017	32,114,000	21,358,220	156,257,220	0	209,729,440	57,933,921	4,925,799			(39,422,944)	3,669,000		1,034,315	342,386
2018	32,534,000	21,382,186	158,823,023	0	212,739,210	58,965,145	4,975,057			(79,279,647)	3,529,000		1,305,267	345,810
2019	32,898,002	21,404,489	161,443,400	0	215,745,891	60,014,724	5,024,808			(90,354,743)	3,434,000		1,053,881	349,268
2020	33,260,000	21,582,208	164,570,463	0	219,412,670	61,082,987	5,075,056			(116,253,377)	3,077,000		1,092,129	352,761
2021	33,621,000	21,534,581	166,908,529	0	222,064,110	62,170,264	5,125,807			(132,755,099)	2,932,544		1,047,728	356,289

	P	Q	R	S	T	U	V	W	X	Y
	Totals									
	Total Renewable Energy Costs (F + L)	Total Incremental Costs (J+K+L)	RES ECA Costs (P-Q)	Wholesale Jurisdictional Split	Total RESA Revenue (G+H+I)	Total RESA Costs (J+K+L+M+N+O)	Annual Excess/ (Deficiency) (S+T U)	Interest	Annual Excess/ (Deficiency) w/ Interest (V+W)	Rolling Balance (Deferred)
2010										(46,574,129)
2011	135,635,274	100,354,934	35,280,340	4,334,769	109,454,786	102,101,191	11,688,364	(2,654,458)	9,033,906	(37,540,224)
2012	153,387,717	90,072,381	63,315,336	5,817,193	60,528,827	92,071,426	(25,725,407)	(4,813,882)	(30,539,289)	(68,079,512)
2013	175,762,193	66,665,093	109,097,100	4,777,389	58,719,843	67,953,124	(4,455,892)	(5,519,219)	(9,975,111)	(78,054,623)
2014	178,764,866	(2,663,116)	181,427,983	(38,398)	59,728,134	(1,353,775)	61,043,512	(1,294,375)	59,749,136	(18,305,487)
2015	181,669,786	(30,961,149)	212,630,935	(1,874,617)	60,754,004	(29,369,885)	88,249,273	5,322,023	93,571,295	75,265,809
2016	183,393,955	(26,894,335)	210,288,290	(1,224,555)	61,797,761	(25,530,143)	86,103,349	12,278,579	98,381,928	173,647,737
2017	213,398,440	(35,753,944)	249,152,384	(1,659,378)	62,859,720	(34,377,243)	95,577,585	20,485,355	116,062,939	289,710,676
2018	216,268,210	(75,750,647)	292,018,857	(3,914,305)	63,940,202	(74,099,570)	134,125,467	32,249,692	166,375,159	456,085,835
2019	219,179,891	(86,920,743)	306,100,634	(4,322,780)	65,039,532	(85,517,594)	146,234,346	45,830,543	192,064,888	648,150,723
2020	222,489,670	(113,176,377)	335,666,047	(5,985,755)	66,158,043	(111,731,487)	171,903,774	62,397,947	234,301,721	882,452,444
2021	224,996,655	(129,822,555)	354,819,209	(6,264,011)	67,296,070	(128,418,538)	189,450,597	81,561,102	271,011,700	1,153,464,144

	Z	AA
	Shut Off Rider Revenue	
	RESA Rider Revenue	Rolling Balance (Deferred)
2010		
2011	52,114,460	(37,540,224)
2012	53,042,098	(68,079,512)
2013	53,986,247	(78,054,623)
2014	0	(18,305,487)
2015	0	75,265,809
2016	0	173,647,737
2017	0	18,090,390
2018	0	100,346,158
2019	0	200,761,570
2020	0	335,290,659
2021	0	497,768,019

Rolling Balance ($M)	
Rolling Balance (Deferred)	Rolling Balance if Rider Shut Off
-38	-38
-68	-68
-78	-78
-18	-18
75	75
174	174
290	18
456	100
648	201
882	335
1153	498

Table 7-5
Public Service Company of Colorado
Renewable Energy Standard Adjustment Estimate
For the Years 2011-2021

Resource Costs Locked Down In the 2012 Renewable Energy Standard Compliance Plan

	Ongoing Costs	Total Incremental Cost ($000)			Expected Generation (GWh)			Incremental Cost ($/MWh)		
	2009 Plan Ongoing#	On-Site Solar (January - September 2009)	NCW - 151 MW	NCW - 23 MW	On-Site Solar (January - September 2009)	NCW - 151 MW	NCW - 23 MW	On-Site Solar (January - September 2009)	NCW - 151 MW	NCW - 23 MW
2011	3,867	436	(108)	255	14	432	73	31.43	(0.25)	3.50
2012	3,937	395	435	386	14	434	73	28.45	1.00	5.30
2013	4,148	140	(208)	687	14	432	73	10.12	(0.48)	9.45
2014	3,986	69	(1,571)	44	14	432	73	4.97	(3.63)	0.60
2015	3,923	13	(2,718)	(193)	14	432	73	0.91	(6.29)	(2.65)
2016	3,856	4	(2,831)	(89)	14	434	73	0.31	(6.53)	(1.22)
2017	3,669	0	0	0	14	432	73	-	-	-
2018	3,529	0	0	0	14	432	73	-	-	-
2019	3,434	0	0	0	14	432	73	-	-	-
2020	3,077	0	0	0	14	434	73	-	-	-
2021	2,933	0	0	0	14	432	73	-	-	-

Locked down ongoing costs from Table 6-1, Docket No. 08A-532E. Includes On-Site Solar 2007-2008 and Sun Edison
*Includes full cost of one-time rebate for 2009 Enrollments (through September)

	Total Incremental Cost ($000)					Expected Generation (GWh)					Incremental Cost ($/MWh)				
	Cedar Creek II	Cedar Point	Iberdrola	Greater SandHill	2011 Wind RFP	Cedar Creek II	Cedar Point	Iberdrola	Greater SandHill	2011 Wind RFP	Cedar Creek II	Cedar Point	Iberdrola	Greater SandHill	2011 Wind RFP
2011	9,810	8,513	0	4,024	0	519	262	-	48	-	18.89	32.51	-	84.25	-
2012	19,734	30,575	7,719	4,234	114	845	883	79	48	40	23.35	34.63	97.89	88.42	2.84
2013	16,355	25,934	6,370	3,600	(38)	843	881	78	48	810	19.40	29.44	81.57	75.73	(0.05)
2014	13,786	22,115	5,879	3,396	(2,951)	843	881	78	47	815	16.36	25.10	75.65	71.83	(3.62)
2015	9,652	16,219	5,538	3,324	(8,118)	843	881	77	47	825	11.45	18.41	71.63	70.64	(9.84)
2016	11,344	17,023	5,426	3,359	(7,044)	845	883	77	47	827	13.42	19.28	70.21	71.58	(8.52)
2017	10,758	14,839	5,623	3,754	(8,466)	843	881	77	47	825	12.76	16.85	73.47	80.59	(10.26)
2018	6,128	9,063	4,794	3,275	(13,347)	843	881	76	46	825	7.27	10.29	62.97	70.66	(16.18)
2019	5,029	6,240	4,685	3,288	(15,327)	843	881	76	46	825	5.97	7.08	61.85	71.32	(18.58)
2020	3,497	2,814	4,245	3,236	(17,881)	845	883	76	46	827	4.14	3.19	56.08	70.36	(21.62)
2021	3,196	1,550	4,072	3,258	(18,748)	843	881	75	46	825	3.79	1.76	54.32	71.36	(22.72)

Eligible Energy Resources not listed: Ponnequinn owned (20 MW Wind), Ponnequinn PPA (3 MW Wind), RidgeCrest (30 MW Wind), NREL (4 MW Wind), NREL-Siemens (2 MW Wind), Waste Management (3 MW Biomass), 2010+ SolarRewards (76+ MW PV), Solar TAC (1-2 MW PV)