

**IN THE MATTER OF THE APPLICATION OF
PUBLIC SERVICE COMPANY OF
COLORADO FOR APPROVAL OF ITS 2009
RENEWABLE ENERGY STANDARD
COMPLIANCE PLAN**

DOCKET NO. 08A-532E

**ANSWER TESTIMONY OF
BETH HART**

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF COLORADO

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COMPANY FOR APPROVAL OF ITS 2009 RENEWABLE ENERGY
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1 Q. Please comment briefly on the topic of a third party administrator for the Solar
2 Rewards program.

3 A. CoSEIA continues to assert that the Company should not be the Solar Rewards
4 administrator and that a third party administrator should be used for the solar program.
5 The fact that the Company has access to confidential program administration data while
6 the HomeSmart entity and Xcel compete with other solar companies creates an actual or
7 apparent conflict of interest that must be addressed immediately. For example, despite
8 the testimony in the 2007 Compliance plan regarding the conflict of interest between the
9 Company and the company's unregulated subsidiary HomeSmart, the continued refusal
10 of the Company to allow solar contractors to advertise by means of inserts into the
11 monthly Xcel utility bills is unacceptable. In the 2007 Compliance plan testimony by
12 Ms. Newell, she stated the same opportunity would be announced and extended to all
13 other solar contractors. CoSEIA also asserts there is a co-branding benefit gained by
14 HomeSmart's affiliation with a larger player in the marketplace and this issue has not
15 been addressed.

16 Q. What is CoSEIA's position on the Company's proposal to register RECs with the
17 Western Region Electricity Generation Information System ("WREGIS")?

1 A. If the Company participates in the Western Renewable Energy Generation Information
2 System (“WREGIS”) cost of the program for the small solar systems should be excluded
3 from any requirement to register. CoSEIA believes that the commission understands that
4 WREGIS merely:

5 1. Ensures no double counting of RECs and

6 2. Verifies the RECs installed

7 According to the Company’s discovery responses, all “Generating Unit Owners” of solar
8 systems under 30 kW would be required to pay a \$200 annual fee. Individual
9 homeowners cannot be expected to pay an annual fee for registration in a system that
10 primarily benefits the holder of the RECs, which is ordinarily the Company. There is
11 also no need to verify these RECs based on the RES rule 3659(k) that the QRU shall be
12 entitled to count the SO-REC for compliance even if the on-site solar system is removed
13 or becomes inoperable. The Company also suggested that WREGIS would allow the
14 Company to register all solar systems itself for a total annual fee of \$1500. If allowed by
15 WREGIS, CoSEIA would not object to a program where the Company or other program
16 administrator paid a \$1500 annual fee to register systems that were owned by others, so
17 long as this payment did not impose any other obligations on the system owner and
18 doesn’t require special meters, that it requires a reasonable engineering estimate, not on
19 metering and is not financed by the RESA. For example, payment of the \$1500 annual
20 should not be contingent on the system owner transferring its RECs to the Company or
21 other program administrator.

22 **Q. Can you compare the costs of solar systems in the small, medium and large**
23 **categories?**

1 A. The Company's comparison of the cost of the REC between the small, medium and large
2 categories is not representative and does not adequately account for the difference
3 between upfront and future costs. Attached are CoSEIA's calculations of the REC costs
4 for the three categories. (Attachment CoSEIA 1-14 Xcel N-21 spreadsheet). Our
5 analysis shows that after the drop of the REC price for the small category, it is now
6 cheaper than the mid size category and becoming competitive with the commercial
7 category. CoSEIA's analysis refutes any assertions that systems under 10 kW are more
8 expensive than the other categories. The customer's cost share is \$3.15 (39%) based on
9 the Company's figures at \$8.00 watt installed.

NPV of small program

watts	est kWh output	disc rate: REC Purchase upfront rebate	7% 0 cents per kWh	2009	2010	2011	2012
10,000	14000	35000	0	0	0	0	0
			14.0	13.9	13.7	13.6	
		\$0.00					

NPV \$s / watt \$3.50
NPV \$/SO-REC \$253.60

NPV of medium program

watts	est kWh output	disc rate: REC Purchase upfront rebate	7% 11.5 cents per kWh	2009	2010	2011	2012
100,000	140000	200000	16100	15939	15779.61	15621.8139	
			140.0	138.6	137.2	135.8	
		\$158,713.26					

NPV \$s / watt \$3.59
NPV \$/SO-REC \$259.92

NPV of large program

watts	est kWh output	disc rate: REC Purchase upfront rebate	7% 22 cents per kWh	2009	2010	2011	2012
1,000,000	1400000	200000	308000	304920	301870.8	298852.092	
			1400	1386	1372	1358	
		\$3,036,253.62					

NPV \$s / watt \$3.24
NPV \$/SO-REC \$234.49

Note that this assumes fixed arrays. With trackers (DIA at least) the kWh will be higher and the

2013	2014	2015	2016	2017	2018	2019	2020	2021
0	0	0	0	0	0	0	0	0
13.4	13.3	13.2	13.0	12.9	12.8	12.7	12.5	12.4

2013	2014	2015	2016	2017	2018	2019	2020	2021
15465.5958	15310.9398	15157.8304	15006.2521	14856.1896	14707.6277	14560.5514	14414.9459	14270.7964
134.5	133.1	131.8	130.5	129.2	127.9	126.6	125.3	124.1

2013	2014	2015	2016	2017	2018	2019	2020	2021
295863.571	292904.935	289975.886	287076.127	284205.366	281363.312	278549.679	275764.182	273006.54
1345	1331	1318	1305	1292	1279	1266	1253	1241

NPV \$/watt will be lower

2022	2023	2024	2025	2026	2027	2028
0	0	0	0	0	0	0
12.3	12.2	12.0	11.9	11.8	11.7	11.6

2022	2023	2024	2025	2026	2027	2028
14128.0885	13986.8076	13846.9395	13708.4701	13571.3854	13435.6716	13301.3148
122.9	121.6	120.4	119.2	118.0	116.8	115.7

2022	2023	2024	2025	2026	2027	2028
270276.475	267573.71	264897.973	262248.993	259626.504	257030.239	254459.936
1229	1216	1204	1192	1180	1168	1157