

**EXHIBIT NO. J-17
DOCKET NO. UE-070725
WITNESSES: TOM DE BOER
SANDRA M. SIEG
CHARLES M. EBERDT**

**BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

Amended Petition of

PUGET SOUND ENERGY, INC.

**For an Order Authorizing the Use of the
Proceeds From the Sale of Renewable Energy
Credits and Carbon Financial Instruments**

Docket No. UE-070725

**FIRST EXHIBIT (NONCONFIDENTIAL) TO THE
JOINT DIRECT TESTIMONY OF
TOM DE BOER, SANDRA M. SIEG, AND CHARLES M. EBERDT**

AUGUST 12, 2010

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

Docket No. UE-070725

**Amended Petition of Puget Sound Energy, Inc. For an Order Authorizing
the Use of the Proceeds from the Sale of RECs and CFIs**

WUTC STAFF DATA REQUEST NO. 035

WUTC STAFF DATA REQUEST NO. 035:

The Commission's June 29, 2010, Notice in this docket states in part:

The Commission requires additional, specific information concerning the additional amounts of cost-effective [low income] conservation that can be achieved during [2010-2011] and the amount and source(s) of funds available to achieve it.

- A. Please provide the following information, **assuming PSE received no funds from the Enron settlement and no funds from REC proceeds**:
- 1) The amount of cost-effective low income conservation PSE expects to achieve during 2010-2011. If the amount is not the same as PSE identified in Docket UE-091859, please fully explain the discrepancy. If the amount is greater than the amount PSE identified in Docket UE-091859, please explain:
 - a) Why PSE did not propose to acquire that additional conservation in that docket,
 - b) Whether that additional conservation will be available after 2011, and if not, why not.
 - 2) Please provide a table listing each source of funds available to achieve the amount of low income conservation you listed in your response to 1) above. Opposite each source you list, please state the funding amount from that source, and please state the total funding from all sources listed.
 - 3) Of the total amount of funds shown in your response to part 2) above, please provide the amount PSE expects to use for repairs to low income housing structures.
 - 4) Please provide a demonstration that the conservation acquired satisfies:
 - a) The Utility Cost Test; and
 - b) The Total Resource Cost TestSupport your response with a detailed calculation

B. Please provide the following information, **assuming uses \$4.57 million from REC proceeds**:

- 1) The amount of cost-effective low income conservation PSE expects to achieve during 2010-2011. If the amount is not the same as PSE identified in Docket UE-091859, please fully explain the discrepancy. If the amount is greater than the amount PSE identified in Docket UE-091859, please explain:
 - a) Why PSE did not propose to acquire that additional conservation in that docket,
 - b) Whether that additional conservation will be available after 2011, and if not, why not.
- 2) Please provide a table listing each source of funds available to achieve the amount of low income conservation you listed in your response to 1) above. Opposite each source you list, please state the funding amount from that source, and please state the total funding from all sources listed.
- 3) Of the total amount of funds shown in your response to part 2) above, please provide the amount PSE expects to use for repairs to low income housing structures.
- 4) Please indicate whether the conservation acquired satisfies:
 - a) The Utility Cost Test; and
 - b) The Total Resource Cost TestSupport your response with a detailed calculation, and please show separately how PSE treats the \$4.57 million in that calculation.

C. Please provide the following information, **assuming PSE receives the expected amount of Enron settlement proceeds (around \$2.1 million) and uses \$4.57 million from REC proceeds**:

- 1) The amount of cost-effective low income conservation PSE expects to achieve during 2010-2011. If the amount is not the same as PSE identified in Docket UE-091859, please fully explain the discrepancy. If the amount is greater than the amount PSE identified in Docket UE-091859, please explain:
 - a) Why PSE did not propose to acquire that additional conservation in that docket,
 - b) Whether that additional conservation will be available after 2011, and if not, why not.
- 2) Please provide a table listing each source of funds available to achieve the amount of low income conservation you listed in your response to 1) above. Opposite each source you list, please state the funding amount from that source, and please state the total funding from all sources listed.

- 3) Of the total amount of funds shown in your response to part 2) above, please provide the amount PSE expects to use for repairs to low income housing structures.
- 4) Please indicate whether the conservation acquired satisfies:
 - a) The Utility Cost Test; and
 - b) The Total Resource Cost Test
 Support your response with a detailed calculation, and please show separately how PSE treats the \$4.57 million and the \$2.1 million.

D. Please respond to the following:

- 1) If the figures you provided in your responses to Part B1 and Part C1 above do not reflect the same amount of conservation, please state all reasons explaining why these figures are different.
- 2) If the difference between the amounts of conservation you state in your response to Part A1 and B1 above does not reflect the "additional amounts of cost-effective low income conservation that can be achieved during 2010-2011," please explain why it is not, and provide the amount of "additional amounts cost-effective low income conservation that can be achieved during 2010-2011," and the basis for that amount. (The quoted phrases are taken from the Commission's June 29, 2010, Notice, page 2).

Response:

A.

- 1) Assuming Puget Sound Energy, Inc. ("PSE") had received no Enron settlement proceeds for low income energy efficiency from the Washington State Attorney General, and assuming PSE received no funds from REC proceeds, the amount of feasible cost-effective conservation PSE would have expected to achieve in 2010-2011 is 2,992,800 kWh savings. Attachment A to PSE's Response to WUTC Staff Data Request No. 35, attached hereto, provides additional detail regarding the amount of feasible cost-effective conservation PSE expected to achieve in 2010-11 based on these assumptions. This is the same amount of cost-effective low income conservation presented in Docket UE-091859, except that the kWh savings in Docket UE-091859 were rounded up to 3,000,000 kWh savings.
- 2) The table below lists each source of funding available to PSE to achieve the amount of low income conservation listed in PSE's Response to WUTC Staff Data Request No. 35.A.1.

2010-2011 PSE LIW Source of Funds: Tariff Electric		
Funding Source	Funding Amount	Repair Amount
Electric Tariff Rider	\$4,783,380	\$0
Shareholder	\$420,000	\$357,000
Total	\$5,203,380	\$357,000

The \$420,000 Shareholder dollars are identified as "Other Contributions" in Attachment A to PSE's Response to WUTC Staff Data Request No. 35 and in Docket UE-091859 (Appendix C, Exhibit I). These funds are used for repairs (80%) and conservation measures (20%). The 20% for conservation measures have been used to fund the balance of conservation measures, where the utility incentive pays for part, but not all, of an energy efficiency measure, and therefore there are no savings projected for these conservation measures funded by Shareholder dollars.

- 3) See PSE's Response to WUTC Staff Data Request No. 35.A.2. Low income agencies may have other funding sources available for their use for repairs to low-income housing structures. These include federal Department Of Energy ("DOE"), American Recovery and Reinvestment Act ("ARRA") funds (through June 2011), State Energy Matchmaker, and State Home Repair and Rehabilitation funds (if available). The low income agencies are not required to, and do not, report to PSE on how they use these funds from other funding sources.
- 4) In this analysis, the estimated result of the Utility Cost ("UC") test is 1.41, and the estimated result of the Total Resource Cost ("TRC") test is 1.29.

B.

- 1) Please see PSE's Response to WUTC Staff Data Request No. 27, which explains that PSE believes it is not feasible to expend \$4.57 million for low income energy efficiency in the 2010-2011 biennium, and that PSE anticipates it would be feasible to use only one-half of the \$4.57 million if PSE is required to only use the funds in the 2010-2011 biennium. While it is feasible that PSE could spend a portion of the proceeds in the remainder of 2010, it would be a limited amount due to the late timing of the release of the funds. This late release would jeopardize PSE's ability to spend the entire \$4.57 million by the end of 2011 and still meet the TRC and savings goals outlined in the record. Therefore, it is not feasible to expend \$4.57 million for low income energy efficiency in the 2010-2011 biennium.

Assuming PSE had received no Enron settlement proceeds for low income energy efficiency from the Washington State Attorney General, and assuming PSE uses \$2.285 million from REC proceeds, the amount of feasible cost-effective conservation PSE would expect to achieve in 2010-2011 is 3,418,099

kWh savings. Attachment B to PSE's Response to WUTC Staff Data Request No. 35, attached hereto, provides additional detail regarding the amount of feasible cost-effective conservation PSE expects to achieve in 2010-2011, with \$2.285 million in REC proceeds applied to the 2011 program and assuming no Enron settlement funds for low income energy efficiency.

- a) The amounts for the 2010-11 program are greater than the amount presented in Docket UE-091859 because Docket UE-091859 does not include funding from REC proceeds. The REC funding was not incorporated into the UE-091859 docket for several reasons. First, the REC funding proposal was already pending before the Commission in its own docket when Docket UE-091859 was initiated. Second, the source of the funding proposed in Docket UE-070725 was new and unique. Third, the nature of ownership of the REC proceeds was undecided. Fourth, the ultimate disbursement of the REC proceeds was unknown. Fifth, while the ultimate timing of the proposed program to use REC proceeds for low income conservation and repairs was unknown, even the expected timing of the proposed program was not synchronous with the biennial period that PSE and the CRAG use to plan and implement conservation programs.
 - b) If the \$4.57 million in REC proceeds are spread over three years, as proposed by The Energy Project and set forth in PSE's Response to WUTC Staff Data Request No. 27, then additional conservation will be available after 2011, as shown in PSE's Response to WUTC Staff Data Request No. 27.
- 2) The table below lists each source of funding available to PSE to achieve the amount of low-income conservation listed in PSE's Response to WUTC Staff Data Request No. 35.B.1

2010-2011 PSE LIW Source of Funds: Tariff Electric + REC		
Funding Source	Funding Amount	Repair Amount
Electric Tariff Rider	\$4,783,380	\$0
Shareholder	\$210,000	\$178,500
REC	\$2,285,000	\$1,671,822
Total	\$7,278,380	\$1,850,322

- 3) See PSE Response to WUTC Staff Data Request No. 35.B.2. Low income agencies may have other funding sources available for their use for repairs to low-income housing structures. These include federal DOE, ARRA funds (through June 2011), State Energy Matchmaker, and State Home Repair and Rehabilitation funds (if available). The low income agencies are not required to, and do not, report to PSE on how they use these funds from other funding sources.

- 4) In this analysis, the estimated result from the UC test is 1.61 and the estimated result from the TRC test is 1.06.

C.

- 1) Assuming PSE received the expected amount of Enron settlement proceeds and uses REC proceeds as discussed in PSE's Response to WUTC Staff Data Request No. 35.B.1, above, the amount of feasible cost-effective conservation PSE would expect to achieve in 2010-2011 is 4,753,540 kWh savings. Attachment C to PSE's Response to WUTC Staff Data Request No. 35, attached hereto, provides additional detail regarding the amount of feasible cost-effective conservation PSE expects it could achieve in 2010-2011 assuming the use of Enron settlement funds and REC proceeds as discussed in more detail below. Note that only \$1.7 million of the Enron settlement proceeds are being used for electric customers; the remainder is being used for gas customers and is not reflected in Attachment C to PSE's Response to WUTC Staff Data Request No. 35.
- a) In this scenario, the amount of cost effective conservation is greater for 2010-2011 than PSE identified in Docket UE-091859. This is due to the infusion of \$1.7 million of the Enron settlement proceeds in 2010 and \$2.28 million of REC proceeds in 2011, neither of which is included in Docket UE-091859. See PSE's Response to WUTC Staff Data Request No. 35.B.1 above for the assumptions regarding PSE's use of REC proceeds and the reasons why the REC proceeds were not included in Docket UE-091859.

Enron Settlement Proceeds: By the end of 2010, PSE expects to have applied \$1,732,575 to electric units with 80% spent on repairs and 20% spent on energy efficiency measures, achieving 294,009 kWh savings directly from Enron settlement proceeds. In addition, however, the Enron settlement proceeds have played a role in enabling additional cost effective conservation in the tariff program with an estimated additional savings of 1,000 MWh for the tariff program in 2010. For 2010, Shareholder dollars (\$259,886.26) have been used for administrative expenses associated with Enron settlement proceeds distribution. Several unique aspects of the Attorney General's Enron settlement proceeds should be noted. First, the Enron settlement proceeds are not required by the Attorney General's Office to be spent in a cost-effective manner, nor are they required to meet a certain level of cost-effectiveness, therefore they are very different in that regard from other monies being compared here. Second, the Enron settlement proceeds cannot be spent on administrative costs to carry out the program. Third, the timing of the disbursement of the Enron settlement proceeds occurred after PSE filed its Biennial Conservation Programs and did not allow PSE and the

CRAG members to incorporate the funds into the biennial planning cycle of PSE's Biennial Conservation Programs.

- b) See PSE's Response to WUTC Staff Data Request No. 35.B.1.b, above.
- 2) The table below lists each source of funding available to PSE to achieve the amount of low income conservation listed in PSE's Response to WUTC Staff Data Request No. 35.C.1.

2010-2011 PSE LIW Source of Funds: Tariff Electric + REC + Enron		
Funding Source	Funding Amount	Repair Amount
Electric Tariff Rider	\$5,611,938	\$0
Shareholder	\$259,886	\$220,903
REC	\$2,285,000	\$1,671,822
Enron Settlement	\$1,732,575	\$1,386,060
Total	\$9,889,399	\$3,278,786

- 3) See PSE Response to WUTC Staff Data Request No. 35.C.2. Low income agencies may have other funding sources available for their use for repairs to low-income housing structures. These include federal DOE, ARRA funds (through June 2011), State Energy Matchmaker, and State Home Repair and Rehabilitation funds (if available). The low income agencies are not required to, and do not, report to PSE on how they use these funds from other funding sources.
- 4) In this analysis, the estimated result of the UC test is 1.91 and the estimated result of the TRC test is 1.08.

D.

- 1) Please see PSE's Response to WUTC Staff Data Request No. 35.B.1 and 35.C.1 above.
- 2) The difference between the amounts of conservation in PSE's Response to WUTC Staff Data Request No. 35.A.1 and 35.C.1 represents the additional amounts of cost effective low income conservation that can be achieved during 2010-2011. Please see PSE's Response to WUTC Staff Data Request No. 27 for the cost effective low income conservation that can be achieved during 2011-2013 if the \$4.57 million in REC proceeds are used over that three-year time frame.

**Attachment A to PSE's Response to
WUTC Staff Data Request No. 35**

Cost Effectiveness Estimate for Low Income Energy Efficiency 2010-2011

		Wtd Meas Life Calc		Program Metrics					Program NEBs			Cost Effectiveness Metrics				
Meas Life	End-Use Type	Overall kWh Wgt.	Overall Weighted Meas. Life	Total kWh Savings	Total Pgm Admin Cost	Total Pgm Incentive Cost	Total Utility Cost	Other Contributions	Total Incremental O&M Benefit	Total Quantified Other Non-Energy Benefit	Total Cost	Levelized Utility Cost per kWh	Levelized TRC Cost per kWh	Cost Eff. Standard per kWh	UC B/C Ratio	TRC B/C Ratio
25	MFSH	38.32%	9.58	1,146,800	\$ 461,525.00	\$ 1,391,497.00	\$ 1,853,022.00	\$ -	\$ -	\$ -	\$ 1,853,022.00	\$ 0.155	\$ 0.155	\$ 0.166	1.07	1.07
25	SFSH	61.68%	15.42	1,846,000	\$ 709,351.00	\$ 2,221,007.00	\$ 2,930,358.00	\$ -	\$ -	\$ -	\$ 2,930,358.00	\$ 0.152	\$ 0.152	\$ 0.215	1.42	1.42
25	SFSH	0.00%	0.00	-	\$ -	\$ -	\$ -	\$ 357,000.00	\$ -	\$ -	\$ 357,000.00	#DIV/0!	#DIV/0!	\$ 0.215	#DIV/0!	#DIV/0!
25	SFSH	0.00%	0.00	-	\$ -	\$ -	\$ -	\$ 63,000.00	\$ -	\$ -	\$ 63,000.00	#DIV/0!	#DIV/0!	\$ 0.215	#DIV/0!	#DIV/0!
25	SFSH		25.00	2,992,800	\$ 1,170,876.00	\$ 3,612,504.00	\$ 4,783,380.00	\$ 420,000.00	\$ -	\$ -	\$ 5,203,380.00	\$ 0.153	\$ 0.166	\$ 0.215	1.41	1.29

2010-2011 PSE LIW Source of Funds: Tariff Electric		
Funding Source	Funding Amount	Repair Amount
Tariff Electric	\$ 4,783,380.00	\$ -
Shareholder	\$ 420,000.00	\$ 357,000.00
Total	\$ 5,203,380.00	\$ 357,000.00

LEVELIZED FIXED CHARGE RATE FOR

After Tax Discount Rate: 8.25%

Number of Years	Levelized Fixed Charge Rate (%)
1	108.250
2	56.269
3	38.979
4	30.360
5	25.211
6	21.796
7	19.372
8	17.567
9	16.175
10	15.071
11	14.178
12	13.442
13	12.827
14	12.306
15	11.862
16	11.479
17	11.146
18	10.856
19	10.601
20	10.375
21	10.176
22	9.998
23	9.839
24	9.697
25	9.569
26	9.454
27	9.350
28	9.256
29	9.170
30	9.093

Electric Conservation Cost Effectiveness Standard, 2010-2011 (Levelized \$/kWh) (Includes avoided energy and avoided capacity)												
Measure Life	SF Space Heat	MF Space Heating	Residential Water Heat	Residential Lighting	Residential Heat Pump	Residential Plug Load	Commercial Cooking	Commercial Cooling	Commercial Heating	Commercial Lighting	Commercial Refrigeration	Flat
	SFSH	MFSH	WH	LIGHTING	HP	PLUG	CICOOK	CICOOL	CIHEAT	CILTG	CIREF	FLAT
1	\$ 0.140	\$ 0.113	\$ 0.109	\$ 0.092	\$ 0.167	\$ 0.094	\$ 0.084	\$ 0.060	\$ 0.183	\$ 0.112	\$ 0.096	0.091
2	\$ 0.143	\$ 0.115	\$ 0.111	\$ 0.093	\$ 0.170	\$ 0.096	\$ 0.086	\$ 0.061	\$ 0.186	\$ 0.114	\$ 0.098	0.093
3	\$ 0.153	\$ 0.125	\$ 0.120	\$ 0.102	\$ 0.180	\$ 0.105	\$ 0.095	\$ 0.069	\$ 0.196	\$ 0.124	\$ 0.107	0.102
4	\$ 0.159	\$ 0.130	\$ 0.125	\$ 0.107	\$ 0.185	\$ 0.110	\$ 0.100	\$ 0.074	\$ 0.202	\$ 0.129	\$ 0.113	0.107
5	\$ 0.164	\$ 0.134	\$ 0.129	\$ 0.110	\$ 0.189	\$ 0.114	\$ 0.103	\$ 0.077	\$ 0.206	\$ 0.133	\$ 0.116	0.111
6	\$ 0.168	\$ 0.137	\$ 0.132	\$ 0.113	\$ 0.193	\$ 0.116	\$ 0.106	\$ 0.079	\$ 0.210	\$ 0.136	\$ 0.119	0.114
7	\$ 0.172	\$ 0.140	\$ 0.134	\$ 0.115	\$ 0.196	\$ 0.119	\$ 0.108	\$ 0.080	\$ 0.213	\$ 0.138	\$ 0.121	0.116
8	\$ 0.175	\$ 0.142	\$ 0.136	\$ 0.117	\$ 0.199	\$ 0.120	\$ 0.109	\$ 0.082	\$ 0.216	\$ 0.140	\$ 0.123	0.117
9	\$ 0.178	\$ 0.144	\$ 0.138	\$ 0.118	\$ 0.201	\$ 0.122	\$ 0.111	\$ 0.083	\$ 0.219	\$ 0.142	\$ 0.125	0.119
10	\$ 0.181	\$ 0.146	\$ 0.140	\$ 0.120	\$ 0.204	\$ 0.124	\$ 0.112	\$ 0.084	\$ 0.222	\$ 0.144	\$ 0.126	0.121
11	\$ 0.184	\$ 0.148	\$ 0.141	\$ 0.121	\$ 0.206	\$ 0.125	\$ 0.114	\$ 0.085	\$ 0.224	\$ 0.145	\$ 0.128	0.122
12	\$ 0.186	\$ 0.149	\$ 0.143	\$ 0.123	\$ 0.208	\$ 0.127	\$ 0.115	\$ 0.086	\$ 0.227	\$ 0.147	\$ 0.129	0.124
13	\$ 0.189	\$ 0.151	\$ 0.144	\$ 0.124	\$ 0.210	\$ 0.128	\$ 0.116	\$ 0.087	\$ 0.229	\$ 0.149	\$ 0.130	0.125
14	\$ 0.191	\$ 0.152	\$ 0.146	\$ 0.125	\$ 0.212	\$ 0.129	\$ 0.118	\$ 0.087	\$ 0.231	\$ 0.150	\$ 0.132	0.126
15	\$ 0.194	\$ 0.154	\$ 0.147	\$ 0.126	\$ 0.214	\$ 0.131	\$ 0.119	\$ 0.088	\$ 0.234	\$ 0.151	\$ 0.133	0.128
16	\$ 0.197	\$ 0.155	\$ 0.149	\$ 0.128	\$ 0.216	\$ 0.132	\$ 0.120	\$ 0.089	\$ 0.236	\$ 0.153	\$ 0.134	0.129
17	\$ 0.199	\$ 0.157	\$ 0.150	\$ 0.129	\$ 0.218	\$ 0.133	\$ 0.121	\$ 0.090	\$ 0.238	\$ 0.154	\$ 0.135	0.130
18	\$ 0.201	\$ 0.158	\$ 0.151	\$ 0.130	\$ 0.220	\$ 0.134	\$ 0.122	\$ 0.091	\$ 0.240	\$ 0.155	\$ 0.137	0.131
19	\$ 0.203	\$ 0.159	\$ 0.152	\$ 0.131	\$ 0.221	\$ 0.135	\$ 0.123	\$ 0.091	\$ 0.242	\$ 0.157	\$ 0.138	0.132
20	\$ 0.206	\$ 0.161	\$ 0.154	\$ 0.132	\$ 0.223	\$ 0.136	\$ 0.124	\$ 0.092	\$ 0.244	\$ 0.158	\$ 0.139	0.133
21	\$ 0.208	\$ 0.162	\$ 0.155	\$ 0.133	\$ 0.225	\$ 0.137	\$ 0.125	\$ 0.093	\$ 0.245	\$ 0.159	\$ 0.140	0.134
22	\$ 0.210	\$ 0.163	\$ 0.156	\$ 0.133	\$ 0.226	\$ 0.138	\$ 0.125	\$ 0.093	\$ 0.247	\$ 0.160	\$ 0.141	0.135
23	\$ 0.212	\$ 0.164	\$ 0.157	\$ 0.134	\$ 0.228	\$ 0.139	\$ 0.126	\$ 0.094	\$ 0.249	\$ 0.161	\$ 0.142	0.136
24	\$ 0.214	\$ 0.165	\$ 0.158	\$ 0.135	\$ 0.229	\$ 0.140	\$ 0.127	\$ 0.094	\$ 0.250	\$ 0.162	\$ 0.142	0.136
25	\$ 0.215	\$ 0.166	\$ 0.158	\$ 0.136	\$ 0.230	\$ 0.140	\$ 0.127	\$ 0.095	\$ 0.252	\$ 0.163	\$ 0.143	0.137
26	\$ 0.217	\$ 0.167	\$ 0.159	\$ 0.136	\$ 0.232	\$ 0.141	\$ 0.128	\$ 0.095	\$ 0.253	\$ 0.164	\$ 0.144	0.138
27	\$ 0.219	\$ 0.168	\$ 0.160	\$ 0.137	\$ 0.233	\$ 0.142	\$ 0.129	\$ 0.095	\$ 0.254	\$ 0.165	\$ 0.145	0.138
28	\$ 0.220	\$ 0.168	\$ 0.161	\$ 0.138	\$ 0.234	\$ 0.142	\$ 0.129	\$ 0.096	\$ 0.256	\$ 0.165	\$ 0.145	0.139
29	\$ 0.222	\$ 0.169	\$ 0.161	\$ 0.138	\$ 0.235	\$ 0.143	\$ 0.130	\$ 0.096	\$ 0.257	\$ 0.166	\$ 0.146	0.140
30	\$ 0.223	\$ 0.170	\$ 0.162	\$ 0.139	\$ 0.236	\$ 0.144	\$ 0.130	\$ 0.096	\$ 0.258	\$ 0.167	\$ 0.146	0.140

1. 2010 Start Year
2. Discount rate used is PSE after tax weighted cost of capital, 8.25%

**Attachment B to PSE's Response to
WUTC Staff Data Request No. 35**

Cost Effectiveness Estimate for Low Income Energy Efficiency with REC/CFI Proceeds Incorporated 2010-2011																	
		Wtd Meas Life Calc		Program Metrics						Program NEBs			Cost Effectiveness Metrics				
Meas Life	End-Use Type	Overall kWh Wgt.	Overall Weighted Meas. Life	Total kWh Savings	Total Pgm Admin Cost	Total Pgm Incentive Cost	Total Utility Cost	Third-Party Cost	Other Contributions	Total Incremental O&M Benefit	Total Quantified Other Non-Energy Benefit	Total Cost	Levelized Utility Cost per kWh	Levelized TRC Cost per kWh	Cost Eff. Standard per kWh	UC B/C Ratio	TRC B/C Ratio
25	MFSH	33.55%	8.39	1,146,800	\$ 461,525.00	\$ 1,391,497.00	\$ 1,853,022.00	\$ -	\$ -	\$ -	\$ -	\$ 1,853,022.00	\$ 0.155	\$ 0.155	\$ 0.166	1.07	1.07
25	SFSH	54.01%	13.50	1,846,000	\$ 709,351.00	\$ 2,221,007.00	\$ 2,930,358.00	\$ -	\$ -	\$ -	\$ -	\$ 2,930,358.00	\$ 0.152	\$ 0.152	\$ 0.215	1.42	1.42
25	SFSH	0.00%	0.00	-	\$ -	\$ -	\$ -	\$ 1,671,822.33	\$ -	\$ -	\$ -	\$ 1,671,822.33	#DIV/0!	#DIV/0!	\$ 0.215	#DIV/0!	#DIV/0!
25	SFSH	12.44%	3.11	425,299	\$ -	\$ -	\$ -	\$ 613,177.67	\$ -	\$ -	\$ -	\$ 613,177.67	\$ -	\$ 0.138	\$ 0.215	#DIV/0!	1.56
25	SFSH	0.00%	0.00	-	\$ -	\$ -	\$ -	\$ -	\$ 178,500.00	\$ -	\$ -	\$ 178,500.00	#DIV/0!	#DIV/0!	\$ 0.215	#DIV/0!	#DIV/0!
25	SFSH	0.00%	0.00	-	\$ -	\$ -	\$ -	\$ -	\$ 31,500.00	\$ -	\$ -	\$ 31,500.00	#DIV/0!	#DIV/0!	\$ 0.215	#DIV/0!	#DIV/0!
25	SFSH		25.00	3,418,099	\$ 1,170,876.00	\$ 3,612,504.00	\$ 4,783,380.00	\$ 2,285,000.00	\$ 210,000.00	\$ -	\$ -	\$ 7,278,380.00	\$ 0.134	\$ 0.204	\$ 0.215	1.61	1.06

2010-2011 PSE LIW Source of Funds: Tariff Electric + REC		
Funding Source	Funding Amount	Repair Amount
Tariff Electric	\$ 4,783,380.00	\$ -
Shareholder	\$ 210,000.00	\$ 178,500.00
REC	\$ 2,285,000.00	\$ 1,671,822.33
Total	\$ 7,278,380.00	\$ 1,850,322.33

LEVELIZED FIXED CHARGE RATE FOR

After Tax Discount Rate: 8.25%

Number of Years	Levelized Fixed Charge Rate (%)
1	108.250
2	56.269
3	38.979
4	30.360
5	25.211
6	21.796
7	19.372
8	17.567
9	16.175
10	15.071
11	14.178
12	13.442
13	12.827
14	12.306
15	11.862
16	11.479
17	11.146
18	10.856
19	10.601
20	10.375
21	10.176
22	9.998
23	9.839
24	9.697
25	9.569
26	9.454
27	9.350
28	9.256
29	9.170
30	9.093

Electric Conservation Cost Effectiveness Standard, 2010-2011 (Levelized \$/kWh) (Includes avoided energy and avoided capacity)												
Measure Life	SF Space Heat	MF Space Heating	Residential Water Heat	Residential Lighting	Residential Heat Pump	Residential Plug Load	Commercial Cooking	Commercial Cooling	Commercial Heating	Commercial Lighting	Commercial Refrigeration	Flat
	SFSH	MFSH	WH	LIGHTING	HP	PLUG	CICOOK	CICOOL	CIHEAT	CILTG	CIREF	FLAT
1	\$ 0.140	\$ 0.113	\$ 0.109	\$ 0.092	\$ 0.167	\$ 0.094	\$ 0.084	\$ 0.060	\$ 0.183	\$ 0.112	\$ 0.096	0.091
2	\$ 0.143	\$ 0.115	\$ 0.111	\$ 0.093	\$ 0.170	\$ 0.096	\$ 0.086	\$ 0.061	\$ 0.186	\$ 0.114	\$ 0.098	0.093
3	\$ 0.153	\$ 0.125	\$ 0.120	\$ 0.102	\$ 0.180	\$ 0.105	\$ 0.095	\$ 0.069	\$ 0.196	\$ 0.124	\$ 0.107	0.102
4	\$ 0.159	\$ 0.130	\$ 0.125	\$ 0.107	\$ 0.185	\$ 0.110	\$ 0.100	\$ 0.074	\$ 0.202	\$ 0.129	\$ 0.113	0.107
5	\$ 0.164	\$ 0.134	\$ 0.129	\$ 0.110	\$ 0.189	\$ 0.114	\$ 0.103	\$ 0.077	\$ 0.206	\$ 0.133	\$ 0.116	0.111
6	\$ 0.168	\$ 0.137	\$ 0.132	\$ 0.113	\$ 0.193	\$ 0.116	\$ 0.106	\$ 0.079	\$ 0.210	\$ 0.136	\$ 0.119	0.114
7	\$ 0.172	\$ 0.140	\$ 0.134	\$ 0.115	\$ 0.196	\$ 0.119	\$ 0.108	\$ 0.080	\$ 0.213	\$ 0.138	\$ 0.121	0.116
8	\$ 0.175	\$ 0.142	\$ 0.136	\$ 0.117	\$ 0.199	\$ 0.120	\$ 0.109	\$ 0.082	\$ 0.216	\$ 0.140	\$ 0.123	0.117
9	\$ 0.178	\$ 0.144	\$ 0.138	\$ 0.118	\$ 0.201	\$ 0.122	\$ 0.111	\$ 0.083	\$ 0.219	\$ 0.142	\$ 0.125	0.119
10	\$ 0.181	\$ 0.146	\$ 0.140	\$ 0.120	\$ 0.204	\$ 0.124	\$ 0.112	\$ 0.084	\$ 0.222	\$ 0.144	\$ 0.126	0.121
11	\$ 0.184	\$ 0.148	\$ 0.141	\$ 0.121	\$ 0.206	\$ 0.125	\$ 0.114	\$ 0.085	\$ 0.224	\$ 0.145	\$ 0.128	0.122
12	\$ 0.186	\$ 0.149	\$ 0.143	\$ 0.123	\$ 0.208	\$ 0.127	\$ 0.115	\$ 0.086	\$ 0.227	\$ 0.147	\$ 0.129	0.124
13	\$ 0.189	\$ 0.151	\$ 0.144	\$ 0.124	\$ 0.210	\$ 0.128	\$ 0.116	\$ 0.087	\$ 0.229	\$ 0.149	\$ 0.130	0.125
14	\$ 0.191	\$ 0.152	\$ 0.146	\$ 0.125	\$ 0.212	\$ 0.129	\$ 0.118	\$ 0.087	\$ 0.231	\$ 0.150	\$ 0.132	0.126
15	\$ 0.194	\$ 0.154	\$ 0.147	\$ 0.126	\$ 0.214	\$ 0.131	\$ 0.119	\$ 0.088	\$ 0.234	\$ 0.151	\$ 0.133	0.128
16	\$ 0.197	\$ 0.155	\$ 0.149	\$ 0.128	\$ 0.216	\$ 0.132	\$ 0.120	\$ 0.089	\$ 0.236	\$ 0.153	\$ 0.134	0.129
17	\$ 0.199	\$ 0.157	\$ 0.150	\$ 0.129	\$ 0.218	\$ 0.133	\$ 0.121	\$ 0.090	\$ 0.238	\$ 0.154	\$ 0.135	0.130
18	\$ 0.201	\$ 0.158	\$ 0.151	\$ 0.130	\$ 0.220	\$ 0.134	\$ 0.122	\$ 0.091	\$ 0.240	\$ 0.155	\$ 0.137	0.131
19	\$ 0.203	\$ 0.159	\$ 0.152	\$ 0.131	\$ 0.221	\$ 0.135	\$ 0.123	\$ 0.091	\$ 0.242	\$ 0.157	\$ 0.138	0.132
20	\$ 0.206	\$ 0.161	\$ 0.154	\$ 0.132	\$ 0.223	\$ 0.136	\$ 0.124	\$ 0.092	\$ 0.244	\$ 0.158	\$ 0.139	0.133
21	\$ 0.208	\$ 0.162	\$ 0.155	\$ 0.133	\$ 0.225	\$ 0.137	\$ 0.125	\$ 0.093	\$ 0.245	\$ 0.159	\$ 0.140	0.134
22	\$ 0.210	\$ 0.163	\$ 0.156	\$ 0.133	\$ 0.226	\$ 0.138	\$ 0.125	\$ 0.093	\$ 0.247	\$ 0.160	\$ 0.141	0.135
23	\$ 0.212	\$ 0.164	\$ 0.157	\$ 0.134	\$ 0.228	\$ 0.139	\$ 0.126	\$ 0.094	\$ 0.249	\$ 0.161	\$ 0.142	0.136
24	\$ 0.214	\$ 0.165	\$ 0.158	\$ 0.135	\$ 0.229	\$ 0.140	\$ 0.127	\$ 0.094	\$ 0.250	\$ 0.162	\$ 0.142	0.136
25	\$ 0.215	\$ 0.166	\$ 0.158	\$ 0.136	\$ 0.230	\$ 0.140	\$ 0.127	\$ 0.095	\$ 0.252	\$ 0.163	\$ 0.143	0.137
26	\$ 0.217	\$ 0.167	\$ 0.159	\$ 0.136	\$ 0.232	\$ 0.141	\$ 0.128	\$ 0.095	\$ 0.253	\$ 0.164	\$ 0.144	0.138
27	\$ 0.219	\$ 0.168	\$ 0.160	\$ 0.137	\$ 0.233	\$ 0.142	\$ 0.129	\$ 0.095	\$ 0.254	\$ 0.165	\$ 0.145	0.138
28	\$ 0.220	\$ 0.168	\$ 0.161	\$ 0.138	\$ 0.234	\$ 0.142	\$ 0.129	\$ 0.096	\$ 0.256	\$ 0.165	\$ 0.145	0.139
29	\$ 0.222	\$ 0.169	\$ 0.161	\$ 0.138	\$ 0.235	\$ 0.143	\$ 0.130	\$ 0.096	\$ 0.257	\$ 0.166	\$ 0.146	0.140
30	\$ 0.223	\$ 0.170	\$ 0.162	\$ 0.139	\$ 0.236	\$ 0.144	\$ 0.130	\$ 0.096	\$ 0.258	\$ 0.167	\$ 0.146	0.140

1. 2010 Start Year
2. Discount rate used is PSE after tax weighted cost of capital, 8.25%

**Attachment C to PSE's Response to
WUTC Staff Data Request No. 35**

Cost Effectiveness Estimate for Low Income Energy Efficiency with REC/CFI Proceeds & Enron Incorporated 2010-2011																	
		Wtd Meas Life Calc		Program Metrics						Program NEBs			Cost Effectiveness Metrics				
Meas Life	End-Use Type	Overall kWh Wgt.	Overall Weighted Meas. Life	Total kWh Savings	Total Pgm Admin Cost	Total Pgm Incentive Cost	Total Utility Cost	Third-Party Cost	Other Contributions	Total Incremental O&M Benefit	Total Quantified Other Non-Energy Benefit	Total Cost	Levelized Utility Cost per kWh	Levelized TRC Cost per kWh	Cost Eff. Standard per kWh	UC B/C Ratio	TRC B/C Ratio
25	MFSH	32.65%	8.16	1,552,006	\$ 541,520.25	\$ 1,632,682.52	\$ 2,174,202.77	\$ -	\$ -	\$ -	\$ -	\$ 2,174,202.77	\$ 0.134	\$ 0.134	\$ 0.166	1.24	1.24
25	SFSH	52.22%	13.05	2,482,226	\$ 832,171.67	\$ 2,605,563.56	\$ 3,437,735.23	\$ -	\$ -	\$ -	\$ -	\$ 3,437,735.23	\$ 0.133	\$ 0.133	\$ 0.215	1.63	1.63
25	SFSH	0.00%	0.00	-	\$ -	\$ -	\$ -	\$ 1,386,060.05	\$ -	\$ -	\$ -	\$ 1,386,060.05	#DIV/0!	#DIV/0!	\$ 0.215	#DIV/0!	#DIV/0!
25	SFSH	6.19%	1.55	294,009	\$ -	\$ -	\$ -	\$ 346,515.01	\$ -	\$ -	\$ -	\$ 346,515.01	\$ -	\$ 0.113	\$ 0.215	#DIV/0!	1.91
25	SFSH	0.00%	0.00	-	\$ -	\$ -	\$ -	\$ 1,671,822.33	\$ -	\$ -	\$ -	\$ 1,671,822.33	#DIV/0!	#DIV/0!	\$ 0.215	#DIV/0!	#DIV/0!
25	SFSH	8.95%	2.24	425,299	\$ -	\$ -	\$ -	\$ 613,177.67	\$ -	\$ -	\$ -	\$ 613,177.67	\$ -	\$ 0.138	\$ 0.215	#DIV/0!	1.56
25	SFSH	0.00%	0.00	-	\$ -	\$ -	\$ -	\$ -	\$ 220,903.32	\$ -	\$ -	\$ 220,903.32	#DIV/0!	#DIV/0!	\$ 0.215	#DIV/0!	#DIV/0!
25	SFSH	0.00%	0.00	-	\$ -	\$ -	\$ -	\$ -	\$ 38,982.94	\$ -	\$ -	\$ 38,982.94	#DIV/0!	#DIV/0!	\$ 0.215	#DIV/0!	#DIV/0!
25	SFSH		25.00	4,753,540	\$ 1,373,691.92	\$ 4,238,246.08	\$ 5,611,938.00	\$ 4,017,575.06	\$ 259,886.26	\$ -	\$ -	\$ 9,889,399.32	\$ 0.113	\$ 0.199	\$ 0.215	1.91	1.08

2010-2011 PSE LIW Source of Funds: Tariff Electric + REC + Enron		
Funding Source	Funding Amount	Repair Amount
Tariff Electric	\$ 5,611,938.00	\$ -
Shareholder	\$ 259,886.26	\$ 220,903.32
REC	\$ 2,285,000.00	\$ 1,671,822.33
Enron	\$ 1,732,575.06	\$ 1,386,060.05
Total	\$ 9,889,399.32	\$ 3,278,785.70

LEVELIZED FIXED CHARGE RATE FOR

After Tax Discount Rate: 8.25%

Number of Years	Levelized Fixed Charge Rate (%)
1	108.250
2	56.269
3	38.979
4	30.360
5	25.211
6	21.796
7	19.372
8	17.567
9	16.175
10	15.071
11	14.178
12	13.442
13	12.827
14	12.306
15	11.862
16	11.479
17	11.146
18	10.856
19	10.601
20	10.375
21	10.176
22	9.998
23	9.839
24	9.697
25	9.569
26	9.454
27	9.350
28	9.256
29	9.170
30	9.093

Electric Conservation Cost Effectiveness Standard, 2010-2011 (Levelized \$/kWh) (Includes avoided energy and avoided capacity)												
Measure Life	SF Space Heat	MF Space Heating	Residential Water Heat	Residential Lighting	Residential Heat Pump	Residential Plug Load	Commercial Cooking	Commercial Cooling	Commercial Heating	Commercial Lighting	Commercial Refrigeration	Flat
	SFSH	MFSH	WH	LIGHTING	HP	PLUG	CICOOK	CICOOL	CIHEAT	CILTG	CIREF	FLAT
1	\$ 0.140	\$ 0.113	\$ 0.109	\$ 0.092	\$ 0.167	\$ 0.094	\$ 0.084	\$ 0.060	\$ 0.183	\$ 0.112	\$ 0.096	0.091
2	\$ 0.143	\$ 0.115	\$ 0.111	\$ 0.093	\$ 0.170	\$ 0.096	\$ 0.086	\$ 0.061	\$ 0.186	\$ 0.114	\$ 0.098	0.093
3	\$ 0.153	\$ 0.125	\$ 0.120	\$ 0.102	\$ 0.180	\$ 0.105	\$ 0.095	\$ 0.069	\$ 0.196	\$ 0.124	\$ 0.107	0.102
4	\$ 0.159	\$ 0.130	\$ 0.125	\$ 0.107	\$ 0.185	\$ 0.110	\$ 0.100	\$ 0.074	\$ 0.202	\$ 0.129	\$ 0.113	0.107
5	\$ 0.164	\$ 0.134	\$ 0.129	\$ 0.110	\$ 0.189	\$ 0.114	\$ 0.103	\$ 0.077	\$ 0.206	\$ 0.133	\$ 0.116	0.111
6	\$ 0.168	\$ 0.137	\$ 0.132	\$ 0.113	\$ 0.193	\$ 0.116	\$ 0.106	\$ 0.079	\$ 0.210	\$ 0.136	\$ 0.119	0.114
7	\$ 0.172	\$ 0.140	\$ 0.134	\$ 0.115	\$ 0.196	\$ 0.119	\$ 0.108	\$ 0.080	\$ 0.213	\$ 0.138	\$ 0.121	0.116
8	\$ 0.175	\$ 0.142	\$ 0.136	\$ 0.117	\$ 0.199	\$ 0.120	\$ 0.109	\$ 0.082	\$ 0.216	\$ 0.140	\$ 0.123	0.117
9	\$ 0.178	\$ 0.144	\$ 0.138	\$ 0.118	\$ 0.201	\$ 0.122	\$ 0.111	\$ 0.083	\$ 0.219	\$ 0.142	\$ 0.125	0.119
10	\$ 0.181	\$ 0.146	\$ 0.140	\$ 0.120	\$ 0.204	\$ 0.124	\$ 0.112	\$ 0.084	\$ 0.222	\$ 0.144	\$ 0.126	0.121
11	\$ 0.184	\$ 0.148	\$ 0.141	\$ 0.121	\$ 0.206	\$ 0.125	\$ 0.114	\$ 0.085	\$ 0.224	\$ 0.145	\$ 0.128	0.122
12	\$ 0.186	\$ 0.149	\$ 0.143	\$ 0.123	\$ 0.208	\$ 0.127	\$ 0.115	\$ 0.086	\$ 0.227	\$ 0.147	\$ 0.129	0.124
13	\$ 0.189	\$ 0.151	\$ 0.144	\$ 0.124	\$ 0.210	\$ 0.128	\$ 0.116	\$ 0.087	\$ 0.229	\$ 0.149	\$ 0.130	0.125
14	\$ 0.191	\$ 0.152	\$ 0.146	\$ 0.125	\$ 0.212	\$ 0.129	\$ 0.118	\$ 0.087	\$ 0.231	\$ 0.150	\$ 0.132	0.126
15	\$ 0.194	\$ 0.154	\$ 0.147	\$ 0.126	\$ 0.214	\$ 0.131	\$ 0.119	\$ 0.088	\$ 0.234	\$ 0.151	\$ 0.133	0.128
16	\$ 0.197	\$ 0.155	\$ 0.149	\$ 0.128	\$ 0.216	\$ 0.132	\$ 0.120	\$ 0.089	\$ 0.236	\$ 0.153	\$ 0.134	0.129
17	\$ 0.199	\$ 0.157	\$ 0.150	\$ 0.129	\$ 0.218	\$ 0.133	\$ 0.121	\$ 0.090	\$ 0.238	\$ 0.154	\$ 0.135	0.130
18	\$ 0.201	\$ 0.158	\$ 0.151	\$ 0.130	\$ 0.220	\$ 0.134	\$ 0.122	\$ 0.091	\$ 0.240	\$ 0.155	\$ 0.137	0.131
19	\$ 0.203	\$ 0.159	\$ 0.152	\$ 0.131	\$ 0.221	\$ 0.135	\$ 0.123	\$ 0.091	\$ 0.242	\$ 0.157	\$ 0.138	0.132
20	\$ 0.206	\$ 0.161	\$ 0.154	\$ 0.132	\$ 0.223	\$ 0.136	\$ 0.124	\$ 0.092	\$ 0.244	\$ 0.158	\$ 0.139	0.133
21	\$ 0.208	\$ 0.162	\$ 0.155	\$ 0.133	\$ 0.225	\$ 0.137	\$ 0.125	\$ 0.093	\$ 0.245	\$ 0.159	\$ 0.140	0.134
22	\$ 0.210	\$ 0.163	\$ 0.156	\$ 0.133	\$ 0.226	\$ 0.138	\$ 0.125	\$ 0.093	\$ 0.247	\$ 0.160	\$ 0.141	0.135
23	\$ 0.212	\$ 0.164	\$ 0.157	\$ 0.134	\$ 0.228	\$ 0.139	\$ 0.126	\$ 0.094	\$ 0.249	\$ 0.161	\$ 0.142	0.136
24	\$ 0.214	\$ 0.165	\$ 0.158	\$ 0.135	\$ 0.229	\$ 0.140	\$ 0.127	\$ 0.094	\$ 0.250	\$ 0.162	\$ 0.142	0.136
25	\$ 0.215	\$ 0.166	\$ 0.158	\$ 0.136	\$ 0.230	\$ 0.140	\$ 0.127	\$ 0.095	\$ 0.252	\$ 0.163	\$ 0.143	0.137
26	\$ 0.217	\$ 0.167	\$ 0.159	\$ 0.136	\$ 0.232	\$ 0.141	\$ 0.128	\$ 0.095	\$ 0.253	\$ 0.164	\$ 0.144	0.138
27	\$ 0.219	\$ 0.168	\$ 0.160	\$ 0.137	\$ 0.233	\$ 0.142	\$ 0.129	\$ 0.095	\$ 0.254	\$ 0.165	\$ 0.145	0.138
28	\$ 0.220	\$ 0.168	\$ 0.161	\$ 0.138	\$ 0.234	\$ 0.142	\$ 0.129	\$ 0.096	\$ 0.256	\$ 0.165	\$ 0.145	0.139
29	\$ 0.222	\$ 0.169	\$ 0.161	\$ 0.138	\$ 0.235	\$ 0.143	\$ 0.130	\$ 0.096	\$ 0.257	\$ 0.166	\$ 0.146	0.140
30	\$ 0.223	\$ 0.170	\$ 0.162	\$ 0.139	\$ 0.236	\$ 0.144	\$ 0.130	\$ 0.096	\$ 0.258	\$ 0.167	\$ 0.146	0.140

1. 2010 Start Year
2. Discount rate used is PSE after tax weighted cost of capital, 8.25%