

The Redistributive Impact of Non-Linear Electricity Pricing
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Web Appendix

Complete Tables for Pacific Gas & Electric, Southern California Edison and San Diego Gas & Electric

Web Appendix 1: Complete Tables for Pacific Gas & Electric

	Residential Usage (million-kWh)	Percentage of Residential Usage					CARE/Non-CARE Shares	
		tier 1	tier 2	tier 3	tier 4	tier 5	% Usage	% customers
Non-CARE	24,312	57.7%	10.7%	15.5%	9.2%	6.8%	81.1%	79.2%
CARE	5,660	66.2%	10.2%	13.2%	6.7%	3.7%	18.9%	20.8%

	Percentage of Customers on Each Tier for Marginal Consumption				
	tier 1	tier 2	tier 3	tier 4	tier 5
Non-CARE	38.4%	14.3%	24.1%	15.1%	8.2%
CARE	47.6%	15.5%	21.5%	11.0%	4.5%

NOTE: reported results drop household accounts with consumption of less than 1 kWh/day

Table 1: Distribution of PG&E Residential Customer Consumption Across Tariff Tiers

Tier	% of Baseline Quantity	Standard Residential Rate	CARE Low-income Rate	Tier	% of Baseline Quantity	Standard Residential Rate
Actual 2006 tariff (time-weighted average in 2006)				Benchmark Five-Tier Tariff with no CARE program		
1	0-100%	\$0.1143	\$0.0832	1	0-100%	\$0.1024
2	100%-130%	\$0.1299	\$0.0956	2	100%-130%	\$0.1180
3	130%-200%	\$0.2178	\$0.0956	3	130%-200%	\$0.2059
4	200%-300%	\$0.2987	\$0.0956	4	200%-300%	\$0.2868
5	300%+	\$0.3394	\$0.0956	5	300%+	\$0.3275
Alternative Flat-Rate Tariff with CARE program				Alternative Flat-Rate Tariff with no CARE program		
	0%+	\$0.1643	\$0.0874		0%+	\$0.1498
Alternative Two-Tier Tariff with CARE program				Alternative Two-Tier Tariff with no CARE program		
1	0-100%	\$0.1527	\$0.0824	1	0-100%	\$0.1395
2	100%+	\$0.1801	\$0.0972	2	100%+	\$0.1647

Table 2: 2006 Pacific Gas & Electric Retail Electricity Rates

OLS Regression
Dependent Variable: Household Daily Average Consumption (kWh/day)

	Coefficient	Robust Std Error
\$0-\$20k bracket	14.798	0.547
\$20k-\$40k bracket	17.097	0.592
\$40k-\$60k bracket	19.589	0.774
\$60k-\$100k bracket	20.929	0.589
>\$100k bracket	23.362	0.623
R-squared	0.06	
F(4, 7666)	32.39	
Observations	7671	

(R-squared and F-test reported for regression with constant term)

Table 4: OLS Regression of consumption on income brackets in PG&E territory

	Income Range	Share of Customers	Average Daily Use (kWh)	Average Annualized Bill			Change from Flat to 5-tier				Aggregate Annual Chg (\$M)
				Flat	2-tier	5-tier	Dollar Chg	95% conf intvl	Percent Change	95% conf intvl	
median household income in CBG	\$0-\$20k	2.8%	14.75	\$806	\$790	\$718	-\$88		-10.9%		-\$11
	\$20k-\$40k	24.4%	18.10	\$989	\$980	\$932	-\$57		-5.8%		-\$59
	\$40k-\$60k	31.8%	18.52	\$1,012	\$1,008	\$985	-\$27		-2.7%		-\$37
	\$60k-\$100k	33.4%	19.77	\$1,081	\$1,085	\$1,100	\$19		1.8%		\$27
	>\$100k	7.5%	25.45	\$1,391	\$1,424	\$1,641	\$250		18.0%		\$80
random rank method	\$0-\$20k	17.0%	17.69	\$967	\$958	\$916	-\$51		-5.3%		-\$37
	\$20k-\$40k	20.5%	18.49	\$1,011	\$1,006	\$979	-\$32		-3.2%		-\$28
	\$40k-\$60k	18.0%	19.08	\$1,043	\$1,042	\$1,032	-\$10		-1.0%		-\$8
	\$60k-\$100k	23.6%	19.68	\$1,075	\$1,078	\$1,084	\$8		0.8%		\$8
	>\$100k	20.9%	20.92	\$1,143	\$1,153	\$1,216	\$73		6.4%		\$65
weighted rank method	\$0-\$20k	17.0%	14.77	\$807	\$791	\$710	-\$97	[-\$105, -\$87]	-12.1%	[-13.7%, -10.2%]	-\$70
	\$20k-\$40k	20.5%	17.67	\$966	\$958	\$910	-\$56	[-\$66, -\$45]	-5.8%	[-7.0%, -4.6%]	-\$49
	\$40k-\$60k	18.0%	19.18	\$1,048	\$1,047	\$1,034	-\$15	[-\$21, -\$11]	-1.4%	[-1.0%, -2.0%]	-\$11
	\$60k-\$100k	23.6%	19.96	\$1,091	\$1,094	\$1,102	\$12	[\$11, \$12]	1.1%	[1.0%, 1.1%]	\$12
	>\$100k	20.9%	23.70	\$1,295	\$1,315	\$1,429	\$134	[\$112, \$155]	10.3%	[9.0%, 11.5%]	\$119
usage rank method	\$0-\$20k	17.0%	8.88	\$485	\$461	\$354	-\$132		-27.1%		-\$95
	\$20k-\$40k	20.5%	14.37	\$785	\$766	\$661	-\$124		-15.8%		-\$108
	\$40k-\$60k	18.0%	16.15	\$883	\$865	\$768	-\$115		-13.0%		-\$88
	\$60k-\$100k	23.6%	20.67	\$1,130	\$1,124	\$1,042	-\$87		-7.7%		-\$88
	>\$100k	20.9%	33.52	\$1,832	\$1,893	\$2,259	\$427		23.3%		\$380

Excludes bills with daily consumption < 1kWh/day

Includes all CARE and non-CARE customers, all on no-CARE-program rates from table 2

Distribution of w* for weighted rank method

Point Estimate	0.21
Mean of bootstrap	0.21
Median of bootstrap	0.21
95% conf interval	[0.15,0.27]

Table 3/5: PG&E Average Bill By Income Bracket Under Alternative Flat-Rate Tariffs Using Median Income, Random-Rank, Usage-Rank and Weighted-Rank Methods

Income Range	Share on CARE	Average Annualized Bill						Monetary Bill Chage from No-CARE/Flat			Percentage Bill Chage from No-CARE/Flat		
		No-CARE			with CARE			No-CARE	w/CARE	w/CARE	No-CARE	w/CARE	w/CARE
		Flat	2-tier	5-tier	Flat	2-tier	5-tier	5-tier	Flat	5-tier	5-tier	Flat	5-tier
		Tariff	Tariff	Tariff	Tariff	Tariff	Tariff	Tariff	Tariff	Tariff	Tariff	Tariff	Tariff
\$0-\$20k	64.9%	\$807	\$791	\$710	\$593	\$583	\$551	-\$97	-\$214	-\$256	-12%	-27%	-32%
\$20k-\$40k	38.6%	\$966	\$958	\$910	\$864	\$858	\$824	-\$56	-\$102	-\$141	-6%	-11%	-15%
\$40k-\$60k	9.1%	\$1,048	\$1,047	\$1,034	\$1,092	\$1,089	\$1,062	-\$15	\$44	\$14	-1%	4%	1%
\$60k-\$100k	1.0%	\$1,091	\$1,094	\$1,102	\$1,188	\$1,188	\$1,179	\$12	\$97	\$88	1%	9%	8%
>\$100k	0.0%	\$1,295	\$1,315	\$1,429	\$1,421	\$1,438	\$1,531	\$134	\$125	\$236	10%	10%	18%

All results are from weighted rank method

Excludes bills with daily consumption < 1kWh/day

Includes all CARE and non-CARE customers

Table 7: PG&E Estimated Average Annual Bills With and Without IBP and CARE

MC=0.0998		Change in Annual Average Household Consumer Surplus From Switch to 5-tier tariff				Change in Aggregate Annual Consumer Surplus (\$/yr) From Switch to 5-tier tariff			
Income Range	Share of Customers	€=0	€=-0.1	€=-0.2	€=-0.3	€=0	€=-0.1	€=-0.2	€=-0.3
\$0-\$20k	17.0%	\$97	\$78	\$58	\$36	\$70	\$57	\$42	\$26
\$20k-\$40k	20.5%	\$56	\$31	\$4	-\$26	\$49	\$18	-\$11	-\$42
\$40k-\$60k	18.0%	\$15	-\$15	-\$47	-\$82	\$11	-\$11	-\$36	-\$63
\$60k-\$100k	23.6%	-\$12	-\$43	-\$78	-\$116	-\$12	-\$44	-\$79	-\$117
>\$100k	20.9%	-\$134	-\$177	-\$223	-\$275	-\$119	-\$157	-\$199	-\$245
Aggregate Increase in DWL from IBP (\$/yr)						\$0	\$138	\$282	\$440
Ratio of DWL to transfers to two lowest income brackets						0.00	1.85	9.04	-27.78
Flat-rate Price						\$0.1498	\$0.1481	\$0.1464	\$0.1445

MC=0.1498		Change in Annual Average Household Consumer Surplus From Switch to 5-tier tariff				Change in Aggregate Annual Consumer Surplus (\$/yr) From Switch to 5-tier tariff			
Income Range	Share of Customers	€=0	€=-0.1	€=-0.2	€=-0.3	€=0	€=-0.1	€=-0.2	€=-0.3
\$0-\$20k	17.0%	\$97	\$87	\$77	\$66	\$70	\$63	\$56	\$48
\$20k-\$40k	20.5%	\$56	\$42	\$26	\$11	\$49	\$36	\$23	\$9
\$40k-\$60k	18.0%	\$15	-\$3	-\$22	-\$41	\$11	-\$2	-\$17	-\$32
\$60k-\$100k	23.6%	-\$12	-\$31	-\$52	-\$74	-\$12	-\$32	-\$53	-\$74
>\$100k	20.9%	-\$134	-\$162	-\$192	-\$223	-\$119	-\$145	-\$171	-\$199
Aggregate Increase in DWL from IBP (\$/yr)						\$0	\$80	\$162	\$248
Ratio of DWL to transfers to two lowest income brackets						0.00	0.80	2.07	4.36
Flat-rate Price						\$0.1498	\$0.1498	\$0.1498	\$0.1498

MC=0.1998		Change in Annual Average Household Consumer Surplus From Switch to 5-tier tariff				Change in Aggregate Annual Consumer Surplus (\$/yr) From Switch to 5-tier tariff			
Income Range	Share of Customers	€=0	€=-0.1	€=-0.2	€=-0.3	€=0	€=-0.1	€=-0.2	€=-0.3
\$0-\$20k	17.0%	\$97	\$95	\$93	\$90	\$70	\$69	\$67	\$65
\$20k-\$40k	20.5%	\$56	\$51	\$46	\$40	\$49	\$45	\$40	\$35
\$40k-\$60k	18.0%	\$15	\$7	\$0	-\$8	\$11	\$6	\$0	-\$6
\$60k-\$100k	23.6%	-\$12	-\$20	-\$29	-\$39	-\$12	-\$21	-\$30	-\$39
>\$100k	20.9%	-\$134	-\$149	-\$165	-\$181	-\$119	-\$133	-\$147	-\$161
Aggregate Increase in DWL from IBP (\$/yr)						\$0	\$34	\$69	\$106
Ratio of DWL to transfers to two lowest income brackets						0.00	0.30	0.64	1.05
Flat-rate Price						\$0.1498	\$0.1511	\$0.1526	\$0.1540

MC=0.2498		Change in Annual Average Household Consumer Surplus From Switch to 5-tier tariff				Change in Aggregate Annual Consumer Surplus (\$/yr) From Switch to 5-tier tariff			
Income Range	Share of Customers	€=0	€=-0.1	€=-0.2	€=-0.3	€=0	€=-0.1	€=-0.2	€=-0.3
\$0-\$20k	17.0%	\$97	\$103	\$107	\$110	\$70	\$74	\$78	\$80
\$20k-\$40k	20.5%	\$56	\$60	\$64	\$66	\$49	\$53	\$55	\$57
\$40k-\$60k	18.0%	\$15	\$17	\$19	\$20	\$11	\$13	\$15	\$15
\$60k-\$100k	23.6%	-\$12	-\$10	-\$9	-\$9	-\$12	-\$10	-\$9	-\$10
>\$100k	20.9%	-\$134	-\$137	-\$140	-\$145	-\$119	-\$122	-\$125	-\$129
Aggregate Increase in DWL from IBP (\$/yr)						\$0	-\$9	-\$13	-\$14
Ratio of DWL to transfers to two lowest income brackets						0.00	-0.07	-0.10	-0.10
Flat-rate Price						\$0.1498	\$0.1525	\$0.1552	\$0.1577

Table 6: PG&E Change in Consumer Surplus Switching from Flat-rate to 5-tier Tariff Under Alternative Demand Elasticities (Weighted Ranking Method)

MC=0.0.998		Change in Annual Average Household Consumer Surplus From adding CARE program				Change in Aggregate Annual Consumer Surplus (\$M/yr) From adding CARE program			
Income Range	Share of Customers	€=0	€=-0.1	€=-0.2	€=-0.3	€=0	€=-0.1	€=-0.2	€=-0.3
\$0-\$20k	17.0%	\$214	\$220	\$226	\$233	\$155	\$159	\$164	\$169
\$20k-\$40k	20.5%	\$101	\$104	\$107	\$110	\$89	\$91	\$94	\$96
\$40k-\$60k	18.0%	-\$44	-\$47	-\$50	-\$54	-\$34	-\$36	-\$38	-\$41
\$60k-\$100k	23.6%	-\$97	-\$103	-\$109	-\$116	-\$98	-\$104	-\$110	-\$118
>\$100k	20.9%	-\$125	-\$134	-\$144	-\$155	-\$112	-\$119	-\$128	-\$138
Aggregate Increase in DWL from CARE (\$M/yr)						\$0	\$9	\$19	\$31
Ratio of DWL to transfers to two lowest income brackets						0.00	0.03	0.07	0.12
Flat-rate Price - Standard Residential						\$0.1643	\$0.1630	\$0.1617	\$0.1602
Flat-rate Price - CARE participants						\$0.0874	\$0.0867	\$0.0860	\$0.0852
MC=0.1498		Change in Annual Average Household Consumer Surplus From adding CARE program				Change in Aggregate Annual Consumer Surplus (\$M/yr) From adding CARE program			
Income Range	Share of Customers	€=0	€=-0.1	€=-0.2	€=-0.3	€=0	€=-0.1	€=-0.2	€=-0.3
\$0-\$20k	17.0%	\$214	\$221	\$229	\$238	\$155	\$160	\$166	\$172
\$20k-\$40k	20.5%	\$101	\$104	\$108	\$111	\$89	\$91	\$94	\$97
\$40k-\$60k	18.0%	-\$44	-\$48	-\$53	-\$57	-\$34	-\$37	-\$40	-\$44
\$60k-\$100k	23.6%	-\$97	-\$105	-\$113	-\$122	-\$98	-\$106	-\$114	-\$123
>\$100k	20.9%	-\$125	-\$136	-\$149	-\$162	-\$112	-\$122	-\$133	-\$145
Aggregate Increase in DWL from CARE (\$M/yr)						\$0	\$13	\$27	\$42
Ratio of DWL to transfers to two lowest income brackets						0.00	0.05	0.10	0.16
Flat-rate Price - Standard Residential						\$0.1643	\$0.1648	\$0.1655	\$0.1663
Flat-rate Price - CARE participants						\$0.0874	\$0.0877	\$0.0881	\$0.0885
MC=0.1998		Change in Annual Average Household Consumer Surplus From adding CARE program				Change in Aggregate Annual Consumer Surplus (\$M/yr) From adding CARE program			
Income Range	Share of Customers	€=0	€=-0.1	€=-0.2	€=-0.3	€=0	€=-0.1	€=-0.2	€=-0.3
\$0-\$20k	17.0%	\$214	\$223	\$232	\$241	\$155	\$161	\$168	\$175
\$20k-\$40k	20.5%	\$101	\$105	\$108	\$112	\$89	\$91	\$94	\$98
\$40k-\$60k	18.0%	-\$44	-\$49	-\$55	-\$61	-\$34	-\$38	-\$42	-\$46
\$60k-\$100k	23.6%	-\$97	-\$107	-\$116	-\$127	-\$98	-\$108	-\$117	-\$128
>\$100k	20.9%	-\$125	-\$139	-\$153	-\$168	-\$112	-\$124	-\$136	-\$150
Aggregate Increase in DWL from CARE (\$M/yr)						\$0	\$16	\$33	\$51
Ratio of DWL to transfers to two lowest income brackets						0.00	0.06	0.13	0.19
Flat-rate Price - Standard Residential						\$0.1643	\$0.1666	\$0.1690	\$0.1714
Flat-rate Price - CARE participants						\$0.0874	\$0.0886	\$0.0899	\$0.0912
MC=0.2498		Change in Annual Average Household Consumer Surplus From adding CARE program				Change in Aggregate Annual Consumer Surplus (\$M/yr) From adding CARE program			
Income Range	Share of Customers	€=0	€=-0.1	€=-0.2	€=-0.3	€=0	€=-0.1	€=-0.2	€=-0.3
\$0-\$20k	17.0%	\$214	\$224	\$234	\$244	\$155	\$162	\$170	\$177
\$20k-\$40k	20.5%	\$101	\$105	\$109	\$112	\$89	\$92	\$95	\$98
\$40k-\$60k	18.0%	-\$44	-\$51	-\$57	-\$63	-\$34	-\$39	-\$44	-\$49
\$60k-\$100k	23.6%	-\$97	-\$108	-\$119	-\$130	-\$98	-\$109	-\$120	-\$132
>\$100k	20.9%	-\$125	-\$141	-\$157	-\$173	-\$112	-\$126	-\$140	-\$154
Aggregate Increase in DWL from CARE (\$M/yr)						\$0	\$20	\$39	\$59
Ratio of DWL to transfers to two lowest income brackets						0.00	0.08	0.15	0.21
Flat-rate Price - Standard Residential						\$0.1643	\$0.1682	\$0.1720	\$0.1757
Flat-rate Price - CARE participants						\$0.0874	\$0.0895	\$0.0915	\$0.0935

Table 8: PG&E Change in Consumer Surplus Switching from No-CARE to w/CARE
With Flat-rate Tariff Under Alternative Demand Elasticities
(Weighted Ranking Method)

Web Appendix 2: Complete Tables for San Diego Gas & Electric

	Residential Usage (million-kWh)	Percentage of Residential Usage					CARE/Non-CARE Shares	
		tier 1	tier 2	tier 3	tier 4	tier 5	% Usage	% customers
Non-CARE	6,255	55.5%	10.3%	15.3%	10.0%	8.9%	87.0%	82.4%
CARE	931	73.6%	9.1%	10.4%	4.7%	2.2%	13.0%	17.6%

	Percentage of Customers on Each Tier for Marginal Consumption				
	tier 1	tier 2	tier 3	tier 4	tier 5
Non-CARE	38.9%	13.9%	22.6%	14.5%	10.2%
CARE	59.2%	14.7%	16.8%	6.8%	2.5%

NOTE: reported results drop household accounts with consumption of less than 1 kWh/day

Table 1: Distribution of SDG&E Residential Customer Consumption Across Tariff Tiers

Tier	% of Baseline Quantity	Standard Residential Rate	CARE Low-income Rate	Tier	% of Baseline Quantity	Standard Residential Rate
Actual 2006 tariff (time-weighted average in 2006)				Benchmark Five-Tier Tariff with no CARE program		
1	0-100%	\$0.1287	\$0.1026	1	0-100%	\$0.1245
2	100%-130%	\$0.1488	\$0.1187	2	100%-130%	\$0.1446
3	130%-200%	\$0.2312	\$0.1758	3	130%-200%	\$0.2270
4	200%-300%	\$0.2401	\$0.1764	4	200%-300%	\$0.2359
5	300%+	\$0.2571	\$0.1776	5	300%+	\$0.2529
Alternative Flat-Rate Tariff with CARE program				Alternative Flat-Rate Tariff with no CARE program		
	0%+	\$0.1690	\$0.1168		0%+	\$0.1622
Alternative Two-Tier Tariff with CARE program				Alternative Two-Tier Tariff with no CARE program		
1	0-100%	\$0.1565	\$0.1115	1	0-100%	\$0.1508
2	100%+	\$0.1846	\$0.1316	2	100%+	\$0.1779

Table 2: 2006 SDG&E Retail Electricity Rates

OLS Regression
Dependent Variable: Household Daily Average Consumption (kWh/day)

	Coefficient	Robust Std Error
\$0-\$20k bracket	9.404	0.628
\$20k-\$40k bracket	12.557	0.700
\$40k-\$60k bracket	13.263	0.682
\$60k-\$100k bracket	17.071	0.800
>\$100k bracket	27.617	2.361
R-squared	0.19	
F(4,2028)	24.38	
Observations	2033	

(R-squared and F-test reported for regression with constant term)

Table 4: OLS Regression of consumption on income brackets in SDG&E territory

	Income Range	Share of Customers	Average Daily Use (kWh)	Average Annualized Bill			Change from Flat to 5-tier				Aggregate Annual Chg (\$M)
				Flat	2-tier	5-tier	Dollar Chg	95% conf intvl	Percent Change	95% conf intvl	
median household income in CBG	\$0-\$20k	1.9%	10.46	\$620	\$595	\$526	-\$94		-15.1%		-\$2
	\$20k-\$40k	28.8%	12.31	\$729	\$711	\$658	-\$71		-9.7%		-\$24
	\$40k-\$60k	31.2%	15.95	\$945	\$938	\$912	-\$33		-3.5%		-\$12
	\$60k-\$100k	31.5%	20.48	\$1,213	\$1,225	\$1,259	\$46		3.8%		\$17
	>\$100k	6.7%	28.01	\$1,659	\$1,717	\$1,928	\$269		16.2%		\$21
random rank method	\$0-\$20k	16.4%	13.65	\$808	\$794	\$753	-\$55		-6.8%		-\$10
	\$20k-\$40k	22.4%	15.00	\$888	\$879	\$852	-\$36		-4.1%		-\$9
	\$40k-\$60k	18.9%	16.57	\$981	\$979	\$968	-\$13		-1.3%		-\$3
	\$60k-\$100k	23.8%	18.27	\$1,082	\$1,086	\$1,096	\$14		1.3%		\$4
	>\$100k	18.5%	21.36	\$1,265	\$1,285	\$1,353	\$88		7.0%		\$19
weighted rank method	\$0-\$20k	16.4%	9.10	\$539	\$515	\$450	-\$89	[-\$90, -\$85]	-16.7%	[-20.1%, 13.9%]	-\$17
	\$20k-\$40k	22.4%	12.62	\$747	\$728	\$668	-\$79	[-\$93, -\$60]	-10.7%	[-13.9%, -7.3%]	-\$21
	\$40k-\$60k	18.9%	15.68	\$928	\$919	\$886	-\$43	[-\$18, -\$86]	-4.7%	[-1.9%, -10.4%]	-\$9
	\$60k-\$100k	23.8%	19.19	\$1,136	\$1,141	\$1,145	\$9	[\$-9, \$14]	0.8%	[-0.7%, 1.3%]	\$2
	>\$100k	18.5%	28.01	\$1,659	\$1,707	\$1,866	\$207	[\$149, \$291]	12.4%	[10.0%, 15.4%]	\$44
usage rank method	\$0-\$20k	16.4%	6.49	\$384	\$360	\$301	-\$83		-21.6%		-\$16
	\$20k-\$40k	22.4%	10.63	\$630	\$604	\$530	-\$100		-15.9%		-\$26
	\$40k-\$60k	18.9%	13.44	\$796	\$770	\$688	-\$108		-13.5%		-\$23
	\$60k-\$100k	23.8%	19.18	\$1,136	\$1,132	\$1,089	-\$47		-4.1%		-\$13
	>\$100k	18.5%	35.02	\$2,074	\$2,157	\$2,438	\$364		17.6%		\$78

Excludes bills with daily consumption < 1kWh/day

Includes all CARE and non-CARE customers, all on no-CARE-program rates from table 2

Distribution of w* for weighted rank method

Point Estimate	0.41
Mean of bootstrap	0.42
Median of bootstrap	0.41
95% conf interval	[0.21,0.61]

Table 3/5: SDG&E Average Bill By Income Bracket Under Alternative Flat-Rate Tariffs Using Median Income, Random-Rank, Usage-Rank and Weighted-Rank Methods

Income Range	Share on CARE	Average Annualized Bill						Monetary Bill Chage from No-CARE/Flat			Percentage Bill Chage from No-CARE/Flat		
		No-CARE			with CARE			No-CARE	w/CARE	w/CARE	No-CARE	w/CARE	w/CARE
		Flat	2-tier	5-tier	Flat	2-tier	5-tier	5-tier	Flat	5-tier	5-tier	Flat	5-tier
		Tariff	Tariff	Tariff	Tariff	Tariff	Tariff	Tariff	Tariff	Tariff	Tariff	Tariff	Tariff
\$0-\$20k	58.5%	\$539	\$515	\$450	\$449	\$435	\$400	-\$89	-\$90	-\$139	-17%	-17%	-26%
\$20k-\$40k	30.6%	\$747	\$728	\$668	\$695	\$679	\$634	-\$79	-\$53	-\$113	-11%	-7%	-15%
\$40k-\$60k	5.1%	\$928	\$919	\$886	\$946	\$934	\$894	-\$43	\$17	-\$34	-5%	2%	-4%
\$60k-\$100k	0.6%	\$1,136	\$1,141	\$1,145	\$1,180	\$1,180	\$1,172	\$9	\$44	\$36	1%	4%	3%
>\$100k	0.0%	\$1,659	\$1,707	\$1,866	\$1,728	\$1,771	\$1,909	\$207	\$69	\$250	12%	4%	15%

All results are from weighted rank method

Excludes bills with daily consumption < 1kWh/day

Includes all CARE and non-CARE customers

Table 7: SDG&E Estimated Average Annual Bills With and Without IBP and CARE

MC=0.1122		Change in Annual Average Household Consumer Surplus From Switch to 5-tier tariff				Change in Aggregate Annual Consumer Surplus (\$/yr) From Switch to 5-tier tariff			
Income Range	Share of Customers	ε=0	ε=-0.1	ε=-0.2	ε=-0.3	ε=0	ε=-0.1	ε=-0.2	ε=-0.3
\$0-\$20k	16.4%	\$89	\$84	\$78	\$72	\$17	\$16	\$15	\$14
\$20k-\$40k	22.4%	\$79	\$71	\$62	\$52	\$21	\$18	\$16	\$13
\$40k-\$60k	18.9%	\$43	\$31	\$18	\$5	\$9	\$7	\$4	\$1
\$60k-\$100k	23.8%	-\$9	-\$25	-\$41	-\$59	-\$2	-\$7	-\$11	-\$16
>\$100k	18.5%	-\$207	-\$233	-\$261	-\$292	-\$44	-\$50	-\$56	-\$62
Aggregate Increase in DWL from IBP (\$/yr)						\$0	\$16	\$32	\$51
Ratio of DWL to transfers to two lowest income brackets						0.00	0.46	1.05	1.86
Flat-rate Price						\$0.1622	\$0.1612	\$0.1601	\$0.1588

MC=0.1622		Change in Annual Average Household Consumer Surplus From Switch to 5-tier tariff				Change in Aggregate Annual Consumer Surplus (\$/yr) From Switch to 5-tier tariff			
Income Range	Share of Customers	ε=0	ε=-0.1	ε=-0.2	ε=-0.3	ε=0	ε=-0.1	ε=-0.2	ε=-0.3
\$0-\$20k	16.4%	\$89	\$87	\$85	\$83	\$17	\$17	\$16	\$16
\$20k-\$40k	22.4%	\$79	\$76	\$72	\$69	\$21	\$20	\$19	\$18
\$40k-\$60k	18.9%	\$43	\$37	\$32	\$26	\$9	\$8	\$7	\$6
\$60k-\$100k	23.8%	-\$9	-\$17	-\$25	-\$33	-\$2	-\$5	-\$7	-\$9
>\$100k	18.5%	-\$207	-\$222	-\$237	-\$252	-\$44	-\$47	-\$51	-\$54
Aggregate Increase in DWL from IBP (\$/yr)						\$0	\$8	\$16	\$24
Ratio of DWL to transfers to two lowest income brackets						0.00	0.22	0.45	0.71
Flat-rate Price						\$0.1622	\$0.1622	\$0.1622	\$0.1622

MC=0.2122		Change in Annual Average Household Consumer Surplus From Switch to 5-tier tariff				Change in Aggregate Annual Consumer Surplus (\$/yr) From Switch to 5-tier tariff			
Income Range	Share of Customers	ε=0	ε=-0.1	ε=-0.2	ε=-0.3	ε=0	ε=-0.1	ε=-0.2	ε=-0.3
\$0-\$20k	16.4%	\$89	\$91	\$92	\$93	\$17	\$17	\$17	\$18
\$20k-\$40k	22.4%	\$79	\$81	\$81	\$82	\$21	\$21	\$21	\$21
\$40k-\$60k	18.9%	\$43	\$43	\$43	\$44	\$9	\$9	\$9	\$10
\$60k-\$100k	23.8%	-\$9	-\$10	-\$10	-\$11	-\$2	-\$3	-\$3	-\$3
>\$100k	18.5%	-\$207	-\$211	-\$215	-\$219	-\$44	-\$45	-\$46	-\$47
Aggregate Increase in DWL from IBP (\$/yr)						\$0	\$0	\$1	\$2
Ratio of DWL to transfers to two lowest income brackets						0.00	0.01	0.02	0.04
Flat-rate Price						\$0.1622	\$0.1633	\$0.1643	\$0.1652

MC=0.2622		Change in Annual Average Household Consumer Surplus From Switch to 5-tier tariff				Change in Aggregate Annual Consumer Surplus (\$/yr) From Switch to 5-tier tariff			
Income Range	Share of Customers	ε=0	ε=-0.1	ε=-0.2	ε=-0.3	ε=0	ε=-0.1	ε=-0.2	ε=-0.3
\$0-\$20k	16.4%	\$89	\$94	\$98	\$101	\$17	\$18	\$19	\$19
\$20k-\$40k	22.4%	\$79	\$85	\$90	\$94	\$21	\$22	\$23	\$24
\$40k-\$60k	18.9%	\$43	\$49	\$54	\$58	\$9	\$11	\$12	\$13
\$60k-\$100k	23.8%	-\$9	-\$3	\$3	\$8	-\$2	-\$1	\$1	\$2
>\$100k	18.5%	-\$207	-\$201	-\$196	-\$191	-\$44	-\$43	-\$42	-\$41
Aggregate Increase in DWL from IBP (\$/yr)						\$0	-\$7	-\$12	-\$17
Ratio of DWL to transfers to two lowest income brackets						0.00	-0.17	-0.30	-0.40
Flat-rate Price						\$0.1622	\$0.1643	\$0.1661	\$0.1677

Table 6: SDG&E Change in Consumer Surplus Switching from Flat-rate to 5-tier Tariff Under Alternative Demand Elasticities (Weighted Ranking Method)

MC=0.1122		Change in Annual Average Household Consumer Surplus From adding CARE program				Change in Aggregate Annual Consumer Surplus (\$M/yr) From adding CARE program			
Income Range	Share of Customers	€=0	€=-0.1	€=-0.2	€=-0.3	€=0	€=-0.1	€=-0.2	€=-0.3
\$0-\$20k	16.4%	\$90	\$90	\$91	\$92	\$17	\$17	\$17	\$17
\$20k-\$40k	22.4%	\$53	\$54	\$55	\$57	\$14	\$14	\$14	\$15
\$40k-\$60k	18.9%	-\$17	-\$18	-\$18	-\$18	-\$4	-\$4	-\$4	-\$4
\$60k-\$100k	23.8%	-\$44	-\$45	-\$47	-\$48	-\$12	-\$12	-\$13	-\$13
>\$100k	18.5%	-\$69	-\$72	-\$75	-\$79	-\$15	-\$15	-\$16	-\$17
Aggregate Increase in DWL from CARE (\$M/yr)						\$0	\$1	\$1	\$2
Ratio of DWL to transfers to two lowest income brackets						0.00	0.02	0.04	0.06
Flat-rate Price - Standard Residential						\$0.1690	\$0.1680	\$0.1669	\$0.1658
Flat-rate Price - CARE participants						\$0.1168	\$0.1161	\$0.1154	\$0.1146
MC=0.1622		Change in Annual Average Household Consumer Surplus From adding CARE program				Change in Aggregate Annual Consumer Surplus (\$M/yr) From adding CARE program			
Income Range	Share of Customers	€=0	€=-0.1	€=-0.2	€=-0.3	€=0	€=-0.1	€=-0.2	€=-0.3
\$0-\$20k	16.4%	\$90	\$91	\$92	\$93	\$17	\$17	\$17	\$18
\$20k-\$40k	22.4%	\$53	\$54	\$56	\$57	\$14	\$14	\$14	\$15
\$40k-\$60k	18.9%	-\$17	-\$18	-\$18	-\$19	-\$4	-\$4	-\$4	-\$4
\$60k-\$100k	23.8%	-\$44	-\$46	-\$48	-\$50	-\$12	-\$13	-\$13	-\$14
>\$100k	18.5%	-\$69	-\$73	-\$77	-\$81	-\$15	-\$16	-\$16	-\$17
Aggregate Increase in DWL from CARE (\$M/yr)						\$0	\$1	\$2	\$3
Ratio of DWL to transfers to two lowest income brackets						0.00	0.03	0.05	0.08
Flat-rate Price - Standard Residential						\$0.1690	\$0.1692	\$0.1693	\$0.1695
Flat-rate Price - CARE participants						\$0.1168	\$0.1169	\$0.1170	\$0.1171
MC=0.2122		Change in Annual Average Household Consumer Surplus From adding CARE program				Change in Aggregate Annual Consumer Surplus (\$M/yr) From adding CARE program			
Income Range	Share of Customers	€=0	€=-0.1	€=-0.2	€=-0.3	€=0	€=-0.1	€=-0.2	€=-0.3
\$0-\$20k	16.4%	\$90	\$91	\$92	\$94	\$17	\$17	\$18	\$18
\$20k-\$40k	22.4%	\$53	\$54	\$56	\$57	\$14	\$14	\$14	\$15
\$40k-\$60k	18.9%	-\$17	-\$18	-\$19	-\$20	-\$4	-\$4	-\$4	-\$4
\$60k-\$100k	23.8%	-\$44	-\$46	-\$49	-\$51	-\$12	-\$13	-\$13	-\$14
>\$100k	18.5%	-\$69	-\$73	-\$78	-\$82	-\$15	-\$16	-\$17	-\$18
Aggregate Increase in DWL from CARE (\$M/yr)						\$0	\$1	\$2	\$3
Ratio of DWL to transfers to two lowest income brackets						0.00	0.03	0.07	0.10
Flat-rate Price - Standard Residential						\$0.1690	\$0.1703	\$0.1715	\$0.1726
Flat-rate Price - CARE participants						\$0.1168	\$0.1177	\$0.1185	\$0.1193
MC=0.2622		Change in Annual Average Household Consumer Surplus From adding CARE program				Change in Aggregate Annual Consumer Surplus (\$M/yr) From adding CARE program			
Income Range	Share of Customers	€=0	€=-0.1	€=-0.2	€=-0.3	€=0	€=-0.1	€=-0.2	€=-0.3
\$0-\$20k	16.4%	\$90	\$91	\$93	\$95	\$17	\$17	\$18	\$18
\$20k-\$40k	22.4%	\$53	\$54	\$56	\$58	\$14	\$14	\$15	\$15
\$40k-\$60k	18.9%	-\$17	-\$18	-\$19	-\$20	-\$4	-\$4	-\$4	-\$4
\$60k-\$100k	23.8%	-\$44	-\$47	-\$49	-\$52	-\$12	-\$13	-\$14	-\$14
>\$100k	18.5%	-\$69	-\$74	-\$79	-\$84	-\$15	-\$16	-\$17	-\$18
Aggregate Increase in DWL from CARE (\$M/yr)						\$0	\$1	\$3	\$4
Ratio of DWL to transfers to two lowest income brackets						0.00	0.04	0.08	0.11
Flat-rate Price - Standard Residential						\$0.1690	\$0.1713	\$0.1734	\$0.1752
Flat-rate Price - CARE participants						\$0.1168	\$0.1184	\$0.1198	\$0.1211

Table 8: SDG&E Change in Consumer Surplus Switching from No-CARE to w/CARE With Flat-rate Tariff Under Alternative Demand Elasticities (Weighted Ranking Method)

Web Appendix 3: Complete Tables for Southern California Edison

	Residential Usage (million-kWh)	Percentage of Residential Usage					CARE/Non-CARE Shares	
		tier 1	tier 2	tier 3	tier 4	tier 5	% Usage	% customers
Non-CARE	23,046	52.9%	10.7%	16.5%	10.9%	9.0%	79.3%	74.8%
CARE	6,016	66.0%	10.7%	13.5%	6.7%	3.1%	20.7%	25.2%

	Percentage of Customers on Each Tier for Marginal Consumption				
	tier 1	tier 2	tier 3	tier 4	tier 5
Non-CARE	32.4%	14.2%	25.0%	17.2%	11.3%
CARE	45.4%	16.7%	22.7%	10.9%	4.3%

NOTE: reported results drop household accounts with consumption of less than 1 kWh/day

Table 1: Distribution of SCE Residential Customer Consumption Across Tariff Tiers

% of Baseline Tier Quantity	Standard Residential Rate	CARE Low-income Rate	% of Baseline Tier Quantity	Standard Residential Rate
Actual 2006 tariff (time-weighted average in 2006)			Benchmark Five-Tier Tariff with no CARE program	
1 0-100%	\$0.1162	\$0.0834	1 0-100%	\$0.1069
2 100%-130%	\$0.1361	\$0.1053	2 100%-130%	\$0.1268
3 130%-200%	\$0.2201	\$0.1691	3 130%-200%	\$0.2108
4 200%-300%	\$0.3049	\$0.1717	4 200%-300%	\$0.2956
5 300%+	\$0.3049	\$0.1717	5 300%+	\$0.2956
Alternative Flat-Rate Tariff with CARE program			Alternative Flat-Rate Tariff with no CARE program	
0%+	\$0.1731	\$0.1060	0%+	\$0.1592
Alternative Two-Tier Tariff with CARE program			Alternative Two-Tier Tariff with no CARE program	
1 0-100%	\$0.1595	\$0.0999	1 0-100%	\$0.1474
2 100%+	\$0.1883	\$0.1179	2 100%+	\$0.1739

Table 2: 2006 SCE Retail Electricity Rates

OLS Regression
Dependent Variable: Household Daily Average Consumption (kWh/day)

	Coefficient	Robust Std Error
\$0-\$20k bracket	14.729	0.506
\$20k-\$40k bracket	17.011	0.554
\$40k-\$60k bracket	18.793	0.619
\$60k-\$100k bracket	21.532	0.552
>\$100k bracket	28.970	0.982
R-squared	0.14	
F(4,6565)	51.68	
Observations	6570	

(R-squared and F-test reported for regression with constant term)

Table 4: OLS Regression of consumption on income brackets in SCE territory

	Income Range	Share of Customers	Average	Average			Change from Flat to 5-tier			Aggregate
			Daily Use (kWh)	Annualized Bill			Dollar Chg	Percent		Annual Chg (\$M)
				Flat	2-tier	5-tier	95% conf intvl	Change	95% conf intvl	
median household income in CBG	\$0-\$20k	2.2%	13.51	\$785	\$762	\$656		-16.4%		-\$12
	\$20k-\$40k	29.0%	16.09	\$935	\$918	\$833		-10.8%		-\$119
	\$40k-\$60k	35.0%	18.66	\$1,084	\$1,078	\$1,032		-4.8%		-\$74
	\$60k-\$100k	28.5%	23.05	\$1,339	\$1,354	\$1,426		6.5%		\$100
	>\$100k	5.2%	32.12	\$1,866	\$1,932	\$2,366		26.8%		\$104
random rank method	\$0-\$20k	17.9%	16.98	\$986	\$974	\$908		-8.0%		-\$57
	\$20k-\$40k	22.1%	17.93	\$1,041	\$1,033	\$985		-5.5%		-\$51
	\$40k-\$60k	18.9%	19.34	\$1,124	\$1,121	\$1,104		-1.7%		-\$15
	\$60k-\$100k	23.7%	20.86	\$1,212	\$1,217	\$1,237		2.0%		\$24
	>\$100k	17.4%	23.85	\$1,386	\$1,406	\$1,527		10.2%		\$99
weighted rank method	\$0-\$20k	17.9%	13.51	\$785	\$762	\$653	-\$132 [-\$140, -\$123]	-16.9%	[-19.2%, -14.8%]	-\$95
	\$20k-\$40k	22.1%	16.75	\$973	\$959	\$879	-\$94 [-\$110, -\$80]	-9.7%	[-11.6%, -8.0%]	-\$84
	\$40k-\$60k	18.9%	19.41	\$1,128	\$1,125	\$1,098	-\$29 [-\$45, -\$21]	-2.6%	[-4.1%, -1.9%]	-\$22
	\$60k-\$100k	23.7%	21.24	\$1,234	\$1,239	\$1,260	\$26 [-\$24, \$26]	2.1%	[1.9%, 2.2%]	\$25
	>\$100k	17.4%	28.33	\$1,646	\$1,684	\$1,900	\$253 [\$216, \$301]	15.4%	[13.8%, 17.3%]	\$178
usage rank method	\$0-\$20k	17.9%	8.85	\$514	\$485	\$365		-28.9%		-\$108
	\$20k-\$40k	22.1%	14.56	\$846	\$822	\$696		-17.7%		-\$134
	\$40k-\$60k	18.9%	16.61	\$965	\$944	\$834		-13.6%		-\$100
	\$60k-\$100k	23.7%	21.90	\$1,272	\$1,271	\$1,201		-5.6%		-\$69
	>\$100k	17.4%	38.08	\$2,212	\$2,297	\$2,797		26.4%		\$412

Excludes bills with daily consumption < 1kWh/day

Includes all CARE and non-CARE customers, all on no-CARE-program rates from table 2

Distribution of w* for weighted rank method

Point Estimate	0.29
Mean of bootstrap	0.29
Median of bootstrap	0.28
95% conf interval	[0.21,0.37]

Table 3/5: SCE Average Bill By Income Bracket Under Alternative Flat-Rate Tariffs Using Median Income, Random-Rank, Usage-Rank and Weighted-Rank Methods

Income Range	Share on CARE	Average Annualized Bill						Monetary Bill Chage from No-CARE/Flat			Percentage Bill Chage from No-CARE/Flat		
		No-CARE			with CARE			No-CARE	w/CARE	w/CARE	No-CARE	w/CARE	w/CARE
		Flat	2-tier	5-tier	Flat	2-tier	5-tier	5-tier	Flat	5-tier	5-tier	Flat	5-tier
		Tariff	tariff	Tariff	Tariff	tariff	Tariff	Tariff	Tariff	Tariff	Tariff	Tariff	Tariff
\$0-\$20k	69.9%	\$785	\$762	\$653	\$609	\$596	\$546	-\$132	-\$176	-\$239	-17%	-22%	-30%
\$20k-\$40k	47.1%	\$973	\$959	\$879	\$863	\$853	\$804	-\$94	-\$111	-\$170	-10%	-11%	-17%
\$40k-\$60k	11.3%	\$1,128	\$1,125	\$1,098	\$1,163	\$1,157	\$1,115	-\$29	\$35	-\$12	-3%	3%	-1%
\$60k-\$100k	0.6%	\$1,234	\$1,239	\$1,260	\$1,337	\$1,337	\$1,327	\$26	\$103	\$93	2%	8%	8%
>\$100k	0.0%	\$1,646	\$1,684	\$1,900	\$1,790	\$1,823	\$1,996	\$253	\$144	\$350	15%	9%	21%

All results are from weighted rank method

Excludes bills with daily consumption < 1kWh/day

Includes all CARE and non-CARE customers

Table 7: SCE Estimated Average Annual Bills With and Without IBP and CARE

MC=0.1092		Change in Annual Average Household Consumer Surplus From Switch to 5-tier tariff				Change in Aggregate Annual Consumer Surplus (\$/yr) From Switch to 5-tier tariff			
Income Range	Share of Customers	€=0	€=-0.1	€=-0.2	€=-0.3	€=0	€=-0.1	€=-0.2	€=-0.3
\$0-\$20k	17.9%	\$132	\$117	\$101	\$84	\$95	\$85	\$73	\$61
\$20k-\$40k	22.1%	\$94	\$74	\$51	\$27	\$84	\$66	\$46	\$24
\$40k-\$60k	18.9%	\$29	\$3	-\$26	-\$57	\$22	\$2	-\$20	-\$44
\$60k-\$100k	23.7%	-\$26	-\$56	-\$90	-\$126	-\$25	-\$54	-\$86	-\$120
>\$100k	17.4%	-\$253	-\$300	-\$351	-\$407	-\$178	-\$211	-\$247	-\$286
Aggregate Increase in DWL from IBP (\$/yr)						\$0	\$113	\$234	\$365
Ratio of DWL to transfers to two lowest income brackets						0.00	0.75	1.97	4.28
Flat-rate Price						\$0.1592	\$0.1577	\$0.1560	\$0.1543

MC=0.1592		Change in Annual Average Household Consumer Surplus From Switch to 5-tier tariff				Change in Aggregate Annual Consumer Surplus (\$/yr) From Switch to 5-tier tariff			
Income Range	Share of Customers	€=0	€=-0.1	€=-0.2	€=-0.3	€=0	€=-0.1	€=-0.2	€=-0.3
\$0-\$20k	17.9%	\$132	\$124	\$117	\$109	\$95	\$90	\$84	\$79
\$20k-\$40k	22.1%	\$94	\$83	\$71	\$60	\$84	\$74	\$64	\$53
\$40k-\$60k	18.9%	\$29	\$14	-\$2	-\$19	\$22	\$11	-\$2	-\$14
\$60k-\$100k	23.7%	-\$26	-\$44	-\$64	-\$83	-\$25	-\$42	-\$61	-\$80
>\$100k	17.4%	-\$253	-\$284	-\$315	-\$348	-\$178	-\$200	-\$222	-\$245
Aggregate Increase in DWL from IBP (\$/yr)						\$0	\$67	\$136	\$207
Ratio of DWL to transfers to two lowest income brackets						0.00	0.41	0.92	1.57
Flat-rate Price						\$0.1592	\$0.1592	\$0.1592	\$0.1592

MC=0.2092		Change in Annual Average Household Consumer Surplus From Switch to 5-tier tariff				Change in Aggregate Annual Consumer Surplus (\$/yr) From Switch to 5-tier tariff			
Income Range	Share of Customers	€=0	€=-0.1	€=-0.2	€=-0.3	€=0	€=-0.1	€=-0.2	€=-0.3
\$0-\$20k	17.9%	\$132	\$132	\$131	\$130	\$95	\$95	\$95	\$94
\$20k-\$40k	22.1%	\$94	\$92	\$89	\$86	\$84	\$82	\$80	\$77
\$40k-\$60k	18.9%	\$29	\$24	\$19	\$13	\$22	\$18	\$14	\$10
\$60k-\$100k	23.7%	-\$26	-\$33	-\$40	-\$48	-\$25	-\$31	-\$39	-\$46
>\$100k	17.4%	-\$253	-\$268	-\$283	-\$299	-\$178	-\$189	-\$199	-\$210
Aggregate Increase in DWL from IBP (\$/yr)						\$0	\$24	\$49	\$75
Ratio of DWL to transfers to two lowest income brackets						0.00	0.14	0.28	0.44
Flat-rate Price						\$0.1592	\$0.1606	\$0.1620	\$0.1633

MC=0.2592		Change in Annual Average Household Consumer Surplus From Switch to 5-tier tariff				Change in Aggregate Annual Consumer Surplus (\$/yr) From Switch to 5-tier tariff			
Income Range	Share of Customers	€=0	€=-0.1	€=-0.2	€=-0.3	€=0	€=-0.1	€=-0.2	€=-0.3
\$0-\$20k	17.9%	\$132	\$138	\$143	\$147	\$95	\$100	\$104	\$107
\$20k-\$40k	22.1%	\$94	\$100	\$105	\$109	\$84	\$90	\$94	\$97
\$40k-\$60k	18.9%	\$29	\$34	\$38	\$40	\$22	\$26	\$29	\$31
\$60k-\$100k	23.7%	-\$26	-\$22	-\$20	-\$18	-\$25	-\$21	-\$19	-\$17
>\$100k	17.4%	-\$253	-\$254	-\$255	-\$257	-\$178	-\$179	-\$179	-\$181
Aggregate Increase in DWL from IBP (\$/yr)						\$0	-\$16	-\$28	-\$37
Ratio of DWL to transfers to two lowest income brackets						0.00	-0.08	-0.14	-0.18
Flat-rate Price						\$0.1592	\$0.1619	\$0.1645	\$0.1669

Table 6: SCE Change in Consumer Surplus Switching from Flat-rate to 5-tier Tariff Under Alternative Demand Elasticities (Weighted Ranking Method)

MC=0.1092		Change in Annual Average Household Consumer Surplus From adding CARE program				Change in Aggregate Annual Consumer Surplus (\$M/yr) From adding CARE program			
Income Range	Share of Customers	€=0	€=-0.1	€=-0.2	€=-0.3	€=0	€=-0.1	€=-0.2	€=-0.3
\$0-\$20k	17.9%	\$176	\$179	\$182	\$186	\$127	\$129	\$132	\$135
\$20k-\$40k	22.1%	\$111	\$113	\$116	\$120	\$99	\$101	\$104	\$107
\$40k-\$60k	18.9%	-\$35	-\$36	-\$38	-\$39	-\$27	-\$28	-\$29	-\$30
\$60k-\$100k	23.7%	-\$103	-\$107	-\$112	-\$118	-\$98	-\$103	-\$107	-\$113
>\$100k	17.4%	-\$144	-\$152	-\$161	-\$172	-\$101	-\$107	-\$113	-\$121
Aggregate Increase in DWL from CARE (\$M/yr)						\$0	\$7	\$14	\$22
Ratio of DWL to transfers to two low est income brackets						0.00	0.03	0.06	0.09
Flat-rate Price - Standard Residential						\$0.1731	\$0.1717	\$0.1703	\$0.1687
Flat-rate Price - CARE participants						\$0.1060	\$0.1052	\$0.1043	\$0.1033
MC=0.1592		Change in Annual Average Household Consumer Surplus From adding CARE program				Change in Aggregate Annual Consumer Surplus (\$M/yr) From adding CARE program			
Income Range	Share of Customers	€=0	€=-0.1	€=-0.2	€=-0.3	€=0	€=-0.1	€=-0.2	€=-0.3
\$0-\$20k	17.9%	\$176	\$180	\$185	\$189	\$127	\$130	\$133	\$137
\$20k-\$40k	22.1%	\$111	\$114	\$117	\$121	\$99	\$102	\$105	\$108
\$40k-\$60k	18.9%	-\$35	-\$37	-\$39	-\$42	-\$27	-\$28	-\$30	-\$32
\$60k-\$100k	23.7%	-\$103	-\$109	-\$115	-\$122	-\$98	-\$104	-\$110	-\$117
>\$100k	17.4%	-\$144	-\$154	-\$166	-\$178	-\$101	-\$109	-\$117	-\$125
Aggregate Increase in DWL from CARE (\$M/yr)						\$0	\$9	\$19	\$29
Ratio of DWL to transfers to two low est income brackets						0.00	0.04	0.08	0.12
Flat-rate Price - Standard Residential						\$0.1731	\$0.1735	\$0.1739	\$0.1743
Flat-rate Price - CARE participants						\$0.1060	\$0.1062	\$0.1065	\$0.1067
MC=0.2092		Change in Annual Average Household Consumer Surplus From adding CARE program				Change in Aggregate Annual Consumer Surplus (\$M/yr) From adding CARE program			
Income Range	Share of Customers	€=0	€=-0.1	€=-0.2	€=-0.3	€=0	€=-0.1	€=-0.2	€=-0.3
\$0-\$20k	17.9%	\$176	\$181	\$187	\$192	\$127	\$131	\$135	\$139
\$20k-\$40k	22.1%	\$111	\$114	\$118	\$122	\$99	\$102	\$106	\$109
\$40k-\$60k	18.9%	-\$35	-\$38	-\$41	-\$44	-\$27	-\$29	-\$31	-\$33
\$60k-\$100k	23.7%	-\$103	-\$110	-\$118	-\$126	-\$98	-\$106	-\$113	-\$121
>\$100k	17.4%	-\$144	-\$156	-\$170	-\$183	-\$101	-\$110	-\$119	-\$129
Aggregate Increase in DWL from CARE (\$M/yr)						\$0	\$11	\$23	\$34
Ratio of DWL to transfers to two low est income brackets						0.00	0.05	0.09	0.14
Flat-rate Price - Standard Residential						\$0.1731	\$0.1751	\$0.1771	\$0.1790
Flat-rate Price - CARE participants						\$0.1060	\$0.1072	\$0.1085	\$0.1096
MC=0.2592		Change in Annual Average Household Consumer Surplus From adding CARE program				Change in Aggregate Annual Consumer Surplus (\$M/yr) From adding CARE program			
Income Range	Share of Customers	€=0	€=-0.1	€=-0.2	€=-0.3	€=0	€=-0.1	€=-0.2	€=-0.3
\$0-\$20k	17.9%	\$176	\$182	\$188	\$194	\$127	\$132	\$136	\$141
\$20k-\$40k	22.1%	\$111	\$115	\$119	\$123	\$99	\$103	\$106	\$110
\$40k-\$60k	18.9%	-\$35	-\$39	-\$42	-\$45	-\$27	-\$30	-\$32	-\$35
\$60k-\$100k	23.7%	-\$103	-\$112	-\$121	-\$129	-\$98	-\$107	-\$115	-\$124
>\$100k	17.4%	-\$144	-\$159	-\$173	-\$188	-\$101	-\$112	-\$122	-\$132
Aggregate Increase in DWL from CARE (\$M/yr)						\$0	\$14	\$27	\$39
Ratio of DWL to transfers to two low est income brackets						0.00	0.06	0.11	0.16
Flat-rate Price - Standard Residential						\$0.1731	\$0.1767	\$0.1800	\$0.1831
Flat-rate Price - CARE participants						\$0.1060	\$0.1082	\$0.1102	\$0.1121

Table 8: SCE Change in Consumer Surplus Switching from No-CARE to w/CARE
With Flat-rate Tariff Under Alternative Demand Elasticities
(Weighted Ranking Method)