

## **2003 ENERGY EFFICIENCY PROGRAMS—TECHNICAL APPENDIX**

### **EXECUTIVE SUMMARY**

This Technical Appendix provides additional supporting documentation for SoCalGas' "Annual Summary of Energy Efficiency Programs," dated May 2004, which reviews the progress of activities during 2003. SoCalGas is reporting these results using the Energy Efficiency Programs Reporting Requirements Manual 2, draft dated February 2004, as agreed to by the utilities, Office of Ratepayer Advocates and the Energy Division of the California Public Utilities Commission.

SoCalGas' 2003 Energy Efficiency Program plans were filed on November 4, 2002. On April 17, 2003 the Commission issued D.03-04-055 approving the utilities' 2003 statewide energy efficiency programs and budgets with modifications to program design, budgets and program performance targets.

All incremental measure costs, energy savings, and measure lives are documented in SoCalGas' November 4, 2002 Request for Approval of 2003 Energy Efficiency Programs authorized by D. 03-04-055.

Table TA 1.1  
 Avoided Costs

Program Year 2003 Avoided Costs (Cumulative and Discounted)

Year	Electric \$/MWh	Gas \$/Therm
2003	110.850	0.580
2004	174.660	1.015
2005	231.249	1.382
2006	284.777	1.738
2007	330.981	2.082
2008	375.352	2.413
2009	417.754	2.731
2010	458.365	3.038
2011	497.241	3.332
2012	534.373	3.574
2013	570.078	3.807
2014	604.455	4.030
2015	637.559	4.249
2016	669.504	4.459
2017	700.317	4.662
2018	730.102	4.857
2019	758.910	5.045
2020	786.795	5.225
2021	813.670	5.398
2022	839.700	5.565

PGC Funded Program Year 2004 Avoided Costs (Cumulative and Discounted)

Year	Electric \$/MWh	Gas \$/Therm
2004	66.190	0.430
2005	128.797	0.837
2006	182.840	1.239
2007	234.738	1.626
2008	284.334	1.999
2009	331.834	2.357
2010	377.305	2.701
2011	420.736	2.990
2012	462.498	3.268
2013	502.707	3.534
2014	541.427	3.786
2015	578.791	4.031
2016	614.831	4.269
2017	649.669	4.496
2018	683.363	4.717
2019	715.979	4.930
2020	747.414	5.135
2021	777.862	5.331
2022	807.788	5.516
2023	836.249	5.699

**TABLE TA 2.1  
PROGRAM COST ESTIMATES USED FOR COST-EFFECTIVENESS (RESIDENTIAL)  
NATURAL GAS**

PROGRAM	UTILITY COSTS						Total	IMC
	Program Incentives (Recorded)		Admin		Shareholder Inc	Other		
	Actual	Committed	Actual	Committed				
<b>Information</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Information</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>EMS</b>								
Home Energy Efficiency Survey	\$ -	\$ -	\$ 316,962	\$ -	\$ -	\$ -	\$ 316,962	\$ -
<b>Total EMS</b>	\$ -	\$ -	\$ 316,962	\$ -	\$ -	\$ -	\$ 316,962	\$ -
<b>EEl</b>								
SPC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rebates								
Multifamily Rebates Program	\$ 1,142,208	\$ -	\$ 327,434	\$ -	\$ -	\$ -	\$ 1,469,642	\$ 2,575,586
Single Family Energy Efficiency Rebates Program	\$ 3,091,836	\$ -	\$ 939,876	\$ -	\$ -	\$ -	\$ 4,031,712	\$ 8,924,596
<b>Total EEl</b>	\$ 4,234,044	\$ -	\$ 1,267,310	\$ -	\$ -	\$ -	\$ 5,501,354	\$ 11,500,181
<b>Upstream Programs</b>								
Financial Assistance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Upstream</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Residential</b>	\$ 4,234,044	\$ -	\$ 1,584,272	\$ -	\$ -	\$ -	\$ 5,818,316	\$ 11,500,181

**TABLE TA 2.2  
DIRECT AND ALLOCATED ADMINISTRATIVE COSTS (RESIDENTIAL)  
NATURAL GAS**

<b>PROGRAM</b>	<b>Administrative Cost Elements</b>				
	<b>Labor (direct)</b>	<b>Non-Labor (direct)</b>	<b>Contract (direct)</b>	<b>Allocated</b>	<b>Total</b>
<b>Information</b>					
	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Information</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>EMS</b>					
Home Energy Efficiency Survey	\$ 41,969	\$ 265,307	\$ -	\$ 9,685	\$ 316,962
<b>Total EMS</b>	<b>\$ 41,969</b>	<b>\$ 265,307</b>	<b>\$ -</b>	<b>\$ 9,685</b>	<b>\$ 316,962</b>
<b>EEl</b>					
SPC	\$ -	\$ -	\$ -	\$ -	\$ -
Rebates					
Multifamily Rebates Program	\$ 132,790	\$ 149,736	\$ -	\$ 44,908	\$ 327,434
Single Family Energy Efficiency Rebates Program	\$ 318,534	\$ 498,145	\$ -	\$ 123,197	\$ 939,876
Loans					
<b>Total EEI</b>	<b>\$ 451,324</b>	<b>\$ 647,881</b>	<b>\$ -</b>	<b>\$ 168,105</b>	<b>\$ 1,267,310</b>
<b>Upstream Programs</b>					
Financial Assistance	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Upstream</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Residential</b>	<b>\$ 493,294</b>	<b>\$ 913,188</b>	<b>\$ -</b>	<b>\$ 177,791</b>	<b>\$ 1,584,272</b>

Table TA 2.3  
Market Effects: Residential Projected Annual Program Energy Reductions  
Statewide Single Family Rebates  
Program Year: 2003

Year	HVAC			Lighting			Misc		
	kW	kWh	Therms	kW	kWh	Therms	kW	kWh	Therms
2003	1,083	4,558,471	1,304,590				29	1,439,164	729,552
2004	1,083	4,558,471	1,304,590				29	1,439,164	729,552
2005	1,083	4,558,471	1,304,590				29	1,439,164	729,552
2006	1,083	4,558,471	1,304,590				29	1,439,164	729,552
2007	1,083	4,558,471	1,304,590				29	1,439,164	729,552
2008	1,083	4,558,471	1,304,590				29	1,439,164	729,552
2009	1,083	4,558,471	1,304,590				29	1,439,164	729,552
2010	1,083	4,558,471	1,304,590				29	1,439,164	729,552
2011	1,083	4,558,471	1,304,590				29	1,439,164	729,552
2012	1,083	4,558,471	1,304,590				29	1,439,164	729,552
2013	1,083	4,558,471	1,304,590				0	698,840	501,760
2014	1,501	1,530,302	435,981				0	698,840	501,760
2015	1,501	1,530,302	435,981				0	698,840	501,760
2016	1,501	1,530,302	435,981				0	698,840	501,760
2017	1,501	1,530,302	435,981				0	0	30,043
2018	1,501	1,530,302	435,981						
2019	1,501	1,530,302	435,981						
2020	1,501	1,530,302	435,981						
2021	1,501	1,530,302	435,981						
2022	1,501	1,530,302	435,981						
SUM (Lifecycle)	1,083	63,915,890	18,274,316				29	17,187,000	9,332,603

Table TA 2.3  
 Market Effects: Residential Projected Annual Program Energy Reductions  
 Statewide Multifamily Rebates  
 Program Year: 2003

Year	Average Load Impacts Per Unit (Gross)			HVAC			Lighting			Misc		
	kW	kWh	Therms	kW	kWh	Therms	kW	kWh	Therms			
2003	93	4,955,749	484,870				0	1,352			349,358	
2004	93	4,955,749	484,870				0	1,352			349,358	
2005	93	4,955,749	484,870				0	1,352			349,358	
2006	93	4,955,749	484,870				0	1,352			349,358	
2007	93	4,955,749	484,870				0	1,352			349,358	
2008	93	4,955,749	484,870				0	1,352			349,358	
2009	93	4,955,749	484,870				0	1,352			349,358	
2010	93	4,955,749	484,870				0	1,352			349,358	
2011	93	4,955,749	484,870				0	1,352			349,358	
2012	93	4,955,749	484,870				0	1,352			349,358	
2013	93	4,955,749	484,870				0	0			348,737	
2014	97	4,950,944	484,400				0	0			348,737	
2015	97	66,944	6,175				0	0			348,737	
2016	97	66,944	6,175				0	0			348,737	
2017	97	66,944	6,175				0	0			346,772	
2018	97	66,944	6,175				0	0			209,250	
2019	97	66,944	6,175				0	0			209,250	
2020	97	66,944	6,175				0	0			209,250	
2021	97	66,944	6,175				0	0			209,250	
2022	97	66,944	6,175				0	0			209,250	
SUM (Lifecycle)	93	59,999,731	5,867,371				0	13,520			6,281,552	

Table TA 2.5  
 Measure Detail: Residential Program Area  
 Statewide Single Family Rebates  
 Program Year: 2003

Year	Measure Code	Measure Description	Recorded Qty	Total Customer Cost	Average Unit Cost	Total KWH Savings	Average kWh Savings	Total Therm Savings	Average Therm Savings	Measure Life	Measure End Use
2003	APPL01	Clothes Washer - Energy Star	17,471	\$3,608,854.00	\$206.56	698,840	40	471,717	27	14	Misc
2003	APPL02	Dishwasher - ENERGY STAR	14,237	\$1,748,892.00	\$122.84	740,324	52	227,792	16	10	Misc
2003	HVAC002	Attic Insulation	2,684,868	\$1,357,643.80	\$0.51	1,258,129	0	268,487	0	20	HVAC
2003	HVAC003	Wall Insulation	1,048,834	\$797,678.79	\$0.76	272,172	0	129,262	0	20	HVAC
2003	HVAC019	Gas Furnace - 80% AFUE with ECM or VSD	376	\$71,816.00	\$191.00	-	-	4,042	11	20	HVAC
2003	HVAC020	Gas Furnace - ENERGY STAR (90% AFUE)	1,052	\$719,568.00	\$684.00	-	-	34,190	33	20	HVAC
2003	HVAC021	Thermostat - ENERGY STAR	8,118	\$493,038.00	\$60.73	3,028,169	373	868,610	107	11	HVAC
2003	WH08	Natural Gas Storage Water Heater (High EF>=0.6)	2,311	\$127,105.00	\$55.00	-	-	30,043	13	15	Misc

Table TA 2.5  
 Measure Detail: Residential Program Area  
 Statewide Multifamily Rebates  
 Program Year: 2003

Year	Measure Code	Measure Description	Recorded Qty	Total Customer Cost	Average Unit Cost	Total KWH Savings	Average kWh Savings	Total Therm Savings	Average Therm Savings	Measure Life	Measure End Use
2003	APPL01	Clothes Washer - Energy Star	22	\$14,498.00	\$659.00	-	-	697	32	14	Misc
2003	APPL02	Dishwasher - ENERGY STAR	37	\$6,426.00	\$173.68	1,352	37	621	17	10	Misc
2003	APPL05	Commercial Clothes Washer - Horizontal Axis	40	\$26,360.00	\$659.00	-	-	1,268	32	14	Misc
2003	HVAC002	Attic Insulation	34,280	\$91,432.90	\$2.67	66,346	2	5,485	0	20	HVAC
2003	HVAC003	Wall Insulation	7,970	\$37,459.00	\$4.70	599	0	638	0	20	HVAC
2003	HVAC019	Gas Furnace - 80% AFUE with ECM or VSD	10	\$15,780.00	\$1,578.00	-	-	53	5	20	HVAC
2003	HVAC021	Thermostat - ENERGY STAR	10,185	\$595,950.00	\$58.51	4,888,805	480	478,695	47	11.99091	HVAC
2003	WH04	Central System Natural Gas Boilers - Hot Water	279	\$1,132,740.00	\$4,060.00	-	-	209,250	750	20	Misc
2003	WH05	Natural Gas Water Heater Controllers	4	\$14,000.00	\$3,500.00	-	-	3,600	900	15	Misc
2003	WH08	Natural Gas Storage Water Heater (High EF>=0.6)	8	\$440.00	\$55.00	-	-	88	11	15	Misc
2003	WH14	Central System Natural Gas Water Heaters	52	\$208,000.00	\$4,000.00	-	-	13,364	257	15	Misc
2003	WH15	Natural Gas Boiler Controllers	20	\$70,000.00	\$3,500.00	-	-	18,000	900	15	Misc
2003	WH28	Gas Wtr Htr and/or Boiler Controller (<20 units)	55	\$82,500.00	\$1,500.00	-	-	30,470	554	15	Misc
2003	WH30	Digital Gas Wtr Htr / Boiler Cntrl (>=20 units)	73	\$255,500.00	\$3,500.00	-	-	65,700	900	15	Misc
2003	WH31	Water Heating - Com Area - Nat Gas Boiler Control	7	\$24,500.00	\$3,500.00	-	-	6,300	900	15	Misc



**TABLE TA 3.1  
PROGRAM COST ESTIMATES USED FOR COST-EFFECTIVENESS (NONRESIDENTIAL)  
NATURAL GAS**

PROGRAM	UTILITY COSTS							Total	IMC
	Program Incentives (Recorded)		Admin		Shareholder Inc	Other			
	Actual	Committed	Actual	Committed					
Information									
Building Operator Certification Program	\$ -	\$ -	\$ 98,577	\$ -	\$ -	\$ -	\$ 98,577	\$ -	
Energy Audit Program	\$ -	\$ -	\$2,103,325	\$ -	\$ -	\$ -	\$2,103,325	\$ -	
<b>Total Information</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$2,201,903</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$2,201,903</b>	<b>\$ -</b>	
EMS									
Large	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Small/ Medium	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
<b>Total EMS</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	
EEl									
Customized Rebates									
Large	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Small/Medium	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Prescriptive Rebates									
Large	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Small									
Express Efficiency Program	\$ 1,244,061	\$ -	\$1,609,744	\$ -	\$ -	\$ -	\$2,853,805	\$ 3,327,906	
Non-Residential Financial Incentives	\$ 933,349	\$ 78,224	\$ 95,758	\$ -	\$ -	\$ -	\$ 1,107,331	\$ 2,921,521	
SPCs									
Large	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Small	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
<b>Total EEl</b>	<b>\$ 2,177,410</b>	<b>\$ 78,224</b>	<b>\$1,705,502</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$3,961,136</b>	<b>\$ 6,249,427</b>	
Upstream Programs									
Financial Assistance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
<b>Total Upstream</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	
<b>Total Nonresidential</b>	<b>\$ 2,177,410</b>	<b>\$ 78,224</b>	<b>\$3,907,404</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$6,163,038</b>	<b>\$ 6,249,427</b>	

**TABLE TA 3.2  
DIRECT AND ALLOCATED ADMINISTRATIVE COSTS (NONRESIDENTIAL,  
NONRESIDENTIAL GAS ONLY**

PROGRAM	Administrative Cost Elements				
	Labor (direct)	Non-Labor (direct)	Contract (direct)	Allocated	Total
Information					
Building Operator Certification Program	\$ 54,252	\$ 41,313	\$ -	\$ 3,012	\$ 98,577
Energy Audit Program	\$1,341,998	\$ 697,056	\$ -	\$ 64,271	\$2,103,325
<b>Total Information</b>	<b>\$1,396,250</b>	<b>\$ 738,369</b>	<b>\$ -</b>	<b>\$ 67,284</b>	<b>\$2,201,903</b>
EMS					
Large	\$ -	\$ -	\$ -	\$ -	\$ -
Small/ Medium	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total EMS</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
EEl					
Customized Rebates					
Large	\$ -	\$ -	\$ -	\$ -	\$ -
Small/Medium	\$ -	\$ -	\$ -	\$ -	\$ -
Prescriptive Rebates					
Large	\$ -	\$ -	\$ -	\$ -	\$ -
Small					
Express Efficiency Program	\$1,165,631	\$ 356,909	\$ -	\$ 87,204	\$1,609,744
Non-Residential Financial Incentives	\$ 25,073	\$ 36,848	\$ -	\$ 33,837	\$ 95,758
SPCs	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total EEl</b>	<b>\$1,190,704</b>	<b>\$ 393,757</b>	<b>\$ -</b>	<b>\$121,041</b>	<b>\$1,705,502</b>
Upstream Programs					
Financial Assistance	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Upstream</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Nonresidential</b>	<b>\$2,586,954</b>	<b>\$ 1,132,126</b>	<b>\$ -</b>	<b>\$188,324</b>	<b>\$3,907,404</b>

Table TA 3.3  
 Market Effects: Nonresidential Projected Annual Program Energy Reductions  
 Statewide Express Efficiency-Rebates  
 Program Year: 2003

Year	HVAC			Lighting			Misc		
	kW	kWh	Therms	kW	kWh	Therms	kW	kWh	Therms
2003	0	4,567,788	1,298,986				0	5,302	3,400,574
2004	0	4,567,788	1,298,986				0	5,302	3,400,574
2005	0	4,567,788	1,298,986				0	5,302	3,400,574
2006	0	4,567,788	1,298,986				0	5,302	3,400,574
2007	0	4,567,788	1,298,986				0	5,302	3,400,574
2008	0	4,567,788	1,298,986				0	5,302	640,001
2009	0	4,567,788	1,298,986				0	5,302	640,001
2010	0	4,567,788	1,298,986				0	5,302	640,001
2011	0	4,567,788	1,298,986				0	5,302	640,001
2012	0	4,567,788	1,298,986				0	5,302	640,001
2013	0	4,567,788	1,298,986				0	0	618,793
2014	0	0	76,966				0	0	618,793
2015	0	0	76,966				0	0	581,449
2016	0	0	76,966				0	0	539,225
2017	0	0	76,966				0	0	539,225
2018	0	0	76,966				0	0	428,163
2019	0	0	76,966				0	0	428,163
2020	0	0	76,966				0	0	428,163
2021	0	0	76,966				0	0	428,163
2022	0	0	76,966				0	0	428,163
SUM (Lifecycle)	0	50,245,668	14,981,549	0	0	0	0	53,020	25,241,178

Table TA 3.3  
 Market Effects: Nonresidential Projected Annual Program Energy Reductions  
 Local Nonresidential Financial Incentives  
 Program Year: 2003

Year	Average Load Impacts Per Unit (Gross)			HVAC			Lighting			Misc		
	kW	kWh	Therms	kW	kWh	Therms	kW	kWh	Therms			
2003	0	0	102,010				0	0	0	3,438,786		
2004	0	0	102,010				0	0	0	3,438,786		
2005	0	0	102,010				0	0	0	3,438,786		
2006	0	0	102,010				0	0	0	3,438,786		
2007	0	0	102,010				0	0	0	3,438,786		
2008	0	0	102,010				0	0	0	3,438,786		
2009	0	0	102,010				0	0	0	3,438,786		
2010	0	0	102,010				0	0	0	3,438,786		
2011	0	0	102,010				0	0	0	3,438,786		
2012	0	0	102,010				0	0	0	3,438,786		
2013	0	0	102,010				0	0	0	3,438,786		
2014	0	0	102,010				0	0	0	3,438,786		
2015	0	0	102,010				0	0	0	3,029,769		
2016	0	0	102,010				0	0	0	3,029,769		
2017	0	0	102,010				0	0	0	3,029,769		
2018	0	0	102,010				0	0	0	3,022,939		
2019	0	0	102,010				0	0	0	3,022,939		
2020	0	0	102,010				0	0	0	3,022,939		
2021	0	0	102,010				0	0	0	3,022,939		
2022	0	0	102,010				0	0	0	3,022,939		
SUM (Lifecycle)	0	0	2,040,192	0	0	0	0	0	0	65,469,429		

Table TA 3.5  
 Measure Detail: Nonresidential Program Area  
 Statewide Express Efficiency-Rebates  
 Program Year: 2003

Year	Measure Code	Measure Description	Recorded Qty	Total Customer Cost	Average Unit Cost	Total KWH Savings	Average kWh Savings	Total Therm Savings	Average Therm Savings	Measure Life	Measure End Use
2003	APPL05	Commercial Clothes Washer - Horizontal Axis	241	\$96,641.00	\$401.00	5,302	22	21,208	88	10	Misc
2003	COOK01	Infrared Conveyor Oven	90	\$922.50	\$10.25	-	-	707	8	12	Misc
2003	COOK02	Infrared Fryer	1,176	\$26,177.76	\$22.26	-	-	9,761	8	12	Misc
2003	COOK03	Infrared Rotisserie	940	\$20,181.80	\$21.47	-	-	7,388	8	12	Misc
2003	COOK04	Power Burner Foodservice Equip - Conveyor Oven	1,360	\$21,909.60	\$16.11	-	-	6,528	5	12	Misc
2003	COOK05	Power Burner Foodservice Equip - Fryer	2,700	\$30,132.00	\$11.16	-	-	12,960	5	12	Misc
2003	HVAC027	Setback Programmable Thermostats (ELECTRIC)	1,116	\$64,728.00	\$58.00	4,567,788	4,093	1,222,020	1,095	11	HVAC
2003	HVAC037	Greenhouse Heat Curtain	7,078,391	\$2,265,085.12	\$0.32	-	-	2,760,572	0	5	Misc
2003	HVAC038	Space Heating Boiler	118,538	\$275,985.44	\$2.33	-	-	76,966	1	20	HVAC
2003	WH02	Pipe Insulation (per linear ft.)	21,189	\$93,019.71	\$4.39	-	-	35,809	2	15	Misc
2003	WH03	Tank Insulation (per square ft.)	7,014	\$28,546.98	\$4.07	-	-	42,224	6	13	Misc
2003	WH09	Hot Water Boiler	64,570	\$108,027.34	\$1.67	-	-	193,460	3	20	Misc
2003	WH16	Storage Water Heater (LRG >75 MBTUH)	20,180	\$82,478.18	\$4.09	-	-	33,095	2	15	Misc
2003	WH17	Storage Water Heater (SML <= 75 MBTUH)	430	\$1,156.70	\$2.69	-	-	284	1	15	Misc
2003	WH18	Instantaneous Water Heater (LRG > 200 MBTUH)	22,861	(\$30,176.52)	(\$1.32)	-	-	40,319	2	15	Misc
2003	WH20	Process Boiler	115,969	\$251,652.73	\$2.17	-	-	234,703	2	20	Misc
2003	WH23	Instantaneous Water Heater (MED >75.1 - 200<MBTUH)	1,102	(\$8,562.54)	(\$7.77)	-	-	1,554	1	15	Misc

Table TA 3.5  
Measure Detail: Nonresidential Program Area  
Local Nonresidential Financial Incentives  
Program Year: 2003

Year	Measure Code	Measure Description	Recorded Qty	Total Customer Cost	Average Unit Cost	Total KWH Savings	Average kWh Savings	Total Therm Savings	Average Therm Savings	Measure Life	Measure End Use
2003	COOK06	PARR Convection Oven	8,020	\$78,756.40	\$9.82	-	-	34,566	4	12	Misc
2003	COOK07	PARR Combination Oven	2,595	\$60,100.20	\$23.16	-	-	30,413	12	12	Misc
2003	COOK08	PARR Rotating Rack Oven	6,776	\$68,640.88	\$10.13	-	-	77,382	11	12	Misc
2003	COOK09	PARR Deck Oven	771	\$7,023.81	\$9.11	-	-	2,791	4	12	Misc
2003	COOK10	PARR Under-fired broiler	19,739	\$50,926.62	\$2.58	-	-	109,946	6	12	Misc
2003	COOK11	PARR Over-fired [char] broiler	1,556	\$19,465.56	\$12.51	-	-	14,642	9	12	Misc
2003	COOK12	PARR Griddle	7,527	\$49,151.31	\$6.53	-	-	33,570	4	12	Misc
2003	COOK13	PARR Cheese melter	936	\$7,834.32	\$8.37	-	-	10,249	11	12	Misc
2003	COOK14	PARR Salamander	197	\$1,928.63	\$9.79	-	-	1,556	8	12	Misc
2003	COOK15	PARR Steam Kettle	2,866	\$60,673.22	\$21.17	-	-	49,209	17	12	Misc
2003	COOK16	PARR Braising Pan	1,754	\$25,485.62	\$14.53	-	-	9,331	5	12	Misc
2003	COOK17	PARR Cabinet Steamer	46	\$431.94	\$9.39	-	-	251	5	12	Misc
2003	COOK18	PARR Fryer - High Effic. Unit with Electr Ignition	600	\$17,034.00	\$28.39	-	-	5,136	9	12	Misc
2003	COOK19	PARR Fryer - High Effic. Unit	5,965	\$55,892.05	\$9.37	-	-	24,337	4	12	Misc
2003	COOK20	PARR Fryer - Unit with Electr. Ignition	2,585	\$9,254.30	\$3.58	-	-	5,635	2	12	Misc
2003	COOK21	NRER Oven Replacement	20,832	\$362,268.48	\$17.39	-	-	343,728	17	20	Misc
2003	HEAT02	NRER Engine Replacement	1,355	\$43,752.95	\$32.29	-	-	2,832	2	15	Misc
2003	HEAT03	NRER Misc. Process Equip. Replacement	69,564	\$239,995.80	\$3.45	-	-	383,413	6	20	Misc
2003	HEAT04	NREC Heat Recovery	7,950	\$8,824.50	\$1.11	-	-	9,540	1	20	Misc
2003	HEAT05	NREC Engine Rebuilds	763	\$13,756.89	\$18.03	-	-	3,998	5	15	Misc
2003	HEAT06	NREC Equip. Modernization	544,347	\$1,682,032.23	\$3.09	-	-	2,286,257	4	20	Misc
2003	HVAC049	NRER Furnace Replacement	8,280	\$58,291.20	\$7.04	-	-	102,010	12	20	HVAC

**TABLE TA 4.1  
PROGRAM COST ESTIMATES USED FOR COST-EFFECTIVENESS (NEW CONSTRUCTION)  
GAS ONLY**

PROGRAM	Program Incentives (Recorded)		Admin		Shareholder Inc	Other	Total	IMC
	Actual	Committed	Actual	Committed <sup>(1)</sup>				
Res New Construction								
California Energy Star New Homes MF	\$ 55,800	\$ 599,580	\$ 349,938	\$ -	\$ -	\$ -	\$ 1,005,318	\$ 240,600
California Energy Star New Homes SF	\$ 37,200	\$ 399,720	\$ 233,292	\$ -	\$ -	\$ -	\$ 670,212	\$ 453,101
<b>Total Residential</b>	<b>\$ 93,000</b>	<b>\$ 999,300</b>	<b>\$ 583,230</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,675,530</b>	<b>\$ 693,701</b>
Nonresidential New Construction								
Savings by Design Program	\$ 81,356	\$ 1,181,905	\$ 964,549	\$ -	\$ -	\$ -	\$ 2,227,810	\$ 5,985,956
<b>Total Nonresidential</b>	<b>\$ 81,356</b>	<b>\$ 1,181,905</b>	<b>\$ 964,549</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 2,227,810</b>	<b>\$ 5,985,956</b>
Other	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Other</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total New Construction</b>	<b>\$ 174,356</b>	<b>\$ 2,181,205</b>	<b>\$ 1,547,780</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 3,903,341</b>	<b>\$ 6,679,657</b>

(1) Future administrative costs to be funded through released funds from contract cancellations.

**TABLE TA 4.2  
DIRECT AND ALLOCATED ADMINISTRATIVE COSTS (NEW CONSTRUCTION)  
GAS ONLY**

<b>PROGRAM</b>	Administrative Cost Elements				
	Labor (direct)	Non-Labor (direct)	Contract (direct)	Allocated	Total
Res New Construction					
California Energy Star New Homes MF	\$ 180,799	\$ 138,420	\$ -	\$ 30,720	\$ 349,938
California Energy Star New Homes SF	\$ 120,532	\$ 92,280	\$ -	\$ 20,480	\$ 233,292
<b>Total Residential</b>	<b>\$ 301,331</b>	<b>\$ 230,700</b>	<b>\$ -</b>	<b>\$ 51,199</b>	<b>\$ 583,230</b>
Nonresidential New Construction					
Savings by Design Program	\$ 331,886	\$ 564,588	\$ -	\$ 68,075	\$ 964,549
<b>Total NonResidential</b>	<b>\$ 331,886</b>	<b>\$ 564,588</b>	<b>\$ -</b>	<b>\$ 68,075</b>	<b>\$ 964,549</b>
Other	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Other</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total New Construction</b>	<b>\$ 633,217</b>	<b>\$ 795,288</b>	<b>\$ -</b>	<b>\$ 119,275</b>	<b>\$ 1,547,780</b>



Table TA 4.3  
 Market Effects: New Construction Projected Annual Program Energy Reductions  
 Statewide Res New Construction Energy Star Program--Single Family  
 Program Year: 2003

Year	Average Load Impacts Per Unit (Gross)			HVAC			Lighting			Misc		
	kW	kWh	Therms	kW	kWh	Therms	kW	kWh	Therms	kW	kWh	Therms
2003							642	597,983	13,230			
2004							642	597,983	13,230			
2005							642	597,983	13,230			
2006							642	597,983	13,230			
2007							642	597,983	13,230			
2008							642	597,983	13,230			
2009							642	597,983	13,230			
2010							642	597,983	13,230			
2011							642	597,983	13,230			
2012							642	597,983	13,230			
2013							642	597,983	13,230			
2014							642	597,983	13,230			
2015							642	597,983	13,230			
2016							642	597,983	13,230			
2017							642	597,983	13,230			
2018							642	597,983	13,230			
2019							642	597,983	13,230			
2020							642	597,983	13,230			
2021							642	597,983	13,230			
2022							642	597,983	13,230			
SUM (Lifecycle)							642	10,763,685	238,140			

Table TA 4.3  
 Market Effects: New Construction Projected Annual Program Energy Reductions  
 Statewide Res New Construction Energy Star Program--Multifamily  
 Program Year: 2003

Year	Average Load Impacts Per Unit (Gross)			HVAC			Lighting			Misc		
	kW	kWh	Therms	kW	kWh	Therms	kW	kWh	Therms	kW	kWh	Therms
2003										4,192	1,489,632	211,258
2004										4,192	1,489,632	211,258
2005										4,192	1,489,632	211,258
2006										4,192	1,489,632	211,258
2007										4,192	1,489,632	211,258
2008										4,192	1,489,632	211,258
2009										4,192	1,489,632	211,258
2010										4,192	1,489,632	211,258
2011										4,192	1,489,632	211,258
2012										4,192	1,489,632	211,258
2013										4,192	1,489,632	211,258
2014										4,192	1,489,632	211,258
2015										4,192	1,489,632	211,258
2016										4,192	1,489,632	211,258
2017										4,192	1,489,632	211,258
2018										1,426	1,330,254	187,146
2019										1,426	1,330,254	187,146
2020										1,426	1,330,254	187,146
2021												
2022												
SUM (Lifecycle)										4,192	26,335,242	3,730,306

Table TA 4.3  
 Market Effects: New Construction Projected Annual Program Energy Reductions  
 Statewide Nonres New Construction Savings by Design  
 Program Year: 2003

Year	HVAC			Lighting			Misc		
	kW	kWh	Therms	kW	kWh	Therms	kW	kWh	Therms
2003	176	630,061	6,501	275	997,222	-5,478	2,297	14,842,468	102,608
2004	176	630,061	6,501	275	997,222	-5,478	2,297	14,842,468	102,608
2005	176	630,061	6,501	275	997,222	-5,478	2,297	14,842,468	102,608
2006	176	630,061	6,501	275	997,222	-5,478	2,297	14,842,468	102,608
2007	176	630,061	6,501	275	997,222	-5,478	2,297	14,842,468	102,608
2008	176	630,061	6,501	275	997,222	-5,478	2,297	14,842,468	102,608
2009	176	630,061	6,501	275	997,222	-5,478	2,297	14,842,468	102,608
2010	176	630,061	6,501	275	997,222	-5,478	2,297	14,842,468	102,608
2011	176	630,061	6,501	275	997,222	-5,478	2,297	14,842,468	102,608
2012	176	630,061	6,501	275	997,222	-5,478	2,297	14,842,468	102,608
2013	176	630,061	6,501	275	997,222	-5,478	2,297	14,842,468	102,608
2014	176	630,061	6,501	275	997,222	-5,478	2,297	14,842,468	102,608
2015	176	630,061	6,501	275	997,222	-5,478	2,297	14,842,468	102,608
2016	176	630,061	6,501	275	997,222	-5,478	2,297	14,842,468	102,608
2017	176	630,061	6,501	275	997,222	-5,478	2,297	14,842,468	102,608
2018									
2019									
2020									
2021									
2022									
SUM (Lifecycle)	176	9,450,915	97,515	275	14,958,330	-82,170	2,297	222,637,020	1,539,120

Table TA 4.4  
 Measure Detail: New Construction Program Area  
 Statewide Res New Construction Energy Star Program--Single Family  
 Program Year: 2003

Year	Measure Code	Measure Description	Recorded Qty	Total Customer Cost	Average Unit Cost	Total KWH Savings	Average kWh Savings	Total Therm Savings	Average Therm Savings	Measure Life	Measure End Use
2003	HOME07	Single Family Inland, 15%>Title 24	675	\$453,100.50	\$671.26	597,983	886	13,230	20	18	Misc

Table TA 4.4  
 Measure Detail: New Construction Program Area  
 Statewide Res New Construction Energy Star Program--Multifamily  
 Program Year: 2003

Year	Measure Code	Measure Description	Recorded Qty	Total Customer Cost	Average Unit Cost	Total KWH Savings	Average kWh Savings	Total Therm Savings	Average Therm Savings	Measure Life	Measure End Use
2003	HOME09	Multifamily, 15% > Title 24	5,058	\$257,958.00	\$51.00	1,330,254	263	187,146	37	18	Misc
2003	HOME11	Low Rise Apartments	789	(\$17,358.00)	(\$22.00)	159,378	202	24,112	31	15	Misc

Table TA 4.4  
Measure Detail: New Construction Program Area  
Statewide Nonres New Construction Savings by Design  
Program Year: 2003

Year	Measure Code	Measure Description	Recorded Qty	Total Customer Cost	Average Unit Cost	Total KWH Savings	Average kWh Savings	Total Therm Savings	Average Therm Savings	Measure Life	Measure End Use
2003	NC001	Other Systems	17	\$489,471.93	\$28,792.47	11,571,187	680,658	59,687	3,511	15	Misc
2003	NC002	Whole Building - Overall Building Performance	51	\$250,398.36	\$4,909.77	2,521,499	49,441	43,552	854	15	Misc
2003	NC003	Whole Building + Refrigeration	2	\$31,357.57	\$15,678.79	749,782	374,891	(1,033)	(517)	15	Misc
2003	NC018	High Efficiency Lighting	2	\$15,999.99	\$8,000.00	99,999	50,000	(533)	(267)	15	Lighting
2003	NC054	HVAC Air Cooled Package A/C	6	\$11,064.72	\$1,844.12	52,532	8,755	-	-	15	HVAC
2003	NC058	Glass - Low Solar Heat Gain Coefficient by Orientation	3	\$10,407.59	\$3,469.20	42,477	14,159	655	218	15	HVAC
2003	NC059	Lighting - High Efficiency	18	\$136,866.61	\$7,603.70	897,223	49,846	(4,945)	(275)	15	Lighting
2003	NC060	HVAC Motors - Premium Efficiency	3	\$15,748.05	\$5,249.35	67,698	22,566	(17)	(6)	15	HVAC
2003	NC061	HVAC Variable Frequency Drives	5	\$86,282.85	\$17,256.57	385,131	77,026	141	28	15	HVAC
2003	NC062	HVAC - Water-Cooled Electric Chillers	1	\$1,971.41	\$1,971.41	8,471	8,471	-	-	15	HVAC
2003	NC063	HVAC - Air-Cooled Package HP	3	\$5,863.83	\$1,954.61	25,215	8,405	-	-	15	HVAC
2003	NC067	HVAC - Water-Source Heat Pumps	1	\$11,289.60	\$11,289.60	48,537	48,537	(150)	(150)	15	HVAC
2003	NC068	HVAC - Large Boilers (>= 300,000 Btu/hr)	4	\$3,871.09	\$967.77	-	-	5,872	1,468	15	HVAC
2003	NC073	Water Heating - Gas, Medium Storage (75,000 to 155,000 BTUH)	2	\$934.81	\$467.41	-	-	402	201	15	Misc

**TABLE TA 5.1  
PROGRAM COST ESTIMATES USED FOR COST-EFFECTIVENESS (CROSSCUTTING)  
GAS ONLY**

PROGRAM	Program Incentives (Recorded)		Admin		Shareholder Inc	Other	Total	IMC
	Actual	Committed	Actual	Committed <sup>(1)</sup>				
Information								
Codes & Standards Program	\$ -	\$ -	\$ 106,709	\$ -	\$ -	\$ -	\$ 106,709	\$ -
Diverse Markets Outreach Program	\$ -	\$ 56,625	\$1,051,973	\$ -	\$ -	\$ -	\$1,108,598	\$ -
Education and Training Services	\$ -	\$ -	\$1,853,041	\$ -	\$ -	\$ -	\$1,853,041	\$ -
Emerging Technologies Program	\$ -	\$ 206,722	\$ 504,587	\$ -	\$ -	\$ -	\$ 711,309	\$ -
<b>Total Information</b>	<b>\$ -</b>	<b>\$ 263,347</b>	<b>\$3,516,309</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$3,779,656</b>	<b>\$ -</b>
Crosscutting EMS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Crosscutting EEI	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Upstream MT	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Upstream MT</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Crosscutting</b>	<b>\$ -</b>	<b>\$ 263,347</b>	<b>\$3,516,309</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$3,779,656</b>	<b>\$ -</b>

(1) Future administrative costs to be funded through released funds from contract cancellations.

**TABLE TA 5.2  
DIRECT AND ALLOCATED ADMINISTRATIVE COSTS (CROSSCUTTING  
GAS ONLY**

<b>PROGRAM</b>	Administrative Cost Elements				
	Labor (direct)	Non-Labor (direct)	Contract (direct)	Allocated	Total
Information					
Codes & Standards Program	\$ 30,799	\$ 72,649	\$ -	\$ 3,261	\$ 106,709
Diverse Markets Outreach Program	\$ 61,300	\$ 956,797	\$ -	\$ 33,876	\$ 1,051,973
Education and Training Services	\$ 1,121,513	\$ 674,904	\$ -	\$ 56,624	\$ 1,853,041
Emerging Technologies Program	\$ 305,290	\$ 177,561	\$ -	\$ 21,736	\$ 504,587
<b>Total Information</b>	<b>\$ 1,518,902</b>	<b>\$ 1,881,911</b>	<b>\$ -</b>	<b>\$ 115,495</b>	<b>\$ 3,516,309</b>
Crosscutting EMS	\$ -	\$ -	\$ -	\$ -	\$ -
Crosscutting EEI	\$ -	\$ -	\$ -	\$ -	\$ -
Upstream MT					
<b>Total Upstream MT</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Crosscutting</b>	<b>\$ 1,518,902</b>	<b>\$ 1,881,911</b>	<b>\$ -</b>	<b>\$ 115,495</b>	<b>\$ 3,516,309</b>



## **MA & E AND REGULATORY OVERSIGHT**

Not applicable

**TABLE 7.1  
COST OF PERFORMANCE INCENTIVES**

Electric and Gas Combined			
	2003		2004
	Budgeted	Claimed	Budgeted
Residential Program Area	-	-	-
Nonresidential Program Area	-	-	-
New Construction	-	-	-
Crosscutting	-	-	-
General/Other	NA	NA	NA
Total1	-	-	-

Electric Only			
	2,003		2,004
	Budgeted	Claimed	Budgeted
Residential Program Area	-	-	-
Nonresidential Program Area	-	-	-
New Construction	-	-	-
Crosscutting	-	-	-
General/Other	NA	NA	NA
Total	-	-	-

Gas Only			
	2,003		2,004
	Budgeted	Claimed	Budgeted
Residential Program Area	-	-	-
Nonresidential Program Area	-	-	-
New Construction	-	-	-
Crosscutting	-	-	-
General/Other	NA	NA	NA
Total	-	-	-

**TABLE TA 8.1  
SUMMER INITIATIVE PROGRAMS  
PROGRAM EXPENDITURES**

PROGRAM	Program Incentives		Admin		Other	Total
	Actual	Committed	Actual	Committed		
Hard to Reach	\$ -	\$ -	\$ -	\$ -		\$ -
<b>Total</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

**TABLE TA 8.2**  
**Summer Initiative Programs**  
**DIRECT AND ALLOCATED ADMINISTRATIVE COSTS**

<b>PROGRAM</b>	Administrative Cost Elements				
	Labor (direct)	Non-Labor (direct)	Contract (direct)	Allocated	Total
Hard to Reach	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Totals Summer Initiatives</b>	\$ -	\$ -	\$ -	\$ -	\$ -