

SDG&E & SOCALGAS 2009 BCAP APPLICATION
WORKPAPERS OF ALLISON SMITH
SOCALGAS LONG RUN MARGINAL COST STUDY
and
CORE BROKERAGE FEE STUDY

10/06/2008 errata

study updated with 2007 FERC Accounting Data

SoCalGas Long Run Marginal Cost Model

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SoCalGas Long Run Marginal Cost Model

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file & tab name

Cost Alloc
SCG LRM

Alloc Factors
Base Margin Totals
CS&I

previously data points in Cost Alloc tab
previously part of SCG LRM tab

Customer_Cost_LRM!

Summary

Number of Customers

Residential Segmentation', 'G10 Segmentation', 'G30 Segmentation'

Escalation Factors', 'A&G-Payrol, GP Loading Factors'

Investment Meters, REGs', 'Investment Service Lines'

Big Gems

Exclusive Use Facilities

O&M Customer Services', 'O&M Customer Accounts', 'O&M Meters, Regulators, MSAs',

'O&M Service Lines'

M&S Add-on

Meter, Regs Replacement' and 'EU Replace factors'

Out_MP_LRM

Out_HP_LRM

based on tabs Out_Investment_History, Out_Investment_Forecast,

Out_Peak_month_Demand, Out_Peak_Day_Demand

Out_O&M_Etc', 'In_general', In_O&M_Etc'

Out_MP_Regression

Out_HP_Regression

trans MC

input data

file & tab name

storage MC
input data
functional

Net O&M
Summary
marginal analysis
Marginal - Nonmarginal
Recorded Costs
Loading Factor-Comparison
RECC

*#3 O&M Expenses tab eliminated. see Net O&M tab

Annual Costs by Function
Allocation of Investment
Annual Cost Factor

2008 RECC
Escalation Factors
EC data

2009 SOCALGAS BCAP COST ALLOCATION ANALYSIS

Base Margin Allocation

MARGINAL COST COMPONENTS	CORE						Total Core
	Resid	COM/IND				SDG&E	
		G10	NGV	NR A/C	Gas Eng	Core Storage	
\$k	\$k		\$k	\$k		\$k	
CUSTOMER RELATED							
Number of Customers	5,455,350	215,286	273	16	845		5,671,770
Per Unit LRM, \$/Cust/Year	155.29	586.26	5,580.18	2,978.59	5,316.64		\$172.68
	\$847,142	\$126,214	\$1,523	\$47	\$4,493		\$979,420
Customer Service & Information	\$19,565	\$13,315	\$666	\$0	\$6		\$33,552
LRMC Customer Revenues	\$866,708	\$139,529	\$2,190	\$47	\$4,499		\$1,012,972
COMMON DISTRIBUTION							
MPD Peak Day Demand (mmcf)	2,557	543	3	0.03	1.63		3,104
Per Unit LRM, \$/mmcf	\$135.6649	\$135.66	\$135.66	\$135.66	\$135.66		\$135.66
MPD Distribution Revenues	\$346,839	\$73,725	\$367	\$4	\$222		\$421,157
HPD Peak Month Demand (mmcf)	41,424	11,283	674	7	81		53,470
Per Unit LRM, \$/mmcf	\$1.7609	\$1.7609	\$1.7609	\$1.7609	\$1.7609		\$1.7609
HPD Distribution Revenues	\$72,945	\$19,869	\$1,187	\$13	\$142		\$94,157
Total Common Distribution Revenues	\$419,785	\$93,594	\$1,554	\$17	\$364		\$515,313
COMMON TRANSMISSION							
Local Transmisson							
LT CY Peak Month throughput (Mdth)	41,427	11,381	981	7	85		53,881
Per Unit LRM, \$/dth	\$1.8098	\$1.81	\$1.81	\$1.81	\$1.81		\$1.81
Local Transmission Revenues	\$74,976	\$20,598	\$1,776	\$13	\$153		\$97,515
Backbone Transmission							
BT Cold Year throughput (Mdth)	272,346	101,777	11,723	121	1,808		387,775
Per Unit LRM, \$/dth	\$0.0474	\$0.05	\$0.05	\$0.05	\$0.05		\$0.05
Backbone Transmission Revenues	\$12,915	\$4,826	\$556	\$6	\$86		\$18,388
UNSCALED LRM REVENUES	\$1,374,382	\$258,547	\$6,075	\$83	\$5,101	\$0	\$1,644,189

2009 SOCALGAS BCAP COST ALLOCATION ANALYSIS

Base Margin Allocation

MARGINAL COST COMPONENTS	CORE						
	Resid	COM/IND				SDG&E	Total Core
		G10	NGV	NR A/C	Gas Eng	Core Storage	
	(\$270,688)	(\$50,921)	(\$1,196)	(\$16)	(\$1,005)	\$0	
Scaling Factor	0.8030	0.8030	0.8030	0.8030	0.8030	0.8030	
SCALED LRMC REVENUES	\$1,103,695	\$207,626	\$4,878	\$67	\$4,097	\$0	\$1,320,363
Storage-related Costs							
Seasonal Storage/Noncore Storage Program	\$33,247	\$6,062	\$19	\$1	\$1	\$5,626	\$44,956
Load Balancing	\$1,951	\$762	\$92	\$1	\$14	\$0	\$2,821
	\$35,198	\$6,824	\$111	\$2	\$16	\$5,626	\$47,777
=Subtotal	\$1,138,893	\$214,450	\$4,989	\$68	\$4,112	\$5,626	\$1,368,140
Subtotal w/o EOR, SDGE Core Sto or USP	\$1,138,893	\$214,450	\$4,989	\$68	\$4,112		
%Marginal Cost w/o wholesale, intl	76.7%	14.4%	0.3%	0.0%	0.3%		
+ Uncollectibles	\$4,107	\$773	\$18	\$0	\$15		\$4,913
+NGV Compression Adder			\$1,278				\$1,278
BASE MARGIN (\$K)	\$1,143,000	\$215,223	\$6,285	\$68	\$4,127	\$5,626	\$1,374,330
Average Year Throughput, MDth	248,399	97,052	11,723	121	1,808		359,103
Average Rate, c/therm	46.01	22.18	4.27	5.65	22.83		38.27
			excl compression adder				

2009 SOCALGAS BCAP COST ALLOCATION ANALYSIS

Base Margin Allocation

MARGINAL COST COMPONENTS	CORE						Total Core
	Resid	COM/IND				SDG&E	
	G10	NGV	NR A/C	Gas Eng	Core Storage		
Storage							
Inventory							
Reservations (mmcf)	51,951	9,349	0	0	0	8,700	70,000
Per Unit LRM Cost (\$/mcf)	\$0.581	\$0.581	\$0.581	\$0.581	\$0.581	\$0.581	\$0.581
Marginal Inventory Revenues	\$30,181	\$5,431	\$0	\$0	\$0	\$5,054	\$40,667
Injection Capacity							
Reservations (mmcf)	243	44	0	0	0	41	327
Per Unit LRM Cost (\$/mcf)	\$31.165	\$31.165	\$31.165	\$31.165	\$31.165	\$31.165	\$31.165
Marginal Injection Capacity Revenues	\$7,566	\$1,362	\$0	\$0	\$0	\$1,267	\$10,194
Withdrawal Capacity							
Reservations (mmcf)	1,611	317	7	0	0	290	2,225
Per Unit LRM Cost (\$/mcf)	\$3.822	\$3.822	\$3.822	\$3.822	\$3.822	\$3.822	\$3.822
Marginal Withdrawal Capacity Revs	\$6,156	\$1,212	\$25	\$1	\$2	\$1,108	\$8,504
Total Seasonal Storage Revenues	\$43,903	\$8,005	\$25	\$1	\$2	\$7,430	\$59,365
Marginal Load Balancing Revenues	\$2,577	\$1,007	\$122	\$1	\$19		\$3,725
TOTAL STORAGE-RELATED COSTS	\$46,480	\$9,011	\$147	\$2	\$21	\$7,430	\$63,090
Storage Scaling							
Scaled Storage-related Costs	\$35,198	\$6,824	\$111	\$2	\$16	\$5,626	\$47,777

2009 SOCALGAS BCAP COST ALLOCA
Base Margin Allocation

MARGINAL COST COMPONENTS	NONCORE RETAIL				
	C&I G30	Small EG	Large EG	EOR G40	Total NC Retail
	\$k		\$k	\$k	\$k
CUSTOMER RELATED					
Number of Customers	705	150	69	32	957
Per Unit LRM, \$/Cust/Year	22,608	18,313	55,758	37,621	\$24,844
	\$15,949	\$2,747	\$3,874	\$1,206	\$23,775
Customer Service & Information	\$839	\$819	\$82	\$114	\$1,853
LRMC Customer Revenues	\$16,787	\$3,565	\$3,955	\$1,320	\$25,629
COMMON DISTRIBUTION					
MPD Peak Day Demand (mmcf)	118	7	5	0.20	130
Per Unit LRM, \$/mmcf	\$135.66	\$135.66	\$135.66	\$135.66	\$135.66
MPD Distribution Revenues	\$15,974	\$933	\$690	\$27	\$17,623
HPD Peak Month Demand (mmcf)	8,790	450	4,584	687	14,512
Per Unit LRM, \$/mmcf	\$1.7609	\$1.7609	\$1.7609	\$1.7609	\$1.7609
HPD Distribution Revenues	\$15,479	\$792	\$8,072	\$1,210	\$25,554
Total Common Distribution Revenues	\$31,453	\$1,725	\$8,762	\$1,237	\$43,177
COMMON TRANSMISSION					
Local Transmisson					
LT CY Peak Month throughput (Mdt)	12,844	593	20,275	1,239	34,950
Per Unit LRM, \$/dth	\$1.81	\$1.81	\$1.81	\$1.81	\$1.81
Local Transmission Revenues	\$23,245	\$1,072	\$36,694	\$2,242	\$63,254
Backbone Transmission					
BT Cold Year throughput (Mdt)	144,473	7,620	275,076	15,619	442,788
Per Unit LRM, \$/dth	\$0.05	\$0.05	\$0.05	\$0.05	\$0.05
Backbone Transmission Revenues	\$6,851	\$361	\$13,044	\$741	\$20,997
UNSCALED LRM REVENUES	\$78,336	\$6,724	\$62,456	\$5,540	\$153,056

2009 SOCALGAS BCAP COST ALLOCATION
Base Margin Allocation

MARGINAL COST COMPONENTS	NONCORE RETAIL				
	C&I G30	Small EG	Large EG	EOR G40	Total NC Retail
	(\$15,428)	(\$1,324)	(\$12,301)	(\$1,091)	
Scaling Factor	0.8030	0.8030	0.8030	0.8030	
SCALED LRMC REVENUES	\$62,908	\$5,400	\$50,155	\$4,449	\$122,911
Storage-related Costs					
Seasonal Storage/Noncore Storage Program	\$0	\$0	\$0	\$0	\$0
Load Balancing	\$1,131	\$60	\$2,161	\$123	\$3,475
	\$1,131	\$60	\$2,161	\$123	\$3,475
=Subtotal	\$64,039	\$5,460	\$52,316	\$4,572	\$126,386
Subtotal w/o EOR, SDGE Core Sto or USP	\$64,039	\$5,460	\$52,316		
%Marginal Cost w/o wholesale, intl	4.3%	0.4%	3.5%		
+ Uncollectibles	\$231	\$20	\$189		\$439
+NGV Compression Adder					
BASE MARGIN (\$K)	\$64,270	\$5,479	\$52,505	\$4,572	\$126,825
Average Year Throughput, MDth	144,016	7,620	275,076	15,619	442,331
Average Rate, c/therm	4.46	7.19	1.91	2.93	2.87

2009 SOCALGAS BCAP COST ALLOCATION
Base Margin Allocation

MARGINAL COST COMPONENTS	NONCORE RETAIL				
	C&I G30	Small EG	Large EG	EOR G40	Total NC Retail

Storage

Inventory

Reservations (mmcf)

Per Unit LRMC Cost (\$/mcf)

Marginal Inventory Revenues

Injection Capacity

Reservations (mmcf)

Per Unit LRMC Cost (\$/mcf)

Marginal Injection Capacity Revenues

Withdrawal Capacity

Reservations (mmcf)

Per Unit LRMC Cost (\$/mcf)

Marginal Withdrawal Capacity Revs

Total Seasonal Storage Revenues					
Marginal Load Balancing Revenues	\$1,494	\$79	\$2,853	\$162	\$4,588
TOTAL STORAGE-RELATED COSTS	\$1,494	\$79	\$2,853	\$162	\$4,588
Storage Scaling					
Scaled Storage-related Costs	\$1,131	\$60	\$2,161	\$123	\$3,475

2009 SOCALGAS BCAP COST ALLOCA'
Base Margin Allocation

MARGINAL COST COMPONENTS	NONCORE WHOLESALE					NCORE INT'L
	Long Beach	SDG&E	Southwest Gas	Vernon	Total NC Wholesale	Mexicali DGN
	\$k	\$k	\$k	\$k	\$k	\$k
CUSTOMER RELATED						
Number of Customers	1	1	1	1	4	1
Per Unit LRM, \$/Cust/Year	63,108	56,059	83,904	36,737	\$59,952	24,004
	\$63	\$56	\$84	\$37	\$240	\$24
Customer Service & Information	\$229	\$229	\$229	\$229	\$915	\$114
LRMC Customer Revenues	\$292	\$285	\$313	\$266	\$1,155	\$138
COMMON DISTRIBUTION						
MPD Peak Day Demand (mmcf)	0	0	0	0	0	0
Per Unit LRM, \$/mmcf	\$135.66	\$135.66	\$135.66	\$135.66	\$135.66	\$135.66
MPD Distribution Revenues	\$0	\$0	\$0	\$0	\$0	\$0
HPD Peak Month Demand (mmcf)	0	0	0	0	0	0
Per Unit LRM, \$/mmcf	\$1.7609	\$1.7609	\$1.7609	\$1.7609	\$1.7609	\$1.7609
HPD Distribution Revenues	\$0	\$0	\$0	\$0	\$0	\$0
Total Common Distribution Revenues	\$0	\$0	\$0	\$0	\$0	\$0
COMMON TRANSMISSION						
Local Transmisson						
LT CY Peak Month throughput (Mdth)	1,360	14,133	973	969	17,436	460
Per Unit LRM, \$/dth	\$1.81	\$1.81	\$1.81	\$1.81	\$1.81	\$1.81
Local Transmission Revenues	\$2,462	\$25,579	\$1,761	\$1,755	\$31,556	\$832
Backbone Transmission						
BT Cold Year throughput (Mdth)	12,364	128,377	8,380	11,613	160,734	5,399
Per Unit LRM, \$/dth	\$0.05	\$0.05	\$0.05	\$0.05	\$0.05	\$0.05
Backbone Transmission Revenues	\$586	\$6,088	\$397	\$551	\$7,622	\$256
UNSCALED LRM REVENUES	\$3,340	\$31,951	\$2,472	\$2,571	\$40,333	\$1,227

2009 SOCALGAS BCAP COST ALLOCA'
Base Margin Allocation

MARGINAL COST COMPONENTS	NONCORE WHOLESALE					NCORE INT'L
	Long Beach	SDG&E	Southwest Gas	Vernon	Total NC Wholesale	Mexicali DGN
	(\$658)	(\$6,293)	(\$487)	(\$506)		(\$242)
Scaling Factor	0.8030	0.8030	0.8030	0.8030		0.8030
SCALED LRMC REVENUES	\$2,682	\$25,658	\$1,985	\$2,064	\$32,389	\$985
Storage-related Costs						
Seasonal Storage/Noncore Storage Program	\$0	\$0	\$0	\$0	\$0	\$0
Load Balancing	\$92	\$966	\$64	\$91	\$1,214	\$42
	\$92	\$966	\$64	\$91	\$1,214	\$42
=Subtotal	\$2,774	\$26,625	\$2,049	\$2,156	\$33,603	\$1,028
Subtotal w/o EOR, SDGE Core Sto or USP						
%Marginal Cost w/o wholesale, intl	0.0%	0.0%	0.0%	0.0%		0.0%
+ Uncollectibles	\$0	\$0	\$0	\$0		\$0
+NGV Compression Adder						
BASE MARGIN (\$K)	\$2,774	\$26,625	\$2,049	\$2,156	\$33,603	\$1,028
Average Year Throughput, MDth	11,709	123,029	8,174	11,613	154,525	5,399
Average Rate, c/therm	2.37	2.16	2.51	1.86	2.17	1.90

2009 SOCALGAS BCAP COST ALLOCA'
Base Margin Allocation

MARGINAL COST COMPONENTS	NONCORE WHOLESale					NCORE INT'L
	Long Beach	SDG&E	Southwest Gas	Vernon	Total NC Wholesale	Mexicali DGN
Storage						
Inventory						
Reservations (mmcf)						
Per Unit LRMC Cost (\$/mcf)						
Marginal Inventory Revenues						
Injection Capacity						
Reservations (mmcf)						
Per Unit LRMC Cost (\$/mcf)						
Marginal Injection Capacity Revenues						
Withdrawal Capacity						
Reservations (mmcf)						
Per Unit LRMC Cost (\$/mcf)						
Marginal Withdrawal Capacity Revs						
Total Seasonal Storage Revenues						
Marginal Load Balancing Revenues	\$121	\$1,276	\$85	\$120	\$1,603	\$56
TOTAL STORAGE-RELATED COSTS	\$121	\$1,276	\$85	\$120	\$1,603	\$56
Storage Scaling						
Scaled Storage-related Costs	\$92	\$966	\$64	\$91	\$1,214	\$42

2009 SOCALGAS BCAP COST ALLOCA'
Base Margin Allocation

MARGINAL COST COMPONENTS	Noncore Unbundled Storage	NONCORE TOTAL	SYSTEM TOTALS
		\$k	\$k
<u>CUSTOMER RELATED</u>			
Number of Customers		962	5,672,732
Per Unit LRM, \$/Cust/Year		\$28,715	\$183.44
		\$24,039	\$1,003,459
Customer Service & Information	\$701	\$3,584	\$37,137
LRMC Customer Revenues	\$701	\$27,623	\$1,040,595
<u>COMMON DISTRIBUTION</u>			
MPD Peak Day Demand (mmcf)		130	3,234
Per Unit LRM, \$/mmcf		\$135.66	\$135.66
MPD Distribution Revenues		\$17,623	\$438,780
HPD Peak Month Demand (mmcf)		14,512	67,982
Per Unit LRM, \$/mmcf		\$1.7609	\$1.7609
HPD Distribution Revenues		\$25,554	\$119,711
Total Common Distribution Revenues		\$43,177	\$558,490
<u>COMMON TRANSMISSION</u>			
<u>Local Transmisson</u>			
LT CY Peak Month throughput (Mdh)		52,846	106,726
Per Unit LRM, \$/dth		\$1.81	\$1.81
Local Transmission Revenues		\$95,642	\$193,158
<u>Backbone Transmission</u>			
BT Cold Year throughput (Mdh)		608,921	996,696
Per Unit LRM, \$/dth		\$0.05	\$0.05
Backbone Transmission Revenues		\$28,875	\$47,263
UNSCALED LRM REVENUES	\$701	\$195,317	\$1,839,507

2009 SOCALGAS BCAP COST ALLOCA'
Base Margin Allocation

MARGINAL COST COMPONENTS	Noncore Unbundled Storage	NONCORE TOTAL	SYSTEM TOTALS
		Gas Margin for Scaling\$=	\$1,477,212
Scaling Factor	0.8030	EPMC Scaling=	0.8030
SCALED LRMC REVENUES	\$563	\$156,849	\$1,477,212
Storage-related Costs			
Seasonal Storage/Noncore Storage Program	\$34,477	\$34,477	\$79,433
Load Balancing	\$0	\$4,731	\$7,552
	\$34,477	\$39,208	\$86,985
=Subtotal	\$35,040	\$196,057	\$1,564,197
Subtotal w/o EOR, SDGE Core Sto or USP			\$1,484,327
%Marginal Cost w/o wholesale, intl			100.0%
+ Uncollectibles		\$439	\$5,352
		Uncollectibles\$=	\$5,352
+NGV Compression Adder			\$1,278
BASE MARGIN (\$K)	\$35,040	\$196,497	\$1,570,827
			\$1,570,827
Average Year Throughput, MDth		602,255	961,358
Average Rate, c/therm		3.26	16.34

2009 SOCALGAS BCAP COST ALLOCA'
Base Margin Allocation

MARGINAL COST COMPONENTS	Noncore Unbundled Storage	NONCORE TOTAL	SYSTEM TOTALS
<u>Storage</u>			
<u>Inventory</u>			
Reservations (mmcf)	56,900		
Per Unit LRMC Cost (\$/mcf)	\$0.581		
Marginal Inventory Revenues	\$33,057		
<u>Injection Capacity</u>			
Reservations (mmcf)	323		
Per Unit LRMC Cost (\$/mcf)	\$31.165		
Marginal Injection Capacity Revenues	\$10,063		
<u>Withdrawal Capacity</u>			
Reservations (mmcf)	630		
Per Unit LRMC Cost (\$/mcf)	\$3.822		
Marginal Withdrawal Capacity Revs	\$2,408		
Total Seasonal Storage Revenues	\$45,527	\$45,527	\$104,892
Marginal Load Balancing Revenues		\$6,247	\$9,972
TOTAL STORAGE-RELATED COSTS	\$45,527	\$51,775	\$114,865
Storage Scaling			75.7%
Scaled Storage-related Costs	\$34,477	\$39,208	\$86,985

Results of Cost Allocation Model \$1,000,000's	Resid	Core C&I	NR A/C	Gas Eng	NGV	Total Core	NonCore C&I	EG Tier 1	EG Tier 2	EOR
Scaled LRMC										
Customer Related Costs	\$680.296	\$101.356	\$0.037	\$3.608	\$1.223	\$786.521	\$12.808	\$2.206	\$3.111	\$0.968
Medium Pressure Distribution Costs	\$278.528	\$59.205	\$0.003	\$0.178	\$0.295	\$338.209	\$12.828	\$0.749	\$0.554	\$0.022
High Pressure Distribution Costs	\$58.579	\$15.956	\$0.010	\$0.114	\$0.953	\$75.612	\$12.431	\$0.636	\$6.483	\$0.971
Backbone Transmission Costs	\$10.371	\$3.876	\$0.005	\$0.069	\$0.446	\$14.767	\$5.502	\$0.290	\$10.475	\$0.595
Local Transmission Costs	\$60.209	\$16.541	\$0.011	\$0.123	\$1.426	\$78.310	\$18.667	\$0.861	\$29.467	\$1.801
Storage - Seasonal	\$33.247	\$6.062	\$0.001	\$0.001	\$0.019	\$39.330	\$0.000	\$0.000	\$0.000	\$0.000
Storage - Load Balancing	\$1.951	\$0.762	\$0.001	\$0.014	\$0.092	\$2.821	\$1.131	\$0.060	\$2.161	\$0.123
Storage - TBS	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000
Non-DSM Marketing Related Costs	\$15.712	\$10.692	\$0.000	\$0.005	\$0.535	\$26.944	\$0.673	\$0.657	\$0.066	\$0.092
Uncollectibles	\$4.107	\$0.773	\$0.000	\$0.015	\$0.018	\$4.913	\$0.231	\$0.020	\$0.189	\$0.000
NGV compression adder	\$0.000	\$0.000	\$0.000	\$0.000	\$1.278	\$1.278	\$0.000	\$0.000	\$0.000	\$0.000
Total Margin Allocation w/o SI, w/FAR revenue, FF&	\$1,143.000	\$215.223	\$0.068	\$4.127	\$6.285	\$1,368.704	\$64.270	\$5.479	\$52.505	\$4.572

Results of LRMC Model \$1,000,000's	Resid	Core C&I	NR A/C	Gas Eng	NGV	Total Core	NonCore C&I	EG Tier 1	EG Tier 2	EOR
Unscaled LRMC										
Customer Related Costs (excl CS&I costs)	\$847.1	\$126.2	\$0.0	\$4.5	\$1.5	\$979.4	\$15.9	\$2.7	\$3.9	\$1.2
Medium Pressure Distribution Costs	\$346.8	\$73.7	\$0.0	\$0.2	\$0.4	\$421.2	\$16.0	\$0.9	\$0.7	\$0.0
High Pressure Distribution Costs	\$72.9	\$19.9	\$0.0	\$0.1	\$1.2	\$94.2	\$15.5	\$0.8	\$8.1	\$1.2
Backbone Transmission Costs	\$12.9	\$4.8	\$0.0	\$0.1	\$0.6	\$18.4	\$6.9	\$0.4	\$13.0	\$0.7
Local Transmission Costs	\$75.0	\$20.6	\$0.0	\$0.2	\$1.8	\$97.5	\$23.2	\$1.1	\$36.7	\$2.2
Non-DSM Marketing Related Costs	\$19.6	\$13.3	\$0.0	\$0.0	\$0.7	\$33.6	\$0.8	\$0.8	\$0.1	\$0.1
Unscaled LRMC Revenues	\$1,374.4	\$258.5	\$0.1	\$5.1	\$6.1	\$1,644.2	\$78.3	\$6.7	\$62.5	\$5.5
LRMC Scaling Factor	80.3%	80.3%	80.3%	80.3%	80.3%	80.3%	80.3%	80.3%	80.3%	80.3%
Scaled LRMC	\$1,103.7	\$207.6	\$0.1	\$4.1	\$4.9	\$1,320.4	\$62.9	\$5.4	\$50.2	\$4.4
Uncollectibles (Direct Alloc -- Do not Scale)	\$4.1	\$0.8	\$0.0	\$0.0	\$0.0	\$4.9	\$0.2	\$0.0	\$0.2	\$0.0
Storage - Seasonal (Do not Scale)	\$33.2	\$6.1	\$0.0	\$0.0	\$0.0	\$39.3				
Storage - Load Balancing (Do not Scale)	\$2.0	\$0.8	\$0.0	\$0.0	\$0.1	\$2.8	\$1.1	\$0.1	\$2.2	\$0.1
Storage - TBS (Do not Scale)										
NGV compression adder (Do not Scale)					\$1.3	\$1.3				
Total Margin Allocation w/o SI or Fuel Use	\$1,143.000	\$215.223	\$0.068	\$4.127	\$6.285	\$1,368.704	\$64.270	\$5.479	\$52.505	\$4.572
	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000

Note: non-DSM Customer-related costs include CS&I costs
SDG&E Core Storage costs included in SDG&E Wholesale column

sults of Cost Allocation Model \$1,000,000's	Total Retail					Total Whole				Total NonCore	Total System
	NonCore	Long Beach	SDG&E	Sout West Gas	Vernon	sale	DGN	UBS			
Scaled LRMC											
Customer Related Costs	\$19.093	\$0.051	\$0.045	\$0.067	\$0.030	\$0.193	\$0.019	\$0.000	\$19.305	\$805.825	
Medium Pressure Distribution Costs	\$14.152	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$14.152	\$352.361	
High Pressure Distribution Costs	\$20.521	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$20.521	\$96.133	
Backbone Transmission Costs	\$16.862	\$0.471	\$4.889	\$0.319	\$0.442	\$6.121	\$0.206	\$0.000	\$23.188	\$37.955	
Local Transmission Costs	\$50.796	\$1.977	\$20.541	\$1.415	\$1.409	\$25.341	\$0.668	\$0.000	\$76.805	\$155.115	
Storage - Seasonal	\$0.000	\$0.000	\$5.626	\$0.000	\$0.000	\$5.626	\$0.000	\$0.000	\$5.626	\$44.956	
Storage - Load Balancing	\$3.475	\$0.092	\$0.966	\$0.064	\$0.091	\$1.214	\$0.042	\$0.000	\$4.731	\$7.552	
Storage - TBS	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$34.477	\$34.477	\$34.477	
Non-DSM Marketing Related Costs	\$1.488	\$0.184	\$0.184	\$0.184	\$0.184	\$0.735	\$0.092	\$0.563	\$2.878	\$29.823	
Uncollectibles	\$0.439	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.439	\$5.352	
NGV compression adder	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$1.278	
Total Margin Allocation w/o SI, w/FAR revenue, FF&	\$126.825	\$2.774	\$32.251	\$2.049	\$2.156	\$39.230	\$1.028	\$35.040	\$202.123	\$1,570.827	

sults of LRMC Model \$1,000,000's	Total Retail					Total Whole				Total NonCore	Total System
	NonCore	Long Beach	SDG&E	Sout West Gas	Vernon	sale	DGN	UBS			
Jnscaled LRMC											
Customer Related Costs (excl CS&I costs)	\$23.8	\$0.1	\$0.1	\$0.1	\$0.0	\$0.2	\$0.0	\$0.0	\$24.0	\$1,003.5	
Medium Pressure Distribution Costs	\$17.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$17.6	\$438.8	
High Pressure Distribution Costs	\$25.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$25.6	\$119.7	
Backbone Transmission Costs	\$21.0	\$0.6	\$6.1	\$0.4	\$0.6	\$7.6	\$0.3	\$0.0	\$28.9	\$47.3	
Local Transmission Costs	\$63.3	\$2.5	\$25.6	\$1.8	\$1.8	\$31.6	\$0.8	\$0.0	\$95.6	\$193.2	
Non-DSM Marketing Related Costs	\$1.9	\$0.2	\$0.2	\$0.2	\$0.2	\$0.9	\$0.1	\$0.7	\$3.6	\$37.1	
Unscaled LRMC Revenues	\$153.1	\$3.3	\$32.0	\$2.5	\$2.6	\$40.3	\$1.2	\$0.7	\$195.3	\$1,839.5	
LRMC Scaling Factor	80.3%	80.3%	80.3%	80.3%	80.3%	80.3%	80.3%	80.3%	80.3%	80.3%	
Scaled LRMC	\$122.9	\$2.7	\$25.7	\$2.0	\$2.1	\$32.4	\$1.0	\$0.6	\$156.8	\$1,477.2	
Uncollectibles (Direct Alloc -- Do not Scale)	\$0.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.4	\$5.4	
Storage - Seasonal (Do not Scale)			\$5.6			\$5.6	\$0.000		\$5.6	\$45.0	
Storage - Load Balancing (Do not Scale)	\$3.5	\$0.1	\$1.0	\$0.1	\$0.1	\$1.2	\$0.0424	\$0.0	\$4.7	\$7.6	
Storage - TBS (Do not Scale)								\$34.5	\$34.5	\$34.5	
NGV compression adder (Do not Scale)										\$1.3	
Total Margin Allocation w/o SI or Fuel Use	\$126.825	\$2.774	\$32.251	\$2.049	\$2.156	\$39.230	\$1.028	\$35.040	\$202.123	\$1,570.827	
	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	

ie: non-DSM Customer-related costs include CS&I costs
SDG&E Core Storage costs included in SDG&E Whol

Noncore Transmission/Distribution Split by Class

sults of Cost Allocation Model \$1,000,000's	NCCI-Total	NCCI-D	NCCI-T	EOR-Total	EOR-D	EOR-T	Total EG	EG Tier 1	EG Tier 1		EG Tier 2	EG Tier 2		Total EG
									Dist	Trans		Dist	Trans	
Scaled LRM														
Customer Related Costs	\$12.808	\$12.172	\$0.636	\$0.968	\$0.425	\$0.544	\$5.317	\$2.206	\$0.655	\$1.551	\$3.111	\$0.404	\$2.706	\$5.317
Medium Pressure Distribution Costs	\$12.828	\$12.828	\$0.000	\$0.022	\$0.022	\$0.000	\$1.303	\$0.749	\$0.749	\$0.000	\$0.554	\$0.554	\$0.000	\$1.303
High Pressure Distribution Costs	\$12.431	\$12.431	\$0.000	\$0.971	\$0.971	\$0.000	\$7.119	\$0.636	\$0.636	\$0.000	\$6.483	\$6.483	\$0.000	\$7.119
Backbone Transmission Costs	\$5.502	\$3.758	\$1.744	\$0.595	\$0.308	\$0.287	\$10.765	\$0.290	\$0.230	\$0.060	\$10.475	\$2.101	\$8.374	\$10.765
Local Transmission Costs	\$18.667	\$12.776	\$5.891	\$1.801	\$0.998	\$0.802	\$30.328	\$0.861	\$0.654	\$0.207	\$29.467	\$6.663	\$22.805	\$30.328
Storage - Seasonal	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000
Storage - Load Balancing	\$1.131	\$0.772	\$0.360	\$0.123	\$0.064	\$0.059	\$2.221	\$0.060	\$0.047	\$0.012	\$2.161	\$0.433	\$1.727	\$2.221
Storage - TBS	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000
Non-DSM Marketing Related Costs	\$0.673	\$0.640	\$0.033	\$0.092	\$0.040	\$0.052	\$0.723	\$0.657	\$0.587	\$0.070	\$0.066	\$0.032	\$0.034	\$0.723
Uncollectibles	\$0.231	\$0.158	\$0.073	\$0.000	\$0.000	\$0.000	\$0.208	\$0.020	\$0.016	\$0.004	\$0.189	\$0.038	\$0.151	\$0.208
NGV compression adder	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000
Total Margin Allocation w/o SI, w/FAR revenue, FF&	\$64.270	\$55.533	\$8.737	\$4.572	\$2.828	\$1.744	\$57.984	\$5.479	\$3.575	\$1.905	\$52.505	\$16.708	\$35.796	\$57.984
	\$64.270			\$4.572				\$5.479			\$52.505			
	\$0.000			\$0.000				\$0.000			\$0.000			

sults of LRM Model \$1,000,000's

Jnscaled LRM	
Customer Related Costs (excl CS&I costs)	\$1,003.5
Medium Pressure Distribution Costs	\$438.8
High Pressure Distribution Costs	\$119.7
Backbone Transmission Costs	\$47.3
Local Transmission Costs	\$193.2
Non-DSM Marketing Related Costs	\$37.1
Unscaled LRM Revenues	\$1,839.5
LRM Scaling Factor	
Scaled LRM	\$1,477.2
Uncollectibles (Direct Alloc -- Do not Scale)	\$5.4
Storage - Seasonal (Do not Scale)	\$45.0
Storage - Load Balancing (Do not Scale)	\$7.6
Storage - TBS (Do not Scale)	\$34.5
NGV compression adder (Do not Scale)	
Total Margin Allocation w/o SI or Fuel Use	\$1,570.827

ie: non-DSM Customer-related costs include CS&I costs
SDG&E Core Storage costs included in SDG&E Whol

sults of Cost Allocation Model \$1,000,000's	T&D Split			R-Tr	EOR-D	EOR-T	Total EG	EG Tier	EG Tier 1	EG Tier 1	EG Tier	EG Tier 2	EG Tier 2	Total EG
	NCC	NCCI-D	NCCI-T					1	Dist	Trans	2	Dist	Trans	
Scaled LRM														
Customer Related Costs		95%	5%		44%	56%		30%		70%		13%		87%
Medium Pressure Distribution Costs		100%	0%		100%	0%		100%		0%		100%		0%
High Pressure Distribution Costs		100%	0%		100%	0%		100%		0%		100%		0%
Backbone Transmission Costs		68%	32%		52%	48%		79%		21%		20%		80%
Local Transmission Costs		68%	32%		55%	45%		76%		24%		23%		77%
Storage - Seasonal														
Storage - Load Balancing		68%	32%		52%	48%		79%		21%		20%		80%
Storage - TBS														
Non-DSM Marketing Related Costs		95%	5%		44%	56%		89%		11%		49%		51%
Uncollectibles		68%	32%		52%	48%		79%		21%		20%		80%
NGV compression adder														
<hr/> Total Margin Allocation w/o SI, w/FAR revenue, FF& <hr/>														

sults of LRM Model \$1,000,000's

Jnscaled LRM

- Customer Related Costs (excl CS&I costs)
- Medium Pressure Distribution Costs
- High Pressure Distribution Costs
- Backbone Transmission Costs
- Local Transmission Costs
- Non-DSM Marketing Related Costs

Unscaled LRM Revenues

LRM Scaling Factor

Scaled LRM

- Uncollectibles (Direct Alloc -- **Do not Scale**)
- Storage - Seasonal (**Do not Scale**)
- Storage - Load Balancing (**Do not Scale**)
- Storage - TBS (**Do not Scale**)
- NGV compression adder (**Do not Scale**)

Total Margin Allocation w/o SI or Fuel Use

ie: non-DSM Customer-related costs include CS&I costs

SDG&E Core Storage costs included in SDG&E Whol

	Residential	Core Non-Res	Total Core	Noncore C&I	EG & EOR	Wholesale & International	Total Noncore	Total System (Excl TBS)	TBS	Total
Southern California Gas Company										
<u>LRMC Study</u>										
Aug 2008 Errata Filing										
<u>Total Margin Allocation no SI</u>										
Average Year Throughput, mmdth	248	111	359	144	298	160	602	961		
Base Margin Revenues, \$million	1,143	231	1,374	64	63	35	161	\$1,536	\$35	1,570.827
Base Margin % allocation	74.4%	15.1%	89.5%	4.2%	4.1%	2.3%	10.5%	100.0%	100.0%	
Class Avg Base Margin Rate, ¢/th	46.0	20.9	38.3	4.5	2.1	2.2	2.7	16.0		
Core/Noncore Split, incl TBS pgm			87.5%				12.5%			
Feb 2008 Original Filing										
<u>Total Margin Allocation no SI</u>										
Average Year Throughput, mmdth	248	111	359	144	298	160	602	961		
Base Margin Revenues, \$million	1,153	232	1,385	60	59	37	156	\$1,541	\$32	1,573.351
Base Margin % allocation	74.8%	15.1%	89.9%	3.9%	3.8%	2.4%	10.1%	100.0%	100.0%	
Class Avg Base Margin Rate, ¢/th	46.4	21.0	38.6	4.2	2.0	2.3	2.6	16.0		
Core/Noncore Split, incl TBS pgm			88.0%				12.0%			
Difference in Margin Allocation	-0.36%	-0.01%	-0.37%	0.30%	0.24%	-0.17%	0.37%	0.00%		
			-0.53%				0.53%			

2009 SOCALGAS BCAP COST ALLOCATION ANALYSIS
Marginal Demand Measures

SoCalGas Allocation	CORE					
	Residential	G-10	NR A/C	Gas Eng	NGV	Core Totals
Final 1/11/08						
Average Year Thrput (Mth)	2,483,989	970,519	1,210	18,080	117,231	3,591,030
Cold Year Throughput (Mth)	2,723,455	1,017,771	1,210	18,080	117,231	3,877,747
Cold-Yr Coincident Peak Month (Mth)	414,267	113,810	73	845	9,813	538,807
x HPD Factor	99.99%	99.14%	100.00%	95.73%	68.68%	99.24%
HPD LRMC Volumes (mmcf)	414,245	112,835	73	809	6,739	534,701
Coincident Peak Day Demand (Mth)	25,671	5,770	2	27	317	31,787
x MPD Factor	99.59%	94.18%	13.49%	59.90%	8.54%	97.66%
MPD LRMC Volumes (mmcf)	25,566	5,434	0	16	27	31,044
Number of Customers (Tcum)	5,455,350	215,286	16	845	273	5,671,770

Updated 10/6/08. Corrected customer count - based on Jan 11, 2006 forecast.

2009 SOCALGAS BCAP COST ALLOCATION ANALYSIS
Marginal Demand Measures

SoCalGas Allocation	Retail Noncore					Wholesale Noncore				
	Industrial	Small EG	Large EG	EOR	Retail NCore	Long Beach	SDG&E	SW Gas	Vernon	WS Totals
Final 1/11/08		<3m2th	>=3m2th							
	1.0302	= BTU Factor, BCAP 2006 actual								
Average Year Thrput (Mth)	1,440,163	76,202	2,750,762	156,187	4,423,313	117,093	1,230,285	81,737	116,135	1,545,250
Cold Year Throughput (Mth)	1,444,730	76,202	2,750,762	156,187	4,427,880	123,645	1,283,768	83,795	116,135	1,607,343
Cold-Yr Coincident Peak Month (Mth)	128,436	5,926	202,748	12,390	349,499	13,601	141,331	9,733	9,694	174,359
x HPD Factor	68.44%	75.93%	22.61%	55.45%	41.52%	0.00%	0.00%	0.00%	0.00%	0.00%
HPD LRMC Volumes (mmcf)	87,904	4,499	45,842	6,870	145,115	0	0	0	0	0
Coincident Peak Day Demand (Mth)	4,336	210	7,928	400	12,873	649	6,537	655	338	8,179
x MPD Factor	27.15%	32.79%	0.64%	0.50%	10.09%	0.00%	0.00%	0.00%	0.00%	0.00%
MPD LRMC Volumes (mmcf)	1,177	69	51	2	1,299	0	0	0	0	0
Number of Customers (Tcum)	705	150	69	32	957	1	1	1	1	4

Updated 10/6/08. Corrected customer count - base

**2009 SOCALGAS BCAP COST ALLOCATION ANALYSIS
Marginal Demand Measures**

SoCalGas Allocation	Int'l		Total	Total
	Mexicali		Noncore	System
Final 1/11/08				
Average Year Thrput (Mth)	53,990		6,022,553	9,613,583
Cold Year Throughput (Mth)	53,990		6,089,213	9,966,960
Cold-Yr Coincident Peak Month (Mth)	4,599		528,457	1,067,264
x HPD Factor	0.00%		0.00%	0.00%
HPD LRMC Volumes (mmcf)	0		145,115	679,816
Coincident Peak Day Demand (Mth)	148		21,201	52,988
x MPD Factor	0.00%		6.13%	61.04%
MPD LRMC Volumes (mmcf)	0		1,299	32,343
Number of Customers (Tcum)	1		962	5,672,732

Updated 10/6/08. Corrected customer count - base

**2009 BCAP SoCalGas LRM
Applicable Base Margin**

	Total Margin	Uncollectibles	
Total Authorized Base Margin, Jan-01 2008 (actual)	\$1,570,827	\$5,352	0.341%
	\$1,570,827	\$5,352	

Calculation of LRM Scaling Margin	
2008 Base Margin	\$1,570,827
Less: UNCOLLECTIBLES	\$5,352
Less: Embedded Storage Cost	\$86,985
Less: Embedded NGV Compressor Costs	\$1,278
LRM Scaling Total	\$1,477,212

Updated: 10/6/08. Base Margin updated for FAR revenues & Aliso Cushion Gas project. EC Storage cost updated.

Apr 08 Base Margin, incl local T	\$1,576,262
diff	\$5,435

Customer Services & Information, excluding Energy Efficiency Programs

FERC Accts 907-910

CS&I Cost

Total Direct O&M		\$23,913	2007\$
A&G	30.48%	\$7,288	
Gen Plan	16.44%	\$3,932	
Total CS&I O&M, 2007\$		<u>\$35,134</u>	
Total CS&I O&M, 2009\$	1.057	<u>\$37,137</u>	

Allocation of CS&I costs

per Embedded Cost study allocation of non-EE CS&I costs

Core	Allocation	2009\$
Residential	52.7%	\$19,565
Small Core C&I G10	35.9%	\$13,315
NGV	1.8%	\$666
Gas Air Conditioning	0.0%	\$0
Gas Engines	0.0%	\$6
Noncore - Retail		
Com/Ind - G30 Total	2.3%	\$839
EG Tier 1	2.2%	\$819
EG Tier 2	0.2%	\$82
EOR - G40	0.3%	\$114
Noncore - Wholesale		
Long Beach - G70	0.6%	\$229
SDG&E - G80	0.6%	\$229
Southwest Gas - G90	0.6%	\$229
Vernon	0.6%	\$229
Noncore - International		
Mexicali (DGN)	0.3%	\$114
Unbundled Storage	1.9%	\$701
Total System	100.0%	\$37,137

MARGINAL COST COMPONENTS

Cust-related marginal unit cost	<u>Resid</u>	<u>G10</u>	<u>NGV</u>	<u>NR A/C</u>	<u>Gas Eng</u>	
Oct 08 Errata	155.29	586.26	5,580.18	2,978.59	5,316.64	
Cust-related marginal unit cost	<u>G30</u>	<u>small EG</u>	<u>large EG</u>	<u>G40</u>	<u>Retail</u>	
Oct 08 Errata	22,608.27	18,312.62	55,758.07	37,620.57		
Cust-related marginal unit cost	<u>Long Beach</u>	<u>SDG&E</u>	<u>Gas</u>	<u>Vernon</u>		<u>DGN</u>
Oct 08 Errata	63,108	56,059	83,904	36,737		24,004

	<u>Oct 08 Errata</u>
Distribution	
MPD marginal unit cost	135.66
HPD marginal unit cost	1.7609
Backbone T marginal unit cost	0.047
Local T marginal unit cost	1.810
Storage Inventory marginal unit cost	0.5810
Storage Injection marginal unit cost	31.1648
Storage Withdrawal marginal unit cost	3.8219

Data for Noncore Service Level Analysis (used by Rate Design)

T&D Split for Noncore Customer Classes		NCCI-Total	NCCI-D	NCCI-T	EOR-Total	EOR-D	EOR-T
Customer Related Costs	embedded cost split		95%	5%		44%	56%
Medium Pressure Distribution Costs	peak day		100%	0%		100%	0%
High Pressure Distribution Costs	HPD peak month		100%	0%		100%	0%
Backbone Transmission Costs	CYT		68%	32%		52%	48%
Local Transmission Costs	trans peak month		68%	32%		55%	45%
Storage - Seasonal	n/a						
Storage - Load Balancing	AYT		68%	32%		52%	48%
Storage - TBS	n/a						
Non-DSM Marketing Related Costs	# customers		95%	5%		44%	56%
Uncollectibles	AYT		68%	32%		52%	48%

Data for Transmission and Distribution Split	G-30		EOR			
	Dist	Trans	Dist	Trans		
Marginal Demand Measures						
MPD Peak Day	1177	1,177	0	2	2	0
HPD Peak Month	87904	87,904	0	6870	6,870	0
CYT	1444730	986,754	457,976	156187	80,880	75,307
Trans Peak Month	128436	87,904	40,531	12390	6,870	5,520
AYT	1440163	982,465	457,697	156187	80,880	75,307
# customers	705	670	35	32	14	18
<i>source: Demand Forecast (H. Emmrich's DF workpapers)</i>						
Customer-related Costs	5.394	5.126	0.268	0.843	0.369	0.473
<i>source: EC study (H. Emmrich's EC workpapers)</i>						

Data for Noncore Service Level Analysis (used by Rate Design)

T&D Split for Noncore Customer Classes		Total EG	EG Tier 1	EG Tier 1	EG Tier 1	EG Tier 2	EG Tier 2	Total EG
				Dist	Trans	EG Tier 2	Dist	
Customer Related Costs	embedded cost split			30%	70%		13%	87%
Medium Pressure Distribution Costs	peak day			100%	0%		100%	0%
High Pressure Distribution Costs	HPD peak month			100%	0%		100%	0%
Backbone Transmission Costs	CYT			79%	21%		20%	80%
Local Transmission Costs	trans peak month			76%	24%		23%	77%
Storage - Seasonal	n/a							
Storage - Load Balancing	AYT			79%	21%		20%	80%
Storage - TBS	n/a							
Non-DSM Marketing Related Costs	# customers			89%	11%		49%	51%
Uncollectibles	AYT			79%	21%		20%	80%

Data for Transmission and Distribution Split	EG (<3MMThms)			EG (>=3MMThms)			
	Total EG	Dist	Trans	Total EG	Dist	Trans	
Marginal Demand Measures							
MPD Peak Day	69	69	0	51	51	0	
HPD Peak Month	4499	4,499	0	45842	45,842	0	
CYT	76202	60,420	15,782	2750762	551,795	2,198,967	
Trans Peak Month	5926	4,499	1,426	202748	45,842	156,906	
AYT	76202	60,420	15,782	2750762	551,795	2,198,967	
# customers	150	134	16	69	34	35	
<i>source: Demand Forecast (H. Emmrich's DF workpapers)</i>							
Customer-related Costs	4.615	1.106	0.329	0.778	3.509	0.456	3.053
<i>source: EC study (H. Emmrich's EC workpapers)</i>							4.615

Proposed 2009 BCAP Marginal Customer-Related Costs

Line	Core										
	Residential					Non-Residential					
	Single Family	Multi Family	Master Meter		Residential Total or Avg.	Very Small	Small	Medium	Large	Very Large	
Small			Large								
1	2006 Number of Customers	3,506,160	1,579,682	121,374	67	5,207,283	86,805	72,315	49,110	2,549	354
	Marginal Investment: \$/Customer										
2	Meter & House Reg	249.14	213.00	2,073.41	21,786.36	280.97	921.27	1,792.85	4,250.60	14,481.90	31,257.00
3	Service Lines	671.64	741.47	1,322.94	25,418.01	708.32	1,727.38	2,511.63	3,399.03	12,254.93	33,813.88
4	Exclusive Use Facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	Total	920.78	954.47	3,396.36	47,204.38	989.30	2,648.65	4,304.48	7,649.63	26,736.83	65,070.89
	Annualized Marginal Investment: \$/Cust.										
6	Meter & House Reg	22.97	19.62	193.18	2,053.28	25.95	85.87	167.34	397.43	1,365.26	2,942.68
7	Service Lines	59.54	65.73	117.28	2,253.29	62.79	153.13	222.65	301.32	1,086.39	2,997.58
8	Exclusive Use Facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	Total	82.51	85.35	310.46	4,306.58	88.74	239.00	390.00	698.76	2,451.65	5,940.27
	O&M: \$/Customer										
10	Customer Services	16.96	19.12	26.10	331.69	17.83	28.90	41.78	131.28	315.58	441.25
11	Customer Accounts	24.58	25.09	20.72	219.32	24.65	29.19	26.03	44.91	158.07	614.54
12	Meter & House Reg	2.38	2.04	19.82	208.23	2.69	3.26	6.35	15.05	51.27	110.66
13	Service Lines	0.01	0.01	0.01	0.04	0.01	0.01	0.02	0.02	0.04	0.05
14	Total Direct O&M	43.93	46.26	66.65	759.29	45.18	61.37	74.18	191.26	524.97	1,166.50
	O&M Loaders: \$/Customer										
15	A&G/Payroll	13.39	14.10	20.31	231.41	13.77	18.70	22.61	58.29	160.00	355.52
16	General Plant	7.22	7.61	10.96	124.85	7.43	10.09	12.20	31.45	86.32	191.81
17	Material & Supplies	0.17	0.17	0.25	2.87	0.17	0.23	0.28	0.72	1.99	4.41
18	Total O&M Loaders	20.78	21.88	31.52	359.13	21.37	29.03	35.08	90.46	248.30	551.74
19	Fully-loaded O&M	64.71	68.14	98.17	1,118.42	66.55	90.39	109.26	281.73	773.27	1,718.24
20	Marginal Customer Cost: \$/Cust.	147.23	153.49	408.63	5,425.00	155.29	329.39	499.26	980.49	3,224.92	7,658.50

updated: 10/6/08. RECC factors updated.

Weighted RECC factors used to annualize SRM capital costs

Meter & House Reg	9.22%	9.21%	9.32%	9.42%	9.23%	9.32%	9.33%	9.35%	9.43%	9.41%
Service Lines	8.86%	8.86%	8.86%	8.86%	8.86%	8.86%	8.86%	8.86%	8.86%	8.86%
Exclusive Use										

Proposed 2009 BCAP Marginal Cust

Line		Average
1	2006 Number of Customers	211,133
	Marginal Investment: \$/Customer	
2	Meter & House Reg	2,208.78
3	Service Lines	2,565.72
4	Exclusive Use Facilities	0.00
5	Total	4,774.50
	Annualized Marginal Investment: \$/Cust.	
6	Meter & House Reg	206.48
7	Service Lines	227.45
8	Exclusive Use Facilities	0.00
9	Total	433.93
	O&M: \$/Customer	
10	Customer Services	61.28
11	Customer Accounts	34.30
12	Meter & House Reg	7.82
13	Service Lines	0.02
14	Total Direct O&M	103.42
	O&M Loaders: \$/Customer	
15	A&G/Payroll	31.52
16	General Plant	17.01
17	Material & Supplies	0.39
18	Total O&M Loaders	48.92
19	Fully-loaded O&M	152.33
20	Marginal Customer Cost: \$/Cust.	586.26

updated: 10/6/08. RECC factors update

Weighted RECC factors used to annualiz

Meter & House Reg	9.35%
Service Lines	8.86%
Exclusive Use	

Proposed 2009 BCAP Marginal Cust

Line	Core			Noncore Retail						
	Non-Residential			G-30			Small EG < 3million	Large EG > 3million	EOR G-40	
	Air Conditioning	Natural Gas Vehicle	Gas Engine	Distribution	Transmission	Total				
1	2006 Number of Customers	16	207	860	694	24	718	151	65	42
	Marginal Investment: \$/Customer									
2	Meter & House Reg	12,180.92	34,104.62	5,712.57	90,881.20	126,776.86	92,081.06	75,184.38	433,664.03	296,789.85
3	Service Lines	5,461.38	10,313.33	47,493.48	45,195.65	52,034.77	45,424.26	21,939.11	51,501.04	24,926.92
4	Exclusive Use Facilities	0.00	0.00	0.00	528.96	737.89	514.38	0.00	37,564.67	2,198.35
5	Total	17,642.31	44,417.96	53,206.05	136,605.82	179,549.51	514.38	97,123.50	522,729.73	323,915
	Annualized Marginal Investment: \$/Cust.									
6	Meter & House Reg	1,145.82	3,221.66	535.18	8,583.69	11,966.78	8,692.00	7,105.72	40,985.85	28,069.46
7	Service Lines	484.15	914.27	4,210.27	4,006.57	4,612.86	4,026.84	1,944.89	4,565.54	2,209.76
8	Exclusive Use Facilities	0.00	0.00	0.00	50.59	70.58	49.20	0.00	3,592.99	210.27
9	Total	1,629.97	4,135.93	4,745.46	12,640.85	16,650.22	12,768.04	9,050.61	49,144.38	30,489.49
	O&M: \$/Customer									
10	Customer Services	21.70	54.14	90.25	398.79	398.79	398.79	122.91	24.30	45.15
11	Customer Accounts	783.18	815.66	186.69	2,016.75	2,016.75	2,016.75	1,684.91	1,684.91	2,052.84
12	Meter & House Reg	110.66	110.66	110.66	4,264.85	4,264.85	4,264.85	4,480.05	2,780.76	2,743.20
13	Service Lines	0.02	0.03	0.17	0.06	0.06	0.06	0.05	0.03	0.05
14	Total Direct O&M	915.57	980.49	387.77	6,680.47	6,680.46	6,680.47	6,287.92	4,490.00	4,841.25
	O&M Loaders: \$/Customer									
15	A&G/Payroll	279.04	298.83	118.18	2,036.04	2,036.04	2,036.04	1,916.40	1,368.44	1,475.49
16	General Plant	150.55	161.22	63.76	1,098.46	1,098.46	1,098.46	1,033.91	738.29	796.04
17	Material & Supplies	3.46	3.71	1.47	25.26	25.26	25.26	23.78	16.98	18.31
18	Total O&M Loaders	433.05	463.76	183.41	3,159.76	3,159.76	3,159.76	2,974.09	2,123.70	2,289.84
19	Fully-loaded O&M	1,348.61	1,444.25	571.19	9,840.23	9,840.22	9,840.23	9,262.01	6,613.70	7,131.08
20	Marginal Customer Cost: \$/Cust.	2,978.59	5,580.18	5,316.64	22,481.08	26,490.43	22,608.27	18,312.62	55,758.07	37,620.57

updated: 10/6/08. RECC factors update

Weighted RECC factors used to annualiz

Meter & House Reg	9.41%	9.45%	9.37%	9.44%	9.44%	9.44%	9.45%	9.45%	9.46%
Service Lines	8.86%	8.86%	8.86%	8.86%	8.86%	8.86%	8.86%	8.86%	8.86%
Exclusive Use				9.56%	9.56%	9.56%	9.56%	9.56%	9.56%

Proposed 2009 BCAP Marginal Cust

Line	Noncore Wholesale					Total O&M Cost for All Customers	
	Wholesale				International		
	LB	SDG&E	SWG	Vernon	DGN		
1	2006 Number of Customers	1	1	1	1	1	5,420,480
	Marginal Investment: \$/Customer						
2	Meter & House Reg	0.00	0.00	0.00	0.00	0.00	
3	Service Lines	0	0	0	0	0	
4	Exclusive Use Facilities	243,392	189,380	76,184	16,484	152,367	
5	Total	243,392	189,380	76,184	16,484	152,367	
	Annualized Marginal Investment: \$/Cust.						
6	Meter & House Reg	0	0	0	0	0	
7	Service Lines	0	0	0	0	0	
8	Exclusive Use Facilities	23,280	18,114	7,287	1,577	14,574	
9	Total	23,280	18,114	7,287	1,577	14,574	
	O&M: \$/Customer						
10	Customer Services	0	0	0	0	0	106,206,572
11	Customer Accounts	9,070	6,735	16,076	4,844	3,231	137,873,971
12	Meter & House Reg	17,969	19,026	35,938	19,026	3,171	19,765,073
13	Service Lines	0	0	0	0	0	55,087
14	Total Direct O&M	27,039	25,761	52,015	23,870	6,402	263,900,704
	O&M Loaders: \$/Customer						
15	A&G/Payroll	8,241	7,851	15,853	7,275	1,951	80,430,290
16	General Plant	4,446	4,236	8,553	3,925	1,053	43,392,894
17	Material & Supplies	102	97	197	90	24	998,370
18	Total O&M Loaders	12,789	12,184	24,602	11,290	3,028	124,821,555
19	Fully-loaded O&M	39,828	37,945	76,617	35,161	9,431	388,722,258
20	Marginal Customer Cost: \$/Cust.	63,108	56,059	83,904	36,737	24,004	

updated: 10/6/08. RECC factors update

Weighted RECC factors used to annualiz

Meter & House Reg	0	0	0	0	0
Service Lines	8.86%	8.86%	8.86%	8.86%	8.86%
Exclusive Use	9.56%	9.56%	9.56%	9.56%	9.56%

SOUTHERN CALIFORNIA GAS COMPANY

MARGINAL CUSTOMER COSTS

Transfer to Cost Allocation Model

	Rental	Recorded
	M\$/Customer	# of Customers
Core	2009 M\$	
Residential		
Single Family	0.14723	3,506,160
Multi-Family	0.15349	1,579,682
Small Master Metered	0.40863	121,374
Large Master Metered	5.42500	67
Weighted Average	0.15529	5,207,283
Small Commercial / Industrial G-10		
Very Small	0.32939	86,805
Small	0.49926	72,315
Medium	0.98049	49,110
Large	3.22492	2,549
Very Large	7.65850	354
Weighted Average	0.58626	211,133
Gas Air Conditioning	2.97859	72,315
Natural Gas Vehicle	5.58018	49,110
Gas Engine	5.31664	2,549
Noncore - Retail		
Commercial / Industrial G-30		
Distribution	22.48108	694
Transmission	26.49043	24
Weighted Average	22.60827	718
Small EG	18.31262	718
Large EG	55.75807	151
Enhanced Oil Recovery G-40	37.62057	42
Noncore - Wholesale		
Long Beach	63.10825	1
San Diego Gas & Electric	56.05902	1
Southwest Gas	83.90382	1
Vernon	36.73734	1
Noncore - International		
DGN	24.00421	1

Number of Customers
by Customer Class

	Core													
	Residential					Non-Residential								
	Single Family	Multi Family	Master Meter		Residential Total	G-10					Gas Air Conditioning	Natural Gas Vehicle	Gas Engine	
			Small	Large		Very Small	Small	Medium	Large	Very Large				Total
2006 Number of Customers	3,506,160	1,579,682	121,374	67	5,207,283	86,805	72,315	49,110	2,549	354	211,133	16	207	860

Number of Customers
by Customer Class

	Noncore											Total Over All Customers
	Non-Residential											
	G-30			Small EG	Large EG	EOR G-40	Wholesale				International DGN	
	Distribution	Transmission	Total				LB	SDG&E	SWG	Vernon		
2006 Number of Customers	694	24	718	151	65	42	1	1	1	1	1	5,420,480

Residential Segmentation

Segmentation of Residential Total Customer Counts into Bands

	Residential				
	Single Family	Multi Family	Master Meter		Total
			Small	Large	
2006 Number of Customers	3,506,160	1,579,682	121,374	67	5,207,283
Percent of Total	67%	30%	2%	0%	100%

Segmentation of Residential Meter, Regulator & MSA Investment Costs into Bands

		Residential				
		Single Family	Multi Family	Master Meter		Total
				Small	Large	
Per Cust. Meter, Reg. & MSA Investment	2009 \$s	249.14	213.00	2,073.41	21,786.36	
2006 Number of Customers		3,506,160	1,579,682	121,374	67	5,207,283
Total Meter, Reg. & MSA Investment	2009 \$s	873,512,529	336,475,902	251,658,650	1,459,686	1,463,106,768
Percent of Total Meter, Reg. & MSA Investment		60%	23%	17%	0%	100%

note: used to segment Meters, Regulators & MSAs O&M Costs

Segmentation of Residential Service Lines Investment Costs into Bands

		Residential				
		Single Family	Multi Family	Master Meter		Total
				Small	Large	
Per Cust. Service Lines Investment	2009 \$s	671.64	741.47	1,322.94	25,418.01	
2006 Number of Customers		3,506,160	1,579,682	121,374	67	5,207,283
Total Service Lines Investment	2009 \$s	2,354,878,137	1,171,287,709	160,570,756	1,703,007	3,688,439,610
Percent of Total Service Lines Investment		64%	32%	4%	0%	100%

note: not used. Service Line O&M segmented by footage

correct SRM investment data

G10 Segmentation

Segmentation of G-10 Total Customer Counts into Bands

		G-10					
		Very Small	Small	Medium	Large	Very Large	Total
2006 Number of Customers		86,805	72,315	49,110	2,549	354	211,133
Percent of Total		41%	34%	23%	1%	0%	100%

Segmentation of G-10 Meter, Regulator & MSA Investment Costs into Bands

		G-10					
		Very Small	Small	Medium	Large	Very Large	Total
Per Cust. Meter, Reg & MSA Investment	2009 \$\$	921.27	1,792.85	4,250.60	14,481.90	31,257.00	
2006 Number of Customers		86,805	72,315	49,110	2,549	354	211,133
Total Meter, Reg & MSA Investment	2009 \$\$	79,970,536	129,650,208	208,746,755	36,914,352	11,064,979	466,346,830
Percent of Total Meter, Reg & MSA Investment		17%	28%	45%	8%	2%	100%

note: used to segment Meters, Regulators & MSAs O&M Costs

Segmentation of G-10 Service Lines Investment Costs into Bands

		G-10					
		Very Small	Small	Medium	Large	Very Large	Total
Per Cust. Service Lines Investment	2009 \$\$	1,727.38	2,511.63	3,399.03	12,254.93	33,813.88	
2006 Number of Customers		86,805	72,315	49,110	2,549	354	211,133
Total Service Lines Investment	2009 \$\$	149,945,095	181,628,586	166,926,586	31,237,819	11,970,115	541,708,201
Percent of Total Service Lines Investment		28%	34%	31%	6%	2%	100%

note: not used. Service Line O&M segmented by footage

G 30 Segmentation

Segmentation of G-30 total customer counts by Service Level

	G-30		
	Distribution	Transmission	Total
2006 Number of Customers	694	24	718
Percent of Total	97%	3%	100%

Allocation of G-30 Total Big GEMS Costs by Service Level

		G-30		
		Distribution	Transmission	Total
Meter/Reg Investment Cost Per Customer	2009 \$s	90,881.20	126,776.86	
2006 Number of Customers		694	24	718
Total Cost	2009 \$s	63,071,556	3,042,645	66,114,201
Percent of Total Cost		95%	5%	100%

note: used to segment Meters, Regulators & MSAs O&M Costs

2009 BCAP Escalation Factors

2006 \$s	to	2009 \$s	2006-09 Factor: Capital	1.0419
2007 \$s	to	2009 \$s	2007-09 Factor: Capital	1.0651
2007 \$s		2009 \$s	2007-09 Factor: O&M	1.0570

Note:
capital investment based on 2006 data
O&M costs updated to reflected 2007 FERC Form 2 data

Administrative & General/Payroll, and General Plant Loading Factors

A&G/Payroll Loading Factor	30.48%
General Plant Loading Factor	16.44%

These factors are applied to Total Direct O&M costs.
Total Direct O&M costs = CS + CA + Meter & Reg + Service Line O&M costs.

**Average Per Customer Investment in
Meters & Regulators by Customer Class**

		Core												
		Residential					Non-Residential							
		Single Family	Multi Family	Master Meter		Residential Average	G-10					Gas Air Conditioning	Natrual Gas Vehicle	
				Small	Large		Very Small	Small	Medium	Large	Very Large			Average
Investment Per Customer:														
Meter, Reg.	2006 \$s	239.11	204.43	1989.97	20909.57	269.67	884.19	1720.7	4079.53	13899.07	29999.06	2,119.89	11690.7	32732.08
Meter, Reg.	2009 \$s	249.14	213.00	2,073.41	21,786.36	280.97	921.27	1,792.85	4,250.60	14,481.90	31,257.00	2,208.78	12,180.92	34,104.62
Total	2009 \$s	249.14	213.00	2,073.41	21,786.36	280.97	921.27	1,792.85	4,250.60	14,481.90	31,257.00	2,208.78	12,180.92	34,104.62

**Average Per Customer Investment in
Service Lines by Customer Class**

		Core												
		Residential					Non-Residential							
		Single Family	Multi Family	Master Meter		Residential Average	G-10					Gas Air Conditioning	Natrual Gas Vehicle	
				Small	Large		Very Small	Small	Medium	Large	Very Large			Average
Investment Per Customer:														
Service Lines	2006 \$s	644.61	711.63	1269.7	24395.06	679.82	1657.86	2410.55	3262.24	11761.73	32453.04	2,462.46	5241.59	9898.27
Service Lines	2009 \$s	671.64	741.47	1,322.94	25,418.01	708.32	1,727.38	2,511.63	3,399.03	12,254.93	33,813.88	2,565.72	5,461.38	10,313.33
Total	2009 \$s	671.64	741.47	1,322.94	25,418.01	708.32	1,727.38	2,511.63	3,399.03	12,254.93	33,813.88	2,565.72	5,461.38	10,313.33

formerly tabs: 'Investment Meter, Reg' and 'Investment Service Lines'

**Average Per Customer Invest:
Meters & Regulators by Cust**

		Noncore											Total Over All Customers
		Non-Residential											
		G-30			SM. COGEN	EG	EOR	Wholesale				International	
Investment Per Customer:	Gas	Engine	Distribution	Transmission	Average	G-50	G-50	G-40	LB	SDG&E	SWG	Vernon	DGN
Meter, Reg.	2006 \$s	5482.67	87223.68	121674.71	88,375.25	72,158.58	416,211.17	284845.51	0.00	0.00	0.00	0.00	0.00
Meter, Reg.	2009 \$s	5,712.57	90,881.20	126,776.86	92,081.06	75,184.38	433,664.03	296,789.85	0.00	0.00	0.00	0.00	0.00
Total	2009 \$s	5,712.57	90,881.20	126,776.86	92,081.06	75,184.38	433,664.03	296,789.85	0.00	0.00	0.00	0.00	0.00

**Average Per Customer Invest:
Service Lines by Customer CI**

		Noncore											Total Over All Customers
		Non-Residential											
		G-30			SM. COGEN	EG	EOR	Wholesale				International	
Investment Per Customer:	Gas	Engine	Distribution	Transmission	Average	G-50	G-50	G-40	LB	SDG&E	SWG	Vernon	DGN
Service Lines	2006 \$s	45582.1	43376.75	49940.62	43,596.16	21,056.17	49,428.37	23923.73	0.00	0.00	0.00	0.00	0.00
Service Lines	2009 \$s	47,493.48	45,195.65	52,034.77	45,424.26	21,939.11	51,501.04	24,926.92	0.00	0.00	0.00	0.00	0.00
Total	2009 \$s	47,493.48	45,195.65	52,034.77	45,424.26	21,939.11	51,501.04	24,926.92	0.00	0.00	0.00	0.00	0.00

formerly tabs: 'Investment Mete

Big GEMS Investment by Customer Class for Retail Noncore

		Retail Noncore				
		G-30			EG	EOR
Investment:		Distribution	Transmission	Total	G-50	G-40
No. of Big GEMS				4	22	1
Total Cost of GEMS	2006 \$s	352,326.81	16,996.65	354,460.00	2,343,437.00	88,615.00
Total Cost of GEMS	2009 \$s	367,100.83	17,709.37	369,323.47	2,441,703.64	92,330.87
2006 Number of Customers		694	24	718	65	42
Cost Per Customer	2009 \$s	528.96	737.89	514.38	37,564.67	2,198.35

Note : This is part of Exclusive Use Facilities Costs

Cost per Gems (2006 \$)					
	<u>Meter</u>	<u>LTL GEMS</u>	<u>TOTAL</u>	<u>Regs</u>	<u>TOTAL</u>
ROTARY 11M & LARGER: (*)	\$13,376	\$6,218	\$19,594	\$1,850	\$21,444
TURBINE MSA'S (*)	\$73,327	\$11,350	\$84,677	\$3,938	\$88,615
ORIFICE METERS (ultra sonic)	\$158,842	\$9,683	\$168,525	\$5,150	\$173,675

(*) Includes Labor & Fittings.

Inventory Detail				
	<u>G-30</u>	<u>G-50</u>	<u>G-40</u>	<u>Total</u>
ROTARY 11M & LARGER: (*)	0	3	0	3
TURBINE MSA'S (*)	4	12	1	17
ORIFICE METERS (ultra sonic)	0	7	0	7
Total	4	22	1	27

Investment Per Customer in Exclusive Use Facilities for Wholesale

	Nonocre					Total Over All Customers
	Wholesale				International	
Replacement Cost	LB	SDG&E	SWG	Vernon	DGN	
GEMS, meter, regs 2006 \$s	233,596	181,759	73,118	15,821	146,235	
GEMS, meter, regs 2009 \$s	243,392	189,380	76,184	16,484	152,367	677,808
2006 Number of Customers	1	1	1	1	1	5
Cost Per Customer:						
GEMS, meter, regs 2009 \$s	243,392	189,380	76,184	16,484	152,367	
Total 2009 \$s	243,392	189,380	76,184	16,484	152,367	

Allocation of Customer-Related Distribution O&M

		Core										
		Residential					Non-Residential					
		Single Family	Multi Family	Master Meter		Residential Total	G-10					
				Small	Large		Very Small	Small	Medium	Large	Very Large	Total
1	2006 Number of Customers	3,506,160	1,579,682	121,374	67	5,207,283	86,805	72,315	49,110	2,549	354	211,133

Customer Services O&M Costs

2	Total Cost	2007 M\$s	56,262.88	28,580.79	2,996.83	21.02	87,861.521	2,373.58	2,858.65	6,099.43	761.03	147.78	12,240.47
3	Cost Per Customer:	2007 \$s	16.05	18.09	24.69	313.80	16.87	27.34	39.53	124.20	298.56	417.45	57.98
4		2009 \$s	16.96	19.12	26.10	331.69	17.83	28.90	41.78	131.28	315.58	441.25	61.28

Customer Accounts O&M Costs

5	Total Cost:	2007 M\$s	81,533.27	37,502.36	2,379.19	13.90	121,428.72	2,396.98	1,780.87	2,086.77	381.19	205.81	6,851.63
6	Cost Per Customer:	2007 \$s	23.25	23.74	19.60	207.49	23.32	27.61	24.63	42.49	149.54	581.39	32.45
7		2009 \$s	24.58	25.09	20.72	219.32	24.65	29.19	26.03	44.91	158.07	614.54	34.30

8
9 segmentation 67% 31% 2% 0.011%

Meters, Reg & MSAs O&M Costs

10	Total Cost	2007 M\$s	7898.65	3042.55	2275.60	13.20	13,230	267.86	434.26	699.18	123.64	37.06	1,562
11	Cost Per Customer:	2007 \$s	2.25	1.93	18.75	197.00	2.54	3.09	6.01	14.24	48.51	104.69	7.40
12		2009 \$s	2.38	2.04	19.82	208.23	2.69	3.26	6.35	15.05	51.27	110.66	7.82

Service Lines O&M Costs

13	Total Costs	2007 \$s	52,116										
14		2009 \$s	55,087										
15	Total Service Line Footage		216,909,719	51,827,444	7,897,192	14,483	276,648,838	6,709,135	5,875,337	5,391,791	560,125	104,253	18,640,641
16	Percent of Total Footage		73.19%	17.49%	2.66%	0.00%	93.34%	2.26%	1.98%	1.82%	0.19%	0.04%	6.29%
17	Allocated SL O&M Costs	2009 \$s	\$40,316	\$9,633	\$1,468	\$3	\$51,420	\$1,247	\$1,092	\$1,002	\$104	\$19	\$3,465
18	Cost Per Customer	2009 \$s	\$0.01	\$0.01	\$0.01	\$0.04	\$0.01	\$0.01	\$0.02	\$0.02	\$0.04	\$0.05	\$0.02

note: Based on Total Service Line Footage

updated to 2007 FERC Form 2 data

formerly tabs: 'O&M Customer Services', 'O&M Customer Accounts', 'O&M Meters, Regulators, MSAs', 'O&M Service Lines'

			Noncore											Total Over All Customers
			Non-Residential											
Gas Air Conditioning	Natrual Gas Vehicle	Gas Engine	G-30			Small EG	EG G-50	EOR G-40	Wholesale				Intl DGN	
			Distribution	Transmission	Total				LB	SDG&E	SWG	Vernon		
16	207	860	694	24	718	151	65	42	1	1	1	1	1	5,420,480

0.33	10.60	73.43			270.89	17.56	1.49	1.79	0.00	0.00	0.00	0.00	0.00	100,478.086
20.53	51.22	85.39			377.29	116.28	22.99	42.72	0.00	0.00	0.00	0.00	0.00	
21.70	54.14	90.25	398.79	398.79	398.79	122.91	24.30	45.15	0.00	0.00	0.00	0.00	0.00	

11.86	159.73	151.89			1,369.93	240.70	103.61	81.57	8.58	6.37	15.21	4.58	3.06	130,437.43
740.94	771.66	176.62			1,907.98	1,594.03	1,594.03	1,942.12	8,580.76	6,371.27	15,209.25	4,582.84	3,057.02	
783.18	815.66	186.69	2,016.75	2,016.75	2,016.75	1,684.91	1,684.91	2,052.84	9,069.97	6,734.51	16,076.36	4,844.11	3,231.31	

EG O&M cost 344.31
70% 30% note: split EG costs by # of customers

0.00	0.00	0.00			2,897	640	171	109.00	17.00	18.00	34.00	18.00	3.00	18,699.00
110.66	110.66	110.66	4,264.85	4,264.85	4,034.82	4,238.41	2,630.77	2,595.24	17,000.00	18,000.00	34,000.00	18,000.00	3,000.00	
					4,264.85	4,480.05	2,780.76	2,743.20	17,969.21	19,026.22	35,938.42	19,026.22	3,171.04	

1,613	33,887	787,086	236,898	7,376	244,274	36,766	11,217	12,052	0	0	0	0	0	296,379.608
0.00%	0.01%	0.27%	0.08%	0.00%	0.08%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
\$0	\$6	\$146	\$44	\$1	\$45	\$7	\$2	\$2	\$0	\$0	\$0	\$0	\$0	\$55,087
\$0.02	\$0.03	\$0.17	\$0.06	\$0.06	\$0.06	\$0.05	\$0.03	\$0.05	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.01

split by number of customers

Material & Supplies Add-On Costs

M&S Add-on Costs:	2007 \$s	937,357
M&S Add-on Costs:	2009 \$s	998,370

	Core														
	Residential					Non-Residential							Gas Air Conditioning	Natural Gas Vehicle	Gas Engine
	Single Family	Multi Family	Master Meter		Residential Average	G-10				Very Large	Average				
Small			Large	Very Small		Small	Medium	Large							
Per Customer Direct+A&G+GP O&M 2009 \$s	64.55	67.97	97.92	1,115.55	66.38	90.16	108.98	281.01	771.28	1,713.83	151.94	1,345.15	1,440.54	569.72	
2006 Number of Customers	3,506,160	1,579,682	121,374	67	5,207,283	86,805	72,315	49,110	2,549	354	211,133	16	207	860	
Total Direct+A&G+GP O&M 2009 M\$	226,318	107,364	11,885	75	345,642	7,826	7,881	13,800	1,966	607	32,080	22	298	490	
Percent of Total	58.34%	27.68%	3.06%	0.02%	89.11%	2.02%	2.03%	3.56%	0.51%	0.16%	8.27%	0.01%	0.08%	0.13%	
Allocated M&S Costs 2009 \$s	582,494	276,332	30,589	192	889,607	20,143	20,284	35,519	5,060	1,562	82,567	55	767	1,261	
2006 Number of Customers	3,506,160	1,579,682	121,374	67	5,207,283	86,805	72,315	49,110	2,549	354	211,133	16	207	860	
Alloc. M&S Costs per Customer 2009 \$s	0.17	0.17	0.25	2.87	0.17	0.23	0.28	0.72	1.99	4.41	0.39	3.46	3.71	1.47	

Material & Supplies Add-On Costs

Noncore													Total Over All Customers
Non-Residential													
G-30			Small EG	EG G-50	EOR G-40	Wholesale				International			
Distribution	Transmission	Total				LB	SDG&E	SWG	Vernon	DGN			
Per Customer Direct+A&G+GP O&M 2009 \$s	9,814.96	9,814.96	9,814.96	9,238.23	6,596.72	7,112.78	39,726.06	37,847.76	76,420.31	35,070.38	9,406.36		
2006 Number of Customers	694	24	718	151	65	42	1	1	1	1	1	5,420,480	
Total Direct+A&G+GP O&M 2009 M\$	6,812	236	7,047	1,395	429	299	40	38	76	35	9	387,900	
Percent of Total	1.76%	0.06%	1.82%	0.36%	0.11%	0.08%	0.01%	0.01%	0.02%	0.01%	0.00%	1	
Allocated M&S Costs 2009 \$s	17,532	606	18,138	3,590	1,104	769	102	97	197	90	24	998,370	
2006 Number of Customers	694	24	718	151	65	42	1	1	1	1	1	5,420,480	
Alloc. M&S Costs per Customer 2009 \$s	25.26	25.26	25.26	23.78	16.98	18.31	102.25	97.41	196.69	90.26	24.21		

Weighted Average Meter and House Regulator RECC and Replacement Factors

<u>Line</u>			AVERAGE	AVERAGE	AVERAGE	AVERAGE	WEIGHTED	WEIGHTED
1.	<u>CUSTOMER CLASS</u>	<u>RATE</u>	<u>LABOR COST</u>	<u>METER COST</u>	<u>REGULATOR COST</u>	<u>TOTAL COST</u>	<u>REPLACEMENT</u>	<u>RECC</u>
					Dollars		Percent	Percent
3.	SINGLE FAMILY	GR	108.89	114.76	15.46	239.11	2.67%	9.22%
4.	MULTIPLE FAMILY	GR	96.82	92.39	15.22	204.43	2.66%	9.21%
5.	MASTER METERED BAND 1	GM,GS	664.01	1202.24	123.72	1989.97	2.80%	9.32%
6.	MASTER METERED BAND 2	GM,GS	4342.86 #	14828.72	1737.99	20909.57	2.94%	9.42%
7.	RESIDENTIAL WEIGHTED AVERAGE		118.22	133.51	17.93	269.67	2.69%	9.23%
8.	SMALL CORE BAND 1	G-10	294.48	526.25	63.46	884.19	2.80%	9.32%
9.	SMALL CORE BAND 2	G-10	563.62	1036.82	150.26	1750.70	2.82%	9.33%
10.	SMALL CORE BAND 3	G-10	1245.74	2446.87	386.92	4079.53	2.84%	9.35%
11.	SMALL CORE BAND 4	G-10	3007.48	9310.6 #	1580.99	13899.07	2.94%	9.43%
12.	SMALL CORE BAND 5	G-10	6395.88	21655.54	1947.64	29999.06	2.92%	9.41%
13.	G10 AVERAGE		650.91	1,289.35	189.91	2,130.16	2.84%	9.35%
14.	GAS COOLING	GAC	2849.77	7462.91	1378.02	11690.70	2.91%	9.41%
15.	Natural Gas Vehicles	NGV	5118.32	26898.63	715.13	32732.08	2.97%	9.45%
16.	GAS ENGINES	GENG	1519.49	3516.07	447.11	5482.67	2.86%	9.37%
17.	NONCORE COMM/IND TRANSMISSION	G-30	18810.97	101313.28	1550.46	121674.71	2.97%	9.44%
18.	NONCORE COMM/IND DISTRIBUTION	G-30	14305.41	71299.99	1618.28	87223.68	2.96%	9.44%
19.	NONCORE COMM/IND TOTAL	G-30	14,456.01	72,303.22	1,616.01	88375.25	2.96%	9.44%
20.	COGENERATION	G-50	24097.93	141651.5	1061.17	166810.60	2.98%	9.45%
21.	EOR	G-40	38415.65	245576.62	853.24	284845.51	2.99%	9.46%
22.	SYSTEM AVERAGE		141.88	193.27	24.96	360.11	2.74%	9.27%
22.	INVERSE OF BOOK LIFE		2.08%	3.13%	3.45%			
23.	RECC		8.76%	9.56%	9.88%			

Weighted Average RECC and Replacement Factor for Exclusive Use Facilities

<u>Line</u>			GEMs	AVERAGE TOTAL COST	WEIGHTED REPLACEMENT	WEIGHTED RECC
1.	<u>CUSTOMER CLASS</u>	<u>RATE</u>	Dollars	Dollars	Percent	
3.	NONCORE COMM/IND TRANSMISSION	G-30	17,709	17,709	3.13%	9.56%
4.	NONCORE COMM/IND DISTRIBUTION	G-30	367,101	367,101	3.13%	9.56%
5.	NONCORE COMM/IND TOTAL	G-30	369,323	369,323	3.13%	9.56%
6.	COGENERATION	G-50	2,441,704	2,441,704	3.13%	9.56%
7.	EOR	G-40	92,331	92,331	3.13%	9.56%
8.	LONG BEACH		243,392	243,392	3.13%	9.56%
9.	SAN DIEGO GAS & ELECTRIC		189,380	189,380	3.13%	9.56%
10.	SOUTHWEST GAS		76,184	76,184	3.13%	9.56%
11.	VERNON		16,484	16,484	3.13%	9.56%
12.	DGN		152,367	152,367	3.13%	9.56%
13.	SYSTEM TOTAL		3,965,976	3,965,976	3.13%	9.56%
14.	INVERSE OF BOOK LIFE		3.13%			
15.	RECC factors		9.56%			

Updated: 10/6/08. Updated Weighted RECC factor calculations.

**Regression of Medium Pressure (MP) Distribution
Cumulative Investment on Peak Day Cumulative Demand**

Regression Inputs:

<u>Year</u>	Dependent Variable: MP Distribution Cumulative Investment <u>(2006 M\$\$)</u>	Independent Variable: Peak Day Cumulative Demand <u>(MMcfd)</u>
	(1)	(2)
1997	31,174	26
1998	65,133	62
1999	96,822	104
2000	141,604	142
2001	171,447	175
2002	208,991	211
2003	271,126	242
2004	319,339	279
2005	395,101	311
2006	462,617	345
2007	498,692	382
2008	545,822	416
2009	595,259	450
2010	646,884	485
2011	700,682	519

Regression Outputs

Number of Observations:	1
Degrees of Freedom:	13
R-Squared:	0.9896
F-Statistic:	1,232.11

<u>Regressor</u>	<u>Estimated Coefficient</u>	<u>Estimated Standard Error of Coefficient</u>	<u>t-Statistic</u>
Intercept	(48,962.58)	12,733.73	(3.85)
MP Distribution Cum. Investment	1,418.98	40.43	35.10

Medium Pressure Distribution Long Run Marginal Cost Estimate (2009\$s)

(1) Capital-related LRM:		
(2)	Estimated Medium Pressure Regression Coefficient =	1418.9768
(3)	RECC Factor Applied to Annualize Capital-related LR	8.76%
(4)	Annualized Capital-related LRMC (\$/Mcf) =	124.3698
(5) O&M-related LRM:		
(6)	Total Distribution O&M costs (2009 \$000's) =	42,469.70
(7)	Medium Pressure Distribution's Share =	78.69%
(8)	Medium Pressure Peak Day Demand (MMcf) =	4,426.92
(9)	O&M-related LRMC (\$/Mcf) =	7.5490
(10) A&G-related LRM:		
(11)	A&G Factor, as a Percent of O&M-related LRM =	30.48%
(12)	A&G-related LRMC (\$/Mcf) =	2.3008
(13) General Plant (GP)-related LRM:		
(14)	GP Factor, as a Percent of O&M-related LRM =	16.44%
(15)	GP-related LRMC (\$/Mcf) =	1.2413
(16) Material & Supply (M&S)-related LRM:		
(17)	Total Distribution M&S costs (2009 \$000's) =	1,148.11
(18)	Medium Pressure Distribution's Share =	78.69%
(19)	Medium Pressure Peak Day Demand (MMcf) =	4,426.92
(20)	M&S-related LRMC (\$/Mcf) =	0.2041
(21)	Medium Pressure Distribution LRMC (\$/Mcf) =	135.6649

**Regression of High Pressure (HP) Distribution
Cumulative Investment on Coincident Peak Month Cumulative Demand**

Regression Inputs:

<u>Year</u>	Dependent Variable: HP Distribution Cumulative Investment	Independent Variable: Coincident Peak Month Cumulative Demand
	<u>(2002 M\$\$)</u> (1)	<u>(MMcf)</u> (2)
1997	10,399	526
1998	12,295	1,274
1999	22,510	2,077
2000	27,852	2,845
2001	51,097	3,409
2002	65,294	4,203
2003	79,221	5,012
2004	91,016	5,632
2005	98,224	6,258
2006	125,290	7,605
2007	134,525	8,223
2008	147,113	8,779
2009	160,268	9,364
2010	173,910	9,935
2011	188,031	10,495

Regression Outputs

Number of Observations:	1
Degrees of Freedom:	13
R-Squared:	0.9913
F-Statistic:	1,474.52

<u>Regressor</u>	<u>Estimated Coefficient</u>	<u>Estimated Standard Error of Coefficient</u>	<u>t-Statistic</u>
Intercept	(12,515.48)	3,124.82	(4.01)
HP Distribution Cum. Investment	18.39	0.48	38.40

High Pressure Distribution Long Run Marginal Cost Estimate (2009 \$s)

(1)	Capital-related LRM:		
(2)	Estimated High Pressure Regression Coefficient =	18.3891	
(3)	RECC Factor Applied to Annualize Capital-related LRI	8.74%	
(4)	Annualized Capital-related LRMC (\$/Mcf) =		1.6073
(5)	O&M-related LRM:		
(6)	Total Distribution O&M costs (2009 \$000's) =	42,469.70	
(7)	High Pressure Distribution's Share =	21.31%	
(8)	High Pressure Coincident Peak Month Demand (MMc)	88,163.20	
(9)	O&M-related LRM (\$/Mcf) =		0.1027
(10)	A&G-related LRM:		
(11)	A&G Factor, as a Percent of O&M-related LRM =	30.48%	
(12)	A&G-related LRM (\$/Mcf) =		0.0313
(13)	General Plant (GP)-related LRM:		
(14)	GP Factor, as a Percent of O&M-related LRM =	16.44%	
(15)	GP-related LRM (\$/Mcf) =		0.0169
(16)	Material & Supply (M&S)-related LRM:		
(17)	Total Distribution M&S costs (2009 \$000's) =	1,148.11	
(18)	High Pressure Distribution's Share =	21.31%	
(19)	High Pressure Coincident Peak Month Demand (MMc)	88,163.20	
(20)	M&S-related LRM (\$/Mcf) =		0.0028
(21)	High Pressure Distribution LRM (\$/Mcf) =		1.7609

**Distribution Data for Regression Analysis
Capital Investment and Marginal Demand Measures**

Year	Distribution Investment			Distribution Demand Measures		
	Cumulative Total Distribution	Cumulative Total HPD	Cumulative Total MPD	Cumulative Total System HPD Peak Month	Cumulative Total System MPD Peak Day	
1	ear of Fore	41,572,520	10,398,780	31,173,741	525,615	25,646
2		77,427,832	12,294,714	65,133,118	1,274,342	61,848
3		119,332,138	22,509,718	96,822,420	2,076,613	103,905
4		169,455,889	27,852,352	141,603,538	2,844,645	141,963
5		222,543,731	51,097,017	171,446,714	3,408,666	174,581
6		274,285,707	65,294,497	208,991,210	4,202,906	210,597
7		350,346,482	79,220,703	271,125,780	5,011,761	242,266
8		410,354,711	91,015,961	319,338,750	5,632,143	278,715
9		493,324,734	98,224,175	395,100,559	6,257,637	311,472
10		587,906,971	125,289,810	462,617,162	7,605,486	345,008
11	ECC Factor	633,217,479	134,525,365	498,692,114	8,223,151	381,648
12		692,935,478	147,113,475	545,822,004	8,779,468	415,606
13		755,526,987	160,267,748	595,259,239	9,364,289	450,109
14		820,793,340	173,909,733	646,883,607	9,935,178	484,949
15		888,713,241	188,031,021	700,682,219	10,494,602	519,134

source: data from distribution model data

Distribution O&M split between MPD and HPD

This sheet calculates O&M costs for medium (MP) and high pressure (HP) distribution mains for the following cost components:

- a) Operation and Maintenance costs (O&M),
- b) Administrative and General costs (A&G),
- c) General Plant costs (GP), and
- d) Materials and Supplies costs (M&S).

	<u>2009\$</u>	<u>Split Factor</u>
Total Medium Pressure System Inventory Investment	462,617,162	78.689%
Total High Pressure System Inventory Investment	125,289,810	21.311%

	<u>Total</u>	<u>Medium Pressure</u>	<u>High Pressure</u>
O&M Costs	2007 \$000's 42,469.70		
Split Factor		78.69%	21.31%
Cost Driver		4,426.92 Peak Day MMcfd	88,163.20 Peak Month MMcf
O&M LRM C		7.5490 \$/Mcf	0.1027 \$/Mcf
A&G Costs			
A&G Factor		30.48% of O&M	30.48% of O&M
A&G LRM C		2.3008 \$/Mcf	0.0313 \$/Mcf
GP Costs			
GP Factor		16.44% of O&M	16.44% of O&M
GP LRM C		1.2413 \$/Mcf	0.0169 \$/Mcf
M&S Costs	2007 \$000's 1,156.88		
Split Factor		78.69%	21.31%
Demand Driver		4,426.92 Peak Day MMcfd	88,163.20 Peak Month MMcf
M&S LRM C		0.2056 \$/Mcf	0.0028 \$/Mcf

Parameters for Distribution MC Analysis

Starting Year of Historical Data:	1997	n/c
Ending Year of Historical Data:	2006	n/c
Starting Year of Forecast Data:	2007	n/c
Ending Year of Forecast Data:	2011	n/c
Compounded Growth Rate:	1.0194	n/c
Rate of Return:	8.68%	n/c
Estimated Life of Main:	50	n/c
2006\$ to 2009\$ Conversion Factor for Capital:	1.0419	updated
2007\$ to 2009\$ Conversion Factor for Capital:	1.0651	not previous
2007\$ to 2009\$ Conversion Factor for O&M:	1.0570	updated
RECC Factors:		
Distribution Mains:	8.71%	updated
Meter & Regulator Stations:	9.83%	corrected

O&M and Loading Factors for Distribution Analysis

This sheet contains inputs that are required to calculate long run marginal costs (LRMCs) for High and Medium Pressure Distribution Mains for the following cost components:

- a) Operation and Maintenance costs (O&M),
- b) Administrative and General costs (A&G),
- c) General Plant costs (GP), and
- d) Materials and Supplies costs (M&S).

INPUTS:

Total Medium Pressure Peak Day Demand: BCAP Forecast (Mcf)		4,426,916
Total High Pressure Peak Month Demand: BCAP Forecast (Mcf)		88,163,195
Total Demand-related Distribution O&M costs, in 2007 M\$		40,179
	in 2009\$	42,470
A&G Factor (as percent of O&M costs)		30.48%
GP Factor (as percent of O&M costs)		16.44%
Total Demand-related Distribution M&S costs, in 2007 M\$		1,086
	in 2009\$	1157

Note: 2007 demand data used to develop unit cost based on 2007 O&M data

Using LINEST array function (no MACRO needed), it estimates Regression Coefficients for MP Investement.
 Note: LINEST function returns an output array. To get all statistics, for a bivariate regression with an Intercept term, we need to highlight a 5 by 2 area. Over this highlighted area, we need to enter the LINEST array funtion and then press CTRL+Shift+Return keys simultaneously.

Medium Pressure Regression Output Using LINEST Funtion:

	B	C
8	1,418.98	(48,962.58)
9	40.43	12,733.73
10	0.99	23,626.54
11	1,232.11	13.00
12	6.87781E+11	7256774439

where, B8 contains the X-coefficient,
 C8 contains the coefficient of the intercept term,
 B9 contains the estimated standard error of the X-coefficient,
 C9 contains the estimated standard error of the Intercept term,
 B10 contains the R-Squarred value,
 C10 contains the standard error for the Y estimate,
 B11 contains the F-statistic,
 C11 contains the degrees of freedom,
 B12 contains the regression sum of squares, and
 C12 contains the residual sum of squares.

formerly tab: Out_MP_Regression

Using LINEST array function (no MACRO needed), it estimates Regression Coefficients for MP Investement.

Note: LINEST function returns an output array. To get all statistics, for a bivariate regression with an Intercept term, we need to highlight a 5 by 2 area. Over this highlighted area, we need to enter the LINEST array function and then press CTRL+Shift+Return keys simultaneously.

Do not put brackets around the array formula

High Pressure Regression Output Using LINEST Funtion:

	B	C
8	18.39	(12,515.48)
9	0.48	3,124.82
10	0.99	5,860.36
11	1,474.52	13.00
12	50640749629	446470395.8

where,

- B8 contains the X-coefficient,
- C8 contains the coefficient of the intercept term,
- B9 contains the estimated standard error of the X-coefficient,
- C9 contains the estimated standard error of the Intercept term,
- B10 contains the R-Squarred value,
- C10 contains the standard error for the Y estimate,
- B11 contains the F-statistic,
- C11 contains the degrees of freedom,
- B12 contains the regression sum of squares, and
- C12 contains the residual sum of squares.

formerly tab: Out_HP_Regression

**2009 BCAP - SoCalGas
Marginal Transmission Cost**

<u>SoCalGas Backbone Transmission</u>			
1	Total Investment, \$Million	0	no change
2	Cold Year Growth (MMdth)	25.9	
3	Marginal Capital Cost (\$/dth)	0.0000	
4	RECC	8.58%	corrected
5	Annual Capital Cost (\$/dth)	0.0000	
6	O&M, \$Million	32.0	updated
7	Cold Year Throughput (MMdth)	997	no change
8	Marginal O&M Cost (\$/dth)	0.0321	
9	A&G and General Plant Loader	0.0151	
10	M&S Loader, \$/dth	0.0002	
11	Total Marginal Cost (\$/dth)	0.0474	

<u>SoCalGas Local Transmission</u>			
1	Total Investment, \$M in 2009\$	93,633	no change
2	CY Peak Month Growth (MMdth)	5.443	
3	Marginal Capital Cost (\$/dth)	17.2033	
4	RECC	8.58%	corrected
5	Annual Capital Cost (\$/dth)	1.4763	
6	O&M, \$Million	24.2	updated
8	Cold Year Peak Month (MMdth)	106.726	
9	Marginal O&M Cost (\$/dth)	0.2269	
10	A&G and General Plant Loader	0.1065	corrected
11	M&S Loader, \$/dth	0.0002	corrected
12	Total Marginal Cost (\$/dth)	1.8098	

Updated: 10/6/08. Reflects change to Backbone/Local % split, per R. Schwecke.

**2009 BCAP - SoCalGas
Transmission Marginal Cost Study
Input Data**

Backbone/Local Split % backbone	56.927%		updated 10/6
2008 to 2009 capital escalator		1.0244	corrected
Total Transmission O&M	in 2007\$ \$53,187,981	in 2009\$	updated
2007 to 2009 O&M Cost Inflator		1.0570	updated
Total Transmission O&M excludes compressor fuel		\$56,220,350	
A&G Loader		30.48%	updated
General Plant Loader		16.44%	updated
O&M A&G % OF DIRECT LABOR, INC. GPLF		46.92%	
<u>Materials & Supplies for Transmission</u>			
Annualized Materials and Supplies Costs, M\$ (2007 \$'s)		415	updated
2007 to 2009 Capital Cost Inflator		1.0651	updated
2006 COLD YEAR Throughput, Mdth		1,001,211	
M&S Loader, \$/dth		0.00044	

15-Year Demand Growth

<u>Year</u>	<u>Cold Year Demand (MMDTH)</u>	<u>Peak Month Demand Mdth</u>	n/c
2009	1,000	107,512	
2010	997	107,042	
2011	992	105,626	
2012	997	106,054	
2013	985	106,997	
2014	987	106,795	
2015	989	106,650	
2016	993	107,505	
2017	1,000	108,760	
2018	999	108,787	
2019	1,002	109,431	
2020	1,007	110,409	
2021	1,013	111,230	
2022	1,027	112,726	
2023	1,026	112,955	
Load Growth	25.9	5,443	

**2009 BCAP - SoCalGas
Storage Marginal Costs**

LINE	INCREMENTAL O&M COSTS	FIXED COSTS		INVENTORY
		INJECTION	WITHDRAWAL	
1	INCREMENTAL CAPACITY	150.0 M ² cfd		1.0 Bcf
2	CAPITAL COST, 2008\$	48.000		6.000
3	CAPITAL COST, 2009\$	49.173		6.147
4	\$/UNIT CAPACITY	\$327.818 /MCFD		\$6.147 /MCF
5	RECC factor	9.51%		9.45%
6	ANNUALIZED CAPITAL COST	\$31.165 /MCFD		\$0.581
7	INCREMENTAL O&M COSTS, \$M	0		0
8	MARGINAL O&M	\$0.000 /Mcf		\$0.000 /Mcf
9	LOADING FACTORS			
10	A&G LOADER	30.48%	\$0.000	\$0.000
11	GNRL PLNT LOADER	16.44%	\$0.000	\$0.000
12	M&S LOADER		\$0.000	\$0.000
13	<u>TOTAL MARGINAL O&M COSTS</u>		<u>\$0.000 /Mcf</u>	<u>\$0.000 /Mcf</u>
14	<u>ANNUAL MARGINAL CAPITAL COSTS</u>		<u>\$31.165 /Mcf</u>	<u>\$0.581 /Mcf</u>
15	Avoided O&M Cost	n/a	\$3.822	n/a
16	<u>TOTAL MARGINAL COST, 1999\$</u>		<u>\$3.822 /Mcf</u>	<u>\$0.581 /Mcf</u>
<u>Avoided Cost of Withdrawal</u>				
17	Total Withdrawal-related Direct O&M		8,228,026	
18	A&G	30.48%	2,507,695	
19	General Plant	16.44%	1,352,925	
20	M&S		45,913	
21	Total Withdrawal-related O&M Costs		<u>12,134,559</u>	
22	Field Capacity (MMcfd)		3,175	
23	Average Unit Cost	\$/Mcf	3.822	

**2009 BCAP - SoCalGas
Marginal Storage Cost -- Input Data**

LRMC Loaders

A&G	30.48%	
Gen Plant	16.44%	
M&S	\$184,494	2006\$
	\$196,503	2009\$

Escalation Factors

	<u>2006\$ to 09\$</u>	<u>2007\$ to 09\$</u>	<u>2008\$ to 09\$</u>
Capitail	1.0419	1.0651	1.0244
	<u>2007\$ to 09\$</u>		
O&M	1.0570		

From Storage Functional assessment

Storage O&M by function

Inventory	42.9%	14,173,694
Injection	32.2%	10,661,600
Withdrawal	24.9%	8,228,026
Total	100.0%	

Storage Capacities

Inventory	131.1	bcf
Injection	850	MMcf/d
Withdrawal	3,175	MMcf/d

Storage O&M, excluding Fuel

Total O&M **33,063,321**

2007 FERC Form 2

\$9,028,488	814	UndStr Op-Supervision & Engineering	exclusions	
\$4,584	815	UndStr Op-Maps & Records	\$4,338,974	Montebello
\$2,598,277	816	UndStr Op-Wells Expenses		
\$171,518	817	UndStr Op-Lines Expense		
\$2,240,606	818	UndStr Op-Compressor Station Expense		
\$16,301,755	819	UndStr Op-Compress Station Fuel & Power (PBR Excluded)	\$16,301,755	fuel
\$3,212	820	UndStr Op-Meas & Reg Station Expenses		
\$549,764	821	UndStr Op-Purification Expenses		
\$500,403	823	UndStr Op-Gas Losses (PBR Excluded)	\$500,403	fuel
\$5,173,075	824	UndStr Op-Other Expenses		
\$150,979	825	UndStr Op-Storage Well Royalties		
\$184,648	826	UndStr Op-Rents		
\$0	830	Maintenance Supervision & Engineering		
\$623,894	831	UndStr Mnt-Structures & Improvements		
\$7,087,556	832	UndStr Mnt-Reservoirs & Wells		
\$1,527,224	833	UndStr Mnt-Lines		
\$5,250,659	834	UndStr Mnt-Compressor Station Equipment		
\$625,121	835	UndStr Mnt-Meas & Reg Station Equipment		
\$894,263	836	UndStr Mnt-Purification Equipment		
\$1,288,427	837	UndStr Mnt-Other Equipment		
\$54,204,453		Storage Costs	\$21,141,132	

Updated: 10/6/08. Updated exclusions for storage O&M.

2009 BCAP - SoCalGas
Marginal Storage Cost -- Input Data
Functionalization of Storage O&M

Allocate "Capital-Related" by NBV and JLM Rules for New Field Development

	NBV (\$)	% total	% Inj	% WD	% Bcf		Injection	Withdrawal	Inventory
	\$	% total	% Inj	% WD	% Bcf		Injection	Withdrawal	Inventory
814 Operation Supervision & Engineering	8,611,157	45%	33%	33%	34%	100%	\$2,841,682	\$2,841,682	\$2,927,793
815 Maps & Records	5,523	0%	0%	0%	100%	100%	\$0	\$0	\$5,523
816 Wells Expenses	2,529,056	13%	25%	50%	25%	100%	\$632,264	\$1,264,528	\$632,264
817 Lines Expenses	177,224	1%	10%	25%	65%	100%	\$17,722	\$44,306	\$115,196
818 Compressor Station Expenses	1,946,414	10%	100%	0%	0%	100%	\$1,946,414	\$0	\$0
820 Measuring & Regulating Station Expenses	872	0%	0%	0%	100%	100%	\$0	\$0	\$872
821 Purification Expenses	418,823	2%	0%	100%	0%	100%	\$0	\$418,823	\$0
823 Gas Losses	-	0%	0%	0%	100%	100%	\$0	\$0	\$0
824 Other Expenses	4,885,656	25%	0%	0%	100%	100%	\$0	\$0	\$4,885,656
825 Storage Well Royalties	446,737	2%	0%	0%	100%	100%	\$0	\$0	\$446,737
826 Rents	184,353	1%	0%	0%	100%	100%	\$0	\$0	\$184,353
Sub-total Operation	19,205,815	100%	51%				\$ 5,438,082	\$ 4,569,339	\$ 9,198,394
									\$ 19,205,815
818 Compressor Station Fuel & Power	13,411,663						Injection \$/Mcf	Withdrawal \$/Mcf	Inventory \$/Mcf
Total Operation	32,617,478								
830 Maintenance Supervision & Engineering	-	0%	33%	33%	34%	100%	\$0	\$0	\$0
831 Maintenance of Structures & Improvements	234,966	1%	0%	0%	100%	100%	\$0	\$0	\$234,966
832 Maintenance of Reservoirs & Wells	8,398,798	46%	20%	40%	40%	100%	\$1,679,760	\$3,359,519	\$3,359,519
833 Maintenance of Lines	1,974,146	11%	10%	25%	65%	100%	\$197,415	\$493,537	\$1,283,195
834 Maintenance of Compressor Sta Equipment	4,728,419	26%	100%	0%	0%	100%	\$4,728,419	\$0	\$0
835 Maintenance of Measuring & Reg Sta Equip	458,678	3%	0%	0%	100%	100%	\$0	\$0	\$458,678
836 Maintenance of Purification Equipment	872,240	5%	0%	100%	0%	100%	\$0	\$872,240	\$0
837 Maintenance of Other Equipment	1,476,294	8%	0%	0%	100%	100%	\$0	\$0	\$1,476,294
Total Maintenance	18,143,541	100%	49%				\$6,605,593	\$4,725,296	\$6,812,652
			100%						\$ 18,143,541
Storage O&M Excl. Fuel	37,349,356						\$ 12,043,675	\$ 9,294,635	\$ 16,011,046
									\$ 37,349,356

	Injection	Withdrawal	Inventory
O&M	32.2%	24.9%	42.9%

2009 BCAP A&G LOADER ANALYSIS
O&M Costs Used in A&G Loader

		2007 Recorded Costs (\$)
1. Total O&M		3,541,981,860
2. Total Production Expenses (incl Purchased Gas cost)		2,423,789,318
3. Total Storage Expenses	1/	54,204,453
4. Total A&G Expenses		393,255,188
5. Exclusions	2/ \$	99,662,276
6. Gas Used for Transmission Compressor Stations		<u>15,212,298</u>
7. Subtotal of Costs removed from O&M		2,986,123,533
8. Net O&M		555,858,327

Notes:

- 1/ Storage expenses removed from A&G loader, because SoCalGas proposes to separately scale storage costs to embedded storage cost.
- 2/ Exclusions EE, LIEE, CARE admin, Self Generation, Hazardous Waste costs that are not part of authorized base margin.

Rows (1) through (6) contain data from FERC Form 2 for 2007, pages 320-325
Row (7) = Sum [Row (2) : Row (6)]
Row (8) = Row (1) - Row (7)

Updated: 7/08 to reflect 2007 FERC Form 2 data.

TABLE 2
A&G and Payroll Taxes Loading Factor
with Comparison to 1999 BCAP

SOUTHERN CALIFORNIA GAS COMPANY
2009 BCAP Application

<u>DESCRIPTION</u>	<u>1999 BCAP</u>	<u>2009 BCAP</u>
	(\$)	(\$)
1. Total Marginal A&G Costs	\$117,673,007	\$132,472,837
2. Total Payroll Taxes	25,756,057	36,938,785
3. Marginal A&G and Payroll Taxes	143,429,064	169,411,622
4. Net O&M Costs	419,589,764	555,858,327
5. Marginal A&G/Payroll Taxes Loading Factor	34.18%	30.48%
6. Storage adjustment		4.34%

Notes:

Data Source: FERC Form 2

1. The Total Marginal A&G Costs and Total Payroll Taxes shown on Lines 1 & 2 have been reduced by 4.34% to reflect the allocation of common A&G costs to the storage function.
2. The Net Marginal O&M Costs shown on Line 4 do not include O&M costs associated with the storage function.

Updated: 10/6/08 to reflect update to EC study. (updated A&G\$ assigned to EC study)

Updated: 7/08 to FERC Form 2 data for 2007. Corrected Exclusions.

2009 BCAP A&G LOADER ANALYSIS
 Marginal vs Non-marginal Summary

(1) Account Title	(2) PUC Account	(3) Marginal Cost (\$)	(4) Marginal Portion of Total (%)	(5) Non-Marginal Cost (\$)	(6) Non-Marginal Portion of Total (%)	(7) Total Cost (\$)	(8) 2007 Recorded Total Cost Per FERC Form 2 (\$)
1. A&G Salaries	920	\$649	0.00%	\$17,278,774	5.16%	\$17,279,423	\$17,279,423
2. Office Supplies and Exp	921	988,170	0.30%	6,200,341	1.85%	7,188,511	\$7,188,511
3. Admin Expenses Transferred	922	0	0.00%	(3,499,523)	-1.05%	(3,499,523)	-\$3,499,523
4. Outside Services Employed	923	0	0.00%	135,489,919	40.49%	135,489,919	\$135,489,919
5. Property Insurance	924	3,952,579	1.18%	0	0.00%	3,952,579	\$3,952,579
6. Injuries and Damages	925	30,116,429	9.00%	0	0.00%	30,116,429	\$30,116,429
7. Employee Pensions & Benefits	926	74,652,177	22.31%	0	0.00%	74,652,177	\$74,652,177
8. Regulatory Commission Expenses	928	0	0.00%	5,065,438	1.51%	5,065,438	\$5,065,438
9. Misc General Expenses	930	90,046	0.03%	8,948,943	2.67%	9,038,989	\$9,038,989
10. Rents	931	1,842,947	0.55%	26,639,562	7.96%	28,482,510	\$28,482,510
11. Maintenance of Gen Plant	935	26,835,263	8.02%	0	0.00%	26,835,263	\$26,835,263
12. Total		138,478,260	41.39%	196,123,453	58.61%	334,601,714	334,601,715
Franchise Requirements	927						58,653,473

Updated: 7/08. Reflects 2007 FERC Form 2 data.

2005 BCAP A&G LOADER ANALYSIS
2002 RECORDED COSTS

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
FERC Cost Center Description	PUC Account Number	FERC Account No.	Marginal Y/N	2007 Recorded Costs Direct (\$)	Reassigned (\$)	Total (\$)	Marginal (\$)	Non-Marginal (\$)
1. BLDG OPER OTH THAN CLEANING SV	920	920.601	Y	\$ 468	\$ 126	\$ 594	\$ 594	\$ -
2. PROCUREMENT & LOGISTICS CONSULT	920	920.630	Y	-	-	-	-	-
3. REAL ESTATE	920	920.604	Y	-	-	-	-	-
4. BUILDING CLEANING SERVICES	920	920.600	Y	-	55	55	55	-
5. RETURN TO WORK EXAMINATIONS	920	920.212	Y	-	-	-	-	-
6. SUPPLIER MANAGEMENT	920	920.632	Y	-	-	-	-	-
ACCOUNT 920 MARGINAL TOTAL				468	181	649	649	-
7. ADMINISTRATIVE & GENERAL SALARIES	920	920.000	N	11,518,617	(457,547)	11,061,070	-	11,061,070
8. HUMAN RESOURCES OPER SALARIES	920	920.200	N	3,183,175	(83,933)	3,099,242	-	3,099,242
9. REGIONAL AFFAIRS	920	920.570	N	2,094,327	230,792	2,325,119	-	2,325,119
10. END USER SUPPORT COMM	920	920.372	N	-	-	-	-	-
11. COMPUTER END USER SUPPORT	920	920.371	N	-	34	34	-	34
12. REGION MANAGER SALARIES	920	920.047	N	-	-	-	-	-
13. PUBLIC AFFAIRS ADMINISTRATION	920	920.563	N	291,572	(44,268)	247,304	-	247,304
14. OPERATE MAINFRAME COMPUTERS GEN	920	920.360	N	-	-	-	-	-
15. STANDARD & CODES	920	920.561	N	86,392	19,602	105,994	-	105,994
16. INFORMATION SYS GENL SUPERVISION	920	920.301	N	14,208	425,803	440,011	-	440,011
17. INFORMATION SYS ADMIN SUPPORT	920	920.302	N	-	-	-	-	-
18. INFORMATION SYSTEMS	920	920.300	N	-	-	-	-	-
19. GOVERNMENTAL AFFAIRS SALARIES	920	920.560	N	-	-	-	-	-
20. Reassignment Only	920	920.010	N	-	-	-	-	-
ACCOUNT 920 NON-MARGINAL TOTAL				17,188,290	90,484	17,278,774	-	17,278,774
21. BLDG OPER OTH THAN CLEANING SV	921	921.601	Y	926,507	(37,970)	888,537	888,537	-
22. BUILDING CLEANING SERVICES	921	921.600	Y	74,860	(2,401)	72,459	72,459	-
23. PROCUREMENT & LOGISTICS CONSULT	921	921.630	Y	28,143	(4,137)	24,006	24,006	-
24. REAL ESTATE	921	921.604	Y	2,961	208	3,169	3,169	-
ACCOUNT 921 MARGINAL TOTAL				1,032,471	(44,300)	988,170	988,170	-
27. ADMINISTRATIVE & GENERAL SALARIES	921	921.000	N	5,160,094	27,421	5,187,515	-	5,187,515
28. HUMAN RESOURCES OPER SALARIES	921	921.200	N	157,875	(71,952)	85,923	-	85,923
29. COMPUTER END USER SUPPORT	921	921.371	N	42,706	(1,444)	41,262	-	41,262
30. REGIONAL AFFAIRS	921	921.571	N	503,576	(31,889)	471,687	-	471,687
31. PUBLIC AFFAIRS ADMINISTRATION	921	921.563	N	124,460	(18,495)	105,965	-	105,965
32. REGION MANAGER SALARIES	921	921.047	N	(389)	13	(376)	-	(376)
33. STANDARD & CODES	921	921.561	N	52,735	(1,349)	51,386	-	51,386
34. INFORMATION SYS GENL SUPERVISION	921	921.301	N	14,537	2,265	16,803	-	16,803
35. FERC B/S ERRORS	921	921.999	N	-	240,177	240,177	-	240,177
ACCOUNT 921 NON-MARGINAL TOTAL				6,055,593	144,748	6,200,341	-	6,200,341
36. ADMINISTRATIVE EXPENSES TRANSFERRED-CRED	922	922.000	N	-	(3,499,523)	(3,499,523)	-	(3,499,523)
ACCOUNT 922 NON-MARGINAL TOTAL				-	(3,499,523)	(3,499,523)	-	(3,499,523)
37. OUTSIDE SERVICES EMPLOYED	923	923.010	N	-	-	-	-	-
ACCOUNT 923 NON-MARGINAL TOTAL				(827,925)	136,317,844	135,489,919	-	135,489,919

2005 BCAP A&G LOADER ANALYSIS
2002 RECORDED COSTS

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
FERC Cost Center Description	PUC Account Number	FERC Account No.	Marginal Y/N	2007 Recorded Costs Direct	Reassigned	(5) + (6) Total	Marginal	Non-Marginal
38. INSURANCE EXPENSE	924	924.000	Y	290,683	3,661,895	3,952,579	3,952,579	-
ACCOUNT 924 MARGINAL TOTAL				290,683	3,661,895	3,952,579	3,952,579	-
39. INJURIES AND DAMAGES	925	925.000	Y	25,419,277	4,697,152	30,116,429	30,116,429	-
ACCOUNT 925 MARGINAL TOTAL				25,419,277	4,697,152	30,116,429	30,116,429	-
40. EMPLOYEE PENSIONS AND BENEFITS	926	926.000	Y	8,523,704	(173,938)	8,349,766	8,349,766	-
41. TRANSPORTATION PROGRAM	926	926.239	Y	318,416	(318,416)	-	-	-
42. EMPLOYEE RECOGNITION PROGRAM	926	926.200	Y	5,454,205	(5,428,205)	26,000	26,000	-
43.	926	926.207	Y	(15,067)	15,189	122	122	-
44. DISABILITY BENEFIT EXPENSE	926	926.300	Y	91,401,369	(25,125,081)	66,276,288	66,276,288	-
ACCOUNT 926 MARGINAL TOTAL				105,682,627	(31,030,450)	74,652,177	74,652,177	-
45. BLDG SUPPORT CANTEEN GASCO TWR	926	926.202	N	38	(38)	-	-	-
ACCOUNT 926 NON-MARGINAL TOTAL				38	(38)	-	-	-
46. INTERVENOR COMPENSATION	928	928.500	N	170,924	-	170,924	-	170,924
47. REGULATORY COMMISSION EXPENSES	928	928.000	N	1,890,642	3,003,872	4,894,513	-	4,894,513
ACCOUNT 928 NON-MARGINAL TOTAL				2,061,566	3,003,872	5,065,438	-	5,065,438
48. DIVISION STATIONERY EXPENSE	930	930.625	Y	38,916	953	39,869	39,869	-
49. DUPLICATING EQUIP DIST & TRANS	930	930.600	Y	49,150	1,027	50,177	50,177	-
ACCOUNT 930 MARGINAL TOTAL				88,066	1,980	90,046	90,046	-
50. MISCELLANEOUS GENERAL EXPENSES	930	930.200	N	5,449,762	3,494,585	8,944,347	-	8,944,347
51. MISC DIV OFFICE EXPENSES	930	930.046	N	4,512	84	4,596	-	4,596
ACCOUNT 930 NON-MARGINAL TOTAL				5,454,273	3,494,669	8,948,943	-	8,948,943
52. RENTS DISTRIB AND TRANSM REGIONS	931	931.602	Y	1,905,250	(62,302)	1,842,947	1,842,947	-
ACCOUNT 931 MARGINAL TOTAL				1,905,250	(62,302)	1,842,947	1,842,947	-
53. GAS COMPANY TOWER RENTS	931	931.600	N	29,541,146	(3,605,163)	25,935,984	-	25,935,984
54. RENTS GENERAL	931	931.000	N	(14,596)	718,175	703,579	-	703,579
ACCOUNT 931 NON-MARGINAL TOTAL				29,526,550	(2,886,988)	26,639,562	-	26,639,562
55. BLDG YARD & EQUIP MAINTENANCE	935	935.600	Y	15,771,546	354,337	16,125,883	16,125,883	-
56. MAINTENANCE FURN OFFICE EQUIP	935	935.601	Y	17,363	(1,444)	15,919	15,919	-
57. MEAS SHOP EQUIP	935	935.675	Y	351,752	42,783	394,534	394,534	-
58. GARAGE/FUEL ISLAND MAINTENANCE	935	935.606	Y	728,270	81,912	810,182	810,182	-
59. COMPR MTC CNG VEHICLES	935	935.605	Y	102,079	27,753	129,832	129,832	-
60. TESTRACK MAINTENANCE	935	935.680	Y	36,822	8,072	44,894	44,894	-
61. MAINTENANCE OF GENERAL PLANT	935	935.000	Y	(88,766)	9,402,784	9,314,018	9,314,018	-
ACCOUNT 935 MARGINAL TOTAL				16,919,065	9,916,197	26,835,263	26,835,263	-
TOTAL A&G				210,796,292	123,805,421	334,601,714	138,478,260	196,123,453

2005 BCAP A&G LOADER ANALYSIS
 2002 RECORDED COSTS

(1)	(2)	(3)	(4)	(5)	(6)	(7) (5) + (6)	(8)	(9)
FERC Cost Center Description	PUC Account Number	FERC Account No.	Marginal Y/N	2007 Recorded Costs Direct	Reassigned	Total	Marginal	Non-Marginal

Updated: 7/08. Reflects 2007 FERC Form 2 data.

2009 BCAP A&G LOADER ANALYSIS
2007 RECORDED COSTS

FERC Account	LABOR	NON_LABOR	TOTAL DIRECT	REASSIGNMENTS	TOTAL COSTS
920.000 Total	\$11,518,617	\$0	\$11,518,617	-\$ 457,547	\$11,061,070
920.010 Total	\$ 0	\$ 0	\$0	\$ 0	\$ 0
920.047 Total	\$0	\$0	\$0	\$ 0	\$0
920.200 Total	\$3,183,175	\$0	\$3,183,175	-\$ 83,933	\$3,099,242
920.212 Total	\$0	\$0	\$0	\$ 0	\$ 0
920.300 Total	\$ 0	\$ 0	\$0	\$ 0	\$ 0
920.301 Total	\$14,208	\$0	\$14,208	\$ 425,803	\$ 440,011
920.302 Total	\$0	\$0	\$0	\$ 0	\$ 0
920.360 Total	\$0	\$0	\$0	\$ 0	\$0
920.371 Total	\$0	\$0	\$0	\$ 34	\$34
920.372 Total	\$0	\$0	\$0	\$ 0	\$ 0
920.560 Total	\$0	\$0	\$0	\$ 0	\$ 0
920.561 Total	\$86,392	\$0	\$86,392	\$ 19,602	\$105,994
920.563 Total	\$291,572	\$0	\$291,572	-\$ 44,268	\$247,304
920.570 Total	\$2,094,327	\$0	\$2,094,327	\$ 230,792	\$2,325,119
920.600 Total	\$0	\$0	\$0	\$ 55	\$55
920.601 Total	\$468	\$0	\$468	\$ 126	\$594
920.604 Total	\$0	\$0	\$0	\$ 0	\$0
920.630 Total	\$0	\$0	\$0	\$ 0	\$0
920.632 Total	\$0	\$0	\$0	\$ 0	\$ 0
	\$ 17,188,758	\$ 0	\$ 17,188,758	\$ 90,665	\$ 17,279,423
921.000 Total	\$0	\$5,160,094	\$5,160,094	\$ 27,421	\$5,187,515
921.047 Total	\$ 0	-\$ 389	-\$389	\$ 13	-\$ 376
921.200 Total	\$ 0	\$ 157,875	\$157,875	-\$ 71,952	\$ 85,923
921.301 Total	\$ 0	\$ 14,537	\$14,537	\$ 2,265	\$ 16,803
921.371 Total	\$ 0	\$ 42,706	\$42,706	-\$ 1,444	\$ 41,262
921.561 Total	\$ 0	\$ 52,735	\$52,735	-\$ 1,349	\$ 51,386
921.563 Total	\$ 0	\$ 124,460	\$124,460	-\$ 18,495	\$ 105,965
921.571 Total	\$ 0	\$ 503,576	\$503,576	-\$ 31,889	\$ 471,687
921.600 Total	\$ 0	\$ 74,860	\$74,860	-\$ 2,401	\$ 72,459
921.601 Total	\$ 0	\$ 926,507	\$926,507	-\$ 37,970	\$ 888,537
921.604 Total	\$ 0	\$ 2,961	\$2,961	\$ 208	\$ 3,169
921.630 Total	0	28143.22	\$28,143	-\$ 4,137	\$ 24,006
921.999 Total	\$ 0	\$ 0	\$0	\$ 240,177	\$ 240,177
	\$ 0	\$ 7,088,064	\$ 7,088,064	\$ 100,447	\$ 7,188,511
922.000 Total	\$0	\$0	\$0	-\$ 3,499,523	-\$3,499,523
923.000 Total	-\$459,204	-\$368,721	-\$827,925	\$ 136,317,844	\$135,489,919
923.010 Total	\$ 0	\$0	\$0	\$ 0	\$ 0
	-\$ 459,204	-\$ 368,721	-\$ 827,925	\$ 136,317,844	\$ 135,489,919
924.000 Total	\$0	\$290,683	\$290,683	\$ 3,661,895	\$3,952,579
925.000 Total	\$1,739,030	\$23,680,247	\$25,419,277	\$ 4,697,152	\$30,116,429

2009 BCAP A&G LOADER ANALYSIS
2007 RECORDED COSTS

FERC Account	LABOR	NON_LABOR	TOTAL DIRECT	REASSIGNMENTS	TOTAL COSTS
926.000 Total	\$170,126	\$8,353,578	\$8,523,704	-\$ 173,938	\$8,349,766
926.200 Total	\$0	\$5,454,205	\$5,454,205	-\$ 5,428,205	\$26,000
926.202 Total	\$0	\$38	\$38	-\$ 38	\$0
926.207 Total	-\$15,324	\$257	-\$15,067	\$ 15,189	\$122
926.239 Total	\$0	\$318,416	\$318,416	-\$ 318,416	\$0
926.300 Total	\$40,893	\$91,360,476	\$91,401,369	-\$ 25,125,081	\$66,276,288
	\$ 195,696	\$ 105,486,970	\$ 105,682,665	-\$ 31,030,488	\$ 74,652,177
928.000 Total	\$1,664,363	\$226,279	\$1,890,642	\$ 3,003,872	\$4,894,513
928.500 Total	\$0	\$170,924	\$170,924	\$ 0	\$170,924
	\$ 1,664,363	\$ 397,203	\$ 2,061,566	\$ 3,003,872	\$ 5,065,438
930.046 Total	\$ 0	\$ 4,512	\$4,512	\$ 84	\$ 4,596
930.200 Total	\$ 1,257,932	\$ 4,191,830	\$5,449,762	\$ 3,494,585	\$ 8,944,347
930.600 Total	\$ 243	\$ 48,907	\$49,150	\$ 1,027	\$ 50,177
930.625 Total	\$0	\$38,916	\$38,916	\$ 953	\$39,869
	\$ 1,258,175	\$ 4,284,164	\$ 5,542,339	\$ 3,496,650	\$ 9,038,989
931.000 Total	\$0	-\$14,596	-\$14,596	\$ 718,175	\$703,579
931.600 Total	\$0	\$29,541,146	\$29,541,146	-\$ 3,605,163	\$25,935,984
931.602 Total	\$0	\$1,905,250	\$1,905,250	-\$ 62,302	\$1,842,947
	\$ 0	\$ 31,431,800	\$ 31,431,800	-\$ 2,949,290	\$ 28,482,510
935.000 Total	\$42,158	-\$130,924	-\$88,766	\$ 9,402,784	\$9,314,018
935.600 Total	\$3,624,991	\$12,146,556	\$15,771,546	\$ 354,337	\$16,125,883
935.601 Total	\$0	\$17,363	\$17,363	-\$ 1,444	\$15,919
935.605 Total	\$102,529	-\$450	\$102,079	\$ 27,753	\$129,832
935.606 Total	\$335,982	\$392,287	\$728,270	\$ 81,912	\$810,182
935.675 Total	\$200,052	\$151,700	\$351,752	\$ 42,783	\$394,534
935.680 Total	\$36,068	\$754	\$36,822	\$ 8,072	\$44,894
	\$ 4,341,779	\$ 12,577,286	\$ 16,919,065	\$ 9,916,197	\$ 26,835,263
				\$ 123,805,421	\$ 334,601,714

Updated: 7/08. Reflects 2007 FERC Form 2 data.

**General Plant Loading Factor
with Comparison to 1999 BCAP**

		<u>1999 BCAP</u>	<u>2009 BCAP</u>	
1. Total General Plant	1/	\$428,551,198	\$566,103,523	ck
2. Weighted Average RECC for General Plant		14.51%	16.15%	
3. Annualized General Plant Costs		\$62,172,118	\$91,399,156	1 x 2
4. Net Recorded O&M Costs		\$432,875,019	\$555,858,327	
5. General Plant Loading Factor		14.36%	16.44%	3 / 4
6. Storage adjustment			4.66%	ck

Notes:

1/ Total General Plant on Line 1 reflects removal of GP allocated to Storage function in EC study.

Updated: 10/06/08. Reflects updated EC study. (updated Gen Plant\$ assigned to EC study)

Updated: 7/08. Reflects 2007 FERC Form 2 data. Corrected Exclusions. Corrected Total Gen Plant value.

Weighted Average RECC Calculation

Account No.	General Plant Accounts	Gas Plant In Service Year End 2007		Weighted Average RECC	
		Balance (\$)	Percent	RECC	RECC
1. 390	Structures and Improvements	103,784,503	36.02%	12.288%	4.426%
2. 391	Office Furniture and Equipment		0.00%		0.000%
3. 391.1	Office Furniture and Equipment	16,220,363	5.63%	12.454%	0.701%
4. 391.2	Computer Equipment	80,893,678	28.08%	25.719%	7.221%
5. 393	Stores Equipment	106,344	0.04%	11.850%	0.004%
6. 394	Tools, Shop, and Garage Equipment		0.00%		0.000%
7. 394.2	Shop and Garage Equipment	12,000,352	4.17%	10.192%	0.425%
8. 395	Laboratory Equipment	6,948,704	2.41%	10.773%	0.260%
9. 397	Communication Equipment	64,158,484	22.27%	13.219%	2.944%
10. 398	Miscellaneous Equipment	3,987,669	1.38%	11.821%	0.164%
11.		<u>288,100,097</u>	<u>100.00%</u>		<u>16.145%</u>

Updated: 7/08. Reflects 2007 FERC Form 2 data. RECC factors updated.

Gas Plant updated to 2007 FERC Form 2 data, detailed acct data pulled from B/W

RECC factors updated to 2008 values (note: reflects updates to property taxes and salvage values)

**2007 FERC Form 2 data
M&S Annual Costs By Function**

I. Direct Plant Investment (To Allocate M&S Cost to Functions)

Line #	Function	Plant	Percent
1	Storage	\$513,058,059	7.03%
2	Transmission - Total	\$1,155,086,933	15.83%
3	Distribution - Total	\$5,627,246,020	77.13%
4	Customer Related	\$2,606,692,005	35.73%
5	Load Related	\$3,020,554,015	41.40%
6	General Plant	\$0	0.00%
7	Total	\$7,295,391,012	100.00%

II. Total M&S To Be Functionalized

8	Total Material and Supplies	\$20,223,934
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III. Functional Allocation of M&S

9	Storage	\$1,422,275	7.03%
10	Transmission - Total	\$3,202,077	15.83%
11	Distribution - Total	\$15,599,582	77.13%
12	Customer Related	\$7,226,147	35.73%
13	Load Related	\$8,373,435	41.40%
14	General Plant	\$0	0.00%
15	Total	\$20,223,934	100.00%

16	IV. M&S Annual Cost factor	12.97%
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V. M&S Annual Costs

		2007 \$		2009 \$
17	Storage	\$184,494	7.03%	\$196,503
18	Transmission - Total	\$415,365	15.83%	\$442,402
19	Distribution - Total	\$2,023,537	77.13%	\$2,155,251
20	Customer Related	\$937,357	35.73%	\$998,370
21	Load Related	\$1,086,180	41.40%	\$1,156,881
22	General Plant	\$0	0.00%	\$0
23	Total	\$2,623,396	100.00%	\$2,794,155

*escalated by capital factor: 2007\$ to 2009\$

1.065

Errata - Total Storage Plant and Total Transmission Plant have been reduced to reflect the removal of FERC Accts 358 and 372 from the calculation. These accounts reflect Asset Retirement costs, which are not part of Rate Base.

Errata - used year-end M&S value, instead of average
Updated to FERC Form 2 data for 2007

**2009 BCAP M&S Annual Costs By Function
Allocation of 2007 Distribution Plant Investment**

Customer Related

	\$	Percent
1. 380 Services	1,880,615,265	
2. 381 Meters	387,704,866	
3. 382 Meter Installations	231,579,801	
4. 383 House Regulators	106,792,073	
5. 386 Other Property	0	
6. Sub-Total	2,606,692,005	46.323%

ck
ck
ck
ck

Load Related

	\$	Percent
7. 374 Land & Land Rights	30,901,406	
8. 375 Structures & Improvements	187,642,657	
9. 376 Mains	2,723,135,953	
10. 378 Measurement & Reg Stations	56,247,613	
11. 387 Other Equipment	22,626,386	
12. Sub-Total	3,020,554,015	53.677%

ck
ck
ck
ck
ck

13. Total Distribution Plant	5,627,246,020	100.000%
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source: 2007 FERC Form 2, p. 208-9

note: does not include Acct 388 Asset Retirement Costs for Distribution Plant

192,792,640	asset retirement	ck
5,820,038,660	Total + asset retirement	
5,820,038,660	p. 209, line 109	ck
0	check	

2009 BCAP M&S Annual Costs By Function
Development of Material & Supplies Annual Cost Factor

	<u>Capital Structure</u>	<u>Cost</u>	<u>Weighted Cost</u>	<u>Tax Factor</u>	<u>After Tax Wt. Cost</u>
1. Long Term Debt	45.61%	6.96%	3.17%	1.0000	3.17%
2. Preferred Stock	6.39%	4.83%	0.31%	1.7806	0.55%
3. Common Equity	48.00%	10.82%	5.19%	1.7806	9.25%
4.			8.68%		12.97%

sources:

Capital Structure and Cost from MICAM filing, AL 3199-A on Nov 20, 2002.

Cost of Capital from Economic Assumptions model.

SOUTHERN CALIFORNIA GAS

2008 Economic Assumptions Update LEVELIZED ANNUAL CAPITAL COST AND RECC FACTORS

utility **social**

Auth ROR ==> 8.68%

Fed Tax Rate ==> 35.00%

State Tax Rate ==> 8.84%

Ad Valorum Rate ==> 1.198%

FERC Account	Account Name
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Book Life	Fed Tax Life	State Tax Life	Percent Salvage	Normlzd Federal Taxes ?	Normlzd State Taxes ?	Depreciation Method		LACC Components (in percent)						RECC Factors	PVCC Factors
						Federal Tax	State Tax	Book Depr	Return on Capital	Income Taxes	Property Taxes	Salvage Effect	Total LACC		

GAS UNDERGROUND STORAGE

G-352	Wells	33	15	22	-45%	yes	no	db/sl	150%	db/sl	200%	3.03	5.33	2.18	0.83	0.07	11.44	9.45	123.34
G-353	Lines	31	15	22	-50%	yes	no	db/sl	150%	db/sl	200%	3.23	5.29	2.17	0.81	0.10	11.60	9.65	123.59
G-354	Compressor Station Equipment	32	15	22	-20%	yes	no	db/sl	150%	db/sl	200%	3.13	5.31	2.18	0.82	0.04	11.47	9.51	122.93
G-356	Purification Equipment	32	15	22	-55%	yes	no	db/sl	150%	db/sl	200%	3.13	5.31	2.18	0.82	0.10	11.53	9.56	123.60

GAS TRANSMISSION PLANT

G-365.1	Land	0	0	0	0%	no	no	none		none		0.00	8.68	4.30	1.20	0.00	14.17	n/a	157.83
G-365.2	Land Rights	40	40	22	0%	no	no	sl		sl		2.50	6.39	2.67	0.87	0.00	12.43	10.08	138.07
G-366	Structures & Improvements	44	39	45	-40%	yes	no	sl		db/sl	150%	2.27	6.44	2.82	0.89	0.01	12.43	10.00	139.60
G-367	Mains	52	15	22	-20%	yes	no	db/sl	150%	db/sl	200%	1.92	5.70	2.25	0.93	0.00	10.80	8.58	122.83
G-368	Compressor Station Equipment	36	15	22	-35%	yes	no	db/sl	150%	db/sl	200%	2.78	5.39	2.19	0.84	0.04	11.24	9.21	123.05
G-369	Measuring & Regulating Equipment	37	15	22	-15%	yes	no	db/sl	150%	db/sl	200%	2.70	5.41	2.19	0.85	0.01	11.17	9.13	122.80
G-371	Other Equipment	20	15	22	-30%	yes	no	db/sl	150%	db/sl	200%	5.00	5.13	2.23	0.73	0.20	13.30	11.59	124.24

GAS DISTRIBUTION PLANT

G-374.1	Land	0	0	0	0%	no	no	none		none		0.00	8.68	4.30	1.20	0.00	14.17	n/a	157.83
G-374.2	Land Rights	0	0	0	0%	no	no	none		none		0.00	8.68	4.30	1.20	0.00	14.17	n/a	157.83
G-375	Structures & Improvements	28	39	45	5%	yes	no	sl		db/sl	150%	3.57	6.16	2.79	0.79	-0.01	13.29	11.18	138.29
G-376	Mains	50	15	35	-50%	yes	no	db/sl	150%	db/sl	200%	2.00	5.66	2.35	0.92	0.00	10.93	8.71	124.03
G-378	Measuring & Regulating Equipment	31	15	35	-100%	yes	no	db/sl	150%	db/sl	200%	3.23	5.29	2.29	0.81	0.20	11.82	9.83	125.91
G-380	Services	45	15	35	-90%	yes	no	db/sl	150%	db/sl	200%	2.22	5.57	2.33	0.89	0.02	11.04	8.86	124.22
G-381	Meters	32	15	35	5%	yes	no	db/sl	150%	db/sl	200%	3.13	5.31	2.29	0.82	-0.01	11.54	9.56	123.68
G-382	Meter Installations	48	15	35	-70%	yes	no	db/sl	150%	db/sl	200%	2.08	5.63	2.34	0.91	0.01	10.97	8.76	124.08
G-383	House Regulators	29	15	35	0%	yes	no	db/sl	150%	db/sl	200%	3.45	5.25	2.30	0.80	0.00	11.79	9.88	123.75
G-387	Other Equipment	12	15	35	-25%	yes	no	db/sl	150%	db/sl	200%	8.33	5.23	2.46	0.65	0.45	17.12	15.66	124.58

GAS GENERAL PLANT

G-390	Structures & Improvements	22	39	45	-20%	yes	no	sl		db/sl	150%	4.55	6.05	2.79	0.74	0.11	14.24	12.29	137.79
G-391.1	Office Furniture & equipment	14	7	10	5%	yes	no	db/sl	200%	db/sl	200%	7.14	4.31	1.74	0.67	-0.07	13.80	12.45	109.41
G-391.2	Computer Equipment	5	5	6	5%	yes	no	db/sl	200%	db/sl	200%	20.00	4.47	1.97	0.52	-0.31	26.65	25.72	104.54
G-393	Stores Equipment	20	20	35	0%	yes	no	db/sl	150%	db/sl	200%	5.00	5.42	2.44	0.73	0.00	13.59	11.85	127.00
G-394.1	Shop & Garage Equipment	29	20	35	0%	yes	no	db/sl	150%	db/sl	200%	3.45	5.51	2.41	0.80	0.00	12.17	10.19	127.66
G-394.3	Large Portable Tools	24	20	35	0%	yes	no	db/sl	150%	db/sl	200%	4.17	5.44	2.44	0.76	0.00	12.81	10.96	127.64
G-395	Laboratory Equipment	25	20	35	0%	yes	no	db/sl	150%	db/sl	200%	4.00	5.45	2.43	0.77	0.00	12.66	10.77	127.64
G-397	Communications Equipment	15	15	20	5%	yes	no	db/sl	150%	db/sl	200%	6.67	5.17	2.28	0.68	-0.06	14.74	13.22	121.09
G-398	Miscellaneous Equipment	20	20	35	5%	yes	no	db/sl	150%	db/sl	200%	5.00	5.42	2.44	0.73	-0.03	13.56	11.82	126.69

Capital and O&M Escalators

2006 \$s	to	2009 \$s	2006-09 Factor: Capital	1.0419
2007 \$s	to	2009 \$s	2007-09 Factor: Capital	1.0651
2008 \$s	to	2009 \$s	2008-09 Factor: Capital	1.0244
2006 \$s	to	2009 \$s	2006-09 Factor: O&M	1.0940
2007 \$s	to	2009 \$s	2007-09 Factor: O&M	1.0570

factor used to escalate most capital forecasts (e.g., dist capital)
 factor used to escalate M&S\$ (WP#4)
 factor used to escalate transmission and storage capital costs (W

factor used to escalate 2007 FERC Form 2 data to 2009\$

Split Factors	Labor	Nonlabor
2007	14.25%	85.75%
2006	14.01%	85.99%
	\$millions	
	<u>2006</u>	<u>2007</u>
Total Salaries & Wages	485	505
Total Gas O&M Exp.	3,466	3,542

Source: FERC Form 2, page 355, line 77
 Source: FERC Form 2, page 325, line 271

Cost Escalators, for use in SoCalGas 2009 BCAP calculations (escalators are from 6-13-08 calculations based on 2008 General Rate C based on Global Insight "1st Quarter 2008" utility cost forecast)

	<u>O&M Non-labor</u> <u>Annual % change</u>	<u>O&M Non-labor</u> <u>Multiplier to convert to</u> <u>constant 2006 dollars</u>	<u>O&M Labor</u> <u>Annual % change</u>	<u>O&M Labor</u> <u>Multiplier to convert to</u> <u>constant 2006 dollars</u>	<u>Capital</u> <u>Annual % change</u>	<u>Capital</u> <u>Multiplier to convert to</u> <u>constant 2006 dollars</u>
1989		1.5463		1.7784		1.9694
1990	3.72%	1.4909	4.27%	1.7056	1.36%	1.9430
1991	3.33%	1.4428	3.87%	1.6421	2.77%	1.8907
1992	1.78%	1.4175	2.96%	1.5949	1.14%	1.8694
1993	1.76%	1.3931	3.97%	1.5339	2.82%	1.8180
1994	2.37%	1.3608	3.49%	1.4822	5.65%	1.7209
1995	3.68%	1.3124	2.82%	1.4415	3.34%	1.6652
1996	1.89%	1.2881	3.27%	1.3959	0.86%	1.6510
1997	1.97%	1.2632	3.86%	1.3440	2.28%	1.6142
1998	1.30%	1.2470	4.22%	1.2896	1.25%	1.5942
1999	1.75%	1.2255	2.99%	1.2521	2.34%	1.5578
2000	3.11%	1.1885	3.63%	1.2083	3.63%	1.5032
2001	2.53%	1.1592	3.78%	1.1643	1.36%	1.4830
2002	1.50%	1.1421	2.31%	1.1380	2.05%	1.4533
2003	2.55%	1.1137	3.32%	1.1015	3.32%	1.4066
2004	2.86%	1.0828	3.08%	1.0686	15.17%	1.2213
2005	4.21%	1.0391	3.42%	1.0332	17.33%	1.0409
2006	3.91%	1.0000	3.32%	1.0000	4.09%	1.0000
2007	3.46%	0.9666	3.72%	0.9641	-2.17%	1.0222
2008	3.27%	0.9360	2.79%	0.9380	3.97%	0.9832
2009	2.40%	0.9140	2.55%	0.9146	2.44%	0.9598
2010	2.16%	0.8947	2.72%	0.8904	4.36%	0.9197
2011	1.87%	0.8783	2.64%	0.8675	2.38%	0.8983
2012	1.87%	0.8622	2.77%	0.8441	2.29%	0.8782
2013	2.06%	0.8448	2.75%	0.8216	2.18%	0.8594
2014	2.14%	0.8271	2.63%	0.8005	1.96%	0.8429
2015	2.10%	0.8101	2.61%	0.7801	2.11%	0.8255

Source: data in cells x35:z61 are from Scott Wilder's file "GRC Escalation Summary Table SRW 2008q1 update.xls"; inputs are from Global Insight's 1st Quarter 2008 TREND081 utility cost forecast -- for use in 2009 BCAP work.

Capital=JUG@PCF; O&M Labor=SoCalGas O&M Labor index from GRC; O&M Non-Labor=SoCalGas O&M GOMPI modified to exclude labor component (in original GRC GOMPI, O&M labor is weighted 33.94%, O&M non-labor 66.06%)

Updated: 7/08. Reflect more current GI data and 2007 FERC Form 2 data, per notes above.

Values from 10-1-08 version of EC study

NGV compression adder	
embedded cost for compression adder	
1.278 \$ millions	used in WP# 9

Storage	
Embedded cost of storage	
86.985	
EC study allocation of A&G and Gen Plant to storage function	
A&G	
<u>Storage</u>	<u>Total</u>
17.1	393.3
4.34%	% A&G allocated to Storage used in WP# 2
Gen Plant	
<u>Storage</u>	<u>Total</u>
0.579	12.395
2.558	54.926
0.375	8.051
3.512	75.372
4.66%	% Gen Plant allocated to Stor:used in WP# 3

Exclusions/ Adjustments		used in WP# 2 & 3
	Exclusion Items	O&M excl in LRMC study
Storage		
814 UndStr Op-Supervision & Engineering	4.339	\$ 4,338,974
Transmission:		
854&855 Tran Op-Gas From Comp Sta Fuel (PBR Excluded)	15.308	
859 Tran Op-Other Expenses (PBR excl Haz Waste)	0.711	\$ 711,270
	16.020	
Distribution		
880 Dist Op-Other Expenses (PBR Ex Haz Waste)	15.467	\$ 15,467,351
Customer Accounts		
901 Cus Acct-Supervision (PBR Ex CARE) + Payroll Taxes	4.512	\$ 4,512,235
903 Cus Acct-Customer Records & Collections Exp		\$ -
904 Cus Acct-Uncollectible Accounts	9.396	
	13.908	
Customer Services & Information		
908 Cus Svc-Cust Assist Exp (PBR Ex DAP, DSM &Self-Gen)	78.233	\$ 78,232,696
910 Cus Svc-Misc CSI Exp (PBR Ex DSM & NGV)	0.739	\$ 738,723
	78.971	
927 AdmGen Op-Franchise Requirements	58.653	
		\$ 99,662,275

Values from 10-1-08 version of EC study

used for allocation of marketing costs

non-DSM CS&I Allocation		2006 data	
Total \$	\$23,913		
Core			
	Allocation		
Residential	52.7%	49.8%	
Small Core C&I G10	35.9%	37.6%	
NGV	1.8%	2.6%	
Gas Air Conditioning	0.0%	0.0%	
Gas Engines	0.0%	0.0%	
Noncore - Retail			
Com/Ind - G30 Total	2.3%	2.3%	
EG Tier 1	2.2%	3.2%	91%
EG Tier 2	0.2%	0.3%	9%
EOR - G40	0.3%	0.3%	
Noncore - Wholesale			
Long Beach - G70	0.6%	0.6%	
SDG&E - G80	0.6%	0.6%	
Southwest Gas - G90	0.6%	0.6%	
Vernon	0.6%	0.6%	
Noncore - International			
Mexicali (DGN)	0.3%	0.3%	
Unbundled Storage	1.9%	1.3%	
Total System	100.0%	100.3%	

Values from 10-1-08 version of EC study

CORE SEASONAL STORAGE		SOCALGAS CORE							
		<u>Res</u>	<u>C C/I</u>	<u>NGV</u>	<u>A/C</u>	<u>Gas Eng</u>	<u>SCG Totals</u>	<u>SDG&E</u>	<u>Total</u>
Capacities									
Inventory	mmcf	51,951	9,349	-	-	-	61,300	8,700	70,000
Injection	mmcf	243	44	-	-	-	286	41	327
Withdrawal	mmcf	1,611	317	7	0	0	1,935	290	2,225
ASSIGNMENT OF STORAGE CAPACITIES (based on Embedded Cost Study)									
		<u>% Total by Product</u>		<u>Alloc</u>	<u>Total</u>	<u>Units</u>			
Core Reservation SoCalGas									
Inventory	%	47%		61.3	131.1	Bcf			
Injection	%	34%		286	850	MMcf			
Withdrawal	%	61%		1,935	3,195	MMcf			
Core Reservation SDG&E									
Inventory	%	7%		8.7	131.1	Bcf			
Injection	%	5%		41	850	MMcf			
Withdrawal	%	9%		290	3,175	MMcf			
Load Balancing									
				<u>Alloc</u>	<u>Total</u>	<u>Units</u>			
Inventory	%	3%		4.2	131.1	Bcf			
Injection	%	24%		200	850.0	MMcf			
Withdrawal	%	11%		340	3,195.0	MMcf			
TBS Storage Program									
Inventory	%	43%		56.9	131.1	Bcf			
Injection	%	38%		322.9	850.0	MMcf			
Withdrawal	%	20%		630.0	3,195.0	MMcf			
<u>Total TBS</u>									
Storage Grand Total			100%	131.1					
			100%	850					
			100%	3195					

Values from 10-1-08 version of EC study

used for Noncore service level cost allocation split

<u>customer related costs from EC study</u>	
NCCI-Total	5.880
NCCI-D	5.588
NCCI-T	0.292
EOR-Total	0.947
EOR-D	0.415
EOR-T	0.532
Total EG	5.130
EG Tier 1	1.230
EG Tier 1 Dist	0.365
EG Tier 1 Trans	0.864
EG Tier 2	3.901
EG Tier 2 Dist	0.507
EG Tier 2 Trans	3.394
Total EG	5.130

Brokerage Fee Summary

Current Brokerage Fee	0.201	cents per therm
Proposed Brokerage Fee (SoCalGas)	0.170	cents per therm
Proposed Brokerage Fee (SoCalGas+SDG&E)	0.149	cents per therm

Total Cost Estimate

	Labor	NonLabor	Overheads	Direct Cost	Rent	Total
Gas Acquisition	\$2,440,000	\$540,000	\$1,390,007	\$4,370,007	\$512,916	\$4,882,923
Demand Forecasting	\$64,217	\$11,152	\$45,135	\$120,504	\$9,637	\$130,140
Case Management	\$8,975	\$2,955	\$8,696	\$20,626	\$1,759	\$22,384
Regulatory Tariff	\$7,927	\$1,377	\$5,572	\$14,875	\$1,465	\$16,341
Human Resources	\$23,902	\$3,672	\$13,165	\$40,738	\$5,862	\$46,600
C&I Sales	\$6,773	\$450	\$17,425	\$24,649	\$977	\$25,626
IT	\$511,667	\$110,989	\$265,177	\$887,834	\$43,964	\$931,798
Law	\$40,950	\$8,578	\$23,328	\$72,856	\$1,443	\$74,298
	\$3,104,411	\$679,173	\$1,768,505	\$5,552,088	\$578,022	\$6,130,110

Rent Estimate

	% Labor	Sq. Ft.
Gas Acquisition	#N/A	8,549
Demand Forecasting	65.76%	161
Case Management	12.00%	29
Regulatory Tariff	10.00%	24
Human Resources	40.00%	98
C&I Sales	6.67%	16
IT	300.00%	733
Law	9.84%	24
		9,634

35 persons

SoCalGas 2009-2011 Core (MTherms) 3,615,041
 SDG&E 2009-2011 Core (MTherms) 504,277
 244 Avg. Chargeable Sq. Ft. per person
 \$60 Rent All-Inconclusive Rate (\$ per SqFt)

Labor to NonLabor and Overheads Ratio

	Labor	NonLabor Ratio	Overheads Ratio
Except Gas Acq and	\$623,461	\$130,595	\$355,170
Law		20.95%	56.97%

Chargeable Square Feet

	CSF	Persons	CSF/Person
2200-0832	6,797	32	212
2200-2055	3,584	12	299
2100-3427	690	3	230
2100-3429	1,753	6	292
2200-0330	1,098	4	275
	13,922	57	244