

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT
2009 BCAP

Workpapers to the Prepared Written Testimony

Emma Hernandez

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT
2009 BCAP

SECTION 1.0
Long Run Marginal Customer Cost

Workpapers to the Prepared Written Testimony

Emma Hernandez

OPTIONS

1. METHOD = >>> 0 = New Customers Only (NCO) Method
>>> 1 = Rental Method
2. NCO_REP = >>> 0 = NCO Method INCLUDE Replacement Costs
>>> 1 = NCO Method DO NOT Include Replacement Costs

TABLE LRMCC-1
SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

METER SET ASSEMBLY (MSA) EXPENSE
2009 BCAP

	Max Meter Flow Range	Meter Type	Meter, Regulator & Fitting Costs	Installation Costs	Total MSA Costs	
	A	B	C	D	E	
	Cfh		(Dollars)			
1	<i>Medium Pressure</i>					1
2	0-275	250	\$106.77	\$41.66	\$148.43	2
3	276 - 425	425	\$224.80	\$87.93	\$312.74	3
4	426-630	630	\$577.99	\$87.93	\$665.92	4
5	631 - 800	8C	\$833.45	\$138.18	\$971.63	5
6	801 - 1,100	10C, 11C	\$986.06	\$138.18	\$1,124.24	6
7	1,101 - 1,500	15C, 1.5M	\$1,273.62	\$794.07	\$2,067.69	7
8	1,501 - 2,000	2M	\$1,637.29	\$794.07	\$2,431.36	8
9	2,001 - 3,000	3M	\$1,663.06	\$794.07	\$2,457.13	9
10	3,001 - 5,000	5M	\$2,402.01	\$794.07	\$3,196.08	10
11	5,001 - 7,000	7M	\$3,126.76	\$794.07	\$3,920.83	11
12						12
13	<i>High Pressure</i>					13
14	0 - 940	425	\$980.90	\$794.07	\$1,774.97	14
15	941 - 1,050	8C	\$1,981.76	\$794.07	\$2,775.83	15
16	1,051 - 2,000	1.5M	\$1,940.55	\$794.07	\$2,734.62	16
17	2,001 - 2,700	2M	\$2,004.55	\$794.07	\$2,798.62	17
18	2,701 - 4,000	3M	\$2,030.32	\$794.07	\$2,824.39	18
19	4,001 - 6,600	5M	\$2,989.58	\$861.76	\$3,851.33	19
20	6,601 - 9,200	7M	\$3,714.33	\$861.76	\$4,576.09	20
21	9,201 - 14,500	11M	\$4,063.23	\$964.02	\$5,027.24	21
22	14,501 - 21,400	16M	\$5,761.01	\$1,436.92	\$7,197.93	22
23	21,401 - 24,000	Turbine	\$20,352.97	\$36,685.60	\$57,038.57	23
24	24,001 - 46,000	Turbine	\$23,378.82	\$39,381.28	\$62,760.10	24
25	46,001 - 79,000	Turbine	\$27,613.75	\$44,681.76	\$72,295.51	25
26	79,001 - 377,000	Turbine	\$50,848.47	\$61,948.03	\$112,796.50	26
27	377,001 - 600,000	Turbine			\$225,593.00	27
28	600,001 - 4,250,000	Turbine			\$620,380.75	28
29	> 4,250,000	Turbine			\$1,353,558.00	29

Notes:

1. Col. (E) = Col. (C) + Col. (D).
2. MSA costs expressed in Year 2009 \$'s.
3. Information provided by SDG&E Gas Distribution Engineering Department.

TABLE LRMCC-2

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

WEIGHTED MSA RECC FACTOR
2009 BCAP

	Max Meter Flow Range	Meter, Regulator & Fitting Costs	Meter & Regulator RECC Factor	Installation Costs	Meter & Costs RECC Factor	Weighted Average RECC Factor	
	A	B	C	D	E	F	
	Cfh	(Dollars)	(Percent)	(Dollars)	(Percent)	(Percent)	
1	<i>Medium Pressure</i>						1
2	0-275	\$106.77	9.30%	\$41.66	9.48%	9.35%	2
3	276 - 425	\$224.80	9.30%	\$87.93	9.48%	9.35%	3
4	426-630	\$577.99	9.30%	\$87.93	9.48%	9.33%	4
5	631 - 800	\$833.45	9.30%	\$138.18	9.48%	9.33%	5
6	801 - 1,100	\$986.06	9.30%	\$138.18	9.48%	9.33%	6
7	1,101 - 1,500	\$1,273.62	9.30%	\$794.07	9.48%	9.37%	7
8	1,501 - 2,000	\$1,637.29	9.30%	\$794.07	9.48%	9.36%	8
9	2,001 - 3,000	\$1,663.06	9.30%	\$794.07	9.48%	9.36%	9
10	3,001 - 5,000	\$2,402.01	9.30%	\$794.07	9.48%	9.35%	10
11	5,001 - 7,000	\$3,126.76	9.30%	\$794.07	9.48%	9.34%	11
12							12
13	<i>High Pressure</i>						13
14	0 - 940	\$980.90	9.30%	\$794.07	9.48%	9.38%	14
15	941 - 1,050	\$1,981.76	9.30%	\$794.07	9.48%	9.35%	15
16	1,051 - 2,000	\$1,940.55	9.30%	\$794.07	9.48%	9.35%	16
17	2,001 - 2,700	\$2,004.55	9.30%	\$794.07	9.48%	9.35%	17
18	2,701 - 4,000	\$2,030.32	9.30%	\$794.07	9.48%	9.35%	18
19	4,001 - 6,600	\$2,989.58	9.30%	\$861.76	9.48%	9.34%	19
20	6,601 - 9,200	\$3,714.33	9.30%	\$861.76	9.48%	9.34%	20
21	9,201 - 14,500	\$4,063.23	9.30%	\$964.02	9.48%	9.34%	21
22	14,501 - 21,400	\$5,761.01	9.30%	\$1,436.92	9.48%	9.34%	22
23	21,401 - 24,000	\$20,352.97	9.30%	\$36,685.60	9.48%	9.42%	23
24	24,001 - 46,000	\$23,378.82	9.30%	\$39,381.28	9.48%	9.41%	24
25	46,001 - 79,000	\$27,613.75	9.30%	\$44,681.76	9.48%	9.41%	25
26	79,001 - 377,000	\$50,848.47	9.30%	\$61,948.03	9.48%	9.40%	26
27	377,001 - 600,000					9.40%	27
28	600,001 - 4,250,000					9.40%	28
29	> 4,250,000					9.40%	29

Notes:

1. Col. (F) = [Col (B) x Col. (C)] + [Col. (D) x Col. (E)] ÷ [Col. (B) + Col. (D)]
2. Rows (26) - (28): Weighted Average RECC Factor meter & installation weights from Row (25).
3. RECC Factors from SDG&E Market Analysis & Planning Department 2007 Economic Assumptions Manual.

TABLE LRMCC-3

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

ANNUALIZED SERVICE, REGULATOR & METER (SRM) MARGINAL INVESTMENT
2009 BCAP

	Max Meter Flow Range	Meter & Regulator				Pipe & Installation				Total SRM Annualized Marg. Invstmt.	
		Meter Type	M&R Cost	RECC Factor	Annualized Marg. Invstmt.	Service Type	Service Cost	RECC Factor	Annualized Marg. Invstmt.		
	A	B	C	D	E	F	G	H	I	J	
	Cfh		(Dollars)	(Percent)	(Dollars)		(Dollars)	(Percent)	(Dollars)	(Dollars)	
1	<i>Medium Pressure</i>										1
2	0-275	250	\$148	9.35%	\$14	Poly-0.5"	\$992	8.68%	\$86	\$100	2
3	276 - 425	425	\$313	9.35%	\$29	Poly-0.5"	\$992	8.68%	\$86	\$115	3
4	426-630	630	\$666	9.33%	\$62	Poly-1"	\$1,047	8.68%	\$91	\$153	4
5	631 - 800	8C	\$972	9.33%	\$91	Poly-1"	\$1,047	8.68%	\$91	\$182	5
6	801 - 1,100	10C, 11C	\$1,124	9.33%	\$105	Poly-1"	\$1,047	8.68%	\$91	\$196	6
7	1,101 - 1,500	15C, 15M	\$2,068	9.37%	\$194	Poly-1"	\$1,047	8.68%	\$91	\$285	7
8	1,501 - 2,000	2M	\$2,431	9.36%	\$228	Poly-1"	\$1,047	8.68%	\$91	\$319	8
9	2,001 - 3,000	3M	\$2,457	9.36%	\$230	Poly-1"	\$1,047	8.68%	\$91	\$321	9
10	3,001 - 5,000	5M	\$3,196	9.35%	\$299	Poly-2"	\$1,859	8.68%	\$161	\$460	10
11	5,001 - 7,000	7M	\$3,921	9.34%	\$366	Poly-2"	\$1,859	8.68%	\$161	\$528	11
12											12
13	<i>High Pressure</i>										13
14	0 - 940	425	\$1,775	9.38%	\$167	Poly-1"	\$1,047	8.68%	\$91	\$257	14
15	941 - 1,050	8C	\$2,776	9.35%	\$260	Poly-1"	\$1,047	8.68%	\$91	\$351	15
16	1,051 - 2,000	1.5M	\$2,735	9.35%	\$256	Poly-1"	\$1,047	8.68%	\$91	\$347	16
17	2,001 - 2,700	2M	\$2,799	9.35%	\$262	Poly-1"	\$1,047	8.68%	\$91	\$353	17
18	2,701 - 4,000	3M	\$2,824	9.35%	\$264	Poly-2"	\$1,859	8.68%	\$161	\$426	18
19	4,001 - 6,600	5M	\$3,851	9.34%	\$360	Poly-2"	\$1,859	8.68%	\$161	\$521	19
20	6,601 - 9,200	7M	\$4,576	9.34%	\$427	Poly-2"	\$1,859	8.68%	\$161	\$589	20
21	9,201 - 14,500	11M	\$5,027	9.34%	\$469	Poly-3"	\$3,099	8.68%	\$269	\$738	21
22	14,501 - 21,400	16M	\$7,198	9.34%	\$672	Poly-3"	\$3,099	8.68%	\$269	\$941	22
23	21,401 - 24,000	Turbine	\$57,039	9.42%	\$5,371	Poly-4"	\$5,757	8.68%	\$500	\$5,871	23
24	24,001 - 46,000	Turbine	\$62,760	9.41%	\$5,908	Poly-4"	\$5,757	8.68%	\$500	\$6,408	24
25	46,001 - 79,000	Turbine	\$72,296	9.41%	\$6,805	Steel-4"	\$36,342	8.68%	\$3,155	\$9,960	25
26	79,001 - 377,000	Turbine	\$112,797	9.40%	\$10,603	Steel-6"	\$44,676	8.68%	\$3,879	\$14,482	26
27	377,001 - 600,000	Turbine	\$225,593	9.40%	\$21,206	Steel-8"	\$68,700	8.68%	\$5,965	\$27,171	27
28	600,001 - 4,250,000	Turbine	\$620,381	9.40%	\$58,317	Steel-16"	\$1,123,270	8.68%	\$97,524	\$155,841	28
29	> 4,250,000	Turbine	\$1,353,558	9.40%	\$127,238	Steel-24"	\$1,123,698	8.68%	\$97,561	\$224,799	29

Notes:

- Col. (E) = Col. (C) x Col. (D). Col. (I) = Col. (G) x Col. (H).
- Col. (J) = Col. (E) + Col. (I).
- Service Line installation cost provided by SDG&E Gas Distribution Engineering Department.
- Service Line costs escalated from 2007 to 2009 dollars using the following economic factors:
 - 1.076398 = 2007 to 2009 plastic services escalation factor from Handy-Whitman Gas Utility Construction Cost Indexes, Pacific Region.
 - 1.074398 = 2007 to 2009 steel services escalation factor from Handy-Whitman Gas Utility Construction Cost Indexes, Pacific Region.

TABLE LRMCC-nco.1

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

WEIGHTED MSA PVRR FACTOR
2009 BCAP

	Max Meter Flow Range	Meter, Regulator & Fitting Costs	Meter & Regulator PVRR Factor	Installation Costs	Installation Costs PVRR Factor	Weighted Average PVRR Factor	
	A	B	C	D	E	F	
	Cfh	(Dollars)	(Percent)	(Dollars)	(Percent)	(Percent)	
1	<i>Medium Pressure</i>						1
2	0-275	\$106.77	126.22%	\$41.66	126.23%	126.22%	2
3	276 - 425	\$224.80	126.22%	\$87.93	126.23%	126.22%	3
4	426-630	\$577.99	126.22%	\$87.93	126.23%	126.22%	4
5	631 - 800	\$833.45	126.22%	\$138.18	126.23%	126.22%	5
6	801 - 1,100	\$986.06	126.22%	\$138.18	126.23%	126.22%	6
7	1,101 - 1,500	\$1,273.62	126.22%	\$794.07	126.23%	126.23%	7
8	1,501 - 2,000	\$1,637.29	126.22%	\$794.07	126.23%	126.23%	8
9	2,001 - 3,000	\$1,663.06	126.22%	\$794.07	126.23%	126.23%	9
10	3,001 - 5,000	\$2,402.01	126.22%	\$794.07	126.23%	126.22%	10
11	5,001 - 7,000	\$3,126.76	126.22%	\$794.07	126.23%	126.22%	11
12							12
13	<i>High Pressure</i>						13
14	0 - 940	\$980.90	126.22%	\$794.07	126.23%	126.23%	14
15	941 - 1,050	\$1,981.76	126.22%	\$794.07	126.23%	126.22%	15
16	1,051 - 2,000	\$1,940.55	126.22%	\$794.07	126.23%	126.22%	16
17	2,001 - 2,700	\$2,004.55	126.22%	\$794.07	126.23%	126.22%	17
18	2,701 - 4,000	\$2,030.32	126.22%	\$794.07	126.23%	126.22%	18
19	4,001 - 6,600	\$2,989.58	126.22%	\$861.76	126.23%	126.22%	19
20	6,601 - 9,200	\$3,714.33	126.22%	\$861.76	126.23%	126.22%	20
21	9,201 - 14,500	\$4,063.23	126.22%	\$964.02	126.23%	126.22%	21
22	14,501 - 21,400	\$5,761.01	126.22%	\$1,436.92	126.23%	126.22%	22
23	21,401 - 24,000	\$20,352.97	126.22%	\$36,685.60	126.23%	126.23%	23
24	24,001 - 46,000	\$23,378.82	126.22%	\$39,381.28	126.23%	126.23%	24
25	46,001 - 79,000	\$27,613.75	126.22%	\$44,681.76	126.23%	126.23%	25
26	79,001 - 377,000	\$50,848.47	126.22%	\$61,948.03	126.23%	126.23%	26
27	377,001 - 600,000					126.23%	27
28	600,001 - 4,250,000					126.23%	28
29	> 4,250,000					126.23%	29

Notes:

1. Col. (F) = [Col. (B) x Col. (C)] + [Col. (D) x Col. (E)] ÷ [Col. (B) + Col. (D)]
2. Rows (26) - (28): Weighted Average PVRR Factor meter & installation weights from Row (25).

TABLE LRMCC-nc0.2
SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

NCO ANNUAL SERVICE, REGULATOR & METER (SRM) NEW HOOKUP INVESTMENT
2009 BCAP

	Max Meter Flow Range	Meter & Regulator				Pipe & Installation				Forecast New Hookups	Total SRM NCO Annual Investment
		Meter Type	M&R Cost	PVRR Factor	NCO Hookup Investment	Service Type	Service Cost	PVRR Factor	NCO Hookup Investment		
	A	B	C	D	E	F	G	H	I	J	K
	Cfh		(Dollars)	(Percent)	(Dollars)		(Dollars)	(Percent)	(Dollars)		(Dollars)
1	<i>Medium Pressure</i>										
2	0-275	250	\$148	126.22%	\$187	Poly-0.5"	\$992	125.97%	\$1,250	12,980	\$18,660,041
3	276 - 425	425	\$313	126.22%	\$395	Poly-0.5"	\$992	125.97%	\$1,250	548	\$901,918
4	426-630	630	\$666	126.22%	\$841	Poly-1"	\$1,047	125.97%	\$1,319	-	\$0
5	631 - 800	8C	\$972	126.22%	\$1,226	Poly-1"	\$1,047	125.97%	\$1,319	199	\$507,310
6	801 - 1,100	10C, 11C	\$1,124	126.22%	\$1,419	Poly-1"	\$1,047	125.97%	\$1,319	45	\$124,213
7	1,101 - 1,500	15C, 1.5M	\$2,068	126.23%	\$2,610	Poly-1"	\$1,047	125.97%	\$1,319	17	\$67,385
8	1,501 - 2,000	2M	\$2,431	126.23%	\$3,069	Poly-1"	\$1,047	125.97%	\$1,319	7	\$29,435
9	2,001 - 3,000	3M	\$2,457	126.23%	\$3,102	Poly-1"	\$1,047	125.97%	\$1,319	16	\$72,045
10	3,001 - 5,000	5M	\$3,196	126.22%	\$4,034	Poly-2"	\$1,859	125.97%	\$2,342	7	\$44,704
11	5,001 - 7,000	7M	\$3,921	126.22%	\$4,949	Poly-2"	\$1,859	125.97%	\$2,342	3	\$20,275
12											
13	<i>High Pressure</i>										
14	0 - 940	425	\$1,775	126.23%	\$2,240	Poly-1"	\$1,047	125.97%	\$1,319	-	\$0
15	941 - 1,050	8C	\$2,776	126.22%	\$3,504	Poly-1"	\$1,047	125.97%	\$1,319	-	\$0
16	1,051 - 2,000	1.5M	\$2,735	126.22%	\$3,452	Poly-1"	\$1,047	125.97%	\$1,319	0	\$55
17	2,001 - 2,700	2M	\$2,799	126.22%	\$3,533	Poly-1"	\$1,047	125.97%	\$1,319	-	\$0
18	2,701 - 4,000	3M	\$2,824	126.22%	\$3,565	Poly-2"	\$1,859	125.97%	\$2,342	0	\$99
19	4,001 - 6,600	5M	\$3,851	126.22%	\$4,861	Poly-2"	\$1,859	125.97%	\$2,342	0	\$654
20	6,601 - 9,200	7M	\$4,576	126.22%	\$5,776	Poly-2"	\$1,859	125.97%	\$2,342	0	\$1,858
21	9,201 - 14,500	11M	\$5,027	126.22%	\$6,346	Poly-3"	\$3,099	125.97%	\$3,904	3	\$30,807
22	14,501 - 21,400	16M	\$7,198	126.22%	\$9,085	Poly-3"	\$3,099	125.97%	\$3,904	2	\$25,150
23	21,401 - 24,000	Turbine	\$57,039	126.23%	\$71,999	Poly-4"	\$5,757	125.97%	\$7,252	0	\$33,856
24	24,001 - 46,000	Turbine	\$62,760	126.23%	\$79,221	Poly-4"	\$5,757	125.97%	\$7,252	0	\$38,586
25	46,001 - 79,000	Turbine	\$72,296	126.23%	\$91,257	Steel-4"	\$36,342	125.97%	\$45,780	0	\$11,771
26	79,001 - 377,000	Turbine	\$112,797	126.23%	\$142,380	Steel-6"	\$44,676	125.97%	\$56,279	0	\$4,642
27	377,001 - 600,000	Turbine	\$225,593	126.23%	\$284,760	Steel-8"	\$68,700	125.97%	\$86,544	-	\$0
28	600,001 - 4,250,000	Turbine	\$620,381	126.23%	\$783,091	Steel-16"	\$1,123,270	125.97%	\$1,415,017	-	\$0
29	> 4,250,000	Turbine	\$1,353,558	126.23%	\$1,708,563	Steel-24"	\$1,123,698	125.97%	\$1,415,555	-	\$0

Notes:

- Col. (E) = Col. (C) x Col. (D).
- Col. (I) = Col. (G) x Col. (H).
- Col. (K) = [Col. (E) + Col. (I)] x Col. (J).
- 1.076398 = 2007 to 2009 plastic services escalation factor from Handy-Whitman Gas Utility Construction Cost Indexes, Pacific Region.
- 1.074398 = 2007 to 2009 services escalation factor from Handy-Whitman Gas Utility Construction Cost Indexes, Pacific Region.

TABLE LRMCC-nc0.3

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

WEIGHTED MSA BOOK LIFE
2009 BCAP

	Max Meter Flow Range	Meter, Regulator & Fitting Costs	Meter & Regulator Book Life	Installation Costs	Installation Costs Book Life	Weighted Average PVRR Factor	
	A	B	C	D	E	F	
	Cfh	(Dollars)	(Years)	(Dollars)	(Years)	(Percent)	
1	<i>Medium Pressure</i>						1
2	0-275	\$106.77	34.0	\$41.66	32.0	33.4	2
3	276 - 425	\$224.80	34.0	\$87.93	32.0	33.4	3
4	426-630	\$577.99	34.0	\$87.93	32.0	33.7	4
5	631 - 800	\$833.45	34.0	\$138.18	32.0	33.7	5
6	801 - 1,100	\$986.06	34.0	\$138.18	32.0	33.8	6
7	1,101 - 1,500	\$1,273.62	34.0	\$794.07	32.0	33.2	7
8	1,501 - 2,000	\$1,637.29	34.0	\$794.07	32.0	33.3	8
9	2,001 - 3,000	\$1,663.06	34.0	\$794.07	32.0	33.4	9
10	3,001 - 5,000	\$2,402.01	34.0	\$794.07	32.0	33.5	10
11	5,001 - 7,000	\$3,126.76	34.0	\$794.07	32.0	33.6	11
12							12
13	<i>High Pressure</i>						13
14	0 - 940	\$980.90	34.0	\$794.07	32.0	33.1	14
15	941 - 1,050	\$1,981.76	34.0	\$794.07	32.0	33.4	15
16	1,051 - 2,000	\$1,940.55	34.0	\$794.07	32.0	33.4	16
17	2,001 - 2,700	\$2,004.55	34.0	\$794.07	32.0	33.4	17
18	2,701 - 4,000	\$2,030.32	34.0	\$794.07	32.0	33.4	18
19	4,001 - 6,600	\$2,989.58	34.0	\$861.76	32.0	33.6	19
20	6,601 - 9,200	\$3,714.33	34.0	\$861.76	32.0	33.6	20
21	9,201 - 14,500	\$4,063.23	34.0	\$964.02	32.0	33.6	21
22	14,501 - 21,400	\$5,761.01	34.0	\$1,436.92	32.0	33.6	22
23	21,401 - 24,000	\$20,352.97	34.0	\$36,685.60	32.0	32.7	23
24	24,001 - 46,000	\$23,378.82	34.0	\$39,381.28	32.0	32.7	24
25	46,001 - 79,000	\$27,613.75	34.0	\$44,681.76	32.0	32.8	25
26	79,001 - 377,000	\$50,848.47	34.0	\$61,948.03	32.0	32.9	26
27	377,001 - 600,000					32.9	27
28	600,001 - 4,250,000					32.9	28
29	> 4,250,000					32.9	29

Notes:

1. Col. (F) = [Col. (B) x Col. (C)] + [Col. (D) x Col. (E)] ÷ [Col. (B) + Col. (D)]
2. Rows (26) - (28): Weighted Average Book Life meter & installation weights from Row (25).

TABLE LRMCC-nc0.4

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

NCO ANNUAL SERVICE, REGULATOR & METER (SRM) REPLACEMENT COST
2009 BCAP

	Max Meter Flow Range	Meter & Regulator Replacement				Replacement Pipe & Installation					Number of Existing Customers	Total SRM Annual Cost Replacement	
		Meter Type	M&R Cost	PVRR Factor	Replacement Investment	Replacement Rate	Service Type	Service Cost	PVRR Factor	Replacement Investment			Replacement Rate
	A	B	C	D	E	F	G	H	I	J	K	L	M
	Cfh		(Dollars)	(Percent)	(Dollars)	(Percent)		(Dollars)	(Percent)	(Dollars)	(Percent)		(Dollars)
1	<i>Medium Pressure</i>												1
2	0-275	250	\$148	126.22%	\$187	3.0%	Poly-0.5"	\$5,027	125.97%	\$6,332	2.2%	790,878	\$115,501,663
3	276 - 425	425	\$313	126.22%	\$395	3.0%	Poly-0.5"	\$5,027	125.97%	\$6,332	2.2%	35,458	\$5,387,362
4	426-630	630	\$666	126.22%	\$841	3.0%	Poly-1"	\$8,309	125.97%	\$10,467	2.2%	-	\$0
5	631 - 800	8C	\$972	126.22%	\$1,226	3.0%	Poly-1"	\$8,309	125.97%	\$10,467	2.2%	14,389	\$3,739,433
6	801 - 1,100	10C, 11C	\$1,124	126.22%	\$1,419	3.0%	Poly-1"	\$8,309	125.97%	\$10,467	2.2%	4,131	\$1,090,986
7	1,101 - 1,500	15C, 1.5M	\$2,068	126.23%	\$2,610	3.0%	Poly-1"	\$8,309	125.97%	\$10,467	2.2%	1,874	\$546,339
8	1,501 - 2,000	2M	\$2,431	126.23%	\$3,069	3.0%	Poly-1"	\$8,309	125.97%	\$10,467	2.2%	901	\$271,614
9	2,001 - 3,000	3M	\$2,457	126.23%	\$3,102	3.0%	Poly-1"	\$8,309	125.97%	\$10,467	2.2%	2,002	\$605,157
10	3,001 - 5,000	5M	\$3,196	126.22%	\$4,034	3.0%	Poly-2"	\$13,535	125.97%	\$17,050	2.2%	804	\$377,354
11	5,001 - 7,000	7M	\$3,921	126.22%	\$4,949	3.0%	Poly-2"	\$13,535	125.97%	\$17,050	2.2%	342	\$167,345
12													12
13	<i>High Pressure</i>												13
14	0 - 940	425	\$1,775	126.23%	\$2,240	3.0%	Poly-1"	\$8,309	125.97%	\$10,467	2.2%	-	\$0
15	941 - 1,050	8C	\$2,776	126.22%	\$3,504	3.0%	Poly-1"	\$8,309	125.97%	\$10,467	2.2%	-	\$0
16	1,051 - 2,000	1.5M	\$2,735	126.22%	\$3,452	3.0%	Poly-1"	\$8,309	125.97%	\$10,467	2.2%	2	\$622
17	2,001 - 2,700	2M	\$2,799	126.22%	\$3,533	3.0%	Poly-1"	\$8,309	125.97%	\$10,467	2.2%	-	\$0
18	2,701 - 4,000	3M	\$2,824	126.22%	\$3,565	3.0%	Poly-2"	\$13,535	125.97%	\$17,050	2.2%	1	\$460
19	4,001 - 6,600	5M	\$3,851	126.22%	\$4,861	3.0%	Poly-2"	\$13,535	125.97%	\$17,050	2.2%	3	\$1,467
20	6,601 - 9,200	7M	\$4,576	126.22%	\$5,776	3.0%	Poly-2"	\$13,535	125.97%	\$17,050	2.2%	7	\$3,564
21	9,201 - 14,500	11M	\$5,027	126.22%	\$6,346	3.0%	Poly-3"	\$36,919	125.97%	\$46,508	2.2%	326	\$382,978
22	14,501 - 21,400	16M	\$7,198	126.22%	\$9,085	3.0%	Poly-3"	\$36,919	125.97%	\$46,508	2.2%	171	\$212,004
23	21,401 - 24,000	Turbine	\$57,039	126.23%	\$71,999	3.1%	Poly-4"	\$29,154	125.97%	\$36,726	2.2%	44	\$108,844
24	24,001 - 46,000	Turbine	\$62,760	126.23%	\$79,221	3.1%	Poly-4"	\$29,154	125.97%	\$36,726	2.2%	37	\$97,607
25	46,001 - 79,000	Turbine	\$72,296	126.23%	\$91,257	3.1%	Steel-4"	\$69,759	125.97%	\$87,877	2.2%	20	\$81,063
26	79,001 - 377,000	Turbine	\$112,797	126.23%	\$142,380	3.0%	Steel-6"	\$86,192	125.97%	\$108,579	2.2%	10	\$56,744
27	377,001 - 600,000	Turbine	\$225,593	126.23%	\$284,760	3.0%	Steel-8"	\$115,293	125.97%	\$145,237	2.2%	-	\$0
28	600,001 - 4,250,000	Turbine	\$620,381	126.23%	\$783,091	3.0%	Steel-16"	\$1,123,270	125.97%	\$1,415,017	2.2%	-	\$0
29	> 4,250,000	Turbine	\$1,353,558	126.23%	\$1,708,563	3.0%	Steel-24"	\$1,045,886	125.97%	\$1,317,534	2.2%	-	\$0

Notes:

- Col. (E) = Col. (C) x Col. (D).
- Col. (J) = Col. (H) x Col. (I).
- For Rows (2) - (3): Col. (M) = [Col. (E) x Col. (L) x Col. (F) x 70%] + [Col. (J) x Col. (L) x Col. (K)]
- For Rows (4) - (28): Col. (M) = [Col. (E) x Col. (L) x Col. (F) x 30%] + [Col. (J) x Col. (L) x Col. (K)]
- Col. (L) Number of Existing Customers = 2006 Forecast Customers (Total at Inception of BCAP Period) x Historical Proportion of Total @ Meter Flow.
- 1.076398 = 2007 to 2009 plastic services escalation factor from Handy-Whitman Gas Utility Construction Cost Indexes, Pacific Region.
- 1.074398 = 2007 to 2009 services escalation factor from Handy-Whitman Gas Utility Construction Cost Indexes, Pacific Region.
- 5% = Percent of small MSA's (Flow = 0 - 375 Cfh) replaced with refurbished meter.
- 25% = Percent of other MSA's (Flow > 375 Cfh) replaced with refurbished meter.

TABLE LRMCC-4

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

MSA ASSIGNMENT FACTORS BY CUSTOMER CLASS
2009 BCAP

	Max Meter Flow Range	Meter Type	Res	NGV	GN-3	Total Core	GTNC			EG			Total Noncore	System Total		
							MPD	HPD	Total	<3 MM	>3 MM	Total				
	A	B	C	D	E	F	G	H	I	J	K	L	N	O		
	Cfh															
1	<i>Medium Pressure</i>															1
2	0-275	250	769,659	1	19,002	788,662	-	-	-	-	-	-	-	788,662	2	
3	276 - 425	425	31,420	-	3,938	35,358	1	-	1	-	-	-	1	35,359	3	
4	426-630	630	-	-	-	-	-	-	-	-	-	-	-	-	4	
5	631 - 800	8C	10,602	2	3,742	14,346	-	-	-	3	-	3	3	14,349	5	
6	801 - 1,100	10C, 11C	1,963	-	2,156	4,119	-	-	-	-	-	-	-	4,119	6	
7	1,101 - 1,500	15C, 1.5M	576	-	1,293	1,869	-	-	-	-	-	-	-	1,869	7	
8	1,501 - 2,000	2M	100	5	788	893	-	-	-	5	-	5	5	898	8	
9	2,001 - 3,000	3M	348	5	1,625	1,978	3	-	3	15	-	15	18	1,996	9	
10	3,001 - 5,000	5M	155	7	626	788	5	-	5	9	-	9	14	802	10	
11	5,001 - 7,000	7M	63	2	272	337	3	-	3	1	-	1	4	341	11	
12															12	
13	<i>High Pressure</i>															13
14	0 - 940	425	-	-	-	-	-	-	-	-	-	-	-	-	14	
15	941 - 1,050	8C	-	-	-	-	-	-	-	-	-	-	-	-	15	
16	1,051 - 2,000	1.5M	-	-	2	2	-	-	-	-	-	-	-	2	16	
17	2,001 - 2,700	2M	-	-	-	-	-	-	-	-	-	-	-	-	17	
18	2,701 - 4,000	3M	1	-	-	1	-	-	-	-	-	-	-	1	18	
19	4,001 - 6,600	5M	-	1	-	1	-	1	1	1	-	1	2	3	19	
20	6,601 - 9,200	7M	-	-	-	-	1	2	3	4	-	4	7	7	20	
21	9,201 - 14,500	11M	76	3	234	313	7	1	8	4	-	4	12	325	21	
22	14,501 - 21,400	16M	38	7	103	148	10	2	12	7	4	11	23	171	22	
23	21,401 - 24,000	Turbine	11	-	22	33	9	1	10	1	-	1	11	44	23	
24	24,001 - 46,000	Turbine	2	1	13	16	12	2	14	4	3	7	21	37	24	
25	46,001 - 79,000	Turbine	-	1	3	4	5	1	6	-	10	10	16	20	25	
26	79,001 - 377,000	Turbine	1	-	-	1	1	1	2	-	7	7	9	10	26	
27	377,001 - 600,000	Turbine	-	-	-	-	-	-	-	-	-	-	-	-	27	
28	600,001 - 4,250,000	Turbine	-	-	-	-	-	-	-	-	-	-	-	-	28	
29	> 4,250,000	Turbine	-	-	-	-	-	-	-	-	-	-	-	-	29	
30															30	
31	Total Customers		815,015	35	33,819	848,869	57	11	68	54	24	78	146	849,015		

TABLE LRMCC-5

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

MSA ASSIGNMENT FACTORS BY CUSTOMER CLASS
2009 BCAP

	Max Meter Flow Range	Meter Type	Res	NGV	GN-3	Total Core	GTNC			EG			Total Noncore	System Total		
							MPD	HPD	Total	< 3 MM	> 3 MM	Total				
	A	B	C	D	E	F	G	H	I	J	K	L	N	O		
	Cfh															
1	<i>Medium Pressure</i>															1
2	0-275	250	94.43%	2.86%	56.19%	92.91%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	92.89%	2	
3	276 - 425	425	3.86%	0.00%	11.64%	4.17%	1.75%	0.00%	1.47%	0.00%	0.00%	0.00%	0.68%	4.16%	3	
4	426-630	630	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4	
5	631 - 800	8C	1.30%	5.71%	11.06%	1.69%	0.00%	0.00%	0.00%	5.56%	0.00%	3.85%	2.05%	1.69%	5	
6	801 - 1,100	10C, 11C	0.24%	0.00%	6.38%	0.49%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.49%	6	
7	1,101 - 1,500	15C, 15M	0.07%	0.00%	3.82%	0.22%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.22%	7	
8	1,501 - 2,000	2M	0.01%	14.29%	2.33%	0.11%	0.00%	0.00%	0.00%	9.26%	0.00%	6.41%	3.42%	0.11%	8	
9	2,001 - 3,000	3M	0.04%	14.29%	4.80%	0.23%	5.26%	0.00%	4.41%	27.78%	0.00%	19.23%	12.33%	0.24%	9	
10	3,001 - 5,000	5M	0.02%	20.00%	1.85%	0.09%	8.77%	0.00%	7.35%	16.67%	0.00%	11.54%	9.59%	0.09%	10	
11	5,001 - 7,000	7M	0.01%	5.71%	0.80%	0.04%	5.26%	0.00%	4.41%	1.85%	0.00%	1.28%	2.74%	0.04%	11	
12																12
13	<i>High Pressure</i>															13
14	0 - 940	425	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	14	
15	941 - 1,050	8C	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	15	
16	1,051 - 2,000	1.5M	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	16	
17	2,001 - 2,700	2M	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	17	
18	2,701 - 4,000	3M	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	18	
19	4,001 - 6,600	5M	0.00%	2.86%	0.00%	0.00%	0.00%	9.09%	1.47%	1.85%	0.00%	1.28%	1.37%	0.00%	19	
20	6,601 - 9,200	7M	0.00%	0.00%	0.00%	0.00%	1.75%	18.18%	4.41%	7.41%	0.00%	5.13%	4.79%	0.00%	20	
21	9,201 - 14,500	11M	0.01%	8.57%	0.69%	0.04%	12.28%	9.09%	11.76%	7.41%	0.00%	5.13%	8.22%	0.04%	21	
22	14,501 - 21,400	16M	0.00%	20.00%	0.30%	0.02%	17.54%	18.18%	17.65%	12.96%	16.67%	14.10%	15.75%	0.02%	22	
23	21,401 - 24,000	Turbine	0.00%	0.00%	0.07%	0.00%	15.79%	9.09%	14.71%	1.85%	0.00%	1.28%	7.53%	0.01%	23	
24	24,001 - 46,000	Turbine	0.00%	2.86%	0.04%	0.00%	21.05%	18.18%	20.59%	7.41%	12.50%	8.97%	14.38%	0.00%	24	
25	46,001 - 79,000	Turbine	0.00%	2.86%	0.01%	0.00%	8.77%	9.09%	8.82%	0.00%	41.67%	12.82%	10.96%	0.00%	25	
26	79,001 - 377,000	Turbine	0.00%	0.00%	0.00%	0.00%	1.75%	9.09%	2.94%	0.00%	29.17%	8.97%	6.16%	0.00%	26	
27	377,001 - 600,000	Turbine	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	27	
28	600,001 - 4,250,000	Turbine	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	28	
29	> 4,250,000	Turbine	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	29	
30																30
31	Total Customers		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	31	

Notes:

1. Factors derived from meter capacity analysis results from Workpapers to Testimony of Emma Hernandez, Table "LRMCC-4".

TABLE LRMCC-6
SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

FORECAST CUSTOMERS BY METER TYPE BY CUSTOMER CLASS
2009 BCAP

	Max Meter Flow Range	Meter Type	Res	NGV	GN-3	Total Core	GTNC			EG			Total Noncore	System Total
							MPD	HPD	Total	< 3 MM	> 3 MM	Total		
	A	B	C	D	E	F	G	H	I	J	K	L	N	O
	Cfh													
1	<i>Medium Pressure</i>													
2	0-275	250	785,746	1	16,761	802,509	-	-	-	-	-	-	-	802,509
3	276 - 425	425	32,077	-	3,474	35,550	1	-	1	-	-	-	1	35,551
4	426-630	630	-	-	-	-	-	-	-	-	-	-	-	-
5	631 - 800	8C	10,824	2	3,301	14,127	-	-	-	4	-	4	4	14,131
6	801 - 1,100	10C, 11C	2,004	-	1,902	3,906	-	-	-	-	-	-	-	3,906
7	1,101 - 1,500	15C, 1.5M	588	-	1,141	1,729	-	-	-	-	-	-	-	1,729
8	1,501 - 2,000	2M	102	6	695	803	-	-	-	6	-	6	6	809
9	2,001 - 3,000	3M	355	6	1,433	1,794	3	-	3	19	-	19	22	1,816
10	3,001 - 5,000	5M	158	8	552	719	4	-	4	12	-	12	16	734
11	5,001 - 7,000	7M	64	2	240	307	3	-	3	1	-	1	4	310
12														
13	<i>High Pressure</i>													
14	0 - 940	425	-	-	-	-	-	-	-	-	-	-	-	-
15	941 - 1,050	8C	-	-	-	-	-	-	-	-	-	-	-	-
16	1,051 - 2,000	1.5M	-	-	2	2	-	-	-	-	-	-	-	2
17	2,001 - 2,700	2M	-	-	-	-	-	-	-	-	-	-	-	-
18	2,701 - 4,000	3M	1	-	-	1	-	-	-	-	-	-	-	1
19	4,001 - 6,600	5M	-	1	-	1	-	1	1	1	-	1	2	4
20	6,601 - 9,200	7M	-	-	-	-	1	2	3	5	-	5	8	8
21	9,201 - 14,500	11M	78	3	206	287	6	1	7	5	-	5	12	300
22	14,501 - 21,400	16M	39	8	91	138	8	2	11	9	2	11	22	160
23	21,401 - 24,000	Turbine	11	-	19	31	8	1	9	1	-	1	10	41
24	24,001 - 46,000	Turbine	2	1	11	15	10	2	12	5	2	7	19	34
25	46,001 - 79,000	Turbine	-	1	3	4	4	1	5	-	5	5	10	14
26	79,001 - 377,000	Turbine	1	-	-	1	1	1	2	-	4	4	6	7
27	377,001 - 600,000	Turbine	-	-	-	-	-	-	-	-	-	-	-	-
28	600,001 - 4,250,000	Turbine	-	-	-	-	-	-	-	-	-	-	-	-
29	> 4,250,000	Turbine	-	-	-	-	-	-	-	-	-	-	-	-
30														
31	Total Customers		832,050	40	29,831	861,922	48	13	61	69	12	81	142	862,064

Notes:

1. Row (31) = forecast annual average number of customers during proposed 2009 - 2011 BCAP period as sponsored in the testimony of SDG&E demand forecast witness Mr. Herbert S. Emmrich.
2. Rows (2) - (29) = Row (31) x MSA assignment factors for each market segment for each flow range. Information from Wrokpapers to Testimony of Emma Hernandez, Table "LRMCC-5".

TABLE LRMCC-nco.5

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

**FORECAST NEW HOOKUPS FOR 2009 AND 2010
2009 BCAP**

	Customer Class	Year-End		2009 Hookups	Year-End		2010 Hookups	Average Annual New Hookups	
		2008	2009		2009	2010			
	A	B	C	D	E	F	G	H	
1	Residential	832,125	845,916	13,791	845,916	859,381	13,465	13,628	1
2	NGV	32	33	1	33	35	1	1	2
3	Core C&I - GN3	30,141	30,344	203	30,344	30,534	190	197	3
4	Noncore C&I - GTNC	58	58	0	58	59	0	0	4
5	EG - Cogen	66	69	3	69	72	3	3	5
6	Power Plants	21	21	0	21	21	0	0	6
7									7
8	Total Customers	862,442	876,442	13,999	876,442	890,102	13,660	13,830	8

Notes:

1. Col. (D) = Col. (C) - Col (B).
2. Col. (G) = Col. (F) - Col (E).
3. Col. (H) = Average Col. (D) & Col (G).
4. SDG&E Gas BCAP Customer Forecast from Prepared Testimony of witness Mr. Herbert S. Hemmrich.
5. NGV customer segment indicates forecast number of stations.

TABLE LRMCC-nco.6

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

FORECAST NEW HOOKUPS BY METER TYPE BY CUSTOMER CLASS
2009 BCAP

	Max Meter Flow Range	Meter Type	Res	NGV	GN-3	Total Core	GTNC			EG			Total Noncore	System Total	
							MPD	HPD	Total	< 3 MM	> 3 MM	Total			
	A	B	C	D	E	F	G	H	I	J	K	L	N	O	
	Cfh														
1	<i>Medium Pressure</i>														
2	0-275	250	12,870	0	110	12,980	-	-	-	-	-	-	-	12,980	
3	276 - 425	425	525	-	23	548	0	-	0	-	-	-	0	548	
4	426-630	630	-	-	-	-	-	-	-	-	-	-	-	-	
5	631 - 800	8C	177	0	22	199	-	-	-	0	-	0	0	199	
6	801 - 1,100	10C, 11C	33	-	13	45	-	-	-	-	-	-	-	45	
7	1,101 - 1,500	15C, 1.5M	10	-	8	17	-	-	-	-	-	-	-	17	
8	1,501 - 2,000	2M	2	0	5	6	-	-	-	0	-	0	0	7	
9	2,001 - 3,000	3M	6	0	9	15	0	-	0	1	-	1	1	16	
10	3,001 - 5,000	5M	3	0	4	6	0	-	0	1	-	1	1	7	
11	5,001 - 7,000	7M	1	0	2	3	0	-	0	0	-	0	0	3	
12															
13	<i>High Pressure</i>														
14	0 - 940	425	-	-	-	-	-	-	-	-	-	-	-	-	
15	941 - 1,050	8C	-	-	-	-	-	-	-	-	-	-	-	-	
16	1,051 - 2,000	1.5M	-	-	0	0	-	-	-	-	-	-	-	0	
17	2,001 - 2,700	2M	-	-	-	-	-	-	-	-	-	-	-	-	
18	2,701 - 4,000	3M	0	-	-	0	-	-	-	-	-	-	-	0	
19	4,001 - 6,600	5M	-	0	-	0	-	-	-	0	-	0	0	0	
20	6,601 - 9,200	7M	-	-	-	-	0	-	0	0	-	0	0	0	
21	9,201 - 14,500	11M	1	0	1	3	0	-	0	0	-	0	0	3	
22	14,501 - 21,400	16M	1	0	1	1	0	-	0	0	-	0	0	2	
23	21,401 - 24,000	Turbine	0	-	0	0	0	-	0	0	-	0	0	0	
24	24,001 - 46,000	Turbine	0	0	0	0	0	-	0	0	-	0	0	0	
25	46,001 - 79,000	Turbine	-	0	0	0	0	-	0	-	-	-	0	0	
26	79,001 - 377,000	Turbine	0	-	-	0	0	-	0	-	-	-	0	0	
27	377,001 - 600,000	Turbine	-	-	-	-	-	-	-	-	-	-	-	-	
28	600,001 - 4,250,000	Turbine	-	-	-	-	-	-	-	-	-	-	-	-	
29	> 4,250,000	Turbine	-	-	-	-	-	-	-	-	-	-	-	-	
30															
31	Total Customers		13,628	1	197	13,826	0	-	0	3	-	3	4	13,830	

Note:

1. New Hookups Forecast on Basis on Average Annual Net Customer Gain for 2009 - 2011 BCAP Period.

TABLE LRMCC-7
SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

ANNUALIZED SRM MARGINAL INVESTMENT BY CUSTOMER CLASS
2009 BCAP

	Max Meter Flow Range	Meter Type	Res	NGV	GN-3	Total Core	GTNC			EG			Total Noncore	System Total	
							MPD	HPD	Total	< 3 MM	> 3 MM	Total			
							A	B	C	D	E	F			G
	Cfh		(Dollars)												
1	<i>Medium Pressure</i>														1
2	0-275	250	\$78,612,210	\$116	\$1,676,940	\$80,289,265	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$80,289,265	2
3	276 - 425	425	\$3,702,167	\$0	\$400,915	\$4,103,082	\$97	\$0	\$97	\$0	\$0	\$0	\$97	\$4,103,179	3
4	426-630	630	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	4
5	631 - 800	8C	\$1,965,249	\$420	\$599,322	\$2,564,990	\$0	\$0	\$0	\$696	\$0	\$696	\$696	\$2,565,686	5
6	801 - 1,100	10C, 11C	\$392,327	\$0	\$372,308	\$764,635	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$764,635	6
7	1,101 - 1,500	15C, 15M	\$167,414	\$0	\$324,708	\$492,122	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$492,122	7
8	1,501 - 2,000	2M	\$32,519	\$1,840	\$221,406	\$255,766	\$0	\$0	\$0	\$2,035	\$0	\$2,035	\$2,035	\$257,801	8
9	2,001 - 3,000	3M	\$114,018	\$1,854	\$460,017	\$575,889	\$811	\$0	\$811	\$6,151	\$0	\$6,151	\$6,962	\$582,851	9
10	3,001 - 5,000	5M	\$72,813	\$3,722	\$254,084	\$330,619	\$1,937	\$0	\$1,937	\$5,292	\$0	\$5,292	\$7,229	\$337,848	10
11	5,001 - 7,000	7M	\$33,932	\$1,219	\$126,578	\$161,729	\$1,333	\$0	\$1,333	\$674	\$0	\$674	\$2,007	\$163,736	11
12															12
13	<i>High Pressure</i>														13
14	0 - 940	425	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	14
15	941 - 1,050	8C	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	15
16	1,051 - 2,000	1.5M	\$0	\$0	\$612	\$612	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$612	16
17	2,001 - 2,700	2M	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	17
18	2,701 - 4,000	3M	\$434	\$0	\$0	\$434	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$434	18
19	4,001 - 6,600	5M	\$0	\$602	\$0	\$602	\$0	\$616	\$616	\$666	\$0	\$666	\$1,282	\$1,884	19
20	6,601 - 9,200	7M	\$0	\$0	\$0	\$0	\$496	\$1,391	\$1,887	\$3,009	\$0	\$3,009	\$4,896	\$4,896	20
21	9,201 - 14,500	11M	\$57,296	\$2,560	\$152,425	\$212,281	\$4,353	\$873	\$5,226	\$3,774	\$0	\$3,774	\$9,000	\$221,282	21
22	14,501 - 21,400	16M	\$36,515	\$7,614	\$85,517	\$129,646	\$7,926	\$2,225	\$10,151	\$8,419	\$1,917	\$10,336	\$20,487	\$150,133	22
23	21,401 - 24,000	Turbine	\$65,931	\$0	\$113,932	\$179,862	\$44,496	\$6,938	\$51,434	\$7,502	\$0	\$7,502	\$58,936	\$238,798	23
24	24,001 - 46,000	Turbine	\$13,084	\$7,405	\$73,482	\$93,971	\$64,755	\$15,146	\$79,901	\$32,752	\$9,790	\$42,542	\$122,443	\$216,414	24
25	46,001 - 79,000	Turbine	\$0	\$11,509	\$26,357	\$37,866	\$41,937	\$11,771	\$53,707	\$0	\$50,722	\$50,722	\$104,429	\$142,295	25
26	79,001 - 377,000	Turbine	\$14,785	\$0	\$0	\$14,785	\$12,195	\$17,115	\$29,310	\$0	\$51,625	\$51,625	\$80,936	\$95,720	26
27	377,001 - 600,000	Turbine	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	27
28	600,001 - 4,250,000	Turbine	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	28
29	> 4,250,000	Turbine	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	29
30	Total		\$85,280,693	\$38,862	\$4,888,601	\$90,208,155	\$180,336	\$56,075	\$236,411	\$70,970	\$114,055	\$185,025	\$421,436	\$90,629,592	30
31	Forecast Customers		832,050	40	29,831	861,922	48	13	61	69	12	81	142	862,064	31
32															32
33	Average SRM Cost		\$102	\$961	\$164	\$105	\$3,757	\$4,313	\$3,876	\$1,029	\$9,332	\$2,278	\$2,963	\$105	33

Notes:

1. Rows (2) - (29) = SRM Annualized Marginal Investment x Number of MSA's per Customer Segment for each particular flow range. Information from Workpapers to Testimony of Emma Hernandez, Tables "LRMCC-3" and "LRMCC-6".
2. Row (33) = Row (30) ÷ Row (31).

TABLE LRMCC-nc0.7
SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

NCO ANNUALIZED SRM NEW HOOKUP & REPLACEMENT INVESTMENT BY CUSTOMER CLASS
2009 BCAP

	Max Meter Flow Range	Meter Type	Per Customer SRM Invstmt	Res	NGV	GN-3	Total Core	GTNC			EG			Total Noncore	System Total	
								MPD	HPD	Total	< 3 MM	> 3 MM	Total			
	A	B	C	D	E	F	G	H	I	J	K	L	M	O	P	
	Cfh			(Dollars)												
1	<i>Medium Pressure</i>															1
2	0-275	250	\$167	\$131,359,380	\$193	\$2,802,131	\$134,161,704	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$134,161,704	2
3	276 - 425	425	\$177	\$5,674,616	\$0	\$614,515	\$6,289,131	\$149	\$0	\$149	\$0	\$0	\$0	\$149	\$6,289,280	3
	426-630	630	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
4	631 - 800	8C	\$301	\$3,252,895	\$695	\$992,002	\$4,245,591	\$0	\$0	\$0	\$1,152	\$0	\$1,152	\$1,152	\$4,246,743	4
5	801 - 1,100	10C, 11C	\$311	\$623,506	\$0	\$591,692	\$1,215,198	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,215,198	5
6	1,101 - 1,500	15C, 1.5M	\$355	\$208,781	\$0	\$404,943	\$613,724	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$613,724	6
7	1,501 - 2,000	2M	\$372	\$37,974	\$2,149	\$258,550	\$298,673	\$0	\$0	\$0	\$2,376	\$0	\$2,376	\$2,376	\$301,050	7
8	2,001 - 3,000	3M	\$373	\$132,475	\$2,154	\$534,484	\$669,113	\$942	\$0	\$942	\$7,147	\$0	\$7,147	\$8,089	\$677,202	8
9	3,001 - 5,000	5M	\$575	\$90,962	\$4,650	\$317,416	\$413,027	\$2,420	\$0	\$2,420	\$6,611	\$0	\$6,611	\$9,031	\$422,058	9
10	5,001 - 7,000	7M	\$605	\$38,881	\$1,397	\$145,042	\$185,320	\$1,527	\$0	\$1,527	\$772	\$0	\$772	\$2,300	\$187,620	10
11																11
12	<i>High Pressure</i>															12
13	0 - 940	425	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	13
14	941 - 1,050	8C	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	14
15	1,051 - 2,000	1.5M	\$384	\$0	\$0	\$677	\$677	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$677	15
16	2,001 - 2,700	2M	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	16
17	2,701 - 4,000	3M	\$547	\$559	\$0	\$0	\$559	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$559	17
18	4,001 - 6,600	5M	\$587	\$0	\$678	\$0	\$678	\$0	\$693	\$693	\$750	\$0	\$750	\$1,443	\$2,121	18
19	6,601 - 9,200	7M	\$652	\$0	\$0	\$0	\$0	\$549	\$1,541	\$2,090	\$3,332	\$0	\$3,332	\$5,422	\$5,422	19
20	9,201 - 14,500	11M	\$1,381	\$107,141	\$4,787	\$285,027	\$396,956	\$8,140	\$1,632	\$9,772	\$7,058	\$0	\$7,058	\$16,830	\$413,786	20
21	14,501 - 21,400	16M	\$1,487	\$57,680	\$12,027	\$135,085	\$204,792	\$12,521	\$3,514	\$16,035	\$13,299	\$3,029	\$16,328	\$32,362	\$237,155	21
22	21,401 - 24,000	Turbine	\$3,508	\$39,399	\$0	\$68,083	\$107,482	\$26,590	\$4,146	\$30,736	\$4,483	\$0	\$4,483	\$35,219	\$142,701	22
23	24,001 - 46,000	Turbine	\$4,033	\$8,234	\$4,660	\$46,243	\$59,137	\$40,751	\$9,532	\$50,283	\$20,611	\$6,161	\$26,773	\$77,056	\$136,193	23
24	46,001 - 79,000	Turbine	\$6,498	\$0	\$7,509	\$17,195	\$24,704	\$27,360	\$7,679	\$35,039	\$0	\$33,091	\$33,091	\$68,130	\$92,834	24
25	79,001 - 377,000	Turbine	\$9,287	\$9,481	\$0	\$0	\$9,481	\$7,821	\$10,976	\$18,797	\$0	\$33,107	\$33,107	\$51,904	\$61,386	25
26	377,001 - 600,000	Turbine	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	26
27	600,001 - 4,250,000	Turbine	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	27
28	> 4,250,000	Turbine	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	28
29	Total			\$141,641,965	\$40,899	\$7,213,085	\$148,895,949	\$128,770	\$39,714	\$168,484	\$67,591	\$75,388	\$142,980	\$311,463	\$149,207,412	29
30	Forecast Customers			832,050	40	29,831	861,922	48	13	61	69	12	81	142	862,064	30
31																31
32	Average SRM Cost			\$170	\$1,011	\$242	\$173	\$2,683	\$3,055	\$2,762	\$980	\$6,168	\$1,760	\$2,190	\$173	32

Notes:

1. Row (29) = Total of NCO Annualized SRM New Hookup & Replacement Investment x Number of MSA's per Customer Segment.
2. Row (32) = Row (29) ÷ Row (30).

TABLE LRMCC-8
SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

ALLOCATION OF CUSTOMER-RELATED DISTRIBUTION O&M EXPENSES BY CUSTOMER CLASS
2009 BCAP

	Distribution O&M Account	Marginal O&M	Res	NGV	GN-3	Total Core	GTNC			EG			Total Noncore	System Total
							MPD	HPD	Total	< 3 MM	> 3 MM	Total		
	A	B	C	D	E	F	G	H	I	J	K	L	N	O
1	870 - Operation Supervision & Engineering													1
2	Allocator - Total of other Distribution O&M Operating	100%	93%	0%	7%	99%	0%	0%	0%	0%	0%	0%	1%	100%
3	Allocation (M\$)	\$951	\$880	\$0	\$65	\$945	\$2	\$1	\$3	\$1	\$1	\$2	\$5	\$951
4	871 - Distribution Load Dispatching = Non-Marginal Designation													4
5	874 - Mains & Services Expenses													5
6	Allocator - Customers Wtd by Services costs	100%	96%	0%	4%	100%	0%	0%	0%	0%	0%	0%	0%	100%
7	Allocation (M\$)	\$1,901	\$1,829	\$0	\$70	\$1,899	\$1	\$0	\$1	\$0	\$1	\$1	\$2	\$1,901
8	875 - Meas & Reg Station Exp = 100% Demand-Related													8
9	878 - Meter & House Regulator Expenses													9
10	Allocator - Customers Wtd by Meters & Regs costs	100%	84%	0%	13%	98%	1%	0%	1%	0%	1%	1%	2%	100%
11	Allocation (M\$)	\$4,657	\$3,927	\$8	\$624	\$4,560	\$43	\$13	\$56	\$17	\$24	\$41	\$97	\$4,657
12	879 - Customer Installations Expenses													12
13	Allocator - Customer Service Expense	100%	95%	0%	5%	100%	0%	0%	0%	0%	0%	0%	0%	100%
14	Allocation (M\$)	\$11,576	\$11,024	\$0	\$552	\$11,576	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11,576
15	880 - Other Expenses													15
16	Allocator - Total of other Distribution O&M Operating	100%	93%	0%	7%	99%	0%	0%	0%	0%	0%	0%	1%	100%
17	Allocation (M\$)	\$4,426	\$4,095	\$2	\$304	\$4,401	\$11	\$3	\$14	\$4	\$6	\$10	\$24	\$4,426
18	881 - Rents = Non-Marginal Designation													18
19	885 - Maint Supervision & Engineering													19
20	Allocator - Total Other Distribution O&M Maintenance	100%	91%	0%	8%	99%	0%	0%	1%	0%	0%	0%	1%	100%
21	Allocation (M\$)	\$12	\$11	\$0	\$1	\$12	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12
22	887 - Maintenance of Mains													22
23	Allocator - Customers Wtd by Services costs	100%	96%	0%	4%	100%	0%	0%	0%	0%	0%	0%	0%	100%
24	Allocation (M\$)	\$272	\$261	\$0	\$10	\$271	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$272
25	888 - Maint. Of Compressor Station Eq = 100% Demand-Related													25
26	889 - Maint. of Meas. & Reg Station Eq = 100% Demand-Related													26
27	892 - Maintenance of Services													27
28	Allocator - Customers Wtd by Services costs	100%	96%	0%	4%	100%	0%	0%	0%	0%	0%	0%	0%	100%
29	Allocation (M\$)	\$1,531	\$1,473	\$0	\$56	\$1,530	\$1	\$0	\$1	\$0	\$1	\$1	\$2	\$1,531
30	893 - Maint of Meters & House Regulators													30
31	Allocator - Customers Wtd by Meters & Regs costs	100%	84%	0%	13%	98%	1%	0%	1%	0%	1%	1%	2%	100%
32	Allocation (M\$)	\$1,319	\$1,112	\$2	\$177	\$1,291	\$12	\$4	\$16	\$5	\$7	\$12	\$28	\$1,319
33	894 - Maint. of Other Eq = Non-Marginal Designation													33
34	Total 870 - 894 O&M Allocation (M\$)	\$26,645	\$24,612	\$14	\$1,859	\$26,486	\$70	\$21	\$92	\$28	\$40	\$67	\$159	\$26,645
35	Allocation %	100%	92%	0%	7%	99%	0%	0%	0%	0%	0%	0%	1%	100%

Notes:

1. Col. (B) from Customer-Related expense section of Workpapers to Testimony of Emma Hernandez, Table "LF-3".
2. Allocation Factors for FERC Accounts 870 - 894 from Workpapers to Testimony of Emma Hernandez, Table "LRMCC-9".

TABLE LRMCC-9

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

Allocation Factors for Distribution O&M Expenses
2009 BCAP

Allocation Method		Res	NGV	GN-3	Total Core	GTNC			EG			Total Noncore	System Total
						MPD	HPD	Total	< 3 MM	> 3 MM	Total		
	A	B	C	D	E	F	G	H	I	J	K	M	N
1	874, 887, 892 - Services												
2	Allocator - Customers Wtd by Services costs (M\$)	\$827,067	\$122	\$31,624	\$858,813	\$354	\$134	\$488	\$147	\$359	\$506	\$994	\$859,807
3	Alloc %	96%	0%	4%	100%	0%	0%	0%	0%	0%	0%	0%	100%
4													
5	878, 893 - Meters & House Regulators O&M Expense												
6	Allocator - Customers Wtd by Meters & Regs costs (M\$)	\$144,081	\$302	\$22,910	\$167,292	\$1,590	\$473	\$2,063	\$620	\$881	\$1,501	\$3,564	\$170,856
7	Alloc %	84%	0%	13%	98%	1%	0%	1%	0%	1%	1%	2%	100%
8													
9	879 - Customer Installations (M\$)												
10	Allocator - Customer Service	\$8,500	\$0	\$425	\$8,925	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,926
11	Alloc %	95%	0%	5%	100%	0%	0%	0%	0%	0%	0%	0%	100%

TABLE LRMCC-10

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

ALLOCATION OF CUSTOMER O&M EXPENSES BY CUSTOMER CLASS
2009 BCAP

	O&M Operational Activity	Total O&M	Res	NGV	GN-3	Total Core	GTNC			EG			Total Noncore	System Total
							MPD	HPD	Total	< 3 MM	> 3 MM	Total		
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	FIELD SERVICES Total	\$8,190	\$7,755	\$0	\$434	\$8,190	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,190
2	CUSTOMER CONTACT Total	\$3,597,963	\$3,182,453	\$0	\$415,510	\$3,597,963	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,597,963
3	METER READING Total	\$2,966,582	\$2,864,971	\$120	\$101,028	\$2,966,118	\$210	\$11	\$221	\$196	\$47	\$243	\$464	\$2,966,582
4	BILLING SERVICES Total	\$2,002,432	\$1,527,475	\$53	\$56,453	\$1,583,981	\$189,599	\$9,817	\$199,416	\$176,534	\$42,500	\$219,035	\$418,451	\$2,002,432
5	CREDIT & COLLECTIONS Total	\$2,794,406	\$2,694,197	\$94	\$99,677	\$2,793,969	\$178	\$27	\$205	\$185	\$47	\$232	\$437	\$2,794,406
6	BUSINESS ANALYSIS Total	\$19,987	\$19,303	\$1	\$681	\$19,984	\$1	\$0	\$1	\$1	\$0	\$2	\$3	\$19,987
7	CUSTOMER RESEARCH & COMMUNICATION Total	\$558,499	\$538,491	\$19	\$19,902	\$558,412	\$36	\$5	\$41	\$37	\$9	\$46	\$87	\$558,499
8	CUSTOMER SERVICE TECHNOLOGY & SUPPORT Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9	C&I CUSTOMER SERVICE Total	\$800,359	\$0	\$0	\$182,713	\$182,713	\$279,787	\$14,546	\$294,334	\$260,572	\$62,741	\$323,313	\$617,646	\$800,359
10	CONSUMER PROGRAMS & SERVICES Total	\$410,221	\$394,399	\$4	\$10,884	\$405,287	\$2,234	\$117	\$2,351	\$2,082	\$501	\$2,583	\$4,934	\$410,221
11	FEDERAL ACCOUNTS MANAGEMENT Total	\$100,096	\$5,194	\$472	\$90,181	\$95,847	\$1,889	\$472	\$2,361	\$1,416	\$472	\$1,889	\$4,249	\$100,096
12	CUSTOMER SERVICES SUPPORT STAFF Total	\$1,334,868	\$1,263,796	\$49	\$70,855	\$1,334,701	\$80	\$3	\$83	\$73	\$12	\$84	\$167	\$1,334,868
13	COMMUNITY OUTREACH & INFO SERVICES Total	\$158,765	\$153,304	\$5	\$5,433	\$158,742	\$9	\$1	\$11	\$9	\$2	\$12	\$22	\$158,765
14	OTHER Total	\$311,097	\$280,979	\$8	\$21,070	\$302,057	\$4,094	\$214	\$4,308	\$3,814	\$918	\$4,732	\$9,040	\$311,097
15	SVP COST CENTERS Total	\$16,860	\$15,105	\$0	\$1,208	\$16,313	\$248	\$13	\$261	\$231	\$56	\$287	\$547	\$16,860
16														
17	Total	\$15,080,324	\$12,947,421	\$825	\$1,076,029	\$14,024,276	\$478,366	\$25,226	\$503,592	\$445,150	\$107,307	\$552,457	\$1,056,049	\$15,080,324
18	Allocation %	100%	86%	0%	7%	93%	3%	0%	3%	3%	1%	4%	7%	100%

Note:

- O&M Operational Activities cost assigned using allocation methods identified for each SDG&E department in the Customer Operations division.

TABLE LRMCC-11

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

ANNUALIZED SRM + O&M MARGINAL INVESTMENT BY CUSTOMER CLASS
2009 BCAP

	Description	Res	NGV	GN-3	Total Core	GTNC			EG			Total Noncore	System Total
						MPD	HPD	Total	< 3 MM	> 3 MM	Total		
	A	B	C	D	E	F	G	H	I	J	K	M	N
		(Dollars)											
1													
2	Annualized SRM Cost (2009 \$'s)	\$102	\$961	\$164	\$105	\$3,757	\$4,313	\$3,876	\$1,029	\$9,332	\$2,278	\$2,963	\$105
3													
4	FERC 870 - 894: Distribution O&M (M\$)	\$24,612	\$14	\$1,859	\$26,486	\$70	\$21	\$92	\$28	\$40	\$67	\$159	\$26,645
5	FERC 901 - 910: Customer O&M (M\$)	\$12,947	\$1	\$1,076	\$14,024	\$478	\$25	\$504	\$445	\$107	\$552	\$1,056	\$15,080
6	Total Cust-Rel O&M (M\$)	\$37,560	\$15	\$2,935	\$40,510	\$549	\$46	\$595	\$473	\$147	\$620	\$1,215	\$41,725
7	+												
8	2006 Number of Customers	799,494	32	29,610	829,135	60	1	61	67	12	79	140	829,275
9	Cust-Rel O&M per Customer (2006 \$'s)	\$47	\$469	\$99	\$49	\$9,148	\$46,264	\$9,756	\$7,056	\$12,254	\$7,846	\$8,678	\$50
10	Cust-Rel O&M per Customer (2009 \$'s)	\$60	\$599	\$127	\$62	\$11,690	\$59,123	\$12,468	\$9,017	\$15,660	\$10,026	\$11,090	\$64
11													
12	Materials & Supplies Loader (\$'s)	\$117,119	\$47	\$9,153	\$126,319	\$1,711	\$144	\$1,856	\$1,474	\$459	\$1,933	\$3,788	\$130,108
13	+												
14	2006 Number of Customers	799,494	32	29,610	829,135	60	1	61	67	12	79	140	829,275
15	M&S Loader per Customer (2006 \$'s)	\$0	\$1	\$0	\$0	\$29	\$144	\$30	\$22	\$38	\$24	\$27	\$0
16	M&S Loader per Customer (2009 \$'s)	\$0.2	\$1.9	\$0.4	\$0.2	\$36	\$184	\$39	\$28	\$49	\$31	\$35	\$0
17													
18	Administrative & General (\$'s)	\$16	\$158	\$33	\$17	\$3,090	\$15,626	\$3,295	\$2,383	\$4,139	\$2,650	\$2,931	\$17
19	General Plant (\$'s)	\$5	\$46	\$10	\$5	\$893	\$4,514	\$952	\$688	\$1,196	\$765	\$847	\$5
20	A&G / GPlant Loading Factors (2009 \$'s)	\$20	\$204	\$43	\$21	\$3,982	\$20,140	\$4,247	\$3,072	\$5,335	\$3,415	\$3,778	\$22
21													
22	Fully-Loaded Cust LRMC	\$183	\$1,765	\$334	\$189	\$19,466	\$83,762	\$20,630	\$13,146	\$30,375	\$15,751	\$17,866	\$192

Notes:

- 2007 Number of Customers from Workpapers to Testimony of Emma Hernandez, Table "MISC-1" as provided by demand forecast witness Mr. Emmrich.
- O&M Presented in 2007 \$'s Using Labor / Non-Labor Weighted Average O&M Escalation Factor from Workpapers to Testimony of Emma Hernandez, Table "MISC-3".
- M&S Loader allocated between customer segments on basis of Distribution and Customer O&M combined allocation. Information from Workpapers to Testimony of Emma Hernandez, Table "LF-4".
- Row (18) or Row (19) = Row (10) x A&G or General Plant Loading Factor (from Workpapers to Testimony of Emma Hernandez, Tables "LF-5" and "LF-6").
- Row (22) = Row (2) + Row (10) + Row (16) + Row (20).
- Values may not conform to totals due to rounding.

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT
2009 BCAP

SECTION 1.1
Long Run Marginal Customer Cost
Additional Supporting Materials

Workpapers to the Prepared Written Testimony

Emma Hernandez

TABLE LRMCC-10a

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

ALLOCATION FACTORS FOR CUSTOMER O&M EXPENSES
2009 BCAP

Description	Res	NGV	GN-3	Total Core	GTNC			Cogen			Total Noncore	System Total
					MPD	HPD	Total	< 3 MM	> 3 MM	Total		
A	B	C	D	E	F	G	H	I	J	K	M	N
Page 1 of 2												
Total Field Orders												
Allocator - 2006 Count	674,076	26	37,752	711,854	15	-	15	13	-	13	28	711,882
Alloc %	95%	0%	5%	100%	0%	0%	0%	0%	0%	0%	0%	100%
Construction Field Orders												
Allocator - 2006 Count	184	1	753	938	5	-	5	8	-	8	13	951
Alloc %	19%	0%	79%	99%	1%	0%	1%	1%	0%	1%	1%	100%
Customer Services Field Orders												
Allocator - 2006 Count	673,892	25	36,999	710,916	10	-	10	5	-	5	15	710,931
Alloc %	95%	0%	5%	100%	0%	0%	0%	0%	0%	0%	0%	100%
Field Collection Orders - All Customers												
Allocator - 2006 Count	261,742	-	10,562	272,304	-	-	-	-	-	13	13	272,317
Alloc %	96%	0%	4%	100%	0%	0%	0%	0%	0%	0%	0%	100%
Field Collection Orders - Core												
Allocator - 2006 Count	261,742	-	10,562	272,304	-	-	-	-	-	-	-	272,304
Alloc %	96%	0%	4%	100%	0%	0%	0%	0%	0%	0%	0%	100%
Customer Contact Center CSR Call Information												
Allocator - Call Volume Weighted by Handle Time	9,570,648	-	1,366,363	10,937,011	-	-	-	-	-	-	-	10,937,011
Alloc %	88%	0%	12%	100%	0%	0%	0%	0%	0%	0%	0%	100%
Customer Contact Center IVR Call Information												
Alloc %	94%	0%	6%	100%	0%	0%	0%	0%	0%	0%	0%	100%
Residential												
Allocator - 100% Residential	1	-	-	1	-	-	-	-	-	-	-	1
Alloc %	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	100%
Active Meters - All Customers												
Allocator - 2006 Count	790,398	33	27,872	818,303	58	3	61	54	13	67	128	818,431
Alloc %	97%	0%	3%	100%	0%	0%	0%	0%	0%	0%	0%	100%

TABLE LRMCC-10a

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

ALLOCATION FACTORS FOR CUSTOMER O&M EXPENSES
2009 BCAP

Description	Res	NGV	GN-3	Total Core	GTNC			Cogen			Total Noncore	System Total	
					MPD	HPD	Total	< 3 MM	> 3 MM	Total			
A	B	C	D	E	F	G	H	I	J	K	M	N	
35 <u>Page 2 of 2</u>													35
36 Active Meters - Noncore Commercial, EG													36
37 Allocator - 2006 Count				-	58	3	61	54	13	67	128	128	37
38 Alloc %	0%	0%	0%	0%	45%	2%	48%	42%	10%	52%	100%	100%	38
39													39
40 Effort Study - Federal Accounts													40
41 Allocator - 2006 Count	11	1	191	203	4	1	5	3	1	4	9	212	41
42 Alloc %	5%	0%	90%	96%	2%	0%	2%	1%	0%	2%	4%	100%	42
43													43
44 Active Billing Accounts - All Customers													44
45 Allocator - 2006 Count	802,091	28	29,644	831,763	53	8	61	55	14	69	130	831,893	45
46 Alloc %	96%	0%	4%	100%	0%	0%	0%	0%	0%	0%	0%	100%	46
47													47
48 Active Billing Accounts - Mass Markets Customers													48
49 Allocator - 2006 Count	802,091	28	29,644	831,763	-	-	-	-	-	-	-	831,763	49
50 Alloc %	96%	0%	4%	100%	0%	0%	0%	0%	0%	0%	0%	100%	50
51													51
52 Active Billing Accounts - Major Markets Customers													52
53 Allocator - 2006 Count				-	53	8	61	55	14	69	130	130	53
54 Alloc %	0%	0%	0%	0%	41%	6%	47%	42%	11%	53%	100%	100%	54
55													55
56 C&I Markets													56
57 Noncore Allocator - Active Accounts					53	8	61	55	14	69			57
58 Alloc %	0%	0%	99%	99%	0%	0%	0%	0%	0%	1%	1%	100%	58
59													59
60 Demand Response Program - Commercial Customers													60
61 Noncore Allocator - Active Accounts					53	8	61						61
62 Alloc %	0%	0%	90%	90%	9%	1%	10%	0%	0%	0%	10%	100%	62
63													63
64 Meter Reading Function Net Allocation													64
65 Allocator - M\$'s	\$2,864,971	\$120	\$101,028	\$2,966,118	\$210	\$11	\$221	\$196	\$47	\$243	\$464	\$2,966,582	65
66 Alloc %	97%	0%	3%	100%	0%	0%	0%	0%	0%	0%	0%	100%	66
67													67
68 FERC 901 - 903 Net Allocation													68
69 Allocator - M\$'s	\$11,626,290	\$319	\$929,548	\$12,556,156	\$190,832	\$9,972	\$200,804	\$177,780	\$42,808	\$220,588	\$421,392	\$12,977,548	69
70 Alloc %	90%	0%	7%	97%	1%	0%	2%	1%	0%	2%	3%	100%	70

TABLE LRMCC-10b

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

ALLOCATION OF FIELD SERVICES CUSTOMER O&M EXPENSES BY CUSTOMER CLASS
2009 BCAP

	Cost Center(s) A	Total O&M B	Res C	NGV D	GN-3 E	Total Core F	GTNC			Cogen			Total Noncore N	System Total O	
							MPD G	HPD H	Total I	< 3 MM J	> 3 MM K	Total L			
1	CUSTOMER SERVICE - FIELD Total														1
2	Allocator - Total Field Orders		95%	0%	5%	100%	0%	0%	0%	0%	0%	0%	0%	100%	2
3	Allocation (\$)	\$7,987	\$7,563	\$0	\$424	\$7,987	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,987	3
4	GAS OPERATIONS Total														4
5	Allocator - Total Field Orders		95%	0%	5%	100%	0%	0%	0%	0%	0%	0%	0%	0%	5
6	Allocation (\$)	\$203	\$192	\$0	\$11	\$203	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$203	6
7	Total Field Services O&M Allocation (\$)	\$8,190	\$7,755	\$0	\$434	\$8,190	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,190	7
8	Allocation %	100%	95%	0%	5%	100%	0%	0%	0%	0%	0%	0%	0%	100%	8

TABLE LRMCC-10c

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

ALLOCATION OF CUSTOMER CONTACT CENTER O&M EXPENSES BY CUSTOMER CLASS
2009 BCAP

	Cost Center(s)	Total O&M	Res	NGV	GN-3	Total Core	GTNC			Cogen			Total Noncore	System Total
							MPD	HPD	Total	< 3 MM	> 3 MM	Total		
	A	B	C	D	E	F	G	H	I	J	K	L	N	O
1	CUSTOMER CONTACT CENTER													
2	Allocator - CSR Call Volume Weighted by Handle Time		88%	0%	12%	100%	0%	0%	0%	0%	0%	0%	0%	100%
3	Allocation (\$)	\$2,902,256	\$2,539,677	\$0	\$362,579	\$2,902,256	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,902,256
4	CCC TECH SDGE													
5	Allocator - CSR Call Volume Weighted by Handle Time		88%	0%	12%	100%	0%	0%	0%	0%	0%	0%	0%	100%
6	Allocation (\$)	\$196,160	\$171,653	\$0	\$24,506	\$196,160	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$196,160
7	CCC TECH SDGE													
8	Allocator - IVR Call Volume by Customer Segment		94%	0%	6%	100%	0%	0%	0%	0%	0%	0%	0%	100%
9	Allocation (\$)	\$499,547	\$471,123	\$0	\$28,424	\$499,547	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$499,547
10	Total Customer Contact Center O&M Allocation (\$)	\$3,597,963	\$3,182,453	\$0	\$415,510	\$3,597,963	\$0	\$3,597,963						
11	Allocation %	100%	88%	0%	12%	100%	0%	100%						

TABLE LRMCC-10d

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

ALLOCATION OF METER READING O&M EXPENSES BY CUSTOMER CLASS
2009 BCAP

	Cost Center(s) A	Total O&M B	Res C	NGV D	GN-3 E	Total Core F	GTNC			Cogen			Total Noncore N	System Total O		
							MPD G	HPD H	Total I	< 3 MM J	> 3 MM K	Total L				
1	METER READING															1
2	Allocator - Active Meters: All Customers		97%	0%	3%	100%	0%	0%	0%	0%	0%	0%	0%		100%	2
3	Allocation (\$)	\$2,966,582	\$2,864,971	\$120	\$101,028	\$2,966,118	\$210	\$11	\$221	\$196	\$47	\$243	\$464	\$2,966,582		3
4	Total Meter Reading O&M Allocation (\$)	\$2,966,582	\$2,864,971	\$120	\$101,028	\$2,966,118	\$210	\$11	\$221	\$196	\$47	\$243	\$464	\$2,966,582		4
5	Allocation %	100%	97%	0%	3%	100%	0%	0%	0%	0%	0%	0%	0%	100%		5

TABLE LRMCC-10e

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

ALLOCATION OF BILLING SERVICES CUSTOMER O&M EXPENSES BY CUSTOMER CLASS
2009 BCAP

	Cost Center(s)	Total O&M	Res	NGV	GN-3	Total Core	GTNC			Cogen			Total Noncore	System Total
							MPD	HPD	Total	< 3 MM	> 3 MM	Total		
	A	B	C	D	E	F	G	H	I	J	K	L	N	O
1	MAJOR MARKET BILLING Total													
2	Allocator - Active Meters N/C C&I		0%	0%	0%	0%	45%	2%	48%	42%	10%	52%	100%	100%
3	Allocation (\$)	\$418,203	\$0	\$0	\$0	\$0	\$189,498	\$9,802	\$199,300	\$176,429	\$42,474	\$218,903	\$418,203	\$418,203
4	MASS MRKET BILLING Total													
5	Allocator - Active Accounts: All Customers		96%	0%	4%	100%	0%	0%	0%	0%	0%	0%	0%	100%
6	Allocation (\$)	1,584,228.86	\$1,527,475	\$53	\$56,453	\$1,583,981	\$101	\$15	\$116	\$105	\$27	\$131	\$248	\$1,584,229
7	Total Billing Services O&M Allocation (\$)	\$2,002,432	\$1,527,475	\$53	\$56,453	\$1,583,981	\$189,599	\$9,817	\$199,416	\$176,534	\$42,500	\$219,035	\$418,451	\$2,002,432
8	Allocation %	100%	76%	0%	3%	79%	9%	0%	10%	9%	2%	11%	21%	100%

TABLE LRMCC-10f

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

ALLOCATION OF CREDIT & COLLECTIONS O&M EXPENSES BY CUSTOMER CLASS
2009 BCAP

	Cost Center(s) A	Total O&M B	Res C	NGV D	GN-3 E	Total Core F	GTNC			Cogen			Total Noncore N	System Total O	
							MPD G	HPD H	Total I	< 3 MM J	> 3 MM K	Total L			
1	CREDIT & COLLECTIONS - Subtotal														1
2	Allocator - Residential Class		100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	100%	2
3	Allocation (\$)	(\$2,816)	(\$2,816)	\$0	\$0	(\$2,816)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$2,816)	3
4	CREDIT & COLLECTIONS - Subtotal														4
5	Allocator - Active Accounts: All Customers		96%	0%	4%	100%	0%	0%	0%	0%	0%	0%	0%	100%	5
6	Allocation (\$)	\$2,797,222	\$2,697,013	\$94	\$99,677	\$2,796,785	\$178	\$27	\$205	\$185	\$47	\$232	\$437	\$2,797,222	6
7	Total Credit & Collections O&M Allocation (\$)	\$2,794,406	\$2,694,197	\$94	\$99,677	\$2,793,969	\$178	\$27	\$205	\$185	\$47	\$232	\$437	\$2,794,406	7
8	Allocation %	100%	96%	0%	4%	100%	0%	0%	0%	0%	0%	0%	0%	100%	8

TABLE LRMCC-10g

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

ALLOCATION OF BUSINESS ANALYSIS CUSTOMER O&M EXPENSES BY CUSTOMER CLASS
2009 BCAP

	Cost Center(s)	Total O&M	Res	NGV	GN-3	Total Core	GTNC			Cogen			Total Noncore	System Total
							MPD	HPD	Total	< 3 MM	> 3 MM	Total		
	A	B	C	D	E	F	G	H	I	J	K	L	N	O
1	BUSINESS PLANNING & BUDGETS Total													1
2	Allocator - Active Meters: All Customers		97%	0%	3%	100%	0%	0%	0%	0%	0%	0%	0%	100%
3	Allocation (\$)	\$19,987	\$19,303	\$1	\$681	\$19,984	\$1	\$0	\$1	\$1	\$0	\$2	\$3	\$19,987
4	Total Business Analysis O&M Allocation (\$)	\$19,987	\$19,303	\$1	\$681	\$19,984	\$1	\$0	\$1	\$1	\$0	\$2	\$3	\$19,987
5	Allocation %	100%	97%	0%	3%	100%	0%	100%						

TABLE LRMCC-10h

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

ALLOCATION OF CUSTOMER RESEARCH & COMMUNICATION O&M EXPENSES BY CUSTOMER CLASS
2009 BCAP

	Cost Center(s)	Total O&M	Res	NGV	GN-3	Total Core	GTNC			Cogen			Total Noncore	System Total
							MPD	HPD	Total	< 3 MM	> 3 MM	Total		
	A	B	C	D	E	F	G	H	I	J	K	L	N	O
1	COMMUNICATIONS Total													1
2	Allocator - Active Accounts: All Customers		96%	0%	4%	100%	0%	0%	0%	0%	0%	0%	0%	100%
3	Allocation (\$)	\$555,695	\$535,788	\$19	\$19,802	\$555,608	\$35	\$5	\$41	\$37	\$9	\$46	\$87	\$555,695
4	Total Business Analysis O&M Allocation (\$)	\$555,695	\$535,788	\$19	\$19,802	\$555,608	\$35	\$5	\$41	\$37	\$9	\$46	\$87	\$555,695
5	Allocation %	100%	96%	0%	4%	100%	0%	0%	0%	0%	0%	0%	0%	100%

TABLE LRMCC-10i

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

ALLOCATION OF CUSTOMER SERVICE TECHNOLOGY & SUPPORT O&M EXPENSES BY CUSTOMER CLASS
2009 BCAP

	Cost Center(s)	Total O&M	Res	NGV	GN-3	Total Core	GTNC			Cogen			Total Noncore	System Total
							MPD	HPD	Total	< 3 MM	> 3 MM	Total		
	A	B	C	D	E	F	G	H	I	J	K	L	N	O
1	VP & CITO INFO TECH													
2	Allocator - FERC 901 - 905 Net Allocation		90%	0%	7%	97%	1%	0%	2%	1%	0%	2%	3%	100%
3	Allocation (\$)	\$72,195	\$64,678	\$2	\$5,171	\$69,851	\$1,062	\$55	\$1,117	\$989	\$238	\$1,227	\$2,344	\$72,195
4	DIR IT BUS PARTNER &													
5	Allocator - FERC 901 - 905 Net Allocation		90%	0%	7%	97%	1%	0%	2%	1%	0%	2%	3%	100%
6	Allocation (\$)	\$168,571	\$151,019	\$4	\$12,074	\$163,097	\$2,479	\$130	\$2,608	\$2,309	\$556	\$2,865	\$5,474	\$168,571
7	DIR INFRASTRUCTURE E													
8	Allocator - FERC 901 - 905 Net Allocation		90%	0%	7%	97%	1%	0%	2%	1%	0%	2%	3%	100%
9	Allocation (\$)	\$2,566,272	\$2,299,065	\$63	\$183,815	\$2,482,943	\$37,737	\$1,972	\$39,708	\$35,156	\$8,465	\$43,621	\$83,329	\$2,566,272
10	DIR NETWORK & TELECO													
11	Allocator - FERC 901 - 905 Net Allocation		90%	0%	7%	97%	1%	0%	2%	1%	0%	2%	3%	100%
12	Allocation (\$)	\$861,006	\$771,356	\$21	\$61,672	\$833,049	\$12,661	\$662	\$13,323	\$11,795	\$2,840	\$14,635	\$27,958	\$861,006
13	DIR UTILITY OPS SYST													
14	Allocator - FERC 901 - 905 Net Allocation		90%	0%	7%	97%	1%	0%	2%	1%	0%	2%	3%	100%
15	Allocation (\$)	\$354,157	\$317,281	\$9	\$25,367	\$342,657	\$5,208	\$272	\$5,480	\$4,852	\$1,168	\$6,020	\$11,500	\$354,157
16	DIR CUST CARE SYSTEM													
17	Allocator - FERC 901 - 905 Net Allocation		90%	0%	7%	97%	1%	0%	2%	1%	0%	2%	3%	100%
18	Allocation (\$)	\$1,627,266	\$1,457,830	\$40	\$116,557	\$1,574,427	\$23,929	\$1,250	\$25,179	\$22,292	\$5,368	\$27,660	\$52,839	\$1,627,266
19	IT BUS PLNG & BUDS													
20	Allocator - FERC 901 - 905 Net Allocation		90%	0%	7%	97%	1%	0%	2%	1%	0%	2%	3%	100%
21	Allocation (\$)	\$38,999	\$34,938	\$1	\$2,793	\$37,732	\$573	\$30	\$603	\$534	\$129	\$663	\$1,266	\$38,999
22	DIR SHARED SOFTWARE													
23	Allocator - FERC 901 - 905 Net Allocation		90%	0%	7%	97%	1%	0%	2%	1%	0%	2%	3%	100%
24	Allocation (\$)	\$186,343	\$166,941	\$5	\$13,347	\$180,292	\$2,740	\$143	\$2,883	\$2,553	\$615	\$3,167	\$6,051	\$186,343
25	Total Cust Service Tech & Support O&M Allocation (\$)	\$5,874,808	\$5,263,107	\$144	\$420,797	\$5,684,048	\$86,388	\$4,514	\$90,902	\$80,479	\$19,379	\$99,858	\$190,760	\$5,874,808
26	Allocation %	100%	90%	0%	7%	97%	1%	0%	2%	1%	0%	2%	3%	100%

TABLE LRMCC-10j

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

ALLOCATION OF C&I CUSTOMER SERVICE O&M EXPENSES BY CUSTOMER CLASS
2009 BCAP

	Cost Center(s)	Total O&M	Res	NGV	GN-3	Total Core	GTNC			Cogen			Total Noncore	System Total
							MPD	HPD	Total	< 3 MM	> 3 MM	Total		
	A	B	C	D	E	F	G	H	I	J	K	L	N	O
1	COMMERCIAL/INDUSTRIAL MARKETS - Subtotal													
2	Allocator - CUST SOLUTIONS: Active Accounts		0%	0%	99%	99%	0%	0%	0%	0%	0%	1%	1%	100%
3	Allocation (\$)	\$26,689	\$0	\$0	\$26,422	\$26,422	\$109	\$16	\$125	\$113	\$29	\$142	\$267	\$26,689
4	COMMERCIAL/INDUSTRIAL MARKETS - Subtotal													
5	Allocator - C&I TECH SPPT: Active Accounts		0%	0%	99%	99%	0%	0%	0%	0%	0%	1%	1%	100%
6	Allocation (\$)	\$37,186	\$0	\$0	\$36,814	\$36,814	\$152	\$23	\$174	\$157	\$40	\$197	\$372	\$37,186
7	COMMERCIAL/INDUSTRIAL MARKETS - Subtotal													
8	Allocator - COMMERC/INDUST MKTS: Active Accounts		0%	0%	99%	99%	0%	0%	0%	0%	0%	1%	1%	100%
9	Allocation (\$)	\$808	\$0	\$0	\$800	\$800	\$3	\$0	\$4	\$3	\$1	\$4	\$8	\$808
10	COMMERCIAL/INDUSTRIAL MARKETS - Subtotal													
11	Allocator - C&I PROJ COORD: Active Accounts		0%	0%	99%	99%	0%	0%	0%	0%	0%	1%	1%	100%
12	Allocation (\$)	\$119,875	\$0	\$0	\$118,676	\$118,676	\$489	\$74	\$562	\$507	\$129	\$636	\$1,199	\$119,875
13	Total C&I Customer Service O&M Allocation (\$)	\$184,558	\$0	\$0	\$182,713	\$182,713	\$752	\$114	\$866	\$781	\$199	\$980	\$1,846	\$184,558
14	Allocation %	100%	0%	0%	99%	99%	0%	0%	0%	0%	0%	1%	1%	100%

TABLE LRMCC-10k

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

ALLOCATION OF CONSUMER PROGRAMS & SERVICES O&M EXPENSES BY CUSTOMER CLASS
2009 BCAP

	Cost Center(s)	Total O&M	Res	NGV	GN-3	Total Core	GTNC			Cogen			Total Noncore	System Total
							MPD	HPD	Total	< 3 MM	> 3 MM	Total		
	A	B	C	D	E	F	G	H	I	J	K	L	N	O
1	CUSTOMER ASSISTANCE - Subtotal													
2	Allocator - Residential Class		100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	100%
3	Allocation (\$)	\$258,270	\$258,270	\$0	\$0	\$258,270	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$258,270
4	Total Consumer Programs & Services O&M Allocation (\$)	\$258,270	\$258,270	\$0	\$0	\$258,270	\$0	\$258,270						
5	Allocation %	100%	100%	0%	0%	100%	0%	100%						

TABLE LRMCC-101

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

ALLOCATION OF FEDERAL ACCOUNTS MANAGEMENT O&M EXPENSES BY CUSTOMER CLASS
2009 BCAP

	Cost Center(s)	Total O&M	Res	NGV	GN-3	Total Core	GTNC			Cogen			Total Noncore	System Total
							MPD	HPD	Total	< 3 MM	> 3 MM	Total		
	A	B	C	D	E	F	G	H	I	J	K	L	N	O
1	FEDERAL ACCOUNTS Total													1
2	Allocator - 15% Res / Active Meters: Federal Accounts		5%	0%	90%	96%	2%	0%	2%	1%	0%	2%	4%	100%
3	Allocation (\$)	\$100,096	\$5,194	\$472	\$90,181	\$95,847	\$1,889	\$472	\$2,361	\$1,416	\$472	\$1,889	\$4,249	\$100,096
4	Total Federal Accounts Management O&M Allocation (\$)	\$100,096	\$5,194	\$472	\$90,181	\$95,847	\$1,889	\$472	\$2,361	\$1,416	\$472	\$1,889	\$4,249	\$100,096
5	Allocation %	100%	5%	0%	90%	96%	2%	0%	2%	1%	0%	2%	4%	100%

TABLE LRMCC-10m
SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

ALLOCATION OF CUSTOMER SERVICES SUPPORT STAFF O&M EXPENSES BY CUSTOMER CLASS
2009 BCAP

	Cost Center(s)	Total O&M	Res	NGV	GN-3	Total Core	GTNC			Cogen			Total Noncore	System Total
							MPD	HPD	Total	< 3 MM	> 3 MM	Total		
	A	B	C	D	E	F	G	H	I	J	K	L	N	O
1	CUSTOMER SERVICE STAFF - FIELD Total													1
2	Allocator - Total Field Orders		95%	0%	5%	100%	0%	0%	0%	0%	0%	0%	0%	100%
3	Allocation (\$)	\$1,331,337	\$1,260,633	\$49	\$70,602	\$1,331,284	\$28	\$0	\$28	\$24	\$0	\$24	\$52	\$1,331,337
4	HUMAN RESOURCES Total													4
5	Allocator - FERC 901 - 905 Net Allocation		90%	0%	7%	97%	1%	0%	2%	1%	0%	2%	3%	100%
6	Allocation (\$)	\$3,531	\$3,163	\$0	\$253	\$3,416	\$52	\$3	\$55	\$48	\$12	\$60	\$115	\$3,531
7	Total Customer Services Support Staff O&M Allocation (\$)	\$1,334,868	\$1,263,796	\$49	\$70,855	\$1,334,701	\$80	\$3	\$83	\$73	\$12	\$84	\$167	\$1,334,868
8	Allocation %	100%	95%	0%	5%	100%	0%	0%	0%	0%	0%	0%	0%	100%

TABLE LRMCC-10n

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

ALLOCATION OF COMMUNITY OUTREACH & INFO SERVICES O&M EXPENSES BY CUSTOMER CLASS
2009 BCAP

	Cost Center(s)	Total O&M	Res	NGV	GN-3	Total Core	GTNC			Cogen			Total Noncore	System Total
							MPD	HPD	Total	< 3 MM	> 3 MM	Total		
	A	B	C	D	E	F	G	H	I	J	K	L	N	O
1	PUBLIC AFFAIRS													
2	Allocator - Active Accounts: All Customers		96%	0%	4%	100%	0%	0%	0%	0%	0%	0%	0%	100%
3	Allocation (\$)	\$29	\$28	\$0	\$1	\$29	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$29
4	MASS MARKETS - Subtotal													
5	Allocator - Residential Class		100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	100%
6	Allocation (\$)	\$6,290	\$6,290	\$0	\$0	\$6,290	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,290
7	MASS MARKETS - Subtotal													
8	Allocator - Active Accounts: Mass Markets		96%	0%	4%	100%	0%	0%	0%	0%	0%	0%	0%	100%
9	Allocation (\$)	\$9,124	\$8,799	\$0	\$325	\$9,124	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$9,124
10	MASS MARKETS - Subtotal													
11	Allocator - ENGY EFFIC ANALY & S: Active Accounts - All Customers		96%	0%	4%	100%	0%	0%	0%	0%	0%	0%	0%	100%
12	Allocation (\$)	\$143,294	\$138,161	\$5	\$5,106	\$143,272	\$9	\$1	\$11	\$9	\$2	\$12	\$22	\$143,294
13	Total Comm Outreach & Info Services O&M Allocation (\$)	\$158,737	\$153,277	\$5	\$5,432	\$158,715	\$9	\$1	\$11	\$9	\$2	\$12	\$22	\$158,737
14	Allocation %	100%	97%	0%	3%	100%	0%	0%	0%	0%	0%	0%	0%	100%

TABLE LRMCC-10o

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

ALLOCATION OF OTHER O&M EXPENSES BY CUSTOMER CLASS
2009 BCAP

	Cost Center(s) A	Total O&M B	Res C	NGV D	GN-3 E	Total Core F	GINC			Cogen			Total Noncore N	System Total O		
							MPD G	HPD H	Total I	< 3 MM J	> 3 MM K	Total L				
1	ACCOUNTING ADJUSTMENTS - Subtotal															1
2	Allocator - FERC 901 - 905 Net Allocation		90%	0%	7%	97%	1%	0%	2%	1%	0%	2%	3%	100%		2
3	Allocation (\$)	(\$28,264)	(\$25,321)	(\$1)	(\$2,024)	(\$27,346)	(\$416)	(\$22)	(\$437)	(\$387)	(\$93)	(\$480)	(\$918)	(\$28,264)		3
4	FACILITIES															4
5	Allocator - FERC 901 - 905 Net Allocation		90%	0%	7%	97%	1%	0%	2%	1%	0%	2%	3%	100%		5
6	Allocation (\$)	\$621	\$556	\$0	\$44	\$600	\$9	\$0	\$10	\$9	\$2	\$11	\$20	\$621		6
7	REGULATORY AFFAIRS															7
8	Allocator - FERC 901 - 905 Net Allocation		90%	0%	7%	97%	1%	0%	2%	1%	0%	2%	3%	100%		8
9	Allocation (\$)	\$18,956	\$16,982	\$0	\$1,358	\$18,340	\$279	\$15	\$293	\$260	\$63	\$322	\$616	\$18,956		9
10	SUPPLY & TRANSPORTATION															10
11	Allocator - Active Accounts: All Customers		96%	0%	4%	100%	0%	0%	0%	0%	0%	0%	0%	100%		11
12	Allocation (\$)	\$13,873	\$13,376	\$0	\$494	\$13,871	\$1	\$0	\$1	\$1	\$0	\$1	\$2	\$13,873		12
13	NOT ASSIGNED COST CENTER															13
14	Allocator - FERC 901 - 905 Net Allocation		90%	0%	7%	97%	1%	0%	2%	1%	0%	2%	3%	100%		14
15	Allocation (\$)	\$477,356	\$427,652	\$12	\$34,192	\$461,856	\$7,019	\$367	\$7,386	\$6,539	\$1,575	\$8,114	\$15,500	\$477,356		15
16	Total Other O&M Allocation (\$)	\$482,541	\$433,245	\$12	\$34,064	\$467,321	\$6,893	\$360	\$7,253	\$6,421	\$1,546	\$7,967	\$15,220	\$482,541		16
17	Allocation %	100%	90%	0%	7%	97%	1%	0%	2%	1%	0%	2%	3%	100%		17

TABLE LRMCC-10p

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

ALLOCATION OF SVP COST CENTERS O&M EXPENSES BY CUSTOMER CLASS
2009 BCAP

	Cost Center(s) A	Total O&M B	Res C	NGV D	GN-3 E	Total Core F	GTNC			Cogen			Total Noncore N	System Total O	
							MPD G	HPD H	Total I	< 3 MM J	> 3 MM K	Total L			
1	CONTROLLER TOTAL														1
2	Allocator - FERC 901 - 905 Net Allocation		90%	0%	7%	97%	1%	0%	2%	1%	0%	2%	3%	100%	2
3	Allocation (\$)	\$679	\$608	\$0	\$49	\$657	\$10	\$1	\$11	\$9	\$2	\$12	\$22	\$679	3
4	CUSTOMER OPERATIONS TOTAL														4
5	Allocator - FERC 901 - 905 Net Allocation		90%	0%	7%	97%	1%	0%	2%	1%	0%	2%	3%	100%	5
6	Allocation (\$)	\$12,562	\$11,254	\$0	\$900	\$12,154	\$185	\$10	\$194	\$172	\$41	\$214	\$408	\$12,562	6
7	Total SVP Cost Centers O&M Allocation (\$)	\$13,240	\$11,862	\$0,325	\$948	\$12,810	\$195	\$10	\$205	\$181	\$44	\$225	\$430	\$13,240	7
8	Allocation %	100%	90%	0%	7%	97%	1%	0%	2%	1%	0%	2%	3%	100%	8

TABLE LRMCC-10q

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

ALLOCATION OF NON-REFUNDABLE FERC ACCOUNT 907 O&M EXPENSES BY CUSTOMER CLASS
2009 BCAP

	Cost Center(s) A	Total O&M B	Res C	NGV D	GN-3 E	Total Core F	GINC			Cogen			Total Noncore N	System Total O		
							MPD G	HPD H	Total I	< 3 MM J	> 3 MM K	Total L				
1	FERC 907															1
2	Allocator - FERC 901 - 905 Net Allocation		90%	0%	7%	97%	1%	0%	2%	1%	0%	2%	3%	100%		2
3	Allocation (\$)	\$1,221	\$1,094	\$0	\$87	\$1,181	\$18	\$1	\$19	\$17	\$4	\$21	\$40	\$1,221		3
4	FEDERAL ACCOUNTS Total															4
5	Allocator - 15% Res / Active Meters: Federal Accounts		5%	0%	90%	100%	2%	0%	0%	1%	0%	0%	4%	100%		5
6	Allocation (\$)	\$20,140	\$1,045	\$95	\$18,145	\$19,285	\$380	\$95	\$475	\$285	\$95	\$380	\$855	\$20,140		6
7	Total FERC 907 Allocation (\$)	\$21,361	\$2,139	\$95	\$18,232	\$20,466	\$398	\$96	\$494	\$302	\$99	\$401	\$895	\$21,361		7
8	Allocation %	100%	10%	0%	85%	96%	2%	0%	2%	1%	0%	2%	4%	100%		8

TABLE LRMCC-10r

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

ALLOCATION OF NON-REFUNDABLE FERC ACCOUNT 908 O&M EXPENSES BY CUSTOMER CLASS
2009 BCAP

Cost Center(s)	Total O&M	Res	NGV	GN-3	Total Core	GINC			Cogen			Total Noncore	System Total
						MPD	HPD	Total	< 3 MM	> 3 MM	Total		
A	B	C	D	E	F	G	H	I	J	K	L	N	O
DIR SUPPLY MANAGEMEN													
Allocator - FERC 901 - 905 Net Allocation		90%	0%	7%	97%	1%	0%	2%	1%	0%	2%	3%	100%
Allocation (\$)	\$5,697	\$5,104	\$0	\$408	\$5,512	\$84	\$4	\$88	\$78	\$19	\$97	\$185	\$5,697
GAS TRANS & DISTR													
Allocator - FERC 901 - 905 Net Allocation		90%	0%	7%	97%	1%	0%	2%	1%	0%	2%	3%	100%
Allocation (\$)	\$163	\$146	\$0	\$12	\$158	\$2	\$0	\$3	\$2	\$1	\$3	\$5	\$163
CUST SVCS SVP & STAF													
Allocator - FERC 901 - 905 Net Allocation		90%	0%	7%	97%	1%	0%	2%	1%	0%	2%	3%	100%
Allocation (\$)	\$3,620	\$3,243	\$0	\$259	\$3,502	\$53	\$3	\$56	\$50	\$12	\$62	\$118	\$3,620
DIR CUSTOMER PROGRAM													
Allocation (\$)	\$151,951	\$136,129	\$4	\$10,884	\$147,017	\$2,234	\$117	\$2,351	\$2,082	\$501	\$2,583	\$4,934	\$151,951
CUSTOMER SERVICE MAS													
Active Billing Accounts - Mass Markets Customers		96%	0%	4%	100%	0%	0%	0%	0%	0%	0%	0%	100%
Allocation (\$)	\$901,272	\$869,120	\$30	\$32,121	\$901,272	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$901,272
CUSTOMER SERVICE MAJ													
Business Analysis - Major Markets Customers		0%	0%	0%	0%	45%	2%	48%	42%	10%	52%	100%	100%
Allocation (\$)	\$615,801	\$0	\$0	\$0	\$0	\$279,035	\$14,433	\$293,468	\$259,791	\$62,542	\$322,333	\$615,801	\$615,801
VACANT													
Allocation (\$)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
DIR CUSTOMER OPS													
Business Analysis - Major Markets Customers		0%	0%	0%	0%	45%	2%	48%	42%	10%	52%	100%	100%
Allocation (\$)	\$40	\$0	\$0	\$0	\$0	\$18	\$1	\$19	\$17	\$4	\$21	\$40	\$40
CUSTOMER OPERATIONS													
Allocator - FERC 901 - 905 Net Allocation		90%	0%	7%	97%	1%	0%	2%	1%	0%	2%	3%	100%
Allocation (\$)	\$134	\$120	\$0	\$10	\$130	\$2	\$0	\$2	\$2	\$0	\$2	\$4	\$134
REGULATORY & STRATEG													
Allocator - FERC 901 - 905 Net Allocation		90%	0%	7%	97%	1%	0%	2%	1%	0%	2%	3%	100%
Allocation (\$)	\$58	\$52	\$0	\$4	\$56	\$1	\$0	\$1	\$1	\$0	\$1	\$2	\$58
REGIONAL PUBLIC AFFA													
Allocator - FERC 901 - 905 Net Allocation		90%	0%	7%	97%	1%	0%	2%	1%	0%	2%	3%	100%
Allocation (\$)	\$1	\$1	\$0	\$0	\$1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1
ELECTRIC GAS PROCUREMENT													
Allocator - FERC 901 - 905 Net Allocation		90%	0%	7%	97%	1%	0%	2%	1%	0%	2%	3%	100%
Allocation (\$)	\$11	\$10	\$0	\$1	\$10	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11
VACANT													
Allocator - FERC 901 - 905 Net Allocation		90%	0%	7%	97%	1%	0%	2%	1%	0%	2%	3%	100%
Allocation (\$)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
FEDERAL ACCOUNTS													
Allocator - 15% Res / Active Meters: Federal Accounts		5%	0%	90%	96%	2%	0%	2%	1%	0%	2%	4%	100%
Allocation (\$)	\$79,956	\$4,149	\$377	\$72,036	\$76,562	\$1,509	\$377	\$1,886	\$1,131	\$377	\$1,509	\$3,394	\$79,956
HUMAN RESOURCES													
Allocator - FERC 901 - 905 Net Allocation		90%	0%	7%	97%	1%	0%	2%	1%	0%	2%	3%	100%
Allocation (\$)	\$1,263	\$1,132	\$0	\$90	\$1,222	\$19	\$1	\$20	\$17	\$4	\$21	\$41	\$1,263
Not Assigned													

47	Allocator - FERC 901 - 905 Net Allocation		90%	0%	7%	97%	1%	0%	2%	1%	0%	2%	3%	100%	47
48	Allocation (\$)	(\$192,994)	(\$172,899)	(\$5)	(\$13,824)	(\$186,727)	(\$2,838)	(\$148)	(\$2,986)	(\$2,644)	(\$637)	(\$3,280)	(\$6,267)	(\$192,994)	48
49	Total FERC 908 Allocation (\$)	\$1,566,973	\$846,307	\$407	\$102,002	\$948,715	\$280,119	\$14,788	\$294,907	\$260,527	\$62,824	\$323,351	\$618,258	\$1,566,973	49
50	Allocation %	100%	54%	0%	7%	61%	18%	1%	19%	17%	4%	21%	39%	100%	50

TABLE LRMCC-10s

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

ALLOCATION OF NON-REFUNDABLE FERC ACCOUNT 909-910 O&M EXPENSES BY CUSTOMER CLASS
2009 BCAP

	Cost Center(s)	Total O&M	Res	NGV	GN-3	Total Core	GTNC			Cogen			Total Noncore	System Total
							MPD	HPD	Total	< 3 MM	> 3 MM	Total		
	A	B	C	D	E	F	G	H	I	J	K	L	N	O
1	SVP													
2	Allocator - Active Accounts: All Customers		96%	0%	4%	100%	0%	0%	0%	0%	0%	0%	0%	100%
3	Allocation (\$)	\$539	\$519	\$0	\$19	\$539	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$539
4	PUBLIC AFFAIRS													
5	Allocator - Active Accounts: All Customers		96%	0%	4%	100%	0%	0%	0%	0%	0%	0%	0%	100%
6	Allocation (\$)	\$28	\$27	\$0	\$1	\$28	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$28
7	CUSTOMER COMMUNICATIONS & RESEARCH - Subtotal													
8	Allocator - Active Accounts: All Customers		96%	0%	4%	100%	0%	0%	0%	0%	0%	0%	0%	100%
9	Allocation (\$)	\$2,265	\$2,184	\$0	\$81	\$2,265	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,265
10	REG STRATEGY													
11	Allocator - Active Accounts: All Customers		97%	0%	3%	100%	0%	0%	0%	0%	0%	0%	0%	100%
12	Allocation (\$)	\$18,995	\$18,344	\$1	\$647	\$18,992	\$1	\$0	\$1	\$1	\$0	\$2	\$3	\$18,995
13	Total FERC 909-910 Allocation (\$)	\$21,827	\$21,074	\$1	\$748	\$21,823	\$2	\$0	\$2	\$1	\$0	\$2	\$3	\$21,827
14	Allocation %	100%	97%	0%	3%	100%	0%	100%						

TABLE LRMCC-10u

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

SUMMARY OF TOTAL ALLOCATION OF CUSTOMER O&M EXPENSES
2009 BCAP

	O&M Operational Activity	Total O&M	Res			Total Core	GTNC			Cogen			Total Noncore	System Total	
			Res	NGV	GN-3		MPD	HPD	Total	< 3 MM	> 3 MM	Total			
			A	B	C		D	E	F	G	H	I			J
1	FIELD SERVICES Total	\$8,190	\$7,755	\$0	\$434	\$8,190	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,190	1
2	CUSTOMER CONTACT Total	\$3,597,963	\$3,182,453	\$0	\$415,510	\$3,597,963	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,597,963	2
3	METER READING Total	\$2,966,582	\$2,864,971	\$120	\$101,028	\$2,966,118	\$210	\$11	\$221	\$196	\$47	\$243	\$464	\$2,966,582	3
4	BILLING SERVICES Total	\$2,002,432	\$1,527,475	\$53	\$56,453	\$1,583,981	\$189,599	\$9,817	\$199,416	\$176,534	\$42,500	\$219,035	\$418,451	\$2,002,432	4
5	CREDIT & COLLECTIONS Total	\$2,794,406	\$2,694,197	\$94	\$99,677	\$2,793,969	\$178	\$27	\$205	\$185	\$47	\$232	\$437	\$2,794,406	5
6	BUSINESS ANALYSIS Total	\$19,987	\$19,303	\$1	\$681	\$19,984	\$1	\$0	\$1	\$1	\$0	\$2	\$3	\$19,987	6
7	CUSTOMER RESEARCH & COMMUNICATION Total	\$558,499	\$538,491	\$19	\$19,902	\$558,412	\$36	\$5	\$41	\$37	\$9	\$46	\$87	\$558,499	7
8	CUSTOMER SERVICE TECHNOLOGY & SUPPORT Total	\$5,874,808	\$5,263,107	\$144	\$420,797	\$5,684,048	\$86,388	\$4,514	\$90,902	\$80,479	\$19,379	\$99,858	\$190,760	\$5,874,808	8
9	C&I CUSTOMER SERVICE Total	\$800,359	\$0	\$0	\$182,713	\$182,713	\$279,787	\$14,546	\$294,334	\$260,572	\$62,741	\$323,313	\$617,646	\$800,359	9
10	CONSUMER PROGRAMS & SERVICES Total	\$410,221	\$394,399	\$4	\$10,884	\$405,287	\$2,234	\$117	\$2,351	\$2,082	\$501	\$2,583	\$4,934	\$410,221	10
11	FEDERAL ACCOUNTS MANAGEMENT Total	\$100,096	\$5,194	\$472	\$90,181	\$95,847	\$1,889	\$472	\$2,361	\$1,416	\$472	\$1,889	\$4,249	\$100,096	11
12	CUSTOMER SERVICES SUPPORT STAFF Total	\$1,334,868	\$1,263,796	\$49	\$70,855	\$1,334,701	\$80	\$3	\$83	\$73	\$12	\$84	\$167	\$1,334,868	12
13	COMMUNITY OUTREACH & INFO SERVICES Total	\$158,765	\$153,304	\$5	\$5,433	\$158,742	\$9	\$1	\$11	\$9	\$2	\$12	\$22	\$158,765	13
14	OTHER Total	\$311,097	\$280,979	\$8	\$21,070	\$302,057	\$4,094	\$214	\$4,308	\$3,814	\$918	\$4,732	\$9,039	\$311,097	14
15	SVP COST CENTERS Total	\$16,860	\$15,105	\$0	\$1,208	\$16,313	\$248	\$13	\$261	\$231	\$56	\$287	\$547	\$16,860	15
16															16
17	Total	\$20,955,133	\$18,210,528	\$970	\$1,496,826	\$19,708,324	\$564,753	\$29,741	\$594,494	\$525,629	\$126,685	\$652,315	\$1,246,809	\$20,955,133	17
18	Allocation %	100%	87%	0%	7%	94%	3%	0%	3%	3%	1%	3%	6%	100%	18

Note:

1. O&M Operational Activities cost assigned using allocation methods identified for each SDG&E department in the Customer Operations division.

TABLE LRMCC-10v
SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

SUMMARY OF LRMCC ALLOCATION OF CUSTOMER O&M EXPENSES
2009 BCAP

O&M Operational Activity	Total O&M	Res	NGV	GN-3	Total Core	GTNC			Cogen			Total Noncore	System Total
						MPD	HPD	Total	< 3 MM	> 3 MM	Total		
A	B	C	D	E	F	G	H	I	J	K	L	N	O
1 FIELD SERVICES Total	\$8,190	\$7,755	\$0	\$434	\$8,190	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,190
2 CUSTOMER CONTACT Total	\$3,597,963	\$3,182,453	\$0	\$415,510	\$3,597,963	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,597,963
3 METER READING Total	\$2,966,582	\$2,864,971	\$120	\$101,028	\$2,966,118	\$210	\$11	\$221	\$196	\$47	\$243	\$464	\$2,966,582
4 BILLING SERVICES Total	\$2,002,432	\$1,527,475	\$53	\$56,453	\$1,583,981	\$189,599	\$9,817	\$199,416	\$176,534	\$42,500	\$219,035	\$418,451	\$2,002,432
5 CREDIT & COLLECTIONS Total	\$2,794,406	\$2,694,197	\$94	\$99,677	\$2,793,969	\$178	\$27	\$205	\$185	\$47	\$232	\$437	\$2,794,406
6 BUSINESS ANALYSIS Total	\$19,987	\$19,303	\$1	\$681	\$19,984	\$1	\$0	\$1	\$1	\$0	\$2	\$3	\$19,987
7 CUSTOMER RESEARCH & COMMUNICATION Total	\$558,499	\$538,491	\$19	\$19,902	\$558,412	\$36	\$5	\$41	\$37	\$9	\$46	\$87	\$558,499
8 CUSTOMER SERVICE TECHNOLOGY & SUPPORT Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9 C&I CUSTOMER SERVICE Total	\$800,359	\$0	\$0	\$182,713	\$182,713	\$279,787	\$14,546	\$294,334	\$260,572	\$62,741	\$323,313	\$617,646	\$800,359
10 CONSUMER PROGRAMS & SERVICES Total	\$410,221	\$394,399	\$4	\$10,884	\$405,287	\$2,234	\$117	\$2,351	\$2,082	\$501	\$2,583	\$4,934	\$410,221
11 FEDERAL ACCOUNTS MANAGEMENT Total	\$100,096	\$5,194	\$472	\$90,181	\$95,847	\$1,889	\$472	\$2,361	\$1,416	\$472	\$1,889	\$4,249	\$100,096
12 CUSTOMER SERVICES SUPPORT STAFF Total	\$1,334,868	\$1,263,796	\$49	\$70,855	\$1,334,701	\$80	\$3	\$83	\$73	\$12	\$84	\$167	\$1,334,868
13 COMMUNITY OUTREACH & INFO SERVICES Total	\$158,765	\$153,304	\$5	\$5,433	\$158,742	\$9	\$1	\$11	\$9	\$2	\$12	\$22	\$158,765
14 OTHER Total	\$311,097	\$280,979	\$8	\$21,070	\$302,057	\$4,094	\$214	\$4,308	\$3,814	\$918	\$4,732	\$9,039	\$311,097
15 SVP COST CENTERS Total	\$16,860	\$15,105	\$0	\$1,208	\$16,313	\$248	\$13	\$261	\$231	\$56	\$287	\$547	\$16,860
16													
17 Total	\$15,080,324	\$12,947,421	\$825	\$1,076,029	\$14,024,276	\$478,366	\$25,226	\$503,592	\$445,150	\$107,307	\$552,457	\$1,056,048	\$15,080,324
18 Allocation %	100%	86%	0%	7%	93%	3%	0%	3%	3%	1%	4%	7%	100%

Note:
1. O&M Operational Activities cost assigned using allocation methods identified for each SDG&E department in the Customer Operations division.

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT
2009 BCAP

SECTION 2.0
Long Run Marginal Distribution Cost

Workpapers to the Prepared Written Testimony

Emma Hernandez

TABLE LRMDC-1
SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

FORECAST DISTRIBUTION INVESTMENTS
2009 BCAP

Project #	Distribution Budget	Project Type / Function	Total Capital Budget - Distribution (M\$)						
			2007	2008	2009	2010	2011		
A	B	C	D	E	F	G	H		
1	500	New Gas Customers	New Business	\$6,734	\$7,665	\$7,963	\$8,121	\$9,490	1
2	501	Gas System Minor Add./Reloc./Retire.	New Business	\$1,911	\$2,177	\$2,207	\$2,262	\$2,317	2
3	502	Gas Meters and Regulators	New Business	\$4,900	\$6,300	\$6,600	\$6,920	\$7,200	3
4	503	Gas Distribution System Reinforcement	Replacement	\$5,478	\$4,599	\$2,776	\$3,232	\$2,152	4
5	504	Gas Distribution Easements	New Business	\$93	\$97	\$98	\$101	\$103	5
6	505	Street and Highway Relocations	Replacement	\$3,792	\$6,132	\$6,216	\$6,372	\$6,528	6
7	506	Gas Distribution Tools and Equipment	Replacement	\$678	\$434	\$259	\$266	\$272	7
8	507	Code Compliance - Distribution	Replacement	\$623	\$1,635	\$673	\$690	\$707	8
9	508	Replacement of Mains & Services	Replacement	\$4,220	\$4,088	\$4,144	\$4,248	\$4,352	9
10	509	Cathodic Protection	Replacement	\$526	\$715	\$725	\$743	\$762	10
11	510	Gas Distr. Sys. Rel. & Safety Improvements	Replacement	\$887	\$971	\$984	\$1,009	\$1,034	11
12									12
13									13
14		= Total		\$29,842	\$34,814	\$32,646	\$33,964	\$34,917	14
15									15
16		<u>New Business & Capacity Development Projects Due to Customer Growth</u>							16
17									17
18	500	New Gas Customers	New Business	\$6,734	\$7,665	\$7,963	\$8,121	\$9,490	18
19	501	Gas System Minor Add./Reloc./Retire.	New Business						19
20	502	Gas Meters and Regulators	New Business	\$4,900	\$6,300	\$6,600	\$6,920	\$7,200	20
21	503	Gas Distribution System Reinforcement	Replacement	\$5,478	\$4,599	\$2,776	\$3,232	\$2,152	21
22	504	Gas Distribution Easements	New Business	\$93	\$97	\$98	\$101	\$103	22
23	505	Street and Highway Relocations	Replacement						23
24	506	Gas Distribution Tools and Equipment	Replacement						24
25	507	Code Compliance - Distribution	Replacement						25
26	508	Replacement of Mains & Services	Replacement						26
27	509	Cathodic Protection	Replacement						27
28	510	Gas Distr. Sys. Rel. & Safety Improvements	Replacement						28
29									29
30									30
31		= Total Load Growth Projects		\$17,205	\$18,661	\$17,438	\$18,374	\$18,945	31
32									32
33		Proportion of Incremental Load-Related Investment		57.7%	53.6%	53.4%	54.1%	54.3%	33

Note:

- Expenditures provided by SDG&E Gas Distribution Operations department and shown in nominal terms for each particular year shown.

TABLE LRMD-2
SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

DISTRIBUTION PLANT WEIGHTED AVERAGE ECONOMIC INDEX
2009 BCAP

	Year	FERC Account					Weighted Average	
		375	376 - CI	376 - S	376 - P	378		
	A	B	C	D	E	F	G	
1	1997	0.91896	0.9432	0.9206	0.9380	0.9485	0.9320	1
2	1998	0.9345	0.9507	0.9312	0.9525	0.9595	0.9451	2
3	1999	0.9514	0.9641	0.9543	0.9683	0.9704	0.9634	3
4	2000	0.9732	0.9791	0.9900	0.9814	0.9923	0.9846	4
5	2001	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	5
6	2002	1.0296	1.0575	1.0188	1.0227	1.0219	1.0213	6
7	2003	1.0599	1.0807	1.0594	1.0399	1.0257	1.0466	7
8	2004	1.1226	1.1054	1.2577	1.0744	1.1705	1.1409	8
9	2005	1.1776	1.2018	1.5147	1.1419	1.3205	1.2768	9
10	2006	1.2242	1.3088	1.5780	1.2011	1.3753	1.3374	10
11	2007	1.2927	1.4090	1.5237	1.2532	1.3719	1.3509	11
12	2008	1.3514	1.4511	1.5687	1.2926	1.4039	1.3922	12
13	2009	1.3705	1.4709	1.6300	1.3273	1.4396	1.4363	13
14	2010	1.4176	1.5196	1.7273	1.3518	1.4924	1.4870	14
15	2011	1.4695	1.5471	1.7766	1.3832	1.5181	1.5247	15
16								16
17	2007 Plant (M\$)	\$43	\$0	\$177,755	\$316,087	\$8,515	\$502,400	17
18	2007 Plant (%)	0%	0%	35%	63%	2%	100%	18

Notes:

1. Economic Factors for distribution plant from Handy-Whitman Gas Utility Construction Cost Indexes, Pacific Region.
2. Plant Investment totals from SDG&E gas FERC Form 2 for year ending December 31, 2007 pp. 208 - 209.

TABLE LRMDC-3
SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

DISTRIBUTION REGRESSION INVESTMENTS
2009 BCAP

	Year	Incremental Investment	Demand-Rel Portion	MPD Portion	HPD Portion	Handy-Whitman Index	Adjusted MPD	Adjusted HPD	MPD Cumulative	HPD Cumulative	
	A	B	C	D	E	F	G	H	I	J	
1	1997	\$12,663	\$7,741	\$6,746	\$995	0.9320	\$10,395	\$1,534	\$10,395	\$1,534	1
2	1998	\$12,823	\$8,592	\$7,487	\$1,105	0.9451	\$11,379	\$1,679	\$21,774	\$3,213	2
3	1999	\$14,349	\$8,635	\$7,525	\$1,110	0.9634	\$11,218	\$1,656	\$32,992	\$4,869	3
4	2000	\$12,232	\$5,883	\$5,126	\$757	0.9846	\$7,478	\$1,104	\$40,470	\$5,972	4
5	2001	\$12,828	\$7,276	\$6,340	\$936	1.0000	\$9,107	\$1,344	\$49,576	\$7,316	5
6	2002	\$12,211	\$5,717	\$4,982	\$735	1.0213	\$7,006	\$1,034	\$56,582	\$8,350	6
7	2003	\$16,838	\$9,101	\$7,931	\$1,170	1.0466	\$10,884	\$1,606	\$67,466	\$9,957	7
8	2004	\$13,593	\$6,085	\$5,302	\$783	1.1409	\$6,676	\$985	\$74,142	\$10,942	8
9	2005	\$13,286	\$4,877	\$4,250	\$627	1.2768	\$4,781	\$706	\$78,922	\$11,647	9
10	2006	\$17,261	\$6,638	\$5,784	\$854	1.3374	\$6,212	\$917	\$85,134	\$12,564	10
11											11
12	2007	\$17,205	\$8,297	\$7,230	\$1,067	1.3509	\$7,687	\$1,134	\$92,821	\$13,698	12
13	2008	\$18,661	\$8,999	\$7,842	\$1,157	1.3922	\$8,090	\$1,194	\$100,912	\$14,892	13
14	2009	\$17,438	\$8,409	\$7,328	\$1,081	1.4363	\$7,328	\$1,081	\$108,239	\$15,974	14
15	2010	\$18,374	\$8,861	\$7,721	\$1,140	1.4870	\$7,458	\$1,101	\$115,697	\$17,074	15
16	2011	\$18,945	\$9,136	\$7,961	\$1,175	1.5247	\$7,500	\$1,107	\$123,197	\$18,181	16

Notes:

1. Cols. (B) - (E) expressed in nominal \$'s.
2. Cols. (G) - (J) expressed in Year 2009 \$'s.
3. Cols. (B) and (C) provided by SDG&E Gas Distribution Operations department.
4. Col. (B), Rows (12) - (16) from Workpapers to Testimony of Emma Hernandez, Table "LRMDC-1".
5. 12.9% = Historical HPD Plant Investment Allocation Factor = HPD Mains Mileage Weighted by Net Plant Investment.

TABLE LRMDC-4
SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

HP DISTRIBUTION ANNUAL CUSTOMER GAIN
2009 BCAP

	Year	Core	Other Noncore	Total Noncore	System	
	A	B	C	E	F	
1	1996	707,543	145	145	707,688	1
2						2
3	1997	717,836	138	138	717,974	3
4	Gain '97	10,293	(7)	(7)	10,286	4
5						5
6	1998	730,083	135	135	730,218	6
7	Gain '98	12,247	(3)	(3)	12,243	7
8						8
9	1999	743,284	135	135	743,419	9
10	Gain '99	13,201	0	0	13,201	10
11						11
12	2000	756,067	129	129	756,196	12
13	Gain '00	12,784	(6)	(6)	12,778	13
14						14
15	2001	768,799	93	93	768,892	15
16	Gain '01	12,731	(36)	(36)	12,695	16
17						17
18	2002	782,412	94	94	782,506	18
19	Gain '02	13,614	1	1	13,615	19
20						20
21	2003	794,746	123	123	794,869	21
22	Gain '03	12,334	29	29	12,363	22
23						23
24	2004	805,645	120	120	805,765	24
25	Gain '04	10,899	(3)	(3)	10,896	25
26						26
27	2005	817,987	120	120	818,107	27
28	Gain '05	12,341	-	-	12,341	28
29						29
30	2006	827,956	117	117	828,073	30
31	Gain '06	9,969	(3)	(3)	9,966	31
32						32
33						33
34	2007	835,162	140	140	835,302	34
35	Gain '07	7,207	23	23	7,230	35
36						36
37	2008	842,509	141	141	842,650	37
38	Gain '08	7,347	1	1	7,348	38
39						39
40	2009	851,258	143	143	851,400	40
41	Gain '09	8,748	2	2	8,750	41
42						42
43	2010	861,548	142	142	861,690	43
44	Gain '10	10,290	(1)	(1)	10,290	44
45						45
46	2011	872,961	142	142	873,103	46
47	Gain '11	11,413	-	-	11,413	47
48						48
49						49
50						50

Notes:
1. For purposes of this analysis, customer gain defined as number of a particular year minus number in pre
2. Information provided by Demand Forecast witnesses Mr. Herbert S. Emmrich.

TABLE LRMDC-5

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

HPD PEAK-DAY REGRESSION DETERMINANTS
2009 BCAP

	Year	Res	NGV	GN-3	Core	GTNC		EG		Power Plant	Noncore	Total	HPD Incremental	HPD Cumulative Incremental
						MPD	HPD	< 3 MM	> 3 MM					
	A	B	C	D	E	F	G	H	I		J	K	L	M
	(MMcfd)													
	Page 1 of 1													
1	1-35 PEAK-DAY (1-35 YEAR PEAK-DAY OCCURRENCE)													
2														
3	1-35 PD Factor													
4														
5	1997	245	1	65	311	11	5	6	36	40	97	408	6	6
6	1998	239	1	63	303	11	5	6	37	45	103	407	7	13
7	1999	246	1	70	317	11	5	6	37	50	108	425	8	20
8	2000	248	1	75	323	11	5	6	37	72	130	453	8	28
9	2001	223	2	74	299	10	4	5	33	54	106	405	7	35
10	2002	228	2	82	312	12	5	6	40	39	102	414	7	42
11	2003	233	2	74	309	10	3	6	41	37	96	405	6	48
12	2004	238	2	80	320	10	4	6	43	56	119	438	6	54
13	2005	232	3	80	314	12	5	7	37	32	93	407	6	60
14	2006	298	3	88	389	9	4	7	39	44	102	491	6	66
15														
16	2007	297	3	87	387	11	4	7	39	21	81	468	4	70
17	2008	297	3	85	386	10	4	7	39	21	81	467	4	74
18	2009	302	4	85	390	10	4	7	39	0	60	450	5	79
19	2010	304	4	84	391	10	4	7	40	-	60	452	5	84
20	2011	305	5	82	393	10	4	7	40	-	60	453	6	90

Notes

- Information provided by Demand Forecast witnesses Mr. Emmrich.

TABLE LRMD-6, Page 1
SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

HIGH PRESSURE DISTRIBUTION REGRESSION ANALYSIS
2009 BCAP

Year	Cumulative Investment (Y)	Cumulative Demand (X)	(Yi - Y)	(Xi - X)	(Xi - X)(Yi - Y)	(Xi - X) ²	(Yi - Y) ²	
A	B	C	D	E	F	G	H	
	(M\$)	(Mmcf/d)						
1	1997	1,534	6	(8,878)	(45)	402,951	2,060	78,822,962
2	1998	3,213	13	(7,199)	(39)	277,628	1,487	51,825,378
3	1999	4,869	20	(5,543)	(31)	171,942	962	30,729,971
4	2000	5,972	28	(4,440)	(23)	103,733	546	19,712,399
5	2001	7,316	35	(3,096)	(17)	51,625	278	9,584,817
6	2002	8,350	42	(2,062)	(9)	19,525	90	4,251,838
7	2003	9,957	48	(456)	(3)	1,444	10	207,769
8	2004	10,942	54	529	3	1,461	8	280,216
9	2005	11,647	60	1,235	9	10,993	79	1,524,914
10	2006	12,564	66	2,152	15	31,858	219	4,629,559
11	2007	13,698	70	3,286	19	61,971	356	10,798,314
12	2008	14,892	74	4,480	23	102,730	526	20,070,685
13	2009	15,974	79	5,561	28	153,268	760	30,929,460
14	2010	17,074	84	6,662	33	219,542	1,086	44,382,978
15	2011	18,181	90	7,769	39	302,014	1,511	60,354,733
16	Total	156,185	768	-	-	1,912,684	9,977	368,105,993
17	Mean of Y:	10,412						
18	Mean of X:	51						
19	Cov. (x,y) =	(Xi - X)(Yi - Y)	127,512	= Variables Directly Related				
20	Variance of X =	665						
21	Variance of Y =	24,540,400						
22	Least Squares Estimate of B =			\$191.71 \$/Mcf	<< This is the est. slope of the coefficient.			
23	Least Squares Estimate of Alpha =			592	<< This is the Y intercept.			
24	Estimated Least Squares = Alpha + BX =			592 + 191.71 X				
25	Verify A + BX passes through means:			10,412				

TABLE LRMD-6, Page 2
SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

HIGH PRESSURE DISTRIBUTION REGRESSION ANALYSIS
2009 BCAP

Year	Cumulative Investment (Y)	Cumulative Demand (X)	Yhat	Yi - Yhat	(Yi - Yhat) ²	(Yhat - Y)	(Yhat - Y) ²	
A	B	C	D	E	F	G	H	
	(M\$)	(Mmcf/d)						
1	1997	1,534	6	1,711	(177)	31,465	(8,701)	75,704,730
2	1998	3,213	13	3,019	194	37,694	(7,395)	54,658,432
3	1999	4,869	20	4,466	403	162,179	(5,946)	35,357,009
4	2000	5,972	28	5,933	39	1,534	(4,479)	20,061,675
5	2001	7,316	35	7,216	101	10,151	(3,197)	10,218,808
6	2002	8,350	42	8,597	(247)	60,900	(1,815)	3,295,022
7	2003	9,957	48	9,805	152	23,002	(607)	369,032
8	2004	10,942	54	10,941	0	0	529	279,767
9	2005	11,647	60	12,119	(472)	222,481	1,707	2,912,325
10	2006	12,564	66	13,251	(687)	471,761	2,838	8,057,024
11	2007	13,698	70	14,028	(329)	108,405	3,615	13,070,592
12	2008	14,892	74	14,808	84	7,073	4,396	19,324,186
13	2009	15,974	79	15,696	278	77,384	5,283	27,912,687
14	2010	17,074	84	16,730	345	118,717	6,318	39,910,835
15	2011	18,181	90	17,865	316	100,007	7,453	55,541,120
16	Total	156,185	768	156,185	(0)	1,432,752	-	366,673,241
17	Ei =	(0.000000000)						
18	Ei ² =	1,432,752						
19	Standard Error Term S =		332					
20	Standard Error of B =		3.32					
21	R2 =		0.9961					
22	Adjusted R2 =		0.9958	<< Adjusted R ² is smaller than R ² .				

TABLE LRMD-7
SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

MP DISTRIBUTION ANNUAL CUSTOMER GAIN
2009 BCAP

	Year	Core	Other Noncore	Total Noncore	System	
	A	B	C	E	F	
1	1996	707,530	93	93	707,623	1
2						2
3	1997	717,823	88	88	717,911	3
4	Gain '97	10,293	(5)	(5)	10,288	4
5						5
6	1998	730,070	86	86	730,156	6
7	Gain '98	12,247	(2)	(2)	12,244	7
8						8
9	1999	743,270	86	86	743,357	9
10	Gain '99	13,201	0	0	13,201	10
11						11
12	2000	756,054	83	83	756,136	12
13	Gain '00	12,783	(4)	(4)	12,780	13
14						14
15	2001	768,785	59	59	768,844	15
16	Gain '01	12,731	(23)	(23)	12,708	16
17						17
18	2002	782,398	60	60	782,458	18
19	Gain '02	13,613	1	1	13,614	19
20						20
21	2003	794,732	79	79	794,810	21
22	Gain '03	12,334	19	19	12,352	22
23						23
24	2004	805,631	77	77	805,707	24
25	Gain '04	10,899	(2)	(2)	10,897	25
26						26
27	2005	817,972	77	77	818,049	27
28	Gain '05	12,341	-	-	12,341	28
29						29
30	2006	827,941	75	75	828,015	30
31	Gain '06	9,969	(2)	(2)	9,967	31
32						32
33						33
34	2007	835,147	90	90	835,237	34
35	Gain '07	7,207	15	15	7,221	35
36						36
37	2008	842,494	90	90	842,584	37
38	Gain '08	7,347	1	1	7,348	38
39						39
40	2009	851,242	91	91	851,334	40
41	Gain '09	8,748	1	1	8,749	41
42						42
43	2010	861,533	91	91	861,623	43
44	Gain '10	10,290	(0)	(0)	10,290	44
45						45
46	2011	872,945	91	91	873,036	46
47	Gain '11	11,412	-	-	11,412	47
48						48
49	MP Cust. Factor:	100%	64%			49

Notes:

1. For purposes of this analysis, customer gain defined as number of a particular year minus number in pr
2. Information provided by Demand Forecast witness Mr. Emmrich.

TABLE LRMDC-8

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

MPD PEAK-DAY REGRESSION DETERMINANTS
2009 BCAP

	Year	Res	NGV	GN-3	Core	GTNC		EG		Noncore	Total	MPD Incremental	MPD Cumulative Incremental
						MPD	HPD	< 3 MM	> 3 MM				
	A	B	C	D	E	F	G	H	I	J	K	L	M
	(Mth/D)												
1	Page 1 of 1												
1	1-35 PEAK-DAY (1-35 YEAR PEAK-DAY OCCURRENCE)												
2													
3	1997	245	0	63	308	6		3		9	318	5	5
4	1998	239	0	62	301	6		3		10	310	5	10
5	1999	246	0	68	314	6		3		10	324	6	16
6	2000	247	0	73	321	6		3		10	330	6	21
7	2001	222	1	72	295	6		3		9	304	5	26
8	2002	228	0	80	308	7		4		10	319	6	32
9	2003	233	1	72	305	7		4		10	316	5	37
10	2004	238	1	77	316	6		3		9	325	4	41
11	2005	231	1	78	310	6		3		10	320	5	46
12	2006	298	1	85	384	6		4		9	393	5	51
13													
14	2007	297	1	85	382	7		4		10	393	3	54
15	2008	297	1	83	381	6		4		10	391	3	57
16	2009	301	1	83	385	6		4		10	395	4	61
17	2010	303	1	82	386	6		4		10	396	5	66
18	2011	305	1	80	387	6		4		10	397	5	71
19													
20													

Note:

- Information provided by Demand Forecast witnesses Mr. Emmrich.

TABLE LRMD-9, Page 1
SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

MEDIUM PRESSURE DISTRIBUTION REGRESSION ANALYSIS
2009 BCAP

Year	Cumulative Investment (Y) (M\$)	Cumulative Demand (X) (Mmcf/d)	(Yi - Y)	(Xi - X)	(Xi - X)(Yi - Y)	(Xi - X) ²	(Yi - Y) ²	
A	B	C	D	E	F	G	H	
1	1997	10,395	5	(60,160)	(35)	2,102,339	1,221	3,619,168,198
2	1998	21,774	10	(48,781)	(30)	1,450,772	885	2,379,570,056
3	1999	32,992	16	(37,563)	(24)	901,271	576	1,410,971,263
4	2000	40,470	21	(30,085)	(18)	554,017	339	905,097,768
5	2001	49,576	26	(20,978)	(13)	280,921	179	440,888,339
6	2002	56,382	32	(13,972)	(8)	109,619	62	195,223,793
7	2003	67,466	37	(3,089)	(3)	9,077	9	9,539,742
8	2004	74,142	41	3,587	1	5,231	2	12,866,153
9	2005	78,922	46	8,368	6	52,545	39	70,016,666
10	2006	85,134	51	14,580	11	160,598	121	212,566,901
11	2007	92,821	54	22,267	14	320,881	208	495,806,219
12	2008	100,912	57	30,357	18	541,018	318	921,548,509
13	2009	108,239	61	37,685	22	824,549	479	1,420,130,821
14	2010	115,697	66	45,143	27	1,201,227	708	2,037,851,136
15	2011	123,197	71	52,642	32	1,673,769	1,011	2,771,196,673
16	Total	1,058,321	592	(0)	(0)	10,187,833	6,156	16,901,642,236
17	Mean of Y:	70,555						
18	Mean of X:	39						
19								
20								
21	Cov. (x,y)=	(Xi - X)(Yi - Y)	679,189	= Variables Directly Related				
22								
23	Variance of X =	410						
24	Variance of Y =	1,126,776,149						
25								
26	Least Squares Estimate of B =			\$1,655 \$/ mcf/d	<< This is the est. slope of the coefficient.			
27								
28	Least Squares Estimate of Alpha =			5,187	<< This is the Y intercept.			
29								
30	Estimated Least Squares = Alpha + BX =			5,187	+ 1,655 X			
31								
32	Verify A + BX passes through means:	70,555						

TABLE LRMD-9, Page 2
SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

MEDIUM PRESSURE DISTRIBUTION REGRESSION ANALYSIS
2009 BCAP

Year	Cumulative Investment (Y) (M\$)	Cumulative Demand (X) (Mmcf/d)	Yhat	Yi - Yhat	(Yi - Yhat) ²	(Yhat - Y)	(Yhat - Y) ²	
A	B	C	D	E	F	G	H	
1	1997	10,395	5	12,721	(2,326)	5,408,615	(57,834)	3,344,757,674
2	1998	21,774	10	21,336	438	192,099	(49,219)	2,422,522,550
3	1999	32,992	16	30,847	2,145	4,602,380	(39,708)	1,576,742,191
4	2000	40,470	21	40,079	391	153,083	(30,476)	928,792,740
5	2001	49,576	26	48,393	1,183	1,399,818	(22,161)	491,128,602
6	2002	56,382	32	57,571	(988)	976,942	(12,984)	168,580,290
7	2003	67,466	37	65,691	1,775	3,149,983	(4,863)	23,653,306
8	2004	74,142	41	72,968	1,174	1,377,314	2,413	5,824,266
9	2005	78,922	46	80,947	(2,025)	4,099,424	10,392	107,999,892
10	2006	85,134	51	88,784	(3,650)	13,321,744	18,230	332,317,248
11	2007	92,821	54	94,404	(1,582)	2,503,987	23,849	568,779,843
12	2008	100,912	57	100,049	863	744,424	29,494	869,908,860
13	2009	108,239	61	106,765	1,474	2,172,677	36,211	1,311,209,196
14	2010	115,697	66	114,592	1,105	1,221,150	44,038	1,939,302,097
15	2011	123,197	71	123,174	23	519	52,619	2,788,799,323
16	Total	1,058,321	592	1,058,321	(0)	41,324,159	-	16,860,318,077
17								
18	Ei =	(0.000000002)						
19	Ei ² =	41,324,159						
20								
21	Standard Error Term S =	1,783						
22								
23	Standard Error of B =	22.72						
24								
25	R2 =	0.9976						
26								
27	Adjusted R2 =	0.9974	<< Adjusted R ² is smaller than R ²					

TABLE LRMD-10

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

FULLY LOADED DISTRIBUTION LRMCs
2009 BCAP

	Description	Marginal Cost	Units	
	A	B	C	
1	<u>Marginal Cost of HP Distribution</u>			1
2	Marginal Investment Cost	\$191.71	Mcf	2
3				3
4	x RECC Factor	8.50%	Percent	4
5				5
6	= Annualized Investment Cost	\$16.30	Mcf	6
7				7
8	<u>Loading Factors:</u>			8
9	+ O&M Cost (2009 \$'s)	\$0.70	Mcf	9
10	+ A&G Cost	\$0.19	Mcf	10
11	+ General / Common Plant Cost	\$0.05	Mcf	11
12	+ M&S Cost (2009 \$'s)	\$0.06	Mcf	12
13	= Total Marginal Cost	\$17.31	\$/Mcf 1-35 Pk-Day	13
14				14
15				15
16	<u>Marginal Cost of MP Distribution</u>			16
17	Marginal Investment Cost	\$1,654.95	/ Mcf	17
18				18
19	x RECC Factor	8.50%		19
20				20
21	= Annualized Investment Cost	\$140.72	/ Mcf	21
22				22
23	<u>Loading Factors:</u>			23
24	+ O&M Cost (2009 \$'s)	\$20.08	/ Mcf	24
25	+ A&G Cost	\$5.31	/ Mcf	25
26	+ General / Common Plant Cost	\$1.53	/ Mcf	26
27	+ M&S Cost (2009 \$'s)	\$0.52	/ Mcf	27
28	= Total Marginal Cost	\$168.16	\$/Mcf 1-35 Pk-Day	28

Notes:

1. Weighted average distribution RECC Factor from SDG&E Market Analysis & Planning Department 2007 Economic Assumptions Manual.
2. Rows (9) - (12) & (24) - (27) from Workpapers to Testimony of Emma Hernandez, Tables "LF-1" and "LF-4", "LF-5", and "LF-6".
3. Escalation of O&M using weighted average escalation factor at Workpapers to Testimony of Emma Hernandez, Table "MISC-3".

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT
2009 BCAP

SECTION 2.1
Long Run Marginal Distribution Cost
Additional Supporting Materials

Workpapers to the Prepared Written Testimony

Emma Hernandez

**DISTRIBUTION MAIN MILEAGE AND NET BOOK VALUE
BY SERVICE PRESSURE AND TYPE
as of DECEMBER 2006**

Ln	Type	Size	Medium Pressure Mileage	High Pressure Mileage *	Total Mileage	Percent High Pressure	Total Plant Investment (\$)	High Pressure Plant (\$)	High Pressure % of Total
	(a)	(b)	(c) = (e) - (d)	(d)	(e)	(f)=(d)/(e)	(g)	(h)=(g)*(f)	(i)=(h)/(g)
1	Steel	1.0"	109.5	0.1	110	0%	1,036,450	1,074	0.00
2	Steel	1.25"	18.5	0.0	19	0%	128,482	94	0.00
3	Steel	1.5"	1,249.6	0.2	1,250	0%	12,263,495	2,019	0.00
4	Steel	2.0"	1,237.2	4.9	1,242	0%	30,659,823	120,097	0.00
5	Steel	3"	211.4	3.5	215	2%	5,709,024	93,733	0.02
6	Steel	4"	315.2	71.2	386	18%	35,056,031	6,463,854	0.18
7	Steel	6"	160.0	99.7	260	38%	38,125,909	14,632,885	0.38
8	Steel	8"	46.7	73.0	120	61%	26,490,691	16,166,004	0.61
9	Steel	10"	10.2	41.0	51	80%	10,661,713	8,544,975	0.80
10	Steel	12"	4.4	19.6	24	82%	2,538,388	2,074,981	0.82
11	Steel	16"	-	35.9	36	100%	5,230,601	5,230,601	1.00
12	Steel	18"	0.1	-	0		13,388	-	-
13	Steel	20"	-	19.9	20	100%	3,970,170	3,970,170	1.00
14	Steel	24"	-	1.7	2	100%	3,983,101	3,983,101	1.00
15	Steel	30"	-	1.3	1	100%	614,435	614,435	1.00
16									
17	Plastic	1.0"	220.5	-	221	-	17,178,301	-	-
18	Plastic	1.25"	358.3	-	358	-	12,429,973	-	-
19	Plastic	2.0"	2,899.7	-	2,900	-	192,811,513	-	-
20	Plastic	3.0"	789.0	-	789	-	63,196,768	-	-
21	Plastic	4.0"	220.0	-	220	-	18,794,862	-	-
22	Plastic	6.0"	40.6	-	41	-	430,365	-	-
24	TOTAL		7,891	372	8,263		481,323,484	61,898,024	12.9%

Pipe Sizes From Distribution Pipeline Inventory - Steel	% Medium Pressure Steel	% High Pressure Steel
0.75	97.81%	2.19%
1	99.90%	0.10%
1.25	99.93%	0.07%
1.5	99.98%	0.02%
1.75	100.00%	0.00%
2	99.61%	0.39%
2.25	100.00%	0.00%
2.5	100.00%	0.00%
3	98.36%	1.64%
4	81.56%	18.44%
6	61.62%	38.38%
8	38.97%	61.03%
10	19.85%	80.15%
12	18.26%	81.74%
14	100.00%	0.00%
16	0.00%	100.00%
20	0.00%	100.00%
24	0.00%	100.00%
30	0.00%	100.00%
36	0.00%	100.00%

**SDG&E GAS DISTRIBUTION CAPITAL
DEMAND VS. CUSTOMER DRIVEN (\$000)**

Year	Demand	Customer	Total	% Demand	% Customer
<u>Actual</u>					
1997			\$ 12,663		
1998			\$ 12,823		
1999	\$ 8,635	\$ 5,714	\$ 14,349	60%	40%
2000	\$ 5,883	\$ 6,349	\$ 12,232	48%	52%
2001	\$ 7,276	\$ 5,552	\$ 12,828	57%	43%
2002	\$ 5,717	\$ 6,494	\$ 12,211	47%	53%
2003	\$ 9,101	\$ 7,737	\$ 16,838	54%	46%
2004	\$ 6,085	\$ 7,508	\$ 13,593	45%	55%
2005	\$ 4,877	\$ 8,409	\$ 13,286	37%	63%
2006	\$ 6,638	\$ 10,623	\$ 17,261	38%	62%
<u>Forecast</u>					
2007	\$ 8,297	\$ 8,908	\$ 17,205	48%	52%
2008	\$ 8,999	\$ 9,662	\$ 18,661	48%	52%
2009	\$ 8,409	\$ 9,029	\$ 17,438	48%	52%
2010	\$ 8,861	\$ 9,513	\$ 18,374	48%	52%
2011	\$ 9,136	\$ 9,809	\$ 18,945	48%	52%

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

**HPD COLD PEAK MONTH REGRESSION DETERMINANT
2009 BCAP**

	Month	Res	NGV	GN-3	GTNC		EG		Total	
					MPD	HPD	< 3 MM	> 3 MM		
	A	B	C	D	E	F	G	H	I	
	(Mth)									
1	Dec-97	56,395	290	16,404	1,890	1,434	1,835	23,677	101,925	1
2	Dec-98	54,959	284	16,005	1,934	1,467	1,878	25,653	102,181	2
3	Dec-99	56,495	242	17,499	1,929	1,463	1,873	27,177	106,678	3
4	Dec-00	56,784	261	19,084	1,925	1,460	1,869	33,975	115,358	4
5	Dec-01	50,971	653	19,168	1,752	1,329	1,701	27,373	102,946	5
6	Dec-02	53,029	586	20,549	2,103	1,596	2,042	24,762	104,667	6
7	Dec-03	54,411	647	19,572	2,053	991	1,772	24,278	103,725	7
8	Dec-04	54,410	649	20,547	1,931	1,237	1,816	31,059	111,648	8
9	Dec-05	53,118	838	20,280	2,017	1,724	2,075	21,768	101,820	9
10	Dec-06	54,251	870	19,235	1,773	1,146	2,051	17,339	96,665	10
11										11
12	Dec-07	54,125	890	19,049	2,060	1,260	2,109	16,772	96,265	12
13	Dec-08	54,096	1,004	18,747	2,035	1,245	2,128	17,246	96,500	13
14	Dec-09	54,868	1,134	18,595	2,006	1,227	2,147	12,559	92,537	14
15	Dec-10	55,310	1,280	18,387	1,971	1,206	2,167	12,682	93,004	15
16	Dec-11	55,692	1,446	18,098	1,932	1,182	2,188	12,729	93,266	16
17										17
18										18
19										19
20										20

Note:

1. Information provided by Demand Forecast witness Mr. Emmrich.

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT
2009 BCAP

SECTION 3.0
Long Run Marginal Transmission Cost

Workpapers to the Prepared Written Testimony

Emma Hernandez

TABLE LRMTTC-1

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

**TRANSMISSION COLD YEAR PEAK-MONTH LRMC DETERMINANT
2009 BCAP**

	Month	Res	NGV	GN-3	GTNC		EG		Total		
					MPD	HPD	< 3 MM	> 3 MM			
	A	B	C	D	E	F	G	H	J		
		(Mth)									
1	Dec-06	54,251	870	19,235	1,773	1,438	2,051	33,608	113,227	1	
2	Dec-07	54,125	890	19,049	2,060	1,545	2,109	50,054	129,831	2	
3	Dec-08	54,096	1,004	18,747	2,035	1,526	2,128	49,870	129,406	3	
4	Dec-09	54,868	1,134	18,595	2,006	1,504	2,147	63,705	143,960	4	
5	Dec-10	55,310	1,280	18,387	1,971	1,479	2,167	62,438	143,033	5	
6	Dec-11	55,692	1,446	18,098	1,932	1,449	2,188	51,390	132,195	6	
7	Dec-12	55,969	1,477	17,754	1,888	1,416	2,208	52,123	132,836	7	
8	Dec-13	56,194	1,508	17,356	1,839	1,379	2,229	52,643	133,148	8	
9	Dec-14	56,436	1,539	16,960	1,790	1,343	2,250	52,193	132,512	9	
10	Dec-15	57,006	1,570	16,753	1,808	1,356	2,272	51,729	132,495	10	
11	Dec-16	57,349	1,601	16,615	1,798	1,349	2,294	52,180	133,185	11	
12	Dec-17	57,654	1,632	16,420	1,896	1,422	2,316	52,632	133,973	12	
13	Dec-18	58,029	1,663	16,313	1,900	1,425	2,339	53,087	134,755	13	
14	Dec-19	58,477	1,694	16,249	1,910	1,432	2,362	53,544	135,668	14	
15	Dec-20	58,874	1,725	16,220	1,925	1,444	2,386	54,004	136,577	15	
16	Dec-21	59,314	1,756	16,209	1,947	1,460	2,410	55,261	138,357	16	
17										17	
18										18	

Note:

- Information provided by Demand Forecast witness Mr. Emmrich.

TABLE LRMTTC-2

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

**TRANSMISSION COLD YEAR THROUGHPUT LRMC DETERMINANT
2009 BCAP**

	Month	Res	NGV	GN-3	GTNC		EG		Total		
					MPD	HPD	< 3 MM	> 3 MM			
	A	B	C	D	E	F	G	H	J		
		(Mth)									
1	2006	362,849	10,298	175,806	23,283	28,019	24,605	606,568	1,231,429	1	
2	2007	362,008	10,534	174,085	24,221	18,166	24,828	558,229	1,172,072	2	
3	2008	361,809	11,894	171,308	23,915	17,936	25,054	591,937	1,203,854	3	
4	2009	366,976	13,430	169,942	23,558	17,668	25,285	674,827	1,291,685	4	
5	2010	369,932	15,164	168,050	23,142	17,356	25,519	691,136	1,310,299	5	
6	2011	372,486	17,121	165,430	22,666	16,999	25,757	585,224	1,205,684	6	
7	2012	374,339	17,505	162,309	22,130	16,597	25,999	590,914	1,209,793	7	
8	2013	375,842	17,889	158,695	21,533	16,150	26,245	628,345	1,244,700	8	
9	2014	377,461	18,273	155,098	20,943	15,707	26,496	622,925	1,236,903	9	
10	2015	381,276	18,657	153,222	21,149	15,862	26,751	617,327	1,234,243	10	
11	2016	383,569	19,041	151,967	21,023	15,768	27,010	622,707	1,241,085	11	
12	2017	385,608	19,425	150,202	22,191	16,643	27,274	628,113	1,249,455	12	
13	2018	388,119	19,808	149,220	22,228	16,671	27,542	633,546	1,257,135	13	
14	2019	391,110	20,192	148,639	22,338	16,754	27,814	639,005	1,265,853	14	
15	2020	393,769	20,576	148,360	22,519	16,890	28,092	644,491	1,274,697	15	
16	2021	396,714	20,960	148,258	22,773	17,080	28,374	659,552	1,293,709	16	
17										17	
18										18	

Note:

1. Information provided by demand forecast witness Mr. Emmrich.

TABLE LRMTTC-3

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

TRANSMISSION MARGINAL COST - LOAD GROWTH INVESTMENT PLAN
2009 BCAP

	Month	Cold Year Peak-Month Load Forecast			Investment Forecast From Resource Plan			
		Cold Yr. Throughput	Incremental Throughput	Cumulative Throughput	Project Name	Incremental Investment	Cumulative Investment	
	A	B	C	D	E	F	G	
		(Mcf)				2007 \$'s		
1	Dec-06	121,027,870			N/A	\$0		1
2								2
3	Dec-07	115,194,056	(5,833,814)	(5,833,814)	N/A	\$0	\$0	3
4	Dec-08	118,317,718	3,123,662	(2,710,153)	N/A	\$0	\$0	4
5	Dec-09	126,949,977	8,632,259	5,922,106	N/A	\$0	\$0	5
6	Dec-10	128,779,417	1,829,441	7,751,547	N/A	\$0	\$0	6
7	Dec-11	118,497,531	(10,281,887)	(2,530,340)	N/A	\$0	\$0	7
8	Dec-12	118,901,398	403,868	(2,126,472)	N/A	\$0	\$0	8
9	Dec-13	122,332,155	3,430,757	1,304,285	N/A	\$0	\$0	9
10	Dec-14	121,565,864	(766,291)	537,993	N/A	\$0	\$0	10
11	Dec-15	121,304,436	(261,428)	276,566	N/A	\$0	\$0	11
12	Dec-16	121,976,846	672,409	948,975	N/A	\$0	\$0	12
13	Dec-17	122,799,471	822,626	1,771,601	N/A	\$0	\$0	13
14	Dec-18	123,554,257	754,786	2,526,387	N/A	\$0	\$0	14
15	Dec-19	124,411,078	856,821	3,383,208	N/A	\$0	\$0	15
16	Dec-20	125,280,367	869,289	4,252,497	N/A	\$0	\$0	16
17	Dec-21	127,148,918	1,868,551	6,121,048	N/A	\$0	\$0	17

Note:

1. Investment Plan from Prepared Written Testimony of SDG&E witness Mr. David Bisi.
2. Col. (B) converted from Mth to Mcf using 2006 weighted average heat value of 1.0174758 therms per Mcf.

TABLE LRMTTC-4
SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

FULLY LOADED TRANSMISSION LRMC
2009 BCAP

	Description	15-Year Forecast	
		(2007-2021)	Units
	A	B	C
1	Capital Cost:		
2	Total Cumulative Investment	\$0	2006 \$'s
3			
4	x HW Index: Transmission Plant	1.050	
5			
6	= Total Cumulative Investment	\$0	2009 \$'s
7			
8	÷ Total Demand Growth	6,121,048	Mth
9			
10	= Unit Transmission Cost	\$0.0000	\$ / Mth
11			
12	x RECC Factor	8.65%	Percent
13			
14	= Annualized Cost	\$0.0000	\$ / Mth
15			
16	Loading Factors:		
17	+ O&M Cost (2009 \$'s)	\$0.1429	\$ / Mth
18	+ A&G Cost	\$0.0378	\$ / Mth
19	+ General / Common Plant Cost	\$0.0109	\$ / Mth
20	+ M&S Cost (2009 \$'s)	\$0.0008	\$ / Mth
21			
22	Transmission LRMC (2009 \$'s)		
23			
24	= Total Annual Marginal Trans Cost	\$0.1924	\$ / Mth

Notes:

1. Transmission Mains RECC Factor from SDG&E Market Analysis & Planning Department 2007 Economic Assumptions Manual.
2. Rows (17) - (20) from Workpapers to Testimony of Emma Hernandez, Tables "LF-1" and "LF-4", "LF-5", and "LF-6".
3. Escalation of O&M using weighted average escalation factor at Workpapers to Testimony of Emma Hernandez, Table "MISC-3".

TABLE LRMTTC-5
SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

FULLY LOADED BACKBONE TRANSMISSION LRMC
2009 BCAP

	Description	15-Year Forecast	
		(2007-2021)	Units
	A	B	C
1	Capital Cost:		1
2	Total Cumulative Investment	\$0	2006 \$'s
3			3
4	x HW Index: Transmission Plant	1.050	4
5			5
6	= Total Cumulative Investment	\$0	2009 \$'s
7			7
8	÷ Total Demand Growth	6,121,048	Mth
9			9
10	= Unit Transmission Cost	\$0.0000	\$ / Mth
11			11
12	x RECC Factor	8.65%	Percent
13			13
14	= Annualized Cost	\$0.0000	\$ / Mth
15			15
16	Loading Factors:		16
17	+ O&M Cost (2009 \$'s)	\$0.0814	\$ / Mth
18	+ A&G Cost	\$0.0215	\$ / Mth
19	+ General / Common Plant Cost	\$0.0062	\$ / Mth
20	+ M&S Cost (2009 \$'s) "Backbone" only	\$0.0005	\$ / Mth
21			21
22	Transmission LRMC (2009 \$'s)		22
23			23
24	= Total Annual Marginal Trans Cost	\$0.1096	\$ / Mth

Notes:

1. Transmission Mains RECC Factor from SDG&E Market Analysis & Planning Department 2007 Economic Assumptions Manual.
2. Rows (17) - (20) from Workpapers to Testimony of Emma Hernandez, Tables "LF-1" and "LF-4", "LF-5", and "LF-6".
3. Escalation of O&M using weighted average escalation factor at Workpapers to Testimony of Emma Hernandez, Table "MISC-3".

TABLE LRMTTC-6
SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

FULLY LOADED LOCAL TRANSMISSION LRMC
2009 BCAP

	Description	15-Year Forecast	
		(2007-2021)	Units
	A	B	C
1	Capital Cost:		1
2	Total Cumulative Investment	\$0	2006 \$'s
3			3
4	x HW Index: Transmission Plant	1.050	4
5			5
6	= Total Cumulative Investment	\$0	2009 \$'s
7			7
8	÷ Total Demand Growth	6,121,048	Mth
9			9
10	= Unit Transmission Cost	\$0.0000	\$ / Mth
11			11
12	x RECC Factor	8.65%	Percent
13			13
14	= Annualized Cost	\$0.0000	\$ / Mth
15			15
16	Loading Factors:		16
17	+ O&M Cost (2009 \$'s)	\$0.6696	\$ / Mth
18	+ A&G Cost	\$0.1770	\$ / Mth
19	+ General / Common Plant Cost	\$0.0511	\$ / Mth
20	+ M&S Cost (2009 \$'s) "Local" only	\$0.0038	\$ / Mth
21			21
22	Transmission LRMC (2009 \$'s)		22
23			23
24	= Total Annual Marginal Trans Cost	\$0.9015	\$ / Mth

Notes:

1. Transmission Mains RECC Factor from SDG&E Market Analysis & Planning Department 2007 Economic Assumptions Manual.
2. Rows (17) - (20) from Workpapers to Testimony of Emma Hernandez, Tables "LF-1" and "LF-4", "LF-5", and "LF-6".
3. Escalation of O&M using weighted average escalation factor at Workpapers to Testimony of Emma Hernandez, Table "MISC-3".

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT
2009 BCAP

SECTION 4.0
Long Run Marginal Cost Loading Factors

Workpapers to the Prepared Written Testimony

Emma Hernandez

TABLE LF-1
SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

O&M LOADING FACTOR COST per UNIT
2009 BCAP

	Functional Service Category	2007 Expenses		Units	
	A	B		C	
1	<u>Medium Pressure Distribution (MPD) O&M</u>				1
2	2006 MPD O&M Expense	\$6,181	M\$		2
3	2006 1-35 Peak-Day Demand	393	Mmcf/d		3
4					4
5	MPD O&M Loading Factor	\$15.711	per Mth Peak-Day Dmd		5
6					6
7	<u>High Pressure Distribution (HPD) O&M</u>				7
8	2006 HPD O&M Expense	\$270	M\$		8
9	2006 1-35 Peak-Day Demand	491	Mmcf/d		9
10					10
11	HPD O&M Loading Factor	\$0.551	per Mth Peak-Day Dmd		11
12					12
13	<u>Transmission O&M</u>				13
14	RDOM	\$3,500	M\$		14
15	Total O&M (Net of Fuel) plus RDOM	\$13,536	M\$		15
16	2006 Cold-Year Throughput	121,025	MMcf		16
17					17
18	Transmission O&M Loading factor	\$0.112	per Mcf Cold Year Thrpt		18
19					19
20	<u>Transmission- Backbone O&M @ 57%</u>	\$7,706	M\$		20
21	2006 Cold-Year Throughput	121,025	MMcf		21
22	Transmission O&M Loading factor	\$0.064	per Mcf Cold Year Thrpt		22
23					23
24	<u>Transmission - Local O&M @ 43%</u>	\$5,830	M\$		24
25	2006 Cold-Year Peak Month	\$11,128	MMcf		25
26	Transmission O&M Loading factor	\$0.524	per Mcf Cold Year Pk Month		26

Notes:

1. Rows (2) and (8) from Dist-Demand sections of Workpapers to Testimony of Emma Hernandez, Table "LF-3".
2. Row (14) from Page 1, Row (27) of Workpapers to Testimony of Emma Hernandez, Table "LF-2".
3. Demand data for 2006 at Rows (3), (9) and (15) from Workpapers to Testimony of Emma Hernandez, Tables "LRMDC-8", "LRMDC-5", and "MISC-1", respectively.
4. Row (16,21, & 25) converted from Mth to MMcf using 2006 weighted average heat value of 10.174758 therms per Mc

TABLE LF-2, Page 1
SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

FUNCTIONALIZATION OF YEAR 2007 O&M EXPENSES
2009 BCAP

FERC Account	Total	Distribution Demand			Storage	Distribution		
		Medium Pressure	High Pressure	Transmission		Customer	Supply	
A	B	C	D	E	F	G	H	
Purchased Gas Expenses								
1				MS				
2	807.4-Purchased Gas Calculations Expenses	\$0					\$0	
3	807.5-Other Purchased Gas Expenses	\$1,337					\$1,337	
4	+ Purchased Gas Expense Total	\$1,337					\$1,337	
Other Storage								
7	843-Oper Supervision & Engineering	\$0				\$0		
8	841-Oper Labor & Expenses	\$44				\$44		
9	843-Maintenance	\$0				\$0		
10	+ Other Storage Total	\$43.9				\$43.9		
Gas Transmission								
13	850-Oper Supervision & Eng	\$2,316			\$2,316			
14	851-Isys Control & Load Dispatching	\$448			\$448			
15	852-Communication Sys Exp	\$1,586			\$1,586			
16	853-Compr Station Labor & Exp	\$1,559			\$1,559			
17	855-Other Fuel & Power for Compr Stations	\$195			\$195			
18	856-Maint Expenses	\$948			\$948			
19	857-Meas & Reg Station Exp	\$23			\$23			
20	858-Trans & Compression of Gas by Others	\$0			\$0			
21	859-Other Expenses	\$326			\$326			
22	860-Rents	\$0			\$0			
23	861-Maint Supervision & Eng	\$83			\$83			
24	862-Maint Structures and Improvements	\$1			\$1			
24	863-Maint of Mains	\$1,596			\$1,596			
25	864-Maint of Compr Station Eq	\$590			\$590			
26	865-Maint of Meas & Reg Station Eq	\$312			\$312			
26	866-Maint of Communication Eq	\$50			\$50			
27	867-Maint of Other Eq	\$6			\$6			
28	+ Net Gas Transmission	\$10,036			\$10,036			

TABLE LF-2, Page 2
SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

FUNCTIONALIZATION OF YEAR 2007 O&M EXPENSES
2009 BCAP

Description	Total	Distribution Demand			Storage	Distribution		
		Medium Pressure	High Pressure	Transmission		Customer	Supply	
A	C	D	E	F	G	H	I	
Gas Distribution								
1				MS				
2	870-Operation Supervision & Engineering	\$5,584	\$797	\$35			\$4,753	
3	871-Dist Load Dispatching	\$1	\$0	\$0			\$1	
4	874-Mains & Services Exp	\$4,501	\$2,491	\$109			\$1,901	
5	875-Meas & Reg Station Exp	\$572	\$548	\$24			\$0	
6	877-Meas & Reg Station Exp-City Gas Check Station	\$96	\$92	\$4			\$0	
7	878-Meas & House Regulator Exp	\$4,657	\$0	\$0			\$4,657	
8	879-Customer Installations Exp	\$11,576	\$0	\$0			\$11,576	
8	880-Other Expenses	\$8,387	\$1,196	\$52			\$7,138	
9	881-Rents	\$18	\$17	\$1			\$0	
10	885-Maint Supervision & Engineering	\$136	\$65	\$3			\$69	
11	887-Maint of Mains	\$3,336	\$2,819	\$517			\$594	
12	888-Maint. Of Compressor Station Equipment	\$0	\$0	\$0			\$0	
13	889-Maint of Meas. & Reg Station Eq	\$225	\$215	\$99			\$0	
14	892-Maint of Services	\$1,531	\$0	\$0			\$1,531	
15	893-Maint of Meters & Regulators	\$1,319	\$0	\$0			\$1,319	
16	894-Maint of Other Eq	\$1,612	\$28	\$5			\$97	
17	+ Distribution Total	\$42,062	\$8,264	\$361			\$33,437	
Customer Accounts								
20	901-Supervision	\$52					\$52	
21	902-Meter Reading Expenses	\$4,827					\$4,827	
22	903-Cust Records & Collection Exp	\$19,448					\$19,448	
23	904-Uncollectible Accounts	\$1,298					\$1,298	
24	905-Misc Cust Accounts Exp	\$0					\$0	
25	Total Customer Accounts	\$25,624					\$25,624	
26	less 904-Uncollectibles	\$1,298					\$1,298	
27	+ Net Customer Accounts	\$24,326					\$24,326	
Customer Service & Informational Expense								
30	907-Supervision	\$26					\$26	
31	908-Cust Assistance Exp	\$16,052					\$16,052	
32	909-Informational & Instructional Exp	\$6					\$6	
33	910-Misc Cust Service & Informational Exp	\$1,890					\$1,890	
34	Total Cust Svc & Info	\$17,974					\$17,974	
35	less CARE/DSM/DAD/Energy Efficiency Exp	(\$9,104)					(\$9,104)	
36	+ Net Cust Svc & Info	\$8,871					\$8,871	
37	+ Subtotal O&M w/o A&G	\$86,675	\$8,264	\$361	\$10,036	\$44	\$66,834	
38	Percent of Total	100.0%	9.3%	0.4%	11.6%	0.1%	76.9%	
39							1.5%	

Notes:
1. O&M expenses from SDG&E Gas FERC Form 2 for year ending December 31, 2007, pp. 319 - 325.
2. O&M expenses assigned to service categories using functional basis as presented in Testimony of SDG&E Embedded Cost Witness Ms. Hom.
3. CARE Program expenses of approximately \$689,716 are excluded because such costs recovered through G-PPS Surcharge.
4. AMI Program expenses of approximately \$1.8 million program costs are excluded from FERC account 903. Information provided by SDG&E Business Planning department.

TABLE LF-3

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

MARGINAL COST ASSESSMENT - DISTRIBUTION O&M EXPENSES
2009 BCAP

Distribution O&M Account	Total O&M	Demand-Related Distribution						Customer-Related		
		Medium Pressure	Marginal Portion	Marginal MPD O&M	High Pressure	Marginal Portion	Marginal HPD O&M	Distribution Customer	Marginal Portion	Marginal Cust-Rel O&M
A	B	C	D	E	F	G	H	I	J	K
1 <u>Gas Distribution:</u>										1
2 870 - Operation Supervision & Engineering	\$5,584	\$797	20%	\$159	\$35	20%	\$7	\$4,753	20%	\$951
3 871 - Distribution Load Dispatching	\$1	\$0	0%	\$0	\$0	0%	\$0	\$1	0%	\$0
4 874 - Mains & Services Expenses	\$4,501	\$2,491	100%	\$2,491	\$109	100%	\$109	\$1,901	100%	\$1,901
5 875 - Measuring & Regulating Station Expenses	\$572	\$548	100%	\$548	\$24	100%	\$24	\$0	100%	\$0
6 878 - Meter & House Regulator Expenses	\$4,657	\$0	100%	\$0	\$0	100%	\$0	\$4,657	100%	\$4,657
7 879 - Customer Installations Expenses	\$11,576	\$0	100%	\$0	\$0	100%	\$0	\$11,576	100%	\$11,576
8 880 - Other Expenses	\$8,387	\$1,196	62%	\$742	\$52	62%	\$32	\$7,138	62%	\$4,426
9 881 - Rents	\$18	\$17	0%	\$0	\$1	0%	\$0	\$0	0%	\$0
10 885 - Maint Supervision & Engineering	\$136	\$65	18%	\$12	\$3	18%	\$1	\$69	18%	\$12
11 887 - Maintenance of Mains	\$3,336	\$2,819	69%	\$1,945	\$123	69%	\$85	\$394	69%	\$272
12 888 - Maintenance Of Compressor Station Eq	\$0	\$0	0%	\$0	\$0	0%	\$0	\$0	0%	\$0
13 889 - Maintenance of Meas. & Reg Station Eq	\$225	\$215	100%	\$215	\$9	100%	\$9	\$0	100%	\$0
14 892 - Maintenance of Services	\$1,531	\$0	100%	\$0	\$0	100%	\$0	\$1,531	100%	\$1,531
15 893 - Maint of Meters & House Regulators	\$1,319	\$0	100%	\$0	\$0	100%	\$0	\$1,319	100%	\$1,319
16 894 - Maintenance of Other Equipment	\$122	\$24	0%	\$0	\$1	0%	\$0	\$97	0%	\$0
17 Distribution Total	\$41,966	\$8,171	75%	\$6,112	\$357	75%	\$267	\$33,437	80%	\$26,645

Notes:

- O&M expenses assigned to customer- and demand-related functional service categories at Workpapers to Testimony of Emma Hernandez, Table "LF-2", Page 2 of 2.
- Col. (E) = Col. (C) x Col. (D).
- Col. (H) = Col. (F) x Col. (G).
- Col. (K) = Col. (I) x Col. (J).
- Portion of FERC 887 assigned to customer function relates to cathodic protection expenses for service lines.
- Marginal Cost assessment performed in conjunction w/ SDG&E Gas Distribution Operations Department subject matter experts.

TABLE LF-4
SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

MATERIALS & SUPPLIES LOADING FACTOR
2009 BCAP

Description	2007	Portion of Total Plant	M&S Allocation	Annualized	Marginal Demand Measure	2007 \$'s	
	Year End Plant Balances			M&S @ 14.19%		Marginal Cost	
A	B	C	D	E	F	G	
	(Dollars)	(Percent)	(Dollars)	(Dollars)	(Mcf)	(\$/ Mcf)	
1 Materials & Supplies			\$2,786,535				1
2							2
3 Storage	\$451,538	0.0%	\$1,138	\$161			3
4 Transmission	\$217,380,208	19.7%	\$547,912	\$77,733	121,017,856	\$0.001	4
5 Backbone T cost @ 56%				\$44,251	121,017,856	\$0.000	5
6 Local T cost @ 43%				\$33,482	11,127,283	\$0.003	6
7 Distribution							7
8 Demand - HPD	\$65,993,476	6.0%	\$166,338	\$23,599	490,611	\$0.048	8
9 Demand - MPD	\$447,176,538	40.4%	\$1,127,119	\$159,906	393,426	\$0.406	9
10 Customer	\$363,845,006	32.9%	\$917,080	\$130,108			10
11 General Plant	\$10,690,785	1.0%	\$26,946	\$3,823			11
12							12
13 Total	\$1,105,537,551	100.0%	\$2,786,535	\$473,064			13

Notes:

1. M&S RECC Factor from SDG&E Market Analysis & Planning Department 2007 Economic Assumptions Manual.
2. Material & Supplies for 2007 = weighted average M&S inventory applicable to gas services.
3. Demand data for 2007 at Rows (4), (6) and (7) from Workpapers to Testimony of Emma Hernandez, Tables "MISC-1", "LRMDC-5", and "LRMDC-8", respectively. Transmission MDM converted from Mth to Mcf using 2007 weighted average heat value of 1.017476 therms per Mcf.
4. Row (6) Plant Balance = [Total Dist Plant - Cust-Rel Dist Plant] x Historical HPD Plant Factor.
5. Row (7) Plant Balance = [Total Dist Plant - Cust-Rel Dist Plant] x [1 - Historical HPD Plant Factor].
6. For Rows (6) - (7) : 12.9% = Historical HPD Plant Investment Allocation Factor.
7. Row (8) Plant Balance = Dist Plant Accounts 380 (Services) + 381 (Meters) + 382 (Meter Installations).

TABLE LF-5

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

ADMINISTRATIVE & GENERAL LOADING FACTOR
2009 BCAP

	FERC Account	Account Description	2007 Recorded	Marginal Portion	Marginal A&G	
	A	B	C	D	E	
			(M\$)	(Percent)	(M\$)	
1	920	Administrative & General Salaries	\$3,874	0.00%	\$0	1
2	921	Office Supplies & Expenses	\$2,089	2.09%	\$44	2
3	922	Administrative Expenses Transferred	(1,118)	0.00%	\$0	3
4	923	Outside Services Employed	\$39,288	0.00%	\$0	4
5	924	Property Insurance	\$1,025	0.00%	\$0	5
6	925	Injuries & Damages	\$5,087	100.00%	\$5,087	6
7	926	Employee Pensions & Benefits	\$12,825	99.37%	\$12,744	7
8	927	Franchise Requirements	\$12,669	0.00%	\$0	8
9	928	Regulatory Commission Expense	\$2,250	25.89%	\$583	9
10	930.1	General Advertising Expense	\$2.1	0.00%	\$0	10
11	930.2	Miscellaneous General Expense	\$93	21.89%	\$20	11
12	931	Rents	\$2,239	0.00%	\$0	12
13	932	Maintenance of General Plant	\$1,862	11.17%	\$208	13
14		Total A&G Expenses	\$82,185		\$18,685	14
15						15
16		Payroll Taxes	\$4,224		\$4,224	16
17		Total A&G and Payroll Taxes	\$86,408		\$22,908	17
18						18
19		Total O&M w/o Recorded A&G Expenses	\$86,675		\$86,675	19
20						20
21		Total O&M	\$173,083			21
22		(Net of Compressor Fuel & Gas Purchases)				22
23						23
24		A&G/O&M Loading Factor			26.43%	24

Notes:

1. A&G expenses from SDG&E Gas FERC Form 2 for year ending December 31, 2007, pp. 325.
2. Row (23) = Marginal A&G Expenses @ Row 16 ÷ Total O&M Less A&G @ Row 18
3. CPUC expenses of \$725,969 removed from FERC Account 928 because such costs are excluded from base margin.

TABLE LF-6

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

**GENERAL PLANT LOADING FACTOR
2009 BCAP**

Description		2007 Recorded	
A		B	
		(Dollars)	
1	Total General, Common Plant (12/31/2007)	\$118,303,721	1
2			2
3	Average General, Common Plant RECC	11.17%	3
4			4
5	Annualized Plant	\$13,214,526	5
6			6
7	O&M Expenses (2007 recorded)	\$173,083,409	7
8			8
9	General Plant Loading Factor	7.63%	9

Notes:

1. Common and General Gas Plant from SDG&E Gas FERC Form 1 pp. 356.1 and FERC Form 2 pp. 209, for year ending December 31, 2007, respectively.
2. Weighted average RECC Factor from SDG&E Market Analysis & Planning Department 2007 Economic Assumptions Manual.

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT
2009 BCAP

SECTION 5.0
Cost Allocation of 2008 Base Margin

Workpapers to the Prepared Written Testimony

Emma Hernandez

TABLE CA-1

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

ALLOCATION OF AUTHORIZED BASE MARGIN REVENUE REQUIREMENT
2009 BCAP

Description	Res	NGV	GN-3	Total Core	GTNC			EG			Total Noncore	System Total
					MPD	HPD	Total	< 3 MM	> 3 MM	Total		
A	B	C	D	E	F	G	H	I	J	K	M	N
CUSTOMER RELATED												
Per unit LRM Cost (\$/Cust/Yr)	\$183	\$1,765	\$334		\$19,466	\$83,762		\$13,146	\$30,375			
Number of Customers	832,050	40	29,831		48	13		69	12			
Marginal Cust Cost Revenues	\$152,408	\$71	\$9,967	\$162,447	\$934	\$1,089	\$2,023	\$907	\$371	\$1,278	\$3,302	\$165,748
COMMON DISTRIBUTION - MEDIUM PRESSURE												
Per Unit LRM Cost (\$/mcf)	\$168.16	\$168.16	\$168.16		\$168.16	\$168.16		\$168.16	\$168.16			
MP 1-35 Peak Day Demand (mcf)	303,235	1,034	81,502		6,248	-		3,850	-			
Marginal MPD Cost Revenues	\$50,991	\$174	\$13,705	\$64,869	\$1,051	\$0	\$1,051	\$647	\$0	\$647	\$1,698	\$66,567
COMMON DISTRIBUTION - HIGH PRESSURE												
Per Unit LRM Cost (\$/mcf)	\$17.31	\$17.31	\$17.31		\$17.31	\$17.31		\$17.31	\$17.31			
HP 1-35 Peak Day Demand (mcf)	303,537	4,081	83,698		10,071	3,823		6,875	39,564			
Marginal HPD Cost Revenues	\$5,253	\$71	\$1,448	\$6,772	\$174	\$66	\$240	\$119	\$685	\$804	\$1,044	\$7,816
Total Marginal Distr Cost Revenues	\$56,243	\$244	\$15,153	\$71,641	\$1,225	\$66	\$1,291	\$766	\$685	\$1,451	\$2,742	\$74,384
TRANSMISSION (Backbone @ 57%)												
Per Unit LRM Cost (\$/mcf)	\$0.11	\$0.11	\$0.11		\$0.11	\$0.11		\$0.11	\$0.11			
Cold Yr Deliveries (mcf)	36,341,642	1,497,548	16,491,153	54,330,343	2,272,287	1,704,215	3,976,502	3,316,627	63,108,513	66,425,140		
Marginal Transm Cost Revenues	\$3,981	\$164	\$1,807	\$5,952	\$249	\$187	\$436	\$363	\$6,914	\$7,277	\$7,713	\$13,665
TRANSMISSION (Local @ 43%)												
Per Unit LRM Cost (\$/mcf)	\$0.90	\$0.90	\$0.90		\$0.90	\$0.90		\$0.90	\$0.90			
Cold Year Peak Month (mcf)	5,433,601	126,457	1,804,308	7,364,366	193,582	145,186	338,768	213,006	5,815,671	6,028,677		
Marginal Transm Cost Revenues	\$4,898	\$114	\$1,627	\$6,639	\$175	\$131	\$305	\$192	\$5,243	\$5,435	\$5,740	\$12,379
Total Marginal Trans Cost Revenues	\$8,880	\$278	\$3,433	\$12,591	\$423	\$318	\$741	\$555	\$12,156	\$12,712	\$13,453	\$26,044
Unscaled LRM Revenues	\$217,531	\$594	\$28,554	\$246,679	\$2,583	\$1,473	\$4,055	\$2,229	\$13,212	\$15,441	\$19,497	\$266,176
EPMC Scaling Factor	84.1%	84.1%	84.1%	84.1%	84.1%	84.1%	84.1%	84.1%	84.1%	84.1%	84.1%	84.1%
Scaled LRM Revenues	\$182,999	\$500	\$24,021	\$207,520	\$2,173	\$1,239	\$3,412	\$1,875	\$11,115	\$12,990	\$16,402	223,922
+ NGV Public Access Comp. Gas (M\$)	\$0	\$83	\$0	\$83	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$83
= TOTAL BASE MARGIN	\$182,999	\$583	\$24,021	\$207,603	\$2,173	\$1,239	\$3,412	\$1,875	\$11,115	\$12,990	\$16,402	\$224,005
PROPORTION OF TOTAL	82%	0%	11%	93%	1%	1%	2%	1%	5%	6%	7%	100%

Notes:

1. Transmission Cold Year Throughput and Cold Year Peak Month converted from Mth to Mcf using 2006 weighted average heat value of 10.1756 therms per Mcf.
2. NGV cost for public access at compressed gas fueling stations from Workpapers to Testimony of Emma Hernandez, Table "MISC-2".

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT
2009 BCAP

SECTION 6.0
Additional Information to LRMC and Cost Allocation Study

Workpapers to the Prepared Written Testimony

Emma Hernandez

TABLE MISC-1
SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

DEMAND DETERMINANT SUMMARY
2009 BCAP

	Billing Determinants	Res	NGV	GN-3	Core	GTNC			EG			Noncore	System	
						MPD	HPD	Total	< 3 MM	> 3 MM	Total			
	A	B	C	D	E	F	G	H	I	J	K	M	N	
1	Customers	832,050	40	29,831	861,922	48	13	61	69	12	81	142	862,064	1
2														2
3	Class Service Level Factors					57%	43%	100%	5%	95%	100%			3
4														4
5	Avg Yr Deliveries (Mth)	326,003	15,238	158,725	499,967	23,122	17,341	40,463	33,749	642,167	675,916	716,379	1,216,345	5
6														6
7	Cold Yr Deliveries (Mth)	369,798	15,238	167,807	552,844	23,122	17,341	40,463	33,749	642,167	675,916	716,379	1,269,223	7
8														8
9	1-35 Peak Day, MPD (Mmcf)	303	1	82	386	6	-	6	4	-	4	10	396	9
10														10
11	1-35 Peak Day, HPD (Mmcf)	304	4	84	391	10	4	14	7	40	46	60	452	11
12														12
13	HPD Cld Yr Coin Pk Mon (Mth)	55,290	1,287	18,360	74,937	1,970	1,205	3,175	2,167	12,657	14,824	17,999	92,936	13
14														14
15	Cld Yr Pk Mon (Mth)	55,290	1,287	18,360	74,937	1,970	1,477	3,447	2,167	59,178	61,345	64,793	139,729	15
16														16
17	2006 Cld Yr Coin Pk Mon (Mth)	54,251	870	19,235	74,356	1,773	1,438	3,212	2,051	33,608	35,660	38,871	113,227	17
18														18
19	2006 Customers	799,494	32	29,610	829,135	60	1	61	67	12	79	140	829,275	19
20														20
21	2009 Customers	821,356	38	29,864	851,258	60	1	61	69	13	82	143	851,400	21

Note:

- Information provided by Demand Forecast witness Mr. Herbert Emmrich.

TABLE MISC-2
SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

NGV GAS COMPRESSION RATE COMPONENT
2009 BCAP

	Customer Cost Component	Cost	Units	
	A	B	C	
1	Capital Cost:			1
2	NGV Station Public Access Capital Costs	\$14	M \$'s	2
3				3
4	+ Distribution O&M Costs	\$69	M \$'s	4
5				5
6	= Subtotal NGV Station Public Access Costs	\$83	M \$'s	6
7				7
8	+ Cost of Electricity Used in Compression (Non-margin item)	\$14	M \$'s	8
9				9
10	= Total Compressed Adder	\$97	M \$'s	10
11				11
12	÷ Public Access Compressed Gas Demand	119	Mth	12
13				13
14	= Total Annualized Maginal Investment / Station	\$0.81	\$/th	14
15				15
16	NGV Total Allocated Margin	\$583	M \$'s	16
17				17
18	- Subtotal NGV Station Public Access Costs	\$83	M \$'s	18
19				19
20	= NGV Uncompressed Gas Revenues	\$500	M \$'s	20
21				21
22	÷ Average Year Throughput (Mth)	15,238	Mth	22
23				23
24	= NGV Average Uncompressed Rate	\$0.03279	\$/th	24

Note:

1. NGV compressed gas rate from Testimony of SDG&E Embedded Cost Witness Ms.Hom.

TABLE MISC-3

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT

O&M WEIGHTED ESCALATION FACTOR
2009 BCAP

	Description	Dollars	Percent	
	A	B	C	
1	2007 Total Gas O&M Expenses	\$173,083,409	100%	1
2	2007 Total Salaries & Wages	\$68,192,810	39%	2
3	2007 Non-Labor O&M Expenses	\$104,890,599	61%	3
4				4
5	2007 O&M Labor Multiplier	1.1813		5
6	2009 O&M Labor Multiplier	1.2405	105%	6
7				7
8	2007 O&M Non-Labor Multiplier	1.2247		8
9	2009 O&M Non-Labor Multiplier	1.3023	106%	9
10				10
11	Weighted O&M Escalation to 2009	1.2780	128%	11

Notes:

1. Row (3) = Row (1) - Row (2).
2. Row (11) = [Row (9) x Row (3) percent] + [Row (6) x Row (2) percent].
3. Row (1) from Workpapers to Testimony of Emma Hernandez, Table "LF-5".
4. Row (2) from Selected Financial Data to SDG&E FERC Forms 1 & 2 for Year Ended December 31, 2007.
5. Rows (5) - (9) from O&M Cost Indexes - Global Insight.

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT
2009 BCAP

SECTION 7.0
Real Economic Carrying Charge Factors

Workpapers to the Prepared Written Testimony

Emma Hernandez

SAN DIEGO GAS AND ELECTRIC - GAS DEPARTMENT
2009 BCAP

SECTION 8.0
Economic Factors

Workpapers to the Prepared Written Testimony

Emma Hernandez

Worksheet	Description
CostIndexNames	Short and Long Names of Utility Cost Index Data
CostIndexes%Ch	Percentage Changes for Utility O&M and Construction Cost Indexes, 1998 - 2033
CostIndexesBY01	Base Year 2001 Utility O&M and Construction Cost Indexes, 1997 - 2033
GIHWData	Global Insight and Handy-Whitman Data, 1997 - 2033
HWIData	Handy-Whitman Data, 1997 - 2005

Short Names	FERC
O&M Costs	
CEU4422000006	
JAHE49NS	814-894 & 901-935
JGTOTALMS	814-894 & 901-935
Utility Construction Costs	
JUG@PCF	362-384
JUGPT@PCF	366-369
JUGPDS&I@PCF	375
JUGPDMCI@PCF	376
JUGPDMS@PCF	376
JUGPDMP@PCF	376
JUGPDSTCM@PCF	377
JUGPDSTM&R@PCF	378
JUGPDSTM&RL@PCF	379
JUGPDSVS@PCF	380
JUGPDSVP@PCF	380
JUGPDMT@PCF	381
JUGPDMTI@PCF	382
JUGPDRH@PCF	383
JUGPDRHI@PCF	384

Long Names

Average Hourly Earnings - Utility Service Workers
Labor O&M Cost Index (Based on CEU4422000006)
Total Gas O&M Cost Index (MS) (Non-Labor O&M Cost Index)

Total Gas Plant, Pacific Region
Total Transmission Plant, Pacific Region
Gas Distribution Plant Structures & Improvements, Pacific Region
Gas Distribution Plant Cast Iron Mains, Pacific Region
Gas Distribution Plant Steel Mains, Pacific Region
Gas Distribution Plant Plastic Mains, Pacific Region
Gas Distribution Plant Compressor Station Equipment, Pacific Region
Gas Distribution Plant Meas. & Reg. Sta. Equipment, Pacific Region
Gas Distribution Plant Meas. & Reg. Sta. Equipment - City Gt., Pacific Region
Gas Distribution Plant Steel Services, Pacific Region
Gas Distribution Plant Plastic Services, Pacific Region
Gas Distribution Plant Meters, Pacific Region
Gas Distribution Plant Meter Installations, Pacific Region
Gas Distribution Plant House Regulators, Pacific Region
Gas Distribution Plant House Regulators Installations, Pacific Region

Percentage Changes

YEAR	JAHE49NS	JGTOTALMS	JUG@PCF	JUGPT@PCF	JUGPDS&I@PCF	JUGPDMCI@PCF	JUGPDMS@PCF	JUGPDM@PCF	JUGPDSTCM@PCF	JUGPDSTM&R@PCF	JUGPDSTM&RL@PCF	JUGPDSVS@PCF	JUGPDSVP@PCF	JUGPDMT@PCF	JUGPDMTI@PCF	JUGDRH@PCF	JUGDRHI@PCF
1998	4.30%	1.77%	1.25%	1.32%	1.69%	0.79%	1.15%	1.54%	1.57%	1.15%	1.16%	1.62%	1.71%	0.26%	0.66%	1.32%	0.66%
1999	2.55%	2.20%	2.34%	0.85%	1.81%	1.42%	2.48%	1.66%	0.50%	1.14%	1.15%	2.49%	2.10%	-2.68%	2.36%	-0.41%	2.37%
2000	3.29%	3.57%	3.63%	0.91%	2.30%	1.55%	3.74%	1.35%	1.23%	2.25%	2.47%	2.49%	1.51%	5.77%	4.42%	-0.08%	4.11%
2001	3.64%	2.79%	1.36%	0.83%	2.75%	2.14%	1.01%	1.89%	1.22%	0.78%	0.59%	1.51%	2.30%	3.72%	0.68%	2.13%	0.92%
2002	1.60%	1.97%	2.05%	1.72%	2.96%	5.75%	1.88%	2.27%	2.23%	2.19%	2.08%	2.59%	3.43%	-3.70%	1.83%	2.17%	2.02%
2003	3.38%	3.12%	3.32%	1.33%	2.94%	2.19%	3.99%	1.68%	1.00%	0.38%	0.70%	2.78%	2.17%	-4.34%	4.67%	-0.24%	4.43%
2004	3.40%	3.75%	15.17%	15.77%	5.92%	2.28%	18.71%	3.31%	4.66%	14.12%	14.64%	9.04%	3.25%	-5.19%	24.20%	1.57%	22.53%
2005	4.16%	4.50%	17.33%	10.67%	4.90%	8.72%	20.44%	6.28%	9.47%	12.81%	13.76%	11.39%	5.08%	1.37%	24.74%	5.19%	23.40%
2006	2.73%	3.82%	4.09%	4.14%	3.96%	8.91%	4.18%	5.19%	1.78%	4.15%	3.98%	3.95%	4.38%	6.23%	4.18%	5.54%	4.18%
2007	1.66%	3.48%	-2.17%	4.01%	5.60%	7.65%	-3.44%	4.33%	4.40%	-0.24%	-0.65%	0.25%	3.44%	14.58%	-4.81%	5.41%	-4.43%
2008	2.53%	3.62%	3.97%	2.74%	4.54%	2.99%	2.96%	3.14%	3.79%	2.33%	2.29%	3.67%	4.12%	5.81%	3.26%	0.64%	3.40%
2009	2.42%	2.62%	2.44%	2.18%	1.42%	1.36%	3.91%	2.69%	2.31%	2.55%	2.45%	3.64%	3.38%	0.84%	4.23%	0.76%	4.23%
2010	2.59%	2.49%	4.36%	2.09%	3.43%	3.31%	5.97%	1.85%	2.07%	3.67%	3.86%	3.92%	2.34%	-0.21%	7.02%	0.97%	6.76%
2011	2.51%	2.26%	2.38%	1.07%	3.66%	1.81%	2.85%	2.32%	1.93%	1.72%	1.69%	2.82%	2.63%	1.12%	2.92%	0.96%	2.91%
2012	2.57%	2.32%	2.29%	1.39%	3.61%	2.01%	2.39%	1.27%	1.91%	1.90%	1.90%	2.34%	2.13%	2.31%	2.42%	1.54%	2.43%

Utility O&M and Construction Cost Indexes

Base Year: 2001, Index Value = 1.0

YEAR	Labor O&M	Non-L O&M	Gas Plant	Trans. Plant	Dist. Plt. Struc & Imp.	Cast Iron Mains	Steel Mains	Plastic mains	Comp. Station Equip.	Meas. & Reg. St. Equip.	M&R St. Equip. - City	Steel Services	Plastic Services	Meters	Meter Installations	House Regulators	House Reg. Instal.
YEAR	JAH49NS	JGTOTALMS	JUG@PCF	JUGPT@PCF	JUGPDSI@PCF	JUGPDMCI@PCF	JUGPDMOS@PCF	JUGPDMPP@PCF	JUGPDSTCM@PCF	JUGPDSTM&R@PCF	JUGPDSTM&L@PCF	JUGPDSVS@PCF	JUGPDSVP@PCF	JUGPDMT@PCF	JUGPDMTI@PCF	JUGDRH@PCF	JUGDRHI@PCF
1987	0.873313	0.803303	0.916745	0.961798	0.932857	0.953199	0.920575	0.938077	0.956351	0.949530	0.922119	0.922878	0.927345	0.934289	0.923171	0.927131	0.923961
1988	0.910877	0.919199	0.930282	0.974532	0.934461	0.956673	0.931207	0.952479	0.971102	0.959444	0.937784	0.939197	0.936679	0.936679	0.936679	0.936679	0.936679
1989	0.934130	0.939379	0.952015	0.982772	0.951374	0.964126	0.954346	0.968320	0.975918	0.970169	0.961115	0.963012	0.911589	0.911589	0.911589	0.911589	0.911589
2000	0.964839	0.972870	0.986564	0.991760	0.973221	0.979073	0.989994	0.981405	0.987959	0.992278	0.994163	0.985094	0.977543	0.964158	0.993293	0.979150	0.990837
2001	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
2002	1.015973	1.019652	1.020473	1.017228	1.029598	1.057549	1.018762	1.022727	1.022276	1.021879	1.020752	1.025924	1.034346	0.962963	1.018293	1.021652	1.020159
2003	1.050322	1.051418	1.054383	1.030712	1.059901	1.080717	1.059412	1.039945	1.032511	1.025740	1.027886	1.054439	1.056803	0.921147	1.065854	1.019246	1.065363
2004	1.086048	1.090805	1.214331	1.193258	1.122622	1.105381	1.257661	1.074380	1.080674	1.170528	1.178340	1.149708	1.091149	0.873357	1.323780	1.035285	1.305437
2005	1.131211	1.139919	1.424824	1.320599	1.177590	1.201794	1.514697	1.141873	1.183022	1.340467	1.340467	1.280622	1.146631	0.885305	1.610874	1.089014	1.610874
2006	1.162047	1.183487	1.483045	1.375281	1.224242	1.308819	1.577986	1.201102	1.240494	1.375290	1.393774	1.331173	1.196830	0.940502	1.720244	1.149318	1.678192
2007	1.181341	1.224680	1.450900	1.439412	1.292741	1.408989	1.523702	1.253188	1.257074	1.371943	1.384695	1.334543	1.239048	1.077658	1.637561	1.211548	1.603910
2008	1.211195	1.269041	1.508381	1.469663	1.351374	1.451121	1.588730	1.292562	1.304756	1.403861	1.416342	1.383539	1.289036	1.140283	1.690976	1.219246	1.658400
2009	1.240498	1.302311	1.545234	1.501723	1.370543	1.470852	1.630019	1.327273	1.334859	1.439640	1.451102	1.433830	1.332629	1.149821	1.762439	1.228549	1.728528
2010	1.272641	1.334790	1.612540	1.533184	1.417618	1.519581	1.727330	1.351791	1.362553	1.492407	1.507134	1.490084	1.363804	1.147431	1.886098	1.240417	1.845327
2011	1.304530	1.364892	1.650928	1.549663	1.469486	1.547085	1.776610	1.383196	1.388802	1.518147	1.532555	1.532080	1.399736	1.160335	1.941220	1.252285	1.899084
2012	1.338116	1.396578	1.688804	1.571236	1.522481	1.578176	1.819137	1.400826	1.415292	1.546976	1.561608	1.567855	1.429590	1.187097	1.988293	1.271532	1.945266
2013	1.372252	1.429849	1.725656	1.605393	1.561099	1.601495	1.863164	1.414325	1.445876	1.582239	1.597147	1.597667	1.453104	1.220550	2.040976	1.272815	1.996823
2014	1.406135	1.465496	1.759437	1.651236	1.597745	1.621525	1.900188	1.428099	1.475497	1.633722	1.629034	1.629034	1.478468	1.249701	2.077805	1.278872	2.032987
2015	1.440356	1.501936	1.796545	1.701273	1.633263	1.643348	1.938462	1.452617	1.505840	1.672633	1.667142	1.511493	1.273596	1.211249	2.294306	1.267440	2.294306
2016	1.475341	1.539167	1.839566	1.746217	1.669908	1.665471	1.980988	1.481818	1.537628	1.698842	1.712322	1.707842	1.546631	1.289845	2.151463	1.311307	2.105803
2017	1.511513	1.577983	1.877415	1.787566	1.707681	1.691181	2.026767	1.512672	1.570379	1.737709	1.751232	1.750875	1.583091	1.304659	2.196341	1.329270	2.149786
2018	1.548915	1.618383	1.921177	1.829813	1.752220	1.719880	2.075797	1.543802	1.606502	1.779151	1.792996	1.792871	1.618758	1.319952	2.246585	1.346913	2.199145
2019	1.587420	1.660368	1.965707	1.872959	1.792530	1.752466	2.115572	1.575482	1.643347	1.835798	1.832275	1.832275	1.652048	1.342413	2.293659	1.369046	2.245082
2020	1.627281	1.702352	2.011516	1.917303	1.832276	1.785351	2.156348	1.607989	1.681156	1.864865	1.872374	1.872715	1.685865	1.365352	2.341707	1.391179	2.291998
2021	1.668160	1.745921	2.058349	1.962547	1.874208	1.819133	2.197624	1.641047	1.719687	1.909468	1.913934	1.913934	1.720476	1.388292	2.390732	1.413633	2.339890
2022	1.709888	1.791074	2.106206	2.008989	1.914024	1.853513	2.239900	1.674931	1.759181	1.954698	1.947341	1.959230	1.755614	1.411708	2.440732	1.460728	2.388760
2023	1.752124	1.836227	2.153039	2.056330	1.956307	1.888490	2.282677	1.709366	1.799639	1.982101	1.999222	1.999222	1.791546	1.435603	2.491951	1.436144	2.438852
2024	1.795420	1.883757	2.200896	2.104869	1.999718	1.924365	2.326454	1.744353	1.840819	2.047800	2.017380	2.043033	1.828269	1.459976	2.544146	1.483881	2.489676
2025	1.839310	1.932079	2.250332	2.154607	2.043693	1.960538	2.371232	1.780165	1.883203	2.053437	2.088140	2.088140	1.865786	1.484827	2.597317	1.509339	2.541967
2026	1.884642	1.982777	2.299936	2.205543	2.088795	1.997608	2.416760	1.816804	1.926309	2.139254	2.090013	2.134025	1.903831	1.509677	2.651707	1.532318	2.594991
2027	1.932009	2.034267	2.351120	2.257378	2.135025	2.037369	2.463039	1.854270	1.966767	2.185843	2.131518	2.180946	1.942933	1.535464	2.707317	1.565464	2.649236
2028	1.980734	2.088926	2.403583	2.310712	2.182100	2.080120	2.510319	1.890634	2.007947	2.233719	2.173900	2.228905	1.982827	1.561290	2.763902	1.585886	2.702016
2029	2.030476	2.144378	2.457070	2.365243	2.230303	2.123468	2.563602	1.925620	2.050090	2.282368	2.216861	2.273493	2.021400	1.587575	2.821707	1.613152	2.753085
2030	2.082380	2.202205	2.511836	2.421273	2.275123	2.167713	2.612633	1.961433	2.088862	2.332046	2.260960	2.314452	2.058653	1.616249	2.878049	1.641059	2.805131
2031	2.135600	2.263202	2.565607	2.478202	2.321071	2.213154	2.662914	1.997796	2.128597	2.383012	2.305577	2.368085	2.096997	1.645400	2.935366	1.669286	2.858155
2032	2.191236	2.325782	2.619578	2.536929	2.367583	2.259492	2.703471	2.034711	2.168814	2.435006	2.351492	2.403370	2.137649	1.674552	2.993902	1.698156	2.912156
2033	2.248102	2.390740	2.675368	2.596854	2.415222	2.301943	2.765979	2.072727	2.209994	2.488288	2.398184	2.446662	2.177279	1.704659	3.065685	1.727346	2.967379

Global Insight and Handy-Whitman Data

Sources: 1997 to 2037 O&M Cost Indexes - Global Insight UCON081OMBANK
 1997 to 2005 Utility Construction Cost Indexes - HWIData Worksheet
 2006 to 2037 Utility Construction Cost Indexes - Global Insight UCON081

YEAR	CEU4422000006	JGTOTALMS	JUG@PCF	JUGPT@PCF	JUGPDS&I@PCF	JUGPDMCI@PCF	JUGPDMS@PCF	JUGPDM@PCF	JUGPDSTCM@PCF	JUGPDSTM&R@PCF	JUGPDSTM&R@PCF	JUGPDSVS@PCF	JUGPDSVP@PCF	JUGPDMT@PCF	JUGPDMTI@PCF	JUGPDRH@PCF	JUGPDRHI@PCF
1997	20.594	1.1402	359.00	321.00	326.00	315.50	368.00	340.50	397.00	368.50	365.50	356.00	351.00	195.50	378.50	302.75	378.00
1998	21.480	1.1604	363.50	325.25	331.50	318.00	372.25	345.75	403.25	372.75	369.75	361.75	357.00	196.00	381.00	306.75	380.50
1999	22.028	1.1858	372.00	328.00	337.50	322.50	381.50	351.50	405.25	377.00	374.00	370.75	364.50	190.75	390.00	305.50	389.50
2000	22.753	1.2281	385.50	331.00	345.25	327.50	395.75	356.25	410.25	385.50	383.25	380.00	370.00	201.75	407.25	305.25	405.50
2001	23.582	1.2624	390.75	333.75	354.75	334.50	399.75	363.00	415.25	388.50	385.50	385.75	378.50	209.25	410.00	311.75	409.25
2002	23.958	1.2872	398.75	339.50	365.25	353.75	407.25	371.25	424.50	397.00	393.50	395.75	391.50	201.50	417.50	318.50	417.50
2003	24.768	1.3273	412.00	344.00	376.00	361.50	423.50	377.50	428.75	398.50	396.25	406.75	400.00	192.75	437.00	317.75	436.00
2004	25.611	1.3770	474.50	398.25	398.25	369.75	502.75	390.00	448.75	454.75	454.25	443.50	413.00	182.75	542.75	322.75	534.25
2005	26.676	1.4390	556.75	440.75	417.75	402.00	605.50	414.50	491.25	513.00	516.75	494.00	434.00	185.25	677.00	339.50	659.25
2006	27.403	1.4940	579.50	459.00	434.30	437.80	630.80	436.00	500.00	534.30	537.30	513.50	453.00	196.80	705.30	358.30	686.80
2007	27.858	1.5460	566.90	477.40	458.60	471.30	609.10	454.90	522.00	533.00	533.80	514.80	468.60	225.50	671.40	377.70	656.40
2008	28.562	1.6020	589.40	490.50	479.40	485.40	627.10	469.20	541.80	545.40	546.00	533.70	487.90	238.60	693.30	380.10	678.70
2009	29.253	1.6440	603.80	501.20	486.20	492.00	651.60	481.80	554.30	559.30	559.40	553.10	504.40	240.60	722.60	383.00	707.40
2010	30.011	1.6850	630.10	511.70	502.90	508.30	690.50	490.70	565.80	579.80	581.00	574.80	516.20	240.10	773.30	386.70	755.20
2011	30.763	1.7230	645.10	517.20	521.30	517.50	710.20	502.10	576.70	589.80	590.80	591.00	529.80	242.80	795.90	390.40	777.20
2012	31.555	1.7630	659.90	524.40	540.10	527.90	727.20	508.50	587.70	601.00	602.00	604.80	541.10	248.40	815.20	396.40	796.10

Handy-Whitman Data

Sources: Cost Trends of Gas Utility Construction, Pacific Region, Handy-Whitman Bulletin No. 163

	JUG@PCF			JUGPT@PCF			JUGPDS&I@PCF			JUGPDMCI@PCF			JUGPDMS@PCF			JUGPDMPP@PCF			JUGPDSTCM@PCF			JUGPDSTM&R@PCF			JUGPDSTM&R@PCF			JUGPDSVS@PCF			JUGPDSVP@PCF			JUGPDMT@PCF			JUGPDMTI@PCF			JUGPDRH@PCF			JUGPDRHI@PCF		
	01 Jan	01 Jul	Annual	01 Jan	01 Jul	Annual	01 Jan	01 Jul	Annual	01 Jan	01 Jul	Annual	01 Jan	01 Jul	Annual	01 Jan	01 Jul	Annual	01 Jan	01 Jul	Annual	01 Jan	01 Jul	Annual	01 Jan	01 Jul	Annual	01 Jan	01 Jul	Annual	01 Jan	01 Jul	Annual	01 Jan	01 Jul	Annual	01 Jan	01 Jul	Annual						
1997	355	360	359.00	316	322	321.00	322	327	326.00	314	316	315.50	364	369	368.00	337	341	340.50	393	398	397.00	365	369	368.50	362	366	365.50	351	357	356.00	347	352	351.00	190	197	195.50	375	380	378.50	302	302	302.75	375	379	378.00
1998	361	363	363.50	324	326	325.25	328	332	331.50	316	317	318.00	370	372	372.25	343	346	345.75	399	404	403.25	371	373	372.75	368	370	369.75	359	361	361.75	353	357	357.00	198	196	196.00	379	381	381.00	305	307	306.75	379	380	380.50
1999	367	369	372.00	325	328	328.00	334	337	337.50	322	322	322.50	375	378	381.50	348	352	351.50	406	405	405.25	374	375	377.00	371	372	374.00	366	370	370.75	361	365	364.50	194	184	190.75	383	385	390.00	308	304	305.50	383	385	389.50
2000	383	385	385.50	331	330	331.00	342	345	345.25	324	328	327.50	395	395	395.75	354	355	356.25	405	411	410.25	384	386	385.50	381	384	383.25	377	380	380.00	367	369	370.00	201	202	201.75	407	406	407.25	306	307	305.25	405	404	405.50
2001	389	390	390.75	333	333	333.75	349	355	354.75	330	334	334.50	398	399	399.75	361	363	363.00	414	413	415.25	386	386	388.50	384	383	385.50	383	386	385.75	375	378	378.50	202	210	209.25	410	408	410.00	301	313	311.75	409	407	409.25
2002	394	399	398.75	336	340	339.50	360	365	365.25	340	357	353.75	403	407	407.25	365	373	371.25	421	425	424.50	396	400	397.00	392	396	393.50	388	397	395.75	383	393	391.50	215	197	201.50	414	417	417.50	320	318	318.50	414	417	417.50