

**Southern California Gas Company and
San Diego Gas & Electric
2027 CAP**

**Chapter 9 Workpapers to the Prepared
Direct Testimony of Marjorie Schmidt-Pines**

**Cost Allocation and
Long Run Marginal Cost Study
(SoCalGas)**

TABLE 9
UNSCALED LONG RUN MARGINAL COST REVENUES
CUSTOMER COST
 \$000's

Customer Class	Customer LRMC \$/customer	Customer Count	Customer Cost \$000's
	A	B	C
Residential	106	5,844,466	\$621,358
Core C/I	1,679	201,694	338,677
Gas A/C	10,357	0	-
Gas Engine	19,294	603	11,640
NGV	38,041	390	14,836
Total Core			\$986,510
Noncore C/I	73,510	502	36,902
Small EG	35,830	309	11,071
Large EG	207,106	57	11,805
EOR	100,038	28	2,754
Total Retail Noncore			\$62,532
Long Beach	1,423,463	1	1,423
SDG&E	3,358,783	1	3,359
Southwest Gas	875,029	1	875
Vernon	751,991	1	752
Ecogas	166,698	1	167
Total Wholesale			\$6,576
UBS	\$0	0	\$0
BTS	\$0	0	\$0
Total Noncore			\$69,108
Total SoCalGas			\$1,055,618

³⁰Ecogas is the Wholesale - ECOGAS Mexico, S. de R.L. de C.V.

³¹UBS is the Unbundled Storage Program

³²BTS is Backbone Transportation Service

TABLE 10
UNSCALED LRMC COST REVENUES
DISTRIBUTION COSTS

\$000's

Customer Class	Medium Pressure Distribution LRMC \$/mcf	Medium Pressure Distribution Peak Day (mcf)	Medium Pressure Distribution Costs \$000's	High Pressure Distribution LRMC \$/mcf	High Pressure Distribution Peak Month Demand (mcf)	High Pressure Distribution Costs \$000's
	A	B	C	D	E	F
Residential	\$382.61	2,026,866	\$775,507	\$21.13	31,388,468	\$663,195
Core C/I	\$382.61	511,768	\$195,810	\$21.13	10,202,401	\$215,563
Gas A/C	\$382.61	0	\$0	\$21.13	0	\$0
Gas Engine	\$382.61	1,954	\$748	\$21.13	75,327	\$1,592
NGV	\$382.61	36,916	\$14,125	\$21.13	1,852,738	\$39,146
Total Core			\$986,189			\$919,495
Noncore C/I	\$382.61	93,784	\$35,883	\$21.13	6,599,410	\$139,436
Small EG	\$382.61	19,378	\$7,414	\$21.13	814,166	\$17,202
Large EG	\$382.61	10,129	\$3,875	\$21.13	1,535,767	\$32,449
EOR	\$382.61	31	\$12	\$21.13	629,074	\$13,291
Total Retail Noncore			\$47,185			\$202,379
Long Beach	\$382.61	0	\$0	\$21.13	0	\$0
SDG&E	\$382.61	0	\$0	\$21.13	0	\$0
Southwest Gas	\$382.61	0	\$0	\$21.13	0	\$0
Vernon	\$382.61	0	\$0	\$21.13	0	\$0
Ecogas	\$382.61	0	\$0	\$21.13	0	\$0
Total Wholesale			\$0			\$0
UBS	\$382.61	0	\$0	\$21.13	0	\$0
BTS	\$0.00	0	\$0	\$0.00	0	\$0
Total Noncore			\$47,185			\$202,379
Total SoCalGas			\$1,033,374			\$1,121,874

TABLE 11
LRMC COST SCALED REVENUES
SCALED CUSTOMER & DISTRIBUTION COSTS
 \$000's

Customer Class	Customer Cost A	Medium Pressure Distribution B	High Pressure Distribution C	Unscaled LRMC Revenues D=A+B+C	Scalar E	Scaled LRMC Revenues F=D*E
Residential	\$621,358	\$775,507	\$663,195	\$2,060,060	84%	\$1,730,856
Core C/I	\$338,677	\$195,810	\$215,563	\$750,049	84%	\$630,189
Gas A/C	\$0	\$0	\$0	\$0	84%	\$0
Gas Engine	\$11,640	\$748	\$1,592	\$13,979	84%	\$11,745
NGV	\$14,836	\$14,125	\$39,146	\$68,106	84%	\$57,223
Total Core	\$986,510	\$986,189	\$919,495	\$2,892,195	84%	\$2,430,012
Noncore C/I	\$36,902	\$35,883	\$139,436	\$212,222	84%	\$178,308
Small EG	\$10,570	\$7,414	\$17,202	\$35,186	84%	\$29,563
Large EG	\$4,763	\$3,875	\$32,449	\$41,088	84%	\$34,522
EG Transmissio	\$7,543			\$7,543	84%	\$6,338
EOR	\$2,754	\$12	\$13,291	\$16,057	84%	\$13,491
Total Retail No	\$62,532	\$47,185	\$202,379	\$312,095	84%	\$262,221
Long Beach	\$1,423	\$0	\$0	\$1,423	84%	\$1,196
SDG&E	\$3,359	\$0	\$0	\$3,359	84%	\$2,822
Southwest Gas	\$875	\$0	\$0	\$875	84%	\$735
Vernon	\$752	\$0	\$0	\$752	84%	\$632
Ecogas	\$167	\$0	\$0	\$167	84%	\$140
Total Wholesale	\$6,576	\$0	\$0	\$6,576	84%	\$5,525
UBS	\$0	\$0	\$0	\$0	84%	\$0
BTS	\$0	\$0	\$0	\$0	84%	\$0
Total Noncore	\$69,108	\$47,185	\$202,379	\$318,671	84%	\$267,747
Total SoCalG	\$1,055,618	\$1,033,374	\$1,121,874	\$3,210,866	84%	\$2,697,759
Calculation of Scalar: Scalar = [Base Margin - Transmission - Storage -Uncollectibles-NGV Compression Adder] / [Unscaled Customer + Distribution] Scalar = 2,697,759 divided by 3,210,866						

TABLE 12
ALLOCATION OF BASE MARGIN
\$000's

Customer Class	Scaled LRMC Revenues	Uncollect	BTS	Local Transmission	NGV Public Access	Storage	Allocated Base Margin
	A	B	C	D	E	F	G
Residential	\$1,730,856	\$8,563	\$0	\$110,185	\$0	\$173,439	\$2,023,043
Core C/I	\$630,189	\$3,040	\$0	\$32,256	\$0	\$43,406	\$708,891
Gas A/C	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Gas Engine	\$11,745	\$56	\$0	\$202	\$0	\$1,085	\$13,088
NGV	\$57,223	\$332	\$0	\$5,154	\$5,629	\$5,720	\$74,057
Total Core	\$2,430,012	\$11,992	\$0	\$147,798	\$5,629	\$223,649	\$2,819,079
Noncore C/I	\$178,308	\$1,306	\$0	\$34,500	\$0	\$22,757	\$236,872
Small EG	\$29,563	\$157	\$0	\$2,057	\$0	\$1,539	\$33,316
Large EG	\$34,522	\$212	\$0	\$4,245	\$0	\$2,877	\$41,857
EG Transmission	\$6,338	\$807	\$0	\$49,157	\$0	\$29,312	\$85,614
EOR	\$13,491	\$0	\$0	\$2,208	\$0	\$1,561	\$17,261
Retail Noncore	\$262,221	\$2,482	\$0	\$92,168	\$0	\$58,047	\$414,918
Long Beach	\$1,196	\$0	\$0	\$3,229	\$0	\$1,248	\$5,672
SDG&E	\$2,822	\$0	\$0	\$31,772	\$0	\$32,583	\$67,177
Southwest Gas	\$735	\$0	\$0	\$3,819	\$0	\$1,316	\$5,870
Vernon	\$632	\$0	\$0	\$1,725	\$0	\$1,251	\$3,608
Ecogas	\$140	\$0	\$0	\$2,827	\$0	\$2,035	\$5,002
Total Wholesale	\$5,525	\$0	\$0	\$43,371	\$0	\$38,433	\$87,330
UBS	\$0	\$0	\$0	\$0	\$0	\$35,508	\$35,508
BTS			\$502,896				\$502,896
Total Noncore	\$267,747	\$2,482	\$502,896	\$135,539	\$0	\$131,988	\$1,040,652
Total SoCalGas	\$2,697,759	\$14,474	\$502,896	\$283,337	\$5,629	\$355,636	\$3,859,731
NCCI-D	\$176,753	\$1,018	\$0	\$18,079	\$0	\$11,935	\$207,785
EOR-D	\$12,444	\$0	0	\$1,592	0	\$1,126	\$15,161
EG-D T1	\$29,563	\$157	\$0	\$2,057	\$0	\$1,539	\$33,316
EG-D T2	\$34,522	\$212	\$0	\$4,245	\$0	\$2,877	\$41,857
TLS	\$14,465	\$1,095	\$0	\$109,566	\$0	\$79,004	\$204,129
Total	\$85,630	\$1,790	\$0	\$163,134	\$0	\$88,293	\$338,847

TABLE 13
COST ALLOCATION COMPARISON
\$000's

Customer Class	Proposed Allocation of Base Margin		Current Allocation of Base Margin	
	% Total		% Total	
	A	B	C	D
Residential	\$2,023,043	52.4%	\$2,280,942	62.3%
Core C/I	\$708,891	18.4%	\$538,916	14.7%
Gas A/C	\$0	0.0%	\$61	0.0%
Gas Engine	\$13,088	0.3%	\$12,599	0.3%
NGV	\$74,057	1.9%	\$40,058	1.1%
Total Core	\$2,819,079	73.0%	\$2,872,577	78.5%
Noncore C/I	\$236,872	6.1%	\$143,801	3.9%
Small EG	\$33,316	0.9%	\$22,702	0.6%
Large EG	\$41,857	1.1%	\$20,771	0.6%
EG Transmissio	\$85,614	2.2%	\$61,354	1.7%
EOR	\$17,261	0.4%	\$10,281	0.3%
Total Retail Ne	\$414,918	10.7%	\$258,910	7.1%
Long Beach	\$5,672	0.1%	\$5,285	0.1%
SDG&E	\$67,177	1.7%	\$59,347	1.6%
Southwest Gas	\$5,870	0.2%	\$4,417	0.1%
Vernon	\$3,608	0.1%	\$3,576	0.1%
Ecogas	\$5,002	0.1%	\$4,234	0.1%
Total Wholesa	\$87,330	2.3%	\$76,859	2.1%
UBS	\$35,508	0.9%	\$30,850	0.8%
BTS	\$502,896	13.0%	\$422,225	11.5%
Total Noncore	\$1,040,652	27.0%	\$788,844	21.5%
Total SoCalG	\$3,859,731	100.0%	\$3,661,421	100.0%

SoCalGas 2027 CAP

Section 3 LRMC Studies - O&M Loader

SCG 2027 TAP
LRMC O&M Loader Model

Output

	Output	Source
Marginal A&G/Payroll Taxes Loading Factor as a % of O&M expenses	46.92%	A&G
General Plant Loading Factor as a % of O&M expenses	44.95%	Gen Plant
Customer Related Distribution M&S Costs 2024\$000/yr	\$5,190,779	M&S
Demand Related Distribution M&S Costs 2024\$000/yr	\$5,628,083	M&S
2021-27 Factor: Capital Plant	1.3292	Escalation Factors
2021-27 Factor: O&M	1.1449	Escalation Factors
2021-27 Factor: Capital Meter	1.3476	Escalation Factors
2021-27 Factor: Capital Service	1.2256	Escalation Factors

Input from EC Model:

Transmission A&G	\$87.718	EC Study
Storage A&G	\$44.809	EC Study
Total A&G	\$739.316	EC Study
Transmission General Plant Return	\$7.094	EC Study
Transmission Gen Plant Dep	\$31.547	EC Study
Transmission Gen Plant Taxes	\$1.130	EC Study
Storage General Plant Return	\$3.624	EC Study
Storage Gen Plant Dep	\$16.115	EC Study
Storage Gen Plant Taxes	\$0.577	EC Study
Total Gen Plant Return	\$59.789	EC Study
Total Gen Plant Dep	\$265.885	EC Study
Total Gen Plant Taxes	\$9.523	EC Study

18-Jul

2027 CAP A&G LOADER ANALYSIS
O&M Costs Used in A&G Loader

		2024 Recorded Costs (\$)	source:
1. Total O&M		3,825,415,245	FERC Form 2 line no 271, page 325 less page 335, line 1
2. Total Production Expenses (incl Purchased Gas cost)		1,531,137,040	FERC Form 2 line no 97, page 320
3. Total Transmission Expenses	1/	257,293,952	FERC Form 2 line no 201, page 323
4. Total Storage Expenses	1/	102,333,281	FERC Form 2 line no 125, page 321
5. Total A&G Expenses		802,647,735	FERC Form 2 line no 270, page 325, less page 335, line 1
6. Exclusions	2/	371,721,638	From Regulatory Accounting
7.			
8. Subtotal of Costs removed from O&M		3,065,133,646	
9. Net O&M		<u>760,281,599</u>	

Notes:

- 1/ Transmission and Storage expenses removed from A&G loader, because SoCalGas proposes to separately scale transmission and storage costs to embedded transmission and storage cost.
- 2/ Exclusions E all costs below that are not part of authorized base margin.
- 3/ Exclude Part of Transmission expenses

Rows (1) through (7) contain data from FERC Form 2 for 2021, pages 320-325

Row (8) = Sum [Row (2) : Row (7)]

Row (9) = Row (1) - Row (8)

Exclusions	Balancing Account Exclusions Balancing Account Exclusions	TIMPBA, NERBA, LIPBA, PBA TIMPBA, NERBA, LIPBA, PBA
Title of Account		
870 Dist Op-Supervision & Engineering	14,001,512	1,403,707
874 Dist Op-Mains & Services Expenses	5,325,401	66,876
875 Dist Op-Meas & Reg Station Expenses General	0	0
878 Dist Op-Meter & House Regulator Expenses	0	0
879 Dist Op-Customer Installations Expenses	-1,182,642	0
880 Dist Op-Other Expenses (GRC Ex Haz Waste)	1,741,661	2,696,968
881 Dist Op-Rents	0	0
885 Dist Mnt-Supervision & Engineering	29,057	0
886 Maintenance of Structures and Improvements	0	576
887 Dist Mnt-Mains	27,091,889	5,468,307
888 Maintenance of Compressor Station Equipment	64,399	3,496,453
889 Dist Mnt-Meas & Reg Station Equipment General	0	0
892 Dist Mnt-Services	3,027,842	0
893 Dist Mnt-Meters & House Regulators	0	0
894 Dist Mnt-Other Equipment	0	0
901 Cus Acct-Supervision (GRC Ex CARE)	7,713,272	0
902 Cus Acct-Meter Reading Expenses	0	0
903 Cus Acct-Customer Records & Collections Exp	880,895	0
904 Cus Acct-Uncollectible Accounts	-203,585	0

TABLE 2
A&G and Payroll Taxes Loading Factor

SOUTHERN CALIFORNIA GAS COMPANY

DESCRIPTION	2027 TCAP (\$)	source
1. Total Marginal A&G Costs	\$295,808,132	A&G 1 tab
2. Total Payroll Taxes	60,908,328	(SS + Fed&CA
3. Marginal A&G and Payroll Taxes	356,716,460	Row 1 + Row 2
4. Net O&M Costs	760,281,599	O&M Costs tab
5. Marginal A&G/Payroll Taxes Loading Factor	46.92%	Row 3 / Row 4
6. Transmission and Storage adjustment	17.93%	EC study
Notes:		
Data Source: FERC Form 2		
Fed. Unemployment Insurance Tax	395,567	FERC Form 2, p. 263a (SS + Fed&CA L
Social Security Tax	83,560,954	FERC Form 2, p. 263a (SS + Fed&CA L
State Unemployment Insurance Tax	1,050,813	FERC Form 2, p. 263a (SS + Fed&CA L
Total	85,007,334	

Tab = A&G

2027 CAP Phase II A&G LOADER ANALYSIS
Marginal vs Non-marginal Summary

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Account Title	PUC Account	Marginal Cost	Marginal Portion of Total	Non-Marginal Cost	Non-Marginal Portion of Total	Total Cost	2024 Recorded Total Cost Per FERC Form 2	Source
		(\$)	(%)	(\$)	(%)	(\$)	(\$)	
1. A&G Salaries	920	\$64,822	0.01%	\$94,289,343	12.68%	\$94,354,165	94,354,165	FERC Form 2 line no 254, page 325
2. Office Supplies and Exp	921	1,007,830	0.14%	33,972,585	4.57%	34,980,414	34,980,414	FERC Form 2 line no 255, page 325
3. Admin Expenses Transferred	922	0	0.00%	(11,293,780)	-1.52%	(11,293,780)	(11,293,780)	FERC Form 2 line no 256, page 325
4. Outside Services Employed	923	0	0.00%	207,437,112	27.89%	207,437,112	207,437,112	FERC Form 2 line no 257, page 325
5. Property Insurance	924	7,469,467	1.00%	0	0.00%	7,469,467	7,469,467	FERC Form 2 line no 258, page 325
6. Injuries and Damages	925	76,686,443	10.31%	0	0.00%	76,686,443	76,686,443	FERC Form 2 line no 259, page 325
7. Employee Pensions & Benefits	926	266,684,890	35.86%	0	0.00%	266,684,890	266,684,890	FERC Form 2 line no 260, page 325
8. Regulatory Commission Expenses	928	0	0.00%	7,680,497	1.03%	7,680,497	7,680,497	FERC Form 2 line no 262, page 325
9. Misc General Expenses	930	22,239	0.00%	2,160,806	0.29%	2,183,045	2,183,045	FERC Form 2 line no 265, page 325 les
10. Rents	931	5,302,590	0.71%	16,911,219	2.27%	22,213,809	22,213,809	FERC Form 2 line no 266, page 325
11. Maintenance of Gen Plant	932	35,338,263	4.75%	0	0.00%	35,338,263	35,338,263	FERC Form 2 line no 269, page 325
12. Total		<u>392,576,544</u>	52.78%	<u>351,157,782</u>	47.22%	<u>743,734,326</u>	<u>743,734,325</u>	

Pensions and benefits on non-marginal A&G labor	(23,100,889)	23,100,889	<== The Pension & Benefits OH Planning Rate for 2024 is 24.50%
Pensions and benefits on exclusions	(9,060,938)	9,060,938	
	360,414,717	383,319,609	

Payroll Taxes on non-marginal A&G labor	(6,364,531) <= Tax loader on non-marginal labor	6,364,531	The SCG Payroll Tax OH rate for 2024 is 6.75%
Payroll taxes on exclusions	(2,496,381) <= Tax loader on exclusions	2,496,381	

<u>Payroll Tax</u>	<u>P&B</u>	
6.75%	24.50%	
2,496,381	9,060,938	36,983,420 Labor Exclusion

From Reg Accounting.

Color Key: Input Data, Source Data from other tab, calculation
Col (1) & Col (2) account description
Col (3) contains data from 'Marginal - Nonmarginal' tab
Col (4) = Col (3) / Col (7)
Col (5) contains data from 'Marginal - Nonmarginal' tab
Col (6) = Col (5) / Col (7)
Col (7) = Col (3) + Col (5)
Col (8) data from FERC Form 2 for 2024

(1)	(2)	(3)	(4)	(5)	(6)	(7) (5) + (6)	(8)	(9)
FERC Cost Center Description	PUC Account Number	FERC Account No.	Marginal Y/N	2024 Recorded Costs Direct (\$)	Reassigned (\$)	Total (\$)	Marginal (\$)	Non-Marginal (\$)
1. BLDG OPER OTH THAN CLEANING SV	920	920.601	Y	\$ -	\$ 64,739	\$ 64,739	\$ 64,739	\$ -
2. PROCUREMENT & LOGISTICS CONSULT	920	920.630	Y	-	-	-	-	-
3. REAL ESTATE	920	920.604	Y	-	-	-	-	-
4. BUILDING CLEANING SERVICES	920	920.600	Y	-	82	82	82	-
5. RETURN TO WORK EXAMINATIONS	920	920.212	Y	-	-	-	-	-
6. SUPPLIER MANAGEMENT	920	920.632	Y	-	-	-	-	-
ACCOUNT 920 MARGINAL TOTAL				-	64,822	64,822	64,822	-
7. ADMINISTRATIVE & GENERAL SALARIES	920	920.000	N	68,904,646	8,206,664	77,111,310	-	77,111,310
8. HUMAN RESOURCES OPER SALARIES	920	920.200	N	10,130,076	2,174,250	12,304,326	-	12,304,326
9. REGIONAL AFFAIRS	920	920.570	N	3,821,640	996,970	4,818,610	-	4,818,610
10. END USER SUPPORT COMM	920	920.372	N	-	-	-	-	-
11. COMPUTER END USER SUPPORT	920	920.371	N	-	310	310	-	310
12. REGION MANAGER SALARIES	920	920.047	N	-	-	-	-	-
13. PUBLIC AFFAIRS ADMINISTRATION	920	920.570	N	-	-	-	-	-
14. OPERATE MAINFRAME COMPUTERS GEN	920	920.360	N	-	-	-	-	-
15. STANDARD & CODES	920	920.561	N	-	-	-	-	-
16. INFORMATION SYS GENL SUPERVISION	920	920.301	N	38,834	15,953	54,787	-	54,787
17. INFORMATION SYS ADMIN SUPPORT	920	920.302	N	-	-	-	-	-
18. INFORMATION SYSTEMS	920	920.300	N	-	-	-	-	-
19. GOVERNMENTAL AFFAIRS SALARIES	920	920.560	N	-	-	-	-	-
20. PSEP - A&G SALARIES	920	920.850	N	-	-	-	-	-
21. Reassignment Only	920	920.010	N	-	-	-	-	-
ACCOUNT 920 NON-MARGINAL TOTAL				82,895,196	11,394,148	94,289,343	-	94,289,343
22. BLDG OPER OTH THAN CLEANING SV	921	921.601	Y	910,772	(5,531)	905,241	905,241	-
23. BUILDING CLEANING SERVICES	921	921.600	Y	101,154	746	101,900	101,900	-
24. PROCUREMENT & LOGISTICS CONSULT	921	921.630	Y	-	-	-	-	-
25. REAL ESTATE	921	921.604	Y	591	98	689	689	-
ACCOUNT 921 MARGINAL TOTAL				1,012,516	(4,687)	1,007,830	1,007,830	-
27. ADMINISTRATIVE & GENERAL SALARIES	921	921.000	N	27,367,954	4,447,669	31,815,622	-	31,815,622
28. HUMAN RESOURCES OPER SALARIES	921	921.200	N	189,922	(27,122)	162,800	-	162,800
29. COMPUTER END USER SUPPORT	921	921.371	N	303,039	(42,390)	260,649	-	260,649
30. REGIONAL AFFAIRS	921	921.571	N	256,901	(6,788)	250,112	-	250,112
31. PUBLIC AFFAIRS ADMINISTRATION	921	921.563	N	115	(3)	112	-	112
32. REGION MANAGER SALARIES	921	921.047	N	154	(3)	151	-	151
33. STANDARD & CODES	921	921.561	N	-	-	-	-	-
34. INFORMATION SYS GENL SUPERVISION	921	921.301	N	1,042,187	445,056	1,487,243	-	1,487,243
35. PSEP-A&G OFFICE SUPL	921	921.850	N	(216)	5	(211)	-	(211)
36. FERC B/S ERRORS	921	921.999	N	-	(3,894)	(3,894)	-	(3,894)
ACCOUNT 921 NON-MARGINAL TOTAL				29,160,055	4,812,529	33,972,585	-	33,972,585
37. ADMINISTRATIVE EXPENSES TRANSFERRED-CRED	922	922.000	N	-	(7,541,687)	(7,541,687)	-	(7,541,687)
38. HR-CAP A&G TRANS CR	922	922.200	N	-	(2,722,237)	(2,722,237)	-	(2,722,237)
39. IS GEN SUP-CAP AG CR	922	922.301	N	-	(6,421)	(6,421)	-	(6,421)
40. PA ADM-CAP A&G TR CR	922	922.563	N	-	(40)	(40)	-	(40)
41. REG AF-CAP A&G TR CR	922	922.570	N	-	(1,020,020)	(1,020,020)	-	(1,020,020)
42. BLD CLNG-CP AG TR CR	922	922.600	N	-	(3,374)	(3,374)	-	(3,374)
43. RE - CAP A&G TRN CR	922	922.604	N	-	-	-	-	-
ACCOUNT 922 NON-MARGINAL TOTAL				-	(11,293,780)	(11,293,780)	-	(11,293,780)
44. OUTSIDE SERVICES EMPLOYED	923	923.000	N	52,089,941	155,347,171	207,437,112	-	207,437,112
45. PSEP -OUTSIDE SERVICES	923	923.850	N	-	-	-	-	-
ACCOUNT 923 NON-MARGINAL TOTAL				52,089,941	155,347,171	207,437,112	-	207,437,112

2027 CAP A&G LOADER ANALYSIS
2024 RECORDED COSTS

(1)	(2)	(3)	(4)	(5)	(6)	(7) (5) + (6)	(8)	(9)
FERC Cost Center Description	PUC Account Number	FERC Account No.	Marginal Y/N	2024 Recorded Costs Direct	Reassigned	Total	Marginal	Non-Marginal
46. INSURANCE EXPENSE	924	924.000	Y	6,868,010	601,458	7,469,467	7,469,467	-
ACCOUNT 924 MARGINAL TOTAL				6,868,010	601,458	7,469,467	7,469,467	-
47. INJURIES AND DAMAGES	925	925.000	Y	(53,370,957)	54,804,193	1,433,237	1,433,237	-
48. ACCIDENT PREV & SAFE	925	925.160	Y	8,190,920	2,034,765	10,225,685	10,225,685	-
49. A&G EMERGENCY PREP	925	925.180	Y	4,509,261	1,209,279	5,718,539	5,718,539	-
50. COLL WORKERS COMP	925	925.300	Y	20,736,641	(9,400,400)	11,336,240	11,336,240	-
51. COLL PLPD	925	925.310	Y	61,923,319	(13,952,577)	47,970,742	47,970,742	-
52. PSEP - INJUR & DAMAG	925	925.850	Y					-
ACCOUNT 925 MARGINAL TOTAL				41,991,183	34,695,260	76,686,443	76,686,443	-
53. EMPLOYEE PENSIONS AND BENEFITS	926	926.000	Y	6,993,702	83,427,129	90,420,831	90,420,831	-
54. TRANSPORTATION PROGRAM	926	926.239	Y	-	-	-	-	-
55. EMPLOYEE RECOGNITION PROGRAM	926	926.200	Y	5,984,628	(4,902,625)	1,082,004	1,082,004	-
56.	926	926.207	Y	14,416	(14,429)	(14)	(14)	-
57. DISABILITY BENEFIT EXPENSE	926	926.300	Y	247,368,993	(72,186,924)	175,182,069	175,182,069	-
ACCOUNT 926 MARGINAL TOTAL				260,361,739	6,323,150	266,684,890	266,684,890	-
58. BLDG SUPPORT CANTEEN GASCO TWR	926	926.202	N	-	-	-	-	-
ACCOUNT 926 NON-MARGINAL TOTAL				-	-	-	-	-
59. INTERVENOR COMPENSATION	928	928.500	N	1,931,345	-	1,931,345	-	1,931,345
60. REGULATORY COMMISSION EXPENSES	928	928.000	N	5,806,732	142,419	5,749,152	-	5,749,152
ACCOUNT 928 NON-MARGINAL TOTAL				7,538,077	142,419	7,680,497	-	7,680,497
61. DIVISION STATIONERY EXPENSE	930	930.625	Y	5,599	30	5,628	5,628	-
62. DUPLICATING EQUIP DIST & TRANS	930	930.600	Y	16,456	94	16,550	16,550	-
63. PSEP -A&G MISC EXP	930	930.850	Y	9	51	61	61	-
ACCOUNT 930 MARGINAL TOTAL				22,064	175	22,239	22,239	-
64. GENERAL ADVERT EXP	930	930.100	N	1,397,044	630	1,397,673	-	1,397,673
65. MISCELLANEOUS GENERAL EXPENSES	930	930.200	N	(582,335)	2,737,975	2,155,641	-	2,155,641
66. MISC DIV OFFICE EXPENSES	930	930.046	N	5,212	(47)	5,165	-	5,165
ACCOUNT 930 NON-MARGINAL TOTAL				(577,123)	2,737,929	2,160,806	-	2,160,806
67. RENTS DISTRIB AND TRANSM REGIONS	931	931.602	Y	6,722,339	(1,419,749)	5,302,590	5,302,590	-
ACCOUNT 931 MARGINAL TOTAL				6,722,339	(1,419,749)	5,302,590	5,302,590	-
68. GAS COMPANY TOWER RENTS	931	931.600	N	17,609,621	(1,124,749)	16,484,872	-	16,484,872
69. RENTS GENERAL	931	931.000	N	65,157	361,190	426,347	-	426,347
ACCOUNT 931 NON-MARGINAL TOTAL				17,674,778	(763,559)	16,911,219	-	16,911,219
70. BLDG YARD & EQUIP MAINTENANCE	935	935.600	Y	30,201,269	353,968	30,555,236	30,555,236	-
71. MAINTENANCE FURN OFFICE EQUIP	935	935.601	Y	7,149	(144)	7,005	7,005	-
72. MEAS SHOP EQUIP	935	935.675	Y	127,880	(5,987)	121,892	121,892	-
73. GARAGE/FUEL ISLAND MAINTENANCE	935	935.606	Y	3,117,170	113,266	3,230,436	3,230,436	-
74. COMPR MTC CNG VEHICLES	935	935.605	Y	737,124	1,500	738,623	738,623	-
75. TESTRACK MAINTENANCE	935	935.680	Y	-	-	-	-	-
76. MAINTENANCE OF GENERAL PLANT	935	935.000	Y	90,350	594,720	685,070	685,070	-
ACCOUNT 935 MARGINAL TOTAL				34,280,941	1,057,322	35,338,263	35,338,263	-
TOTAL A&G				540,039,718	203,694,608	743,734,326	392,576,544	351,157,782

2027 CAP A&G LOADER ANALYSIS
2024 RECORDED COSTS

FERC Account	TOTAL DIRECT	REASSIGNMENTS	TOTAL COSTS
920.000 Total	\$68,904,646	\$ 8,206,664	\$77,111,310
920.010 Total	\$0	\$ 0	\$0
920.047 Total	\$0	\$ 0	\$0
920.200 Total	\$10,130,076	\$ 2,174,250	\$12,304,326
920.212 Total	\$0	\$ 0	\$0
920.300 Total	\$0	\$ 0	\$0
920.301 Total	\$38,834	\$ 15,953	\$ 54,787
920.302 Total	\$0	\$ 0	\$0
920.360 Total	\$0	\$ 0	\$0
920.371 Total	\$0	\$ 310	\$ 310
920.372 Total	\$0	\$ 0	\$0
920.372 Total	\$0	\$ 0	\$0
920.563 Total	\$0	\$ 0	\$0
920.561 Total	\$0	\$ 0	\$0
920.563 Total	\$0	\$ 0	\$0
920.570 Total	\$3,821,640	\$ 996,970	\$4,818,610
920.600 Total	\$0	\$ 82	\$82
920.601 Total	\$0	\$ 64,739	\$64,739
920.604 Total	\$0	\$ 0	\$0
920.630 Total	\$0	\$ 0	\$0
920.632 Total	\$0	\$ 0	\$0
920.850 Total	\$0	\$ 0	\$ 0
	\$ 82,895,196	\$ 11,458,970	\$ 94,354,165
921.000 Total	\$27,367,954	\$ 4,447,669	\$31,815,622
921.047 Total	\$154	-\$ 3	\$ 151
921.200 Total	\$189,922	-\$ 27,122	\$162,800
921.301 Total	\$1,042,187	\$ 445,056	\$1,487,243
921.371 Total	\$303,039	-\$ 42,390	\$260,649
921.561 Total	\$0	\$ 0	\$0
921.563 Total	\$115	-\$ 3	\$112
921.570 Total	\$256,901	-\$ 6,788	\$250,112
921.600 Total	\$101,154	\$ 746	\$101,900
921.601 Total	\$910,772	-\$ 5,531	\$905,241
921.604 Total	\$591	\$ 98	\$689
921.630 Total	\$0	\$ 0	\$0
921.850 Total	-\$216	\$ 5	(\$211)
921.999 Total	\$0	-\$ 3,894	(\$3,894)
	\$ 30,172,572	\$ 4,807,842	\$ 34,980,414

2027 CAP A&G LOADER ANALYSIS
2024 RECORDED COSTS

FERC Account	TOTAL DIRECT	REASSIGNMENTS	TOTAL COSTS
922.000 Total	\$0	-\$ 7,541,687	(\$7,541,687)
922.200 Total	\$0	-\$ 2,722,237	(\$2,722,237)
922.301 Total	\$0	-\$ 6,421	(\$6,421)
922.563 Total	\$0	-\$ 40	(\$40)
922.570 Total	\$0	-\$ 1,020,020	(\$1,020,020)
922.600 Total	\$0	-\$ 3,374	(\$3,374)
922.604 Total	\$0	\$ 0	\$0
	<u>\$ 0</u>	<u>-\$ 11,293,780</u>	<u>-\$ 11,293,780</u>
<hr/>			
923.000 Total	\$52,089,941	\$ 155,347,171	\$207,437,112
923.850 Total	\$0	\$ 0	\$0
	<u>\$ 52,089,941</u>	<u>\$ 155,347,171</u>	<u>\$ 207,437,112</u>
<hr/>			
924.000 Total	\$6,868,010	\$ 601,458	\$7,469,467
<hr/>			
925.000 Total	(\$53,370,957)	\$54,804,193	\$1,433,237
925.160 Total	\$8,190,920	\$2,034,765	\$10,225,685
925.180 Total	\$4,509,261	\$1,209,279	\$5,718,539
925.300 Total	\$20,738,641	(\$9,400,400)	\$11,338,240
925.310 Total	\$61,923,319	(\$13,952,577)	\$47,970,742
925.850 Total	\$0	\$0	\$0
	<u>\$41,991,183</u>	<u>\$34,695,260</u>	<u>\$76,686,443</u>
<hr/>			
926.000 Total	\$6,993,702	\$83,427,129	\$90,420,831
926.200 Total	\$5,984,628	(\$4,902,625)	\$1,082,004
926.202 Total	\$0	\$0	\$0
926.207 Total	\$14,416	(\$14,429)	(\$14)
926.239 Total	\$0	\$0	\$0
926.300 Total	\$247,368,993	(\$72,186,924)	\$175,182,069
	<u>\$260,361,739</u>	<u>\$6,323,150</u>	<u>\$266,684,890</u>
<hr/>			
928.000 Total	\$5,606,732	\$142,419	\$5,749,152
928.500 Total	\$1,931,345	\$0	\$1,931,345
	<u>\$7,538,077</u>	<u>\$142,419</u>	<u>\$7,680,497</u>
<hr/>			
930.046 Total	\$5,212	(\$47)	\$5,165
930.100 Total	\$1,397,044	\$630	\$1,397,673
930.200 Total	(\$582,335)	\$2,737,975	\$2,155,641
930.600 Total	\$16,456	\$94	\$16,550
930.625 Total	\$5,599	\$30	\$5,628
930.850 Total	\$9	\$51	\$61
	<u>\$841,985</u>	<u>\$2,738,733</u>	<u>\$3,580,718</u>
<hr/>			
931.000 Total	\$65,157	\$361,190	\$426,347
931.600 Total	\$17,609,621	(\$1,124,749)	\$16,484,872
931.602 Total	\$6,722,339	(\$1,419,749)	\$5,302,590
	<u>\$24,397,117</u>	<u>(\$2,183,308)</u>	<u>\$22,213,809</u>
<hr/>			
935.000 Total	\$90,350	\$594,720	\$685,070
935.600 Total	\$30,201,269	\$353,968	\$30,555,236
935.601 Total	\$7,149	(\$144)	\$7,005
935.605 Total	\$737,124	\$1,500	\$738,623
935.606 Total	\$3,117,170	\$113,266	\$3,230,436

2027 CAP A&G LOADER ANALYSIS

2024 RECORDED COSTS

FERC Account	TOTAL DIRECT	REASSIGNMENTS	TOTAL COSTS
935.675 Total	\$127,880	(\$5,987)	\$121,892
935.680 Total	\$0	\$0	\$0
	<u>\$34,280,941</u>	<u>\$1,057,322</u>	<u>\$35,338,263</u>
	<u>\$541,436,761</u>	<u>\$203,695,238</u>	<u>\$745,131,999</u>

Weighted Average RECC Calculation

left

	Account No.	General Plant Accounts	Gas Plant In Service Year End 2024 Balance (\$)	Percent	RECC	Weighted Average RECC	Source
1.	390	Structures and Improvements	251,161,397	17.31%	0.000%	0.000%	FERC Form 2 line no 112, page 209
2.	391	Office Furniture and Equipment					
3.	391.1	Office Furn & Equip-ME & FF	21,164,638	1.46%	8.518%	0.124%	
4.	391.2	Computer Equip	110,262,321	7.60%	11.404%	0.867%	
	391.25	Computer Hardware AMI	0	0.00%	11.404%	0.000%	
5.	391.3	Computer Software 2-4years	93,395,724	6.44%	38.063%	2.450%	
	391.35	Computer Software AMI		0.00%	20.737%	0.000%	
6.	391.4	Computer Software 5-8years	471,838,904	32.52%	20.737%	6.744%	
7.	391.5	Computer Software 9-12years	7,709,295	0.53%	13.872%	0.074%	
8.	391.55	Computer Software 15years	1,294,088	0.09%	10.509%	0.009%	
9.	391.6	Computer Software 20years	1,118,327	0.08%	8.884%	0.007%	
10.	392	Transportation Equipment	1,945,297	0.13%	10.911%	0.015%	FERC Form 2 line no 114, page 209
11.	393	Stores Equipment	310,753	0.02%	24.622%	0.005%	FERC Form 2 line no 115, page 209
12.	394	Tools, Shop, and Garage Equipment	165,890,148	11.43%	8.441%	0.965%	FERC Form 2 line no 116, page 209
13.	395	Laboratory Equipment	10,455,873	0.72%	9.165%	0.066%	FERC Form 2 line no 117, page 209
14.	396	Power Operated Equipment		0.00%	10.911%	0.000%	FERC Form 2 line no 118, page 209
15.	397	Communication Equipment	312,704,694	21.55%	8.994%	1.938%	FERC Form 2 line no 119, page 209
16.	398	Miscellaneous Equipment	1,602,904	0.11%	10.911%	0.012%	FERC Form 2 line no 120, page 209
17.			1,450,854,364	100.00%		13.277%	

Reflects 2024 FERC Form 2 data. RECC factors updated.

Gas Plant updated to 2024 FERC Form 2 data

RECC factors updated to 2024 values

General Plant Loading Factor

	2027 CAP		Sources
1. Total General Plant	\$3,136,448,238		FERC Form 2, page 209, line 121
Transmission and Storage adjustment	17.93%		
Net Total General Plant after Storage adj.	<u>\$2,574,220,338</u>	ck	
1. Weighted Average RECC for General Plant	13.28%		RECC tab
2. Annualized General Plant Costs	\$341,771,103	1 x 2	
3. Net Recorded O&M Costs	\$760,281,599		O&M Expenses tab
4. General Plant Loading Factor	44.95%	3 / 4	
6. Transmission and Storage adjustment	17.93%		EC study

Notes:

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

Reflects 2024 FERC Form 2 data for total General Plant.

Tab = Gen Plant

**2024 FERC Form 2 data
M&S Annual Costs By Function**

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

Line #	Function	Plant	Percent
1	Storage	\$3,136,448,238	12.80%
2	Transmission - Total	\$5,865,793,846	23.93%
3	Distribution - Total	\$15,506,737,837	63.27%
4	Customer Related	\$6,865,145,128	28.01%
5	Load Related	\$8,641,592,709	35.26%
6	General Plant	\$0	0.00%
7	Total	\$24,508,979,921	100.00%

FERC form 2, p. 207, line 57
FERC form 2, p. 209, line 92
from Allocation of Investment tab
from Allocation of Investment tab
from Allocation of Investment tab

II. Total M&S To Be Functionalized

8	Total Material and Supplies	\$141,545,646
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2024 FERC Year end M&S value from Selected Financial Data
(from Net Plant Investment Page 1 of 2, Line 13)

III. Functional Allocation of M&S

9	Storage	\$18,113,793	12.80%
10	Transmission - Total	\$33,876,464	23.93%
11	Distribution - Total	\$89,555,389	63.27%
12	Customer Related	\$39,647,974	28.01%
13	Load Related	\$49,907,415	35.26%
14	General Plant	\$0	0.00%
15	Total	\$141,545,646	100.00%

16	IV. M&S Annual Cost factor	9.85%
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from Annual Cost Factor tab, check with one correct

V. M&S Annual Costs

		2024 \$		2027 \$
17	Storage	\$1,784,209	12.80%	\$2,371,488
18	Transmission - Total	\$3,336,832	23.93%	\$4,435,163
19	Distribution - Total	\$8,821,206	63.27%	\$11,724,741
20	Customer Related	\$3,905,325	28.01%	\$5,190,779
21	Load Related	\$4,915,880	35.26%	\$6,533,962
22	General Plant	\$0	0.00%	\$0
23	Total	\$13,942,246	100.00%	\$18,531,392

@ O&M Escalation 2021 to 2024

1.145 **\$5,628,083**

*escalated by capital factor: 2021\$ to 2027\$ 1.329
Updated to FERC Form 2 data for 2024

Updated to FERC Form 2 data for 2024

Tab = M&S

2027 CAP Phase M&S Annual Costs By Function
Allocation of 2024 Distribution Plant Investment

Customer Related

		\$	Percent
1.	380 Services	4,373,523,393	
2.	381 Meters	1,067,324,517	
3.	382 Meter Installations	740,022,591	
4.	383 House Regulators	210,515,080	
5.	386 Other Property on Customer Premise	0	
6.	Sub-Total	6,391,385,581	44.27%
	388 ARO - Customer Related	473,759,547	
	Customer Related Total	6,865,145,128	

Load Related

		\$	Percent
7.	374 Land & Land Rights	33,526,188	
8.	375 Structures & Improvements	456,731,761	
9.	376 Mains	7,233,727,883	
10.	378 Measurement & Reg Stations	240,644,606	
11.	387 Other Equipment	80,611,142	
12.	Sub-Total	8,045,241,580	55.73%
	388 ARO - Load Related	596,351,129	
	Load Related Total	8,641,592,709	

13.	Total Distribution Plant	15,506,737,837	100.000%
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FERC Form 2, p. 208-9

15,506,737,837 p. 209, line 109

0 <== Difference from Rounding

2027 CAP M&S Annual Costs By Function
Development of Material & Supplies Annual Cost Factor

	<u>Capital Structure</u>	<u>Cost</u>	<u>Weighted Cost</u>	<u>Tax Factor</u>	<u>Pre-Tax Wt. Cost</u>
1. Long Term Debt	45.60%	4.54%	2.07%	1.00000	2.07%
2. Preferred Stock	2.40%	6.00%	0.14%	1.38857	0.20%
3. Common Equity	52.00%	10.50%	5.46%	1.38857	7.58%
4.			7.670%		9.85%

sources:
COC
Finance Dept.

SOUTHERN CALIFORNIA

2024 Economic Assumptions Update LEVELIZED ANNUAL CAPI

utility social

Auth ROR ==> 7.50%

Fed Tax Rate ==> 21.00%

FERC Account	Account Name
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Book Life	Fed Tax Life	State Tax Life	Percent Salvage	Normlzd Federal Taxes ?	Normlzd State Taxes ?	Depreciation Method			
						Federal Tax		State Tax	

GAS GENERAL PLANT

G-391.5 Software Programs - 10yr ASL
 G-391.55 Software Programs - 15yr ASL
 G-391.6 Software Programs - 20yr ASL
 G-391.3 Software Programs - 3yr ASL
 G-391.4 Software Programs - 6yr ASL

10	3	3	0%	TRUE	FALSE	sl	0%	db/sl	0%
15	3	3	0%	TRUE	FALSE	sl	0%	db/sl	0%
20	3	3	0%	TRUE	FALSE	sl	0%	db/sl	0%
3	3	3	0%	TRUE	FALSE	sl	0%	db/sl	0%
6	3	3	0%	TRUE	FALSE	sl	0%	db/sl	0%

GAS

TOTAL COST AND RECC FACTORS

State Tax Rate ==> 8.84% d Valorum Rate ==> 1.478%

LACC Components (in percent)					RECC Factors	PVCC Factors	Sum of Rev Req
Book Depr	Return on Capital	Income Taxes	Property Taxes	Total LACC			
10.00	3.71	0.81	0.67	15.19	13.87	103.47	148.05
6.67	3.82	0.79	0.73	12.01	10.51	104.88	170.84
5.00	3.96	0.80	0.77	10.54	8.88	106.01	193.63
33.33	3.96	1.15	0.46	38.90	38.06	100.86	116.14
16.67	3.71	0.90	0.59	21.86	20.74	102.08	129.82

SOUTHERN CALIFORNIA GAS

2024 Economic Assumptions Update LEVELIZED ANNUAL CAPITAL COST AND RECC FACTORS

utility ☒ **socal**

Auth ROR ==> 7.67%

Fed Tax Rate ==> 21.00%

State Tax Rate ==> 8.84% 1 Valorum Rate ==>

1.303%

FERC Account		Account Name		Book Life	Fed Tax Life	State Tax Life	Percent Salvage	Normlzd Federal Taxes ?	Normlzd State Taxes ?	Depreciation Method		LACC Components (in percent)					RECC Factors	PVCC Factors	Sum of Rev Req		
										Federal Tax	State Tax	Book Depr	Return on Capital	Income Taxes	Property Taxes	Total LACC					
GAS UNDERGROUND STORAGE				9	10	11	12	13	14	15		16		19	20	21	22	23	25	26	27
G-352	Wells	49	15	22	-70%	TRUE	FALSE	db/sl	150%	db/sl	200%	3.47	4.13	1.07	0.73	9.40	6.97	119.28	228.01		
G-353	Lines	54	15	22	-40%	TRUE	FALSE	db/sl	150%	db/sl	200%	2.59	4.73	1.19	0.86	9.38	6.87	119.94	288.81		
G-354	Compressor Station Equipment	41	15	22	-15%	TRUE	FALSE	db/sl	150%	db/sl	200%	2.80	4.77	1.21	0.87	9.65	7.32	119.70	283.44		
G-356	Purification Equipment	39	15	22	-30%	TRUE	FALSE	db/sl	150%	db/sl	200%	3.33	4.45	1.14	0.79	9.72	7.43	119.56	258.93		
GAS TRANSMISSION PLANT																					
G-365.1	Land	0	0	0	0%	FALSE	FALSE	none	0%	none	0%	0.00	7.67	2.23	1.30	11.21	n/a	146.06	1153.21		
G-365.2	Land Rights	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	sl	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A		
G-366	Structures & Improvements	47	39	45	-40%	TRUE	FALSE	sl	0%	db/sl	0%	2.98	5.00	1.50	0.82	10.30	7.67	130.04	294.92		
G-367	Mains	64	15	22	-60%	TRUE	FALSE	db/sl	150%	db/sl	200%	2.50	4.72	1.19	0.86	9.28	6.69	119.90	271.07		
G-368	Compressor Station Equipment	50	15	22	-15%	TRUE	FALSE	db/sl	150%	db/sl	200%	2.30	4.99	1.25	0.92	9.46	6.99	120.21	318.28		
G-369	Measuring & Regulating Equipment	46	15	22	-50%	TRUE	FALSE	db/sl	150%	db/sl	200%	3.26	4.34	1.11	0.77	9.49	7.09	119.54	252.59		
G-371	Other Equipment	21	15	22	-10%	TRUE	FALSE	db/sl	150%	db/sl	200%	5.24	4.34	1.18	0.73	11.49	9.62	118.07	207.38		
GAS DISTRIBUTION PLANT																					
G-374.1	Land	0	0	0	0%	FALSE	FALSE	none	0%	db/sl	0%	0.00	7.67	2.23	1.30	11.21	n/a	146.06	1153.21		
G-374.2	Land Rights	40	40	40	0%	FALSE	FALSE	sl	0%	db/sl	0%	2.50	5.50	1.60	0.92	10.51	8.01	129.92	323.23		
G-375	Structures & Improvements	40	39	45	-10%	TRUE	FALSE	sl	0%	db/sl	0%	2.75	5.31	1.58	0.88	10.52	8.01	129.98	310.59		
G-376	Mains	68	20	35	-80%	TRUE	FALSE	db/sl	150%	db/sl	200%	2.65	4.71	1.30	0.83	9.49	6.80	122.83	234.45		
G-378	Measuring & Regulating Equipment	47	20	35	-95%	TRUE	FALSE	db/sl	150%	db/sl	200%	4.15	3.80	1.10	0.63	9.67	7.21	122.15	193.11		
G-380	Services	67	20	35	-115%	TRUE	FALSE	db/sl	150%	db/sl	200%	3.21	4.27	1.21	0.74	9.43	6.77	122.02	149.84		
G-381	Meters	25	20	35	5%	TRUE	FALSE	db/sl	150%	db/sl	200%	3.80	4.91	1.44	0.84	10.99	8.97	120.62	235.78		
G-382	Meter & Regulator Installations	30	20	35	-10%	TRUE	FALSE	db/sl	150%	db/sl	200%	3.67	4.70	1.33	0.81	10.51	8.35	122.07	249.14		
G-383	House Regulators	33	20	35	5%	TRUE	FALSE	db/sl	150%	db/sl	200%	2.88	5.07	1.42	0.89	10.26	8.04	122.07	274.07		
G-387	Other Equipment	21	20	35	5%	TRUE	FALSE	db/sl	150%	db/sl	200%	4.52	4.84	1.46	0.81	11.64	9.75	119.59	216.63		
GAS GENERAL PLANT																					
G-390	Structures & Improvements	33	39	45	-15%	TRUE	FALSE	sl	0%	db/sl	0%	3.48	5.05	1.53	0.81	10.88	8.52	129.38	276.54		
G-391.1	Office Furniture & Equipment	14	7	10	0%	TRUE	FALSE	db/sl	200%	db/sl	200%	7.14	4.03	1.04	0.71	12.93	11.40	108.64	169.65		
G-391.2	Computer Equipment	5	5	6	0%	TRUE	FALSE	db/sl	200%	db/sl	200%	20.00	3.98	1.16	0.56	25.70	24.62	103.50	126.80		
G-393	Stores Equipment	20	20	35	0%	TRUE	FALSE	db/sl	150%	db/sl	200%	5.00	4.71	1.42	0.77	11.91	10.04	119.81	210.55		
G-394.1	Shop & Garage Equipment	29	20	35	0%	TRUE	FALSE	db/sl	150%	db/sl	200%	3.45	4.88	1.40	0.85	10.57	8.44	121.61	251.63		
G-394.3	Large Portable Tools	24	20	35	0%	TRUE	FALSE	db/sl	150%	db/sl	200%	4.17	4.78	1.40	0.81	11.16	9.16	120.73	228.83		
G-395	Laboratory Equipment	25	20	35	0%	TRUE	FALSE	db/sl	150%	db/sl	200%	4.00	4.80	1.40	0.82	11.01	8.99	120.93	233.39		
G-397	Communications Equipment	15	7	10	0%	TRUE	FALSE	db/sl	200%	db/sl	200%	6.67	4.05	1.03	0.73	12.47	10.91	108.90	174.21		
G-398	Miscellaneous Equipment	20	20	35	0%	TRUE	FALSE	db/sl	150%	db/sl	200%	5.00	4.71	1.42	0.77	11.91	10.04	119.81	210.55		
G-391.5	Software Programs - 10yr ASL	10	3	3	0%	TRUE	FALSE	sl	0%	db/sl	0%	10.00	3.71	0.81	0.67	15.19	13.87	103.47	148.05		
G-391.55	Software Programs - 15yr ASL	15	3	3	0%	TRUE	FALSE	sl	0%	db/sl	0%	6.67	3.82	0.79	0.73	12.01	10.51	104.88	170.84		
G-391.6	Software Programs - 20yr ASL	20	3	3	0%	TRUE	FALSE	sl	0%	db/sl	0%	5.00	3.96	0.80	0.77	10.54	8.88	106.01	193.63		

Capital and O&M Escalators					
Plant	2021 \$s	to	2027 \$s	Factor: Capital	1.3292
Meter	2021 \$s	to	2027 \$s	Factor: Meter	1.3476
Service	2021 \$s	to	2027 \$s	Factor: Service	1.2256
	2021 \$s	to	2027 \$s	Factor: O&M	1.1449

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

factor used to escalate 2024 FERC Form 2 data to 2027 \$

		<u>Labor</u>	<u>Nonlabor</u>
Split Factors			
2024	32.20%	67.80%	
		\$millions	
		2024	
Total Salaries & Wages		1,232	Source: December 31, 2024 FERC Form 2, page 355, line 77
Total Gas O&M Exp.		3,825	Source: December 31, 2024 FERC Form 2, page 325, line 271

Cost Escalators, for use in SoCalGas 2027

	Non-L O&M=	Labor O&M=	Gas Plant=	Meters	Plastic Services
	JGTOTALMS	CEU4422000008	JUG@PCF	JUGPDMT@PCF	JUGPDSVP@PCF
1997	0.590411	0.514759	0.327182	0.403926	0.483804
1998	0.511544	0.473337	0.243563	0.307988	0.432745
1999	0.518350	0.485402	0.249258	0.299739	0.441836
2000	0.534539	0.501359	0.258304	0.317024	0.448503
2001	0.544367	0.519667	0.261822	0.328809	0.458806
2002	0.552549	0.527911	0.267182	0.316631	0.474565
2003	0.570517	0.545760	0.276060	0.302881	0.484868
2004	0.589623	0.564343	0.317938	0.287246	0.500626
2005	0.616299	0.587811	0.373050	0.291175	0.526082
2006	0.637803	0.603823	0.388293	0.309245	0.549113
2007	0.656293	0.614180	0.380923	0.354029	0.568265
2008	0.685789	0.635297	0.429032	0.393628	0.601842
2009	0.678346	0.649583	0.424342	0.401485	0.630086
2010	0.689079	0.661905	0.442567	0.398028	0.645844
2011	0.710755	0.679202	0.484445	0.402742	0.667663
2012	0.721680	0.696445	0.522839	0.421912	0.690331
2013	0.732400	0.711135	0.519790	0.454126	0.702756
2014	0.744041	0.724099	0.525486	0.548801	0.720332
2015	0.745268	0.749550	0.518115	0.590835	0.736393
2016	0.749827	0.778343	0.516608	0.630905	0.756091
2017	0.765038	0.798101	0.544247	0.707509	0.774880
2018	0.786638	0.810037	0.576409	0.762114	0.788820
2019	0.801292	0.813361	0.594196	0.809958	0.809806
2020	0.799693	0.847607	0.631327	0.764174	0.828149
2021	1.000000	1.000000	1.000000	1.000000	1.000000
2022	1.106388	1.056098	1.162679	1.129649	1.052378
2023	1.140192	1.107385	1.345070	1.219104	1.091673
2024	1.166894	1.134423	1.360154	1.314851	1.137101
2025	1.186792	1.172207	1.323136	1.352589	1.169641
2026	1.207422	1.208936	1.318981	1.362759	1.204351
2027	1.226343	1.247625	1.329154	1.347626	1.225555
2028	1.245053	1.283604	1.342257	1.349034	1.236039
2029	1.270494	1.321237	1.362937	1.369787	1.244753
2030	1.297063	1.359541	1.384987	1.387439	1.256813

Values from EC study

Transmission and Storage

EC study allocation of A&G and Gen Plant to transmission and storage function

A&G

<u>Transmission</u>	<u>Storage</u>	<u>Total</u>	
87.7	44.8	739.3	
11.86%	6.06%		% A&G allocated to Tran/Storage

Gen Plant

<u>Transmission</u>	<u>Storage</u>	<u>Total</u>	
7.094	3.624	59.789	Gen Plant Return
31.547	16.115	265.885	Gen Plant Depreciation
1.130	0.577	9.523	Gen Plant Taxes
39.770	20.316	335.196	
11.86%	6.06%		% Gen Plant allocated to Tran/Storage

Tab = EC data

Real Economic Carry Charge (RECC) Factors		
FERC Account	Account Name	RECC Factors
G-376	Mains	8.0%
G-378	Measuring & Regulating Equipment	8.0%
G-380	Services	6.8%
G-381	Meters	7.2%
G-382	Meter Installations	6.8%
G-383	House Regulators	9.0%

TABLE 6
A&G Loading Factor

Total Marginal A&G Costs \$000's	\$295,808
+ Total Payroll Taxes \$000	<u>\$60,908</u>
= Marginal A&G and Payroll Taxes \$000	\$356,716
/ Net O&M Costs \$000	\$760,282
= Marginal A&G Loading Factor as a % of O&M	46.92%

TABLE 7
General Plant Loading Factor

Total General Plant \$000	\$2,574,220
* Weighted Average RECC for General Plant	13.28%
= Annualized General Plant Costs	\$341,771
/ Net Recorded O&M Costs \$000	\$760,282
= General Plant Loading Factor as a % of O&M	44.95%

TABLE 8
M&S Annual Costs

Function	
Customer Related \$000	\$5,191
Load Related \$000	\$5,628
Total	\$10,819

Base Year	2024
Test Year	2027

**SOUTHERN CALIFORNIA GAS COMPANY
2027 CAP**

**Section 1
Long Run Marginal Customer Cost Model**

**Workpapers to the Prepared Written Testimony of
Marjorie Schmidt-Pines**

SCG 2027 CAP
LRMC Customer Cost/Rental Method
RD Format

Corrected		Residential	CCI	G-AC	G-GEN	NGV	Total Core
	<u>Marginal Customer Unit Cost @ various LRMC Allocation Methods</u>						
1	Customer Cust \$/Cust/Year Rental Method	\$106.32	\$1,679.16		\$19,294.39	\$38,040.62	
2	Customer Cost \$/Cust/Year NCO Method	\$108.87	\$694.24		\$6,959.46	\$30,920.04	
3	Customer Cost \$/Cust/Year NCO Method w/Replacement Cost	\$253.57	\$987.71		\$11,656.87	\$33,379.84	

1			
2	<u>Input from O&M Loader Model:</u>		
3	Marginal A&G/Payroll Taxes Loading Factor as a % of O&M expenses	46.92%	SCG LRMC O&M Loaders
4	General Plant Loading Factor as a % of O&M expenses	44.95%	SCG LRMC O&M Loaders
5	Annualized Distribution Customer Related Costs \$000/yr	\$5,190,779	SCG LRMC O&M Loaders
6			
7	2021-27 Factor: Capital General Plant	1.3292	SCG LRMC O&M Loaders
8	2021-27 Factor: O&M	1.1449	SCG LRMC O&M Loaders

File = SCG 2027CAP LRMC Customer Costs

Tab = RD Format

SCG 2027 CAP
LRMC Customer Cost/Rental Method
RD Format

Corrected		NCCI	EG Tier 1	EG Tier 2	EOR	Total Retail NonCore	Long Beach	SDG&E	South West Gas	Vernon
	<u>Marginal Customer Unit Cost @ various LRMC Allocation Methods</u>									
1	Customer Cust \$/Cust/Year Rental Method	\$73,509.72	\$35,829.76	\$207,105.74	\$100,038.45		\$1,423,463.27	\$3,358,783.18	\$875,029.00	\$751,991.38
2	Customer Cost \$/Cust/Year NCO Method	\$20,102.93	\$22,217.63	\$28,327.74	\$26,207.01		\$183,864.62	\$172,611.25	\$227,861.02	\$132,978.03
3	Customer Cost \$/Cust/Year NCO Method w/Replacement Cost	\$30,472.60	\$26,033.80	\$60,029.42	\$36,788.29		\$850,573.39	\$1,886,269.75	\$575,935.43	\$465,909.68

- 1
- 2 **Input from O&M Loader Model:**
- 3 Marginal A&G/Payroll Taxes Loading Factor as a % of O&M expenses
- 4 General Plant Loading Factor as a % of O&M expenses
- 5 Annualized Distribution Customer Related Costs \$000/yr
- 6
- 7 2021-27 Factor: Capital General Plant
- 8 2021-27 Factor: O&M

File = SCG 2027CAP LRMC Customer Costs

Tab = RD Format

SCG 2027 CAP
LRMC Customer Cost/Rental Method
RD Format

Corrected		Total Whole sale	Ecogas	UBS	Total Noncore	SYSTEM TOTAL	Sources
	<u>Marginal Customer Unit Cost @ various LRMC Allocation Methods</u>						
1	Customer Cust \$/Cust/Year Rental Method		\$166,697.98	\$0.00			Cust MC
2	Customer Cost \$/Cust/Year NCO Method		\$75,592.79	\$0.00			Cust MC
3	Customer Cost \$/Cust/Year NCO Method w/Replacement Cost		\$124,593.03	\$0.00	\$4,102,883.37		Cust MC

- 1
- 2 **Input from O&M Loader Model:**
- 3 Marginal A&G/Payroll Taxes Loading Factor as a % of O&M expenses
- 4 General Plant Loading Factor as a % of O&M expenses
- 5 Annualized Distribution Customer Related Costs \$000/yr
- 6
- 7 2021-27 Factor: Capital General Plant
- 8 2021-27 Factor: O&M

File = SCG 2027CAP LRMC Customer Costs

Tab = RD Format

S10

S10	Core Residential											Core Non-Residential				Noncore Retail					
	Residential		Multi		Master Meter		Residential	Non-Residential				Air			Natural Gas	Gas	G-30 - Noncore C&I			Small EG	Large EG
	Single	Family	Small (up to 100,000 therms/year)	Large (100,001 therms per year and greater)	Very Small - up to 300 therms/year	Small - 301 to 3,000 therms/year		Medium - 3,001 to 50,000 therms/year	Large - 50,001 to 250,000 therms/year	Very Large - Over 250,000 therms/year	Conditioning	Vehicle	Engine	Distribution			Transmission	Total			
	Family (Detached homes)	Family	Family	Family	Total or Avg.	Total or Avg.	Total or Avg.	Total or Avg.	Total or Avg.	Total or Avg.	Average	Average	Average	Average	Average	Average	Average	Average	Average	Average	Average
2024 Number of Customers	3,861,103	1,807,189	120,098	55	5,788,445	86,340	64,026	47,978	2,154	317	200,815	4	368	571	490	17	507	326	41	41	
Marginal Investment: 2027 \$/Customer																					
Meter & House Reg	\$685.42	\$575.19	\$2,211.86	\$30,341.13	\$682.95	\$953.00	\$1,571.26	\$3,129.74	\$10,747.61	\$15,835.64	\$1,798.73	\$6,855.04	\$116,295.52	\$4,354.07	\$180,093.35	\$387,088.03	\$187,034.00	\$133,929.38	\$1,181,414.08	\$1,181,414.08	
Service Lines	(\$685.42)	(\$575.19)	\$15,120.25	\$121,051.32	(\$321.91)	\$10,820.98	\$11,147.44	\$16,441.93	\$66,914.89	\$912,987.93	\$14,293.81	\$101,960.87	\$113,577.68	\$264,715.83	\$494,215.02	#####	\$528,076.85	\$245,324.16	\$600,915.27	\$600,915.27	
Exclusive Use Facilities	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$36,305.59	\$147,520.52	\$40,034.69	\$0.00	\$437,536.14	\$437,536.14	
Total	\$0.00	\$0.00	\$17,332.11	\$151,392.44	\$0.00	\$11,773.98	\$12,718.70	\$19,571.67	\$77,662.50	\$928,823.58	\$16,092.55	\$108,815.91	\$229,873.20	\$269,069.90	\$710,613.95	#####	\$755,145.54	\$379,253.54	\$2,219,865.48	\$2,219,865.48	
Weighted RECC factors used to annualize SRM capital costs																					
Meter & House Reg	8.57%	8.57%	8.48%	8.40%	8.58%	8.54%	8.54%	8.49%	8.47%	8.48%	8.68%	8.46%	8.37%	8.45%	8.37%	8.37%	8.37%	8.37%	8.37%	8.37%	
Service Lines	6.77%	6.77%	6.77%	6.77%	6.77%	6.77%	6.77%	6.77%	6.77%	6.77%	6.77%	6.77%	6.77%	6.77%	6.77%	6.77%	6.77%	6.77%	6.77%	6.77%	
Exclusive Use															8.97%	8.97%	8.97%	8.97%	8.97%	8.97%	
Annualized Marginal Investment: \$/Cust.																					
Meter & House Reg	\$58.74	\$49.31	\$187.67	\$2,548.17	\$58.61	\$81.34	\$134.11	\$265.61	\$909.85	\$1,342.75	\$156.07	\$579.70	\$9,738.35	\$367.81	\$15,069.40	\$32,409.29	\$15,658.93	\$11,208.00	\$98,867.71	\$98,867.71	
Service Lines	(\$46.38)	(\$38.92)	\$1,023.09	\$8,190.74	(\$21.78)	\$732.18	\$754.27	\$1,112.52	\$4,527.69	\$61,775.84	\$967.17	\$6,899.02	\$7,885.05	\$17,911.57	\$33,440.26	\$101,772.11	\$35,731.46	\$16,599.46	\$40,659.96	\$40,659.96	
Exclusive Use Facilities	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$3,256.89	\$13,233.72	\$3,591.42	\$0.00	\$39,250.34	\$39,250.34	
Total Annualized Marginal Investment: 2027 \$/Cust.	\$12.36	\$10.39	\$1,210.76	\$10,738.91	\$0.00	\$813.52	\$888.38	\$1,378.12	\$5,437.54	\$63,118.59	\$1,123.24	\$7,478.72	\$17,423.40	\$18,279.37	\$51,766.55	\$147,415.12	\$54,981.81	\$27,807.46	\$178,778.01	\$178,778.01	
O&M: \$/Customer																					
Customer Services O&M Cost 2021's \$000/year	\$85,490.66	\$40,019.90	\$2,659.15	\$1.22	\$128,164.93	\$4,251.79	\$4,781.70	\$12,337.68	\$1,168.73	\$249.07	\$22,788.97	\$0.85	\$83.92	\$127.86	\$0.00	\$0.00	\$328.81	\$68.64	\$8.63	\$8.63	
2021 Number of Customers	3,861,103	1,807,189	120,098	55	5,788,445	86,340	64,026	47,978	2,154	317	200,815	4	368	571	490	17	507	326	41	41	
Customer Services O&M \$/Customer 2021's	\$22.14	\$22.14	\$22.14	\$22.14	\$22.14	\$49.24	\$74.68	\$257.15	\$542.59	\$785.70	\$113.48	\$213.30	\$228.05	\$223.92	\$0.00	\$0.00	\$648.54	\$210.55	\$210.55	\$210.55	
escalator 2021's to 2027's	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	
Customer Services O&M \$/Customer 2027's	\$25.35	\$25.35	\$25.35	\$25.35	\$25.35	\$56.38	\$85.50	\$294.41	\$621.19	\$899.53	\$129.62	\$244.20	\$261.09	\$256.36	\$742.50	\$742.50	\$742.50	\$241.06	\$241.06	\$241.06	
Customer Accounts O&M 2021's \$000/yr	\$53,575.58	\$25,076.05	\$1,666.45	\$0.76	\$80,318.84	\$1,111.27	\$687.44	\$5,977.49	\$1,163.40	\$117.62	\$8,057.21	\$4.32	\$284.92	\$48.52	\$0.00	\$0.00	\$897.83	\$68.66	\$7.152	\$7.152	
2024 Number of Customers	3,861,103	1,807,189	120,098	55	5,788,445	86,340	64,026	47,978	2,154	317	200,815	4	368	571	490	17	507	326	41	41	
Customer Services O&M \$/Customer 2021's	\$13.88	\$13.88	\$13.88	\$13.88	\$13.88	\$12.87	\$10.74	\$124.59	\$75.86	\$43.07	\$40.12	\$1,079.28	\$774.24	\$84.97	\$0.00	\$0.00	\$1,770.87	\$174.37	\$1,744.37	\$1,744.37	
escalator 2021's to 2027's	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	
Customer Accounts O&M \$/Customer 2027's	\$15.89	\$15.89	\$15.89	\$15.89	\$15.89	\$14.74	\$12.29	\$142.64	\$86.85	\$424.79	\$45.94	\$1,235.64	\$886.41	\$97.28	\$2,027.43	\$2,027.43	\$2,027.43	\$1,997.09	\$1,997.09	\$1,997.09	
Meter & House Reg O&M Total Cost	\$5,590.50	\$2,195.82	\$561.15	\$3.53	\$8,351.00	\$2.96	\$3.62	\$5.40	\$0.83	\$0.18	\$13.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$62.00	\$513.00	\$61.00	\$61.00	
2024 Number of Customers	3,861,103	1,807,189	120,098	55	5,788,445	86,340	64,026	47,978	2,154	317	200,815	4	368	571	490	17	507	326	41	41	
Customer Services O&M \$/Customer 2021's	\$1.45	\$1.22	\$4.67	\$64.09	\$1.44	\$0.03	\$0.06	\$0.11	\$0.39	\$0.57	\$0.06	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$122.29	\$1,573.62	\$1,487.80	\$1,487.80	
escalator 2021's to 2027's	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	
Meter & House Reg O&M \$/Customer 2027's	\$1.66	\$1.39	\$5.35	\$73.38	\$1.65	\$0.04	\$0.06	\$0.13	\$0.44	\$0.65	\$0.07	\$0.00	\$0.00	\$0.00	\$140.00	\$140.00	\$140.00	\$1,801.60	\$1,703.36	\$1,703.36	
Total Service																					
Line Footage	233,579,752	58,907,774	11,635,093	13,796	304,136,415	12,737,629	6,973,402	6,830,225	564,279	115,761	27,021,296	250	62,904	627,475	104,737	16,542	121,280	46,832	16,273	16,273	
Percent of																					
Total Footage	70.36%	17.74%	3.50%	0.00%	91.61%	3.84%	2.10%	2.00%	0.17%	0.03%	8.14%	0.00%	0.02%	0.19%	0.03%	0.00%	0.04%	0.01%	0.00%	0.00%	
Allocated SL O&M Costs \$000	\$31,878	\$8,040	\$1,588	\$2	\$41,508	\$1,738	\$952	\$905	\$77	\$16	\$3,688	\$0	\$9	\$86	\$14	\$2	\$17	\$6	\$2	\$2	
escalator 2021's to 2027's	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	
Allocated SL O&M Costs 2027's	\$36,497	\$9,204	\$1,818	\$2	\$47,521	\$1,990	\$1,090	\$1,036	\$88	\$18	\$4,222	\$0	\$10	\$98	\$16	\$3	\$19	\$7	\$3	\$3	
2024 Number of Customers	3,861,103	1,807,189	120,098	55	5,788,445	86,340	64,026	47,978	2,154	317	200,815	4	368	571	490	17	507	326	41	41	
Service Lines O&M \$/Customer 2027's	\$9.45	\$5.09	\$15.14	\$39.19	\$8.21	\$23.05	\$17.02	\$21.59	\$40.93	\$57.06	\$21.02	\$9.76	\$26.71	\$171.70	\$33.40	\$152.04	\$37.38	\$22.45	\$62.02	\$62.02	
Customer Service & Information Cost (CSI) Costs Accounts (FERC Accounts 907 to 910):																					
2024 Number of Customers	3,861,103	1,807,189	120,098	55	5,788,445	86,340	64,026	47,978	2,154	317	200,815	4	368	571	490	17	507	326	41	41	
Customer Services & Information O&M \$/Customer 2021's	\$3.43	\$3.43	\$3.43	\$3.43	\$3.43	\$9.63	\$9.63	\$9.63	\$5,670.73	\$5,670.73	\$79.29	\$0.00	\$8,294.95	\$0.00	\$0.00	\$0.00	\$5,801.69	\$78.55	\$9,309.42	\$9,309.42	
escalator 2021's to 2027's	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	1.1449	
Customer Accounts O&M \$/Customer 2027's	\$3.93	\$3.93	\$3.93	\$3.93	\$3.93	\$11.02	\$11.02	\$11.02	\$6,492.29	\$6,492.29	\$90.77	\$0.00	\$9,496.70	\$0.00	\$0.00	\$0.00	\$6,642.23	\$89.93	\$10,658.15	\$10,658.15	
Total Direct O&M \$/customer/yr																					
	\$56.27	\$51.65	\$65.65	\$157.74	\$55.03	\$105.23	\$125.90	\$469.79	\$7,241.70	\$7,874.31	\$287.73	\$1,489.59	\$10,670.91	\$525.35	\$2,943.33	\$3,061.97	\$9,589.54	\$4,152.12	\$14,661.67	\$14,661.67	
O&M Loaders: \$/Customer																					
Administrative & General as % of O&M	46.92%	46.92%	46.92%	46.92%	46.92%	46.92%	46.92%	46.92%	46.92%	46.92%	46.92%	46.92%	46.92%	46.92%	46.92%	46.92%	46.92%	46.92%	46.92%	46.92%	
Administrative & General \$/customer/yr 2027's	\$26.40	\$24.23	\$30.80	\$74.01	\$25.82	\$49.37	\$59.07	\$220.42	\$3,397.73	\$3,694.55	\$135.00	\$698.90	\$5,006.68	\$246.49	\$1,380.98	\$1,436.65	\$4,499.32	\$1,948.13	\$6,879.11	\$6,879.11	
General Plant as % of O&M	44.95%	44.95%	44.95%	44.95%	44.95%	44.95%	44.95%	44.95%	44.95%	44.95%	44.95%	44.95%	44.95%	44.95%	44.95%	44.95%	44.95%	44.95%	44.95%	44.95%	
General Plant \$/customer/yr 2027's	\$25.30	\$23.22	\$29.51	\$70.91	\$24.74	\$47.30	\$56.60	\$211.19	\$3,255.38	\$3,539.76	\$129.34	\$669.62	\$4,796.92	\$236.16	\$1,323.12	\$1,376.46	\$4,310.81	\$1,866.51	\$6,590.89	\$6,590.89	
Materials & Supplies Loader:																					
Per Customer Direct+AA&G+GP O&M \$/customer/yr	\$107.98	\$99.10	\$125.97	\$302.66	\$105.58	\$201.90															

File = SCG 2027TCAP LRMC Customer Costs

S10

	Core Residential					Non-Residential										Noncore Retail				
	Single		Multi		Master Meter	Residential	Commercial/Industrial					Non-Residential			Gas	G-30 - Noncore C&I			Small EG	Large EG
	Family (Detached homes)		Family				Very Small - up to 300 therms/year	Small - 301 to 3,000 therms/year	Medium - 3,001 to 50,000 therms/year	Large - 50,001 to 250,000 therms/year	Very Large - Over 250,000 therms/year	Average	Air Conditioning	Natural Gas	Vehicle	Distribution	Transmission	Total	< 3million	> 3million
Total Rental Capital (\$000) before RECC						\$2,089,879	\$1,016,565	\$814,328	\$939,010	\$167,285	\$294,437		\$435	\$84,593	\$153,639	\$348,201	\$34,658	\$382,859	\$123,637	\$91,014
NCO Method:																				
2024 Number of Customers	3,861,103		1,807,189		120,098	55	5,788,445													
New Hookups Rate	0.54%		0.70%		0.19%	0.00%	0.59%													
No of New Customer Hookups /year	20,933		12,724		234	0	33,869													
Marginal Investment: \$/Customer																				
Meter & House Reg	\$685.42		\$575.19		\$2,211.86	\$30,341.13	\$682.95													
Service Lines	(\$685.42)		(\$575.19)		\$15,120.25	\$121,051.32	(\$321.91)													
Exclusive Use Facilities	\$0.00		\$0.00		\$0.00	\$0.00	\$0.00													
Total Marginal Investment \$/customer	\$0.00		\$0.00		\$17,332.11	\$151,392.44	\$361.04													
Weighted PVRR for Meter & House Reg	121.49%		121.52%		121.62%	121.89%	121.46%													
PVCC for Service Lines	122.02%		122.02%		122.02%	122.02%	122.02%													
PVRR:																				
Meter & House Reg \$/customer	\$832.70		\$698.96		\$2,690.13	\$36,984.17	\$829.52													
Service Lines \$/customer	-\$836.37		-\$701.86		\$18,450.32	\$147,711.56	-\$392.81													
PVRR of Hookup Cost \$/customer	(\$3.87)		(\$2.91)		\$21,140.46	\$184,695.73	\$436.72													
Total PVRR of Hookup Cost for Class \$'s	(\$76.861)		(\$36.987)		\$4,941.970	\$0	\$14,791.109													
PVRR of Hookup Cost \$/customer	(\$0.02)		(\$0.02)		\$41.15	\$0.00	\$2.56													
O&M Cost w/Loaders \$/Cust.																				
Total Direct O&M	\$56.27		\$51.65		\$65.65	\$157.74	\$55.03													
Total O&M Loaders \$/customer/yr	\$52.45		\$48.14		\$61.19	\$147.03	\$51.29													
LRMC NCO Customer Cost \$/customer/year	\$108.71		\$99.77		\$167.99	\$304.77	\$108.87													
NCO w/ Replacement Cost Adder																				
Marginal Investment: Meter & House Reg \$/Customer	\$685.42		\$575.19		\$2,211.86	\$30,341.13	\$682.95													
Service Lines Replacement Cost	\$7,030.42		\$6,643.77		\$13,926.21	\$107,685.46	\$7,053.73													
Exclusive Use Facilities	\$0.00		\$0.00		\$0.00	\$0.00	\$0.00													
Total	\$0.00		\$0.00		\$17,332.11	\$151,392.44	\$361.04													
Weighted PVRR for Meter & House Reg	121.49%		121.52%		121.62%	121.89%	121.46%													
PVCC for Service Lines	122%		122%		122%	122%	122%													
PVCC for Exclusive Use Facilities (Meters)																				
Weighted Replacement Factor for Meter & House Reg	1.88%		1.64%		1.78%	0.73%	1.96%													
Replacement Factor for Service Lines	1.5%		1.5%		1.5%	1.5%	1.5%													
Replacement Factor for Exclusive Use Facilities																				
Meter & House Reg, Replacement	\$15.64		\$11.44		\$47.75	\$268.52	\$16.24													
Service Lines, Replacement	\$128.04		\$121.00		\$253.63	\$1,961.22	\$128.47													
Exclusive Use Facilities, Replace																				
Replacement Adder \$/Customer	\$143.68		\$132.44		\$301.38	\$2,229.75	\$144.70													
NCO w/o Repl Cost \$/Cust/yr	\$108.71		\$99.77		\$167.99	\$304.77	\$108.87													
NCO w/ Repl Cost: \$/Cust/yr.	\$252.39		\$232.21		\$469.38	\$2,534.51	\$253.57													

LRMC Customer Cost/Rental Method
Marginal Unit Costs

S10

	Noncore Wholesale						Total O&M Cost for All	
	EOR	Wholesale				International		
	G-40	LB	SDG&E	SWG	Vernon	Ecogas	Customers	
Total Rental Capital (\$000) before RECC	\$27,403	\$13,818	\$35,517	\$7,214	\$6,900	\$1,016		\$6,632,408
NCO Method:								
2024 Number of Customers	29	1	1	1	1	1	5,991,111	cust 2
New Hookups Rate	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
No of New Customer Hookups /year	0	0	0	0	0	0	35,319	
Marginal Investment: \$/Customer								
Meter & House Reg	\$520,195.34	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		cust 5
Service Lines	\$353,483.32	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		cust 5
Exclusive Use Facilities	\$71,248.39	\$13,818,202.97	\$35,517,278.40	\$7,214,188.70	\$6,900,339.96	#####		cust 6, cust 7
Total Marginal Investment \$/customer	\$944,927.05	\$13,818,202.97	\$35,517,278.40	\$7,214,188.70	\$6,900,339.96	#####		
Weighted PVRR for Meter & House Reg	122.02%							cust 10
PVCC for Service Lines	122.02%	122.02%	122.02%	122.02%	122.02%	122.02%		2013 RECC
PVRR:								
Meter & House Reg \$/customer	\$634,759.06	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
Service Lines \$/customer	\$431,334.21	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
PVRR of Hookup Cost \$/customer	#####	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
Total PVRR of Hookup Cost for Class \$'s	\$0	\$0	\$0	\$0	\$0	\$0		
PVRR of Hookup Cost \$/customer	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
O&M Cost w/Loaders \$/Cust.								
Total Direct O&M	\$13,564.04	\$95,163.33	\$89,338.89	\$117,934.67	\$68,825.81	\$39,124.77		
Total O&M Loaders \$/customer/yr	\$12,642.98	\$88,701.29	\$83,272.36	\$109,926.35	\$64,152.22	\$36,468.02		
LRMC NCO Customer Cost \$/customer/year	\$26,207.01	\$183,864.62	\$172,611.25	\$227,861.02	\$132,978.03	\$75,592.79		
NCO w/ Replacement Cost Adder								
Marginal Investment: Meter & House Reg \$/Customer	\$520,195.34	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		cust 5
Service Lines Replacement Cost	\$343,155.73	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		cust 5
Exclusive Use Facilities	\$71,248.39	\$13,818,202.97	\$35,517,278.40	\$7,214,188.70	\$6,900,339.96	#####		cust 6, cust 7
Total	\$944,927.05	\$13,818,202.97	\$35,517,278.40	\$7,214,188.70	\$6,900,339.96	#####		
Weighted PVRR for Meter & House Reg	122.02%							cust 10
PVCC for Service Lines	122%							2013 RECC
PVCC for Exclusive Use Facilities (Meters)	121%	121%	121%	121%	121%	121%		
Weighted Replacement Factor for Meter & House Reg	0.14%							cust 10
Replacement Factor for Service Lines	1.5%							
Replacement Factor for Exclusive Use Facilities	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%		cust 10
Meter & House Reg, Replacement	\$893.91							
Service Lines, Replacement	\$6,249.73							
Exclusive Use Facilities, Replace	\$3,437.63	\$666,708.77	\$1,713,658.50	\$348,074.41	\$332,931.65	\$49,000.23		
Replacement Adder \$/Customer	\$10,581.27	\$666,708.77	\$1,713,658.50	\$348,074.41	\$332,931.65	\$49,000.23		
NCO w/o Repl Cost \$/Cust/yr	\$26,207.01	\$183,864.62	\$172,611.25	\$227,861.02	\$132,978.03	\$75,592.79		
NCO w/ Repl Cost: \$/Cust/yr.	\$36,788.29	\$890,973.39	\$1,886,269.75	\$875,935.43	\$465,909.68	\$124,593.03		

SCG 2027 CAP
LRMC Customer Cost
Number of Customers by Customer Class

	Core													
	Residential					Non-Residential								
	Single Family	Multi Family	Master Meter		Residential Total	G-10						Gas Air Conditioning	Natrua Gas Vehicle	Gas Engine
			Small	Large		Very Small	Small	Medium	Large	Very Large	Total			
2024 Number of Customers	3,861,103	1,807,189	120,098	55	5,788,445	86,340	64,026	47,978	2,154	317	200,815	4	368	571

File = SCG 2027CAP LRMC Customer Costs

SCG 2027 CAP
LRMC Customer Cost
Number of Customers by Custom

	Noncore													Total Over All Customers
	Non-Residential													
	G-30			Small EG	Large EG	EOR G-40	Wholesale				International			
	Distribution	Transmission	Total				LB	SDG&E	SWG	Vernon	Mexacali	Rosarito		
2024 Number of Customers	490	17	507	326	41	29	1	1	1	1	1	0	5,991,111	

SCG 2027 CAP
LRMC Customer Cost
Number of Customers by Customer Class

S10
1) Residential Segmentation
1a) Segmentation of Residential Total Customer Counts into Bands

	Residential				
	Single Family	Multi Family	Master Meter		Total
			Small	Large	
2024 Number of Customers	3,861,103	1,807,189	120,098	55	5,788,445
Percent of Total	67%	31%	2%	0%	100%

values from 'Number of Customers', cust 2 tab

1b) Segmentation of Residential Meter, Regulator & MSA Investment Costs into Bands

	Residential				
	Single Family	Multi Family	Master Meter		Total
			Small	Large	
Per Cust. Meter, Reg. & MSA Investment	\$685.42	\$575.19	\$2,211.86	\$30,341.13	
2024 Number of Customers	3,861,103	1,807,189	120,098	55	5,788,445
Total Meter, Reg. & MSA Investment	\$2,646,459,371	\$1,039,470,423	\$265,640,423	\$1,668,762	\$3,953,238,978
Percent of Total Meter, Reg. & MSA Investment	67%	26%	7%	0%	100%

note: used to segment Meters, Regulators & MSAs O&M Costs
 values from 'Investment Meters, REGs', cust 5 tab

SCG 2027 CAP
LRMC Customer Cost
Number of Customers by Customer Class

2) G10 Segmentation
2a) Segmentation of G-10 Total Customer Counts into Bands

	G-10					
	Very Small	Small	Medium	Large	Very Large	Total
2024 Number of Customers	86,340	64,026	47,978	2,154	317	200,815
Percent of Total	43%	32%	24%	1%	0%	100%

values from 'Number of Customers', cust 2 tab

2b) Segmentation of G-10 Meter, Regulator & MSA Investment Costs into Bands

	G-10					
	Very Small	Small	Medium	Large	Very Large	Total
Per Cust. Meter, Reg & MSA Investment	\$953.00	\$1,571.26	\$3,129.74	\$10,747.61	\$15,835.64	
2024 Number of Customers	86,340	64,026	47,978	2,154	317	200,815
Total Meter, Reg & MSA Investment	\$82,281,981	\$100,601,678	\$150,158,523	\$23,150,341	\$5,019,899	\$361,212,422
Percent of Total Meter, Reg & MSA Investment	23%	28%	42%	6%	1%	100%

note: used to segment Meters, Regulators & MSAs O&M Costs
values from 'Investment Meters, REGs', cust 5 tab

SCG 2027 CAP
LRMC Customer Cost
Number of Customers by Customer Class

3) G 30 Segmentation

3a) Segmentation of G-30 total customer counts by Service Level

	G-30		
	Distribution	Transmission	Total
2024 Number of Customers	490	17	507
Percent of Total	97%	3%	100%

values from 'cust 2' tab

3b) Allocation of G-30 Total Big GEMS Costs by Service Level

		G-30		
		Distribution	Transmission	Total
Meter/Reg Investment Cost Per Customer	2013 \$s	\$180,093.35	\$387,088.03	
2024 Number of Customers		490	17	507
Total Cost	2013 \$s	\$88,245,742	\$6,580,496	\$94,826,238
Percent of Total Cost		93%	7%	100%

note: used to segment Meters, Regulators & MSAs O&M Costs
values from 'Investment Meters, REGs', cust 5 tab

SCG 2027 CAP
LRMC Customer Cost
Average Per Customer Investment in Meters & Regulators by Customer Class

S10

Investment Per Customer:		Core													
		Residential					Non-Residential								
		Single Family	Multi	Master Meter		Residential Average	G-10					Gas Air Conditioning	Natrual Gas	Gas Engine	
				Small	Large		Very Small	Small	Medium	Large	Very Large				Average
Meter, Reg.	2021 \$s	\$508.61	\$426.81	\$1,641.30	\$22,514.50	\$506.78	\$707.17	\$1,165.95	\$2,322.41	\$7,975.21	\$11,750.77	\$1,337.74	\$5,086.75	\$86,296.57	\$3,230.92
Meter, Reg.	2027 \$s	\$685.42	\$575.19	\$2,211.86	\$30,341.13	\$682.95	\$953.00	\$1,571.26	\$3,129.74	\$10,747.61	\$15,835.64	\$1,798.73	\$6,855.04	\$116,295.52	\$4,354.07
Total		\$685.42	\$575.19	\$2,211.86	\$30,341.13	\$682.95	\$953.00	\$1,571.26	\$3,129.74	\$10,747.61	\$15,835.64	\$1,798.73	\$6,855.04	\$116,295.52	\$4,354.07

For Res and Non-Residential G10 customers we multiply 5 yr average meter size and pressure type combination for new customers per class times unit cost for each associated combination.
For other classes we multiply average meter size and pressure type combination for all customers per class times unit cost for each associated combination.

Average Per Customer Investment in
Service Lines by Customer Class

		Core													
		Residential					Non-Residential								
		Single Family	Multi Family	Master Meter		Residential Average	G-10					Gas Air Conditioning	Natural Gas Vehicle	Gas Engine	
				Small	Large		Very Small	Small	Medium	Large	Very Large				Average
Service Lines	2021 \$s	(\$508.61)	(\$426.81)	\$11,219.91	\$89,825.59	(\$238.87)	\$8,029.66	\$8,271.91	\$12,200.66	\$49,653.90	\$677,478.66	\$10,060.66	\$75,659.61	\$84,279.82	\$196,431.21
Service Lines	2027 \$s	(685.42)	(575.19)	15,120.25	121,051.32	(321.91)	10,820.98	11,147.44	16,441.93	66,914.89	912,987.93	14,293.81	101,960.87	113,577.68	264,715.83
Total		(685.42)	(575.19)	15,120.25	121,051.32	(321.91)	10,820.98	11,147.44	16,441.93	66,914.89	912,987.93	14,293.81	101,960.87	113,577.68	264,715.83

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

For residential and non-residential G10 customers we multiply Ken's 5 yr average footage, pipe type, pipe size configuration per class times Distribution Managers' cost per foot each associated configuration.
For other classes we multiply average footage, pipe type and pipe size combination for all customers per class times unit cost for each associated combination.

Service Lines Replacement Costs

	Core													
	Residential					Non-Residential								
	Single Family	Multi Family	Master Meter		Residential Average	G-10					Gas Air Conditioning	Natural Gas Vehicle	Gas Engine	
Investment Per Customer:			Small	Large		Very Small	Small	Medium	Large	Very Large	Average			
Service Lines Replaceme 2021 \$s	5,216.89	4,929.98	10,333.89	79,907.52	5,234.19	7,434.85	7,492.30	10,619.88	57,596.84	491,842.14	9,516.84	54,717.70	84,541.76	188,062.95
Service Lines 2024 \$s	7,030.42	6,643.77	13,926.21	107,685.46	7,053.73	10,019.40	10,096.82	14,311.63	77,619.01	662,819.31	12,825.15	73,739.01	113,930.69	253,438.54
Total	7,030.42	6,643.77	13,926.21	107,685.46	7,053.73	10,019.40	10,096.82	14,311.63	77,619.01	662,819.31	12,825.15	73,739.01	113,930.69	253,438.54

SCG 2027 CAP
LRMC Customer Cost
Average Per Customer Investment in

S10

													Total Over All Customers
Noncore													
Non-Residential													
G-30				<3 Million SM. COGEN	>3 Million	EG	EOR	Wholesale				International	
Investment Per Customer:		Distribution	Transmission	Average			G-50	LB	SDG&E	SWG	Vernon	DGN	Rosarito
Meter, Reg.	2021 \$s	\$133,637.47	\$287,236.96	\$138,787.75	\$99,381.70	\$876,663.09	\$386,008.65	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Meter, Reg.	2027 \$s	\$180,093.35	\$387,088.03	\$187,034.00	\$133,929.38	\$1,181,414.08	\$520,195.34	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total		\$180,093.35	\$387,088.03	\$187,034.00	\$133,929.38	\$1,181,414.08	\$520,195.34	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

For Res and Non-Residential G10 custo
For other classes we multiply average n

Average Per Customer Investment in
Service Lines by Customer Class

		Noncore											Total Over All Customers
		Non-Residential											
		G-30			SM. COGEN	EG	EOR	Wholesale				International	
Investment Per Customer:		Distribution	Transmission	Average	G-50	G-50	G-40	LB	SD&E	SWG	Vernon	DGN	Rosarito
Service Lines	2021 \$s	\$366,730.07	\$1,116,106.66	\$391,857.09	\$182,041.71	\$445,906.52	\$262,300.73	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Service Lines	2027 \$s	494,215.02	1,504,094.49	528,076.85	245,324.16	600,915.27	353,483.32	0.00	0.00	0.00	0.00	0.00	0.00
Total		494,215.02	1,504,094.49	528,076.85	245,324.16	600,915.27	353,483.32	0.00	0.00	0.00	0.00	0.00	0.00

formerly tabs: 'Investment Meter, Reg' &
For residential and non-residential G10
For other classes we multiply average fc

Service Lines Replacement Costs

	Noncore											Total Over All Customers
	Non-Residential											
	G-30			SM. COGEN	EG	EOR	Wholesale			International		
	Distribution	Transmission	Average	G-50	G-50	G-40	LB	SD&E	SWG	Vernon	DGN	
Investment Per Customer:												
Service Lines Replaceme 2021 \$s	303,265.54	842,635.30	321,350.92	143,583.09	326,538.45	254,637.19	0.00	0.00	0.00	0.00	0.00	0.00
Service Lines 2024 \$s	408,688.57	1,135,557.34	433,060.89	193,496.32	440,051.74	343,155.73	0.00	0.00	0.00	0.00	0.00	0.00
Total	408,688.57	1,135,557.34	433,060.89	193,496.32	440,051.74	343,155.73	0.00	0.00	0.00	0.00	0.00	0.00

File = SCG 2027CAP LRMC Customer Costs

Tab = cust 5 CAPEX

Code	Element	Meter Size	Above Std	avg labor and nonlabor		avg \$/regulator	Total
				\$/meter	avg \$/meter		
S10	SGL	1	0	\$247	\$118	\$29	\$394
M10	MULT	1	0	\$205	\$118	\$7	\$330
30	AG	3	0	\$259	\$201	\$29	\$489
	CMB	3		\$468	\$201	\$165	\$834
31	LBS	3	1	\$271	\$201	\$320	\$792
S40	SZ	4	0	\$155	\$645	\$263	\$1,063
S50	SZ	5	0	\$155	\$645	\$263	\$1,063
	CMB	4		\$292	\$742	\$286	\$1,320
	CMB	5		\$292	\$742	\$286	\$1,320
41	@LBS	4	1	\$1,652	\$603	\$494	\$2,750
51	@LBS	5	1	\$1,652	\$603	\$494	\$2,750
S60	STD	6	0	\$1,461	\$566	\$263	\$2,290
S70	STD	7	0	\$1,461	\$566	\$263	\$2,290
61	LBS	6	1	\$2,039	\$566	\$320	\$2,925
71	LBS	7	1	\$2,039	\$566	\$320	\$2,925
S80	STD	8	0	\$1,461	\$685	\$311	\$2,457
S90	STD	9	0	\$1,461	\$685	\$311	\$2,457
81	LBS	8	1	\$2,039	\$685	\$710	\$3,434
91	LBS	9	1	\$2,039	\$685	\$710	\$3,434
99	TURBINE METERS	10		\$739,804	\$20,289	\$3,986	\$764,079
100	ROTARY METERS	10		\$5,451	\$4,433	\$3,300	\$13,184
110	ULTRASONIC METERS	12		\$2,506,778	\$88,986	\$0	\$2,595,764

Code	Rate	Number of customers					Average Meter & Regulator CAPEX/ Customer				
		Meter Size (1)	Above Std (2)	(3)	avg labor \$/meter	avg \$/meter	avg \$/regulator	tot lab	tot met	tot reg	tot cost
S10	SF	1	0	42,231	\$246.69	\$118.12	\$29.15	\$10,417,965	\$4,988,309	\$1,231,034	\$16,637,308
30	SF	3	0	66,495	\$259.47	\$200.78	\$29.15	\$17,253,458	\$13,351,025	\$1,938,329	\$32,542,812
31	SF	3	1	48	\$270.94	\$200.78	\$320.15	\$13,005	\$9,638	\$15,367	\$38,010
S40	SF	4	0	6,938	\$154.88	\$644.79	\$262.99	\$1,074,557	\$4,473,547	\$1,824,625	\$7,372,729
41	SF	4	1	61	\$1,651.88	\$603.42	\$494.47	\$100,765	\$36,809	\$30,163	\$167,736
S50	SF	5	0	600	\$154.88	\$644.79	\$262.99	\$92,928	\$386,873	\$157,794	\$637,595
S60	SF	6	0	556	\$1,461.01	\$566.35	\$262.99	\$812,322	\$314,892	\$146,222	\$1,273,436
61	SF	6	1	13	\$2,038.84	\$566.35	\$320.15	\$26,505	\$7,363	\$4,162	\$38,029
S70	SF	7	0	2	\$1,461.01	\$566.35	\$262.99	\$2,922	\$1,133	\$526	\$2,925.34
S80	SF	8	0	167	\$1,461.01	\$685.14	\$310.83	\$243,989	\$114,419	\$51,909	\$410,316
81	SF	8	1	16	\$2,038.84	\$685.14	\$709.64	\$32,621	\$10,962	\$11,354	\$54,938
S90	SF	9	0	3	\$1,461.01	\$685.14	\$310.83	\$4,383	\$2,055	\$932	\$7,371
91	SF	9	1	9	\$2,038.84	\$685.14	\$709.64	\$18,350	\$6,166	\$6,387	\$30,903
100	SF	10	2	2	\$5,451.00	\$4,433.19	\$3,300.00	\$10,902	\$8,866	\$6,600	\$26,368
tot SF				117,141				\$30,104,671	\$23,712,057	\$5,425,404	\$59,242,133
M10	MF	1	0	43,992	\$204.52	\$118.12	\$7.29	\$8,997,244	\$5,196,318	\$320,702	\$14,514,263
30	MF	3	0	13,530	\$259.47	\$200.78	\$29.15	\$3,510,629	\$2,716,586	\$394,400	\$6,621,614
31	MF	3	1	44	\$270.94	\$200.78	\$320.15	\$11,921	\$8,834	\$14,087	\$34,842
S40	MF	4	0	465	\$154.88	\$644.79	\$262.99	\$72,019	\$299,827	\$122,290	\$494,137
S60	MF	6	0	17	\$1,461.01	\$566.35	\$262.99	\$24,837	\$9,628	\$4,471	\$38,936
61	MF	6	1	1	\$2,038.84	\$566.35	\$320.15	\$2,039	\$566	\$320	\$2,925
81	MF	8	1	7	\$2,038.84	\$685.14	\$709.64	\$14,272	\$4,796	\$4,967	\$24,035
tot MF				58,056				\$12,632,961	\$8,236,555	\$861,237	\$21,730,753
M10	MM Band 1	1	0	553	\$204.52	\$118.12	\$7.29	\$113,100	\$65,320	\$4,031	\$182,451
30	MM Band 1	3	0	257	\$259.47	\$200.78	\$29.15	\$66,684	\$51,601	\$7,492	\$125,776
31	MM Band 1	3	1	11	\$270.94	\$200.78	\$320.15	\$2,980	\$2,209	\$3,522	\$8,711
S40	MM Band 1	4	0	261	\$154.88	\$644.79	\$262.99	\$40,424	\$168,290	\$68,640	\$277,354
41	MM Band 1	4	1	53	\$1,651.88	\$603.42	\$494.47	\$87,550	\$31,981	\$26,207	\$145,738
S50	MM Band 1	5	0	56	\$154.88	\$644.79	\$262.99	\$8,673	\$36,108	\$14,727	\$59,509
S60	MM Band 1	6	0	121	\$1,461.01	\$566.35	\$262.99	\$176,782	\$68,529	\$31,822	\$277,133
61	MM Band 1	6	1	61	\$2,038.84	\$566.35	\$320.15	\$124,369	\$34,547	\$19,529	\$178,446
S70	MM Band 1	7	0	1	\$1,461.01	\$566.35	\$262.99	\$1,461	\$566	\$263	\$2,290
S80	MM Band 1	8	0	81	\$1,461.01	\$685.14	\$310.83	\$118,342	\$55,496	\$25,177	\$199,015
81	MM Band 1	8	1	142	\$2,038.84	\$685.14	\$709.64	\$289,515	\$97,290	\$100,769	\$487,574
S90	MM Band 1	9	0	11	\$1,461.01	\$685.14	\$310.83	\$16,071	\$7,537	\$3,419	\$27,027
91	MM Band 1	9	1	83	\$2,038.84	\$685.14	\$709.64	\$169,224	\$56,867	\$58,900	\$284,991
100	MM Band 1	10	1	45	\$5,451.00	\$4,433.19	\$3,300.00	\$245,295	\$199,494	\$148,500	\$593,289
tot MM 1				1,736				\$1,460,470	\$875,835	\$512,999	\$2,849,303
61	MM Band 2	6	1	3	\$2,038.84	\$566.35	\$320.15	\$6,117	\$1,699	\$960	\$8,776
71	MM Band 2	7	1	1	\$2,038.84	\$566.35	\$320.15	\$2,039	\$566	\$320	\$2,925
81	MM Band 2	8	1	6	\$2,038.84	\$685.14	\$709.64	\$12,233	\$4,111	\$4,258	\$20,602
91	MM Band 2	9	1	18	\$2,038.84	\$685.14	\$709.64	\$36,699	\$12,333	\$12,774	\$61,805
99	MM Band 2	10	1	1	\$739,804.00	\$20,289.00	\$3,986.00	\$739,804	\$20,289	\$3,986	\$764,079
100	MM Band 2	10	1	22	\$5,451.00	\$4,433.19	\$3,300.00	\$119,922	\$97,530	\$72,600	\$290,052
tot MM 2				51				\$916,814	\$136,528	\$94,898	\$1,148,240

Code	Rate	Meter Size (1)	Above Std (2)	Number of customers (3)	avg labor \$/meter	avg \$/meter	avg \$/regulator	tot lab	tot met	tot reg	tot cost	Average Meter & Regulator CAPEX/ Customer	
S10	G10 Band 1	1	0	1,355	\$246.69	\$118.12	\$29.15	\$334,265	\$160,052	\$39,498	\$533,815	\$393.96	
30	G10 Band 1	3	0	456	\$259.47	\$200.78	\$29.15	\$118,318	\$91,557	\$13,292	\$223,167	\$489.40	
31	G10 Band 1	3	1	17	\$270.94	\$200.78	\$320.15	\$4,606	\$3,413	\$5,443	\$13,462	\$791.87	
S40	G10 Band 1	4	0	285	\$154.88	\$644.79	\$262.99	\$44,141	\$183,765	\$74,952	\$302,858	\$1,062.66	
41	G10 Band 1	4	1	31	\$1,651.88	\$603.42	\$494.47	\$51,208	\$18,706	\$15,329	\$85,243	\$2,749.77	
S50	G10 Band 1	5	0	93	\$154.88	\$644.79	\$262.99	\$14,404	\$59,965	\$24,458	\$98,827	\$1,062.66	
51	G10 Band 1	5	1	9	\$1,651.88	\$603.42	\$494.47	\$14,867	\$5,431	\$4,450	\$24,748	\$2,749.77	
S60	G10 Band 1	6	0	47	\$1,461.01	\$566.35	\$262.99	\$68,667	\$26,619	\$12,361	\$107,647	\$2,290.35	
S70	G10 Band 1	7	0	1	\$1,461.01	\$566.35	\$262.99	\$1,461	\$566	\$263	\$2,290	\$2,290.35	
S80	G10 Band 1	8	0	25	\$1,461.01	\$685.14	\$310.83	\$36,525	\$17,129	\$7,771	\$61,425	\$2,456.98	
81	G10 Band 1	8	1	31	\$2,038.84	\$685.14	\$709.64	\$63,204	\$21,239	\$21,999	\$106,442	\$3,433.62	
S90	G10 Band 1	9	0	3	\$1,461.01	\$685.14	\$310.83	\$4,383	\$2,055	\$932	\$7,371	\$2,456.98	
91	G10 Band 1	9	1	8	\$2,038.84	\$685.14	\$709.64	\$16,311	\$5,481	\$5,677	\$27,469	\$3,433.62	
100	G10 Band 1	10	1	6	\$5,451.00	\$4,433.19	\$3,300.00	\$32,706	\$26,599	\$19,800	\$79,105	\$13,184.19	
tot Band 1				2,367				\$805,067	\$622,578	\$246,225	\$1,673,869	\$707.17	
S10	G10 Band 2	1	0	420	\$246.69	\$118.12	\$29.15	\$103,610	\$49,610	\$12,243	\$165,463	\$393.96	
30	G10 Band 2	3	0	428	\$259.47	\$200.78	\$29.15	\$111,053	\$85,935	\$12,476	\$209,464	\$489.40	
31	G10 Band 2	3	1	29	\$270.94	\$200.78	\$320.15	\$7,857	\$5,823	\$9,284	\$22,964	\$791.87	
S40	G10 Band 2	4	0	589	\$154.88	\$644.79	\$262.99	\$91,224	\$379,781	\$154,901	\$625,906	\$1,062.66	
41	G10 Band 2	4	1	56	\$1,651.88	\$603.42	\$494.47	\$92,505	\$33,791	\$27,690	\$153,987	\$2,749.77	
S50	G10 Band 2	5	0	215	\$154.88	\$644.79	\$262.99	\$33,299	\$138,630	\$56,543	\$228,472	\$1,062.66	
51	G10 Band 2	5	1	3	\$1,651.88	\$603.42	\$494.47	\$4,956	\$1,810	\$1,483	\$8,249	\$2,749.77	
S60	G10 Band 2	6	0	157	\$1,461.01	\$566.35	\$262.99	\$229,379	\$88,917	\$41,289	\$359,585	\$2,290.35	
61	G10 Band 2	6	1	43	\$2,038.84	\$566.35	\$320.15	\$87,670	\$24,353	\$13,766	\$125,790	\$2,925.34	
S70	G10 Band 2	7	0	1	\$1,461.01	\$566.35	\$262.99	\$1,461	\$566	\$263	\$2,290	\$2,290.35	
71	G10 Band 2	7	1	1	\$2,038.84	\$566.35	\$320.15	\$2,039	\$566	\$320	\$2,925	\$2,925.34	
S80	G10 Band 2	8	0	65	\$1,461.01	\$685.14	\$310.83	\$94,966	\$44,534	\$20,204	\$159,704	\$2,456.98	
81	G10 Band 2	8	1	55	\$2,038.84	\$685.14	\$310.83	\$112,136	\$37,683	\$39,030	\$188,849	\$3,433.62	
S90	G10 Band 2	9	0	7	\$1,461.01	\$685.14	\$310.83	\$10,227	\$4,796	\$2,176	\$17,199	\$2,456.98	
91	G10 Band 2	9	1	20	\$2,038.84	\$685.14	\$709.64	\$40,777	\$13,703	\$14,193	\$68,672	\$3,433.62	
100	G10 Band 2	10	1	8	\$5,451.00	\$4,433.19	\$3,300.00	\$43,608	\$35,466	\$26,400	\$105,474	\$13,184.19	
tot Band 2				2,097				\$1,066,767	\$945,964	\$432,263	\$2,444,994	\$1,165.95	
S10	G10 Band 3	1	0	12	\$246.69	\$118.12	\$29.15	\$2,960	\$1,417	\$350	\$4,728	\$393.96	
30	G10 Band 3	3	0	103	\$259.47	\$200.78	\$29.15	\$26,725	\$20,681	\$3,002	\$50,408	\$489.40	
31	G10 Band 3	3	1	18	\$270.94	\$200.78	\$320.15	\$4,877	\$3,614	\$5,763	\$14,254	\$791.87	
S40	G10 Band 3	4	0	472	\$154.88	\$644.79	\$262.99	\$73,103	\$304,340	\$124,131	\$501,575	\$1,062.66	
41	G10 Band 3	4	1	78	\$1,651.88	\$603.42	\$494.47	\$128,847	\$47,067	\$38,569	\$214,482	\$2,749.77	
S50	G10 Band 3	5	0	295	\$154.88	\$644.79	\$262.99	\$45,690	\$190,213	\$77,582	\$313,484	\$1,062.66	
51	G10 Band 3	5	1	4	\$1,651.88	\$603.42	\$494.47	\$6,608	\$2,414	\$1,978	\$10,999	\$2,749.77	
S60	G10 Band 3	6	0	419	\$1,461.01	\$566.35	\$262.99	\$612,163	\$237,302	\$110,193	\$959,658	\$2,290.35	
61	G10 Band 3	6	1	83	\$2,038.84	\$566.35	\$320.15	\$169,224	\$47,007	\$26,572	\$242,803	\$2,925.34	
71	G10 Band 3	7	1	1	\$2,038.84	\$566.35	\$320.15	\$2,039	\$566	\$320	\$2,925	\$2,925.34	
S80	G10 Band 3	8	0	200	\$1,461.01	\$685.14	\$310.83	\$292,202	\$137,028	\$62,166	\$491,396	\$2,456.98	
81	G10 Band 3	8	1	215	\$2,038.84	\$685.14	\$709.64	\$438,351	\$147,305	\$152,573	\$738,229	\$3,433.62	
S90	G10 Band 3	9	0	34	\$1,461.01	\$685.14	\$310.83	\$49,674	\$23,295	\$10,568	\$83,537	\$2,456.98	
91	G10 Band 3	9	1	112	\$2,038.84	\$685.14	\$709.64	\$228,350	\$76,736	\$79,480	\$384,566	\$3,433.62	
100	G10 Band 3	10	1	68	\$5,451.00	\$4,433.19	\$3,300.00	\$370,668	\$301,457	\$224,400	\$996,525	\$13,184.19	
tot Band 3				2,114				\$2,451,481	\$1,540,442	\$917,647	\$4,909,569	\$2,322.41	
31	G10 Band 4	3	1	1	\$270.94	\$200.78	\$320.15	\$271	\$201	\$320	\$792	\$791.87	
61	G10 Band 4	6	1	3	\$2,038.84	\$566.35	\$320.15	\$6,117	\$1,699	\$960	\$8,776	\$2,925.34	
S80	G10 Band 4	8	0	1	\$1,461.01	\$685.14	\$310.83	\$1,461	\$685	\$311	\$2,457	\$2,456.98	
81	G10 Band 4	8	1	23	\$2,038.84	\$685.14	\$709.64	\$46,893	\$15,758	\$16,322	\$78,973	\$3,433.62	
S90	G10 Band 4	9	0	1	\$1,461.01	\$685.14	\$310.83	\$1,461	\$685	\$311	\$2,457	\$2,456.98	
91	G10 Band 4	9	1	27	\$2,038.84	\$685.14	\$709.64	\$55,049	\$18,499	\$19,160	\$92,708	\$3,433.62	
100	G10 Band 4	10	0	3	\$5,451.00	\$4,433.19	\$3,300.00	\$16,353	\$13,300	\$9,900	\$39,553	\$13,184.19	
100	G10 Band 4	10	1	47	\$5,451.00	\$4,433.19	\$3,300.00	\$256,197	\$208,360	\$155,100	\$619,657	\$13,184.19	
tot Band 4				106				\$383,801	\$259,187	\$202,384	\$845,373	\$7,975.21	
81	G10 Band 5	8	1	1	\$2,038.84	\$685.14	\$709.64	\$2,039	\$685	\$710	\$3,434	\$3,433.62	

Code	Rate	Meter Size (1)	Above Std (2)	Number of customers (3)	avg labor \$/meter	avg \$/meter	avg \$/regulator	tot lab	tot met	tot reg	tot cost	Average Meter & Regulator CAPEX/ Customer	
91	G10 Band 5	9	1	1	\$2,038.84	\$685.14	\$709.64	\$2,039	\$685	\$710	\$3,434	\$3,433.62	
100	G10 Band 5	10	1	14	\$5,451.00	\$4,433.19	\$3,300.00	\$76,314	\$62,065	\$46,200	\$184,579	\$13,184.19	
	tot Band 5			16				\$78,353	\$62,750	\$46,910	\$188,012	\$11,750.77	
61	GAC	6	1	1	\$2,038.84	\$566.35	\$320.15	\$2,039	\$566	\$320	\$2,925	\$2,925.34	
S80	GAC	8	0	1	\$1,461.01	\$685.14	\$310.83	\$1,461	\$685	\$311	\$2,457	\$2,456.98	
81	GAC	8	1	2	\$2,038.84	\$685.14	\$709.64	\$4,078	\$1,370	\$1,419	\$6,867	\$3,433.62	
100	GAC	10	1	1	\$5,451.00	\$4,433.19	\$3,300.00	\$5,451	\$4,433	\$3,300	\$13,184	\$13,184.19	
	tot GAC			5				\$13,029	\$7,055	\$5,350	\$25,434	\$5,086.75	
S10	NGV	1	0	11	\$246.69	\$118.12	\$29.15	\$2,714	\$1,299	\$321	\$4,334	\$393.96	
30	NGV	3	0	2	\$259.47	\$200.78	\$29.15	\$519	\$402	\$58	\$979	\$489.40	
31	NGV	3	1	8	\$270.94	\$200.78	\$320.15	\$2,168	\$1,606	\$2,561	\$6,335	\$791.87	
41	NGV	4	1	7	\$1,651.88	\$603.42	\$494.47	\$11,563	\$4,224	\$3,461	\$19,248	\$2,749.77	
51	NGV	5	1	6	\$1,651.88	\$603.42	\$494.47	\$9,911	\$3,621	\$2,967	\$16,499	\$2,749.77	
61	NGV	6	1	20	\$2,038.84	\$566.35	\$320.15	\$40,777	\$11,327	\$6,403	\$58,507	\$2,925.34	
71	NGV	7	1	3	\$2,038.84	\$566.35	\$320.15	\$6,117	\$1,699	\$960	\$8,776	\$2,925.34	
81	NGV	8	1	43	\$2,038.84	\$685.14	\$709.64	\$87,670	\$29,461	\$30,515	\$147,646	\$3,433.62	
91	NGV	9	1	35	\$2,038.84	\$685.14	\$709.64	\$71,359	\$23,980	\$24,837	\$120,177	\$3,433.62	
99	NGV	10	1	30	\$739,804.00	\$20,289.00	\$3,986.00	\$22,194,120	\$608,670	\$119,580	\$22,922,370	\$764,079.00	
100	NGV	10	1	124	\$5,451.00	\$4,433.19	\$3,300.00	\$675,924	\$549,716	\$409,200	\$1,634,840	\$13,184.19	
	tot NGV			289				\$23,102,841	\$1,236,005	\$600,864	\$24,939,710	\$86,296.57	
S10	GEN	1	0	1	\$246.69	\$118.12	\$29.15	\$247	\$118	\$29	\$394	\$393.96	
30	GEN	3	0	7	\$259.47	\$200.78	\$29.15	\$1,816	\$1,405	\$204	\$3,426	\$489.40	
31	GEN	3	1	6	\$270.94	\$200.78	\$320.15	\$1,626	\$1,205	\$1,921	\$4,751	\$791.87	
S40	GEN	4	0	27	\$154.88	\$644.79	\$262.99	\$4,182	\$17,409	\$7,101	\$28,692	\$1,062.66	
41	GEN	4	1	24	\$1,651.88	\$603.42	\$494.47	\$39,645	\$14,482	\$11,867	\$65,994	\$2,749.77	
S50	GEN	5	0	15	\$154.88	\$644.79	\$262.99	\$2,323	\$9,672	\$3,945	\$15,940	\$1,062.66	
51	GEN	5	1	9	\$1,651.88	\$603.42	\$494.47	\$14,867	\$5,431	\$4,450	\$24,748	\$2,749.77	
S60	GEN	6	0	86	\$1,461.01	\$566.35	\$262.99	\$125,647	\$48,706	\$22,617	\$196,970	\$2,290.35	
61	GEN	6	1	107	\$2,038.84	\$566.35	\$320.15	\$218,156	\$60,600	\$34,256	\$313,012	\$2,925.34	
S70	GEN	7	0	3	\$1,461.01	\$566.35	\$262.99	\$4,383	\$1,699	\$789	\$6,871	\$2,290.35	
71	GEN	7	1	3	\$2,038.84	\$566.35	\$320.15	\$6,117	\$1,699	\$960	\$8,776	\$2,925.34	
S80	GEN	8	0	87	\$1,461.01	\$685.14	\$310.83	\$127,108	\$59,607	\$27,042	\$213,757	\$2,456.98	
81	GEN	8	1	163	\$2,038.84	\$685.14	\$709.64	\$332,331	\$111,678	\$115,671	\$559,680	\$3,433.62	
S90	GEN	9	0	8	\$1,461.01	\$685.14	\$310.83	\$11,688	\$5,481	\$2,487	\$19,656	\$2,456.98	
91	GEN	9	1	63	\$2,038.84	\$685.14	\$709.64	\$128,447	\$43,164	\$44,707	\$216,318	\$3,433.62	
100	GEN	10	0	1	\$5,451.00	\$4,433.19	\$3,300.00	\$5,451	\$4,433	\$3,300	\$13,184	\$13,184.19	
100	GEN	10	1	28	\$5,451.00	\$4,433.19	\$3,300.00	\$152,628	\$124,129	\$92,400	\$369,157	\$13,184.19	
	tot GEN			638				\$1,176,661	\$510,919	\$373,747	\$2,061,327	\$3,230.92	
71	G30 Tran	7	1	1	\$2,038.84	\$566.35	\$320.15	\$2,039	\$566	\$320	\$2,925	\$2,925.34	
81	G30 Tran	8	1	1	\$2,038.84	\$685.14	\$709.64	\$2,039	\$685	\$710	\$3,434	\$3,433.62	
91	G30 Tran	9	1	3	\$2,038.84	\$685.14	\$709.64	\$6,117	\$2,055	\$2,129	\$10,301	\$3,433.62	
99	G30 Tran	10	1	7	\$739,804.00	\$20,289.00	\$3,986.00	\$5,178,628	\$142,023	\$27,902	\$5,348,553	\$764,079.00	
100	G30 Tran	10	1	7	\$5,451.00	\$4,433.19	\$3,300.00	\$38,157	\$31,032	\$23,100	\$92,289	\$13,184.19	
	tot G30 Tran			19				\$5,226,979	\$176,362	\$54,161	\$5,457,502	\$287,236.96	
51	G30 Dist	5	1	4	\$1,651.88	\$603.42	\$494.47	\$6,608	\$2,414	\$1,978	\$10,999	\$2,749.77	
S60	G30 Dist	6	0	2	\$1,461.01	\$566.35	\$262.99	\$2,922	\$1,133	\$526	\$4,581	\$2,290.35	
61	G30 Dist	6	1	7	\$2,038.84	\$566.35	\$320.15	\$14,272	\$3,964	\$2,241	\$20,477	\$2,925.34	
81	G30 Dist	8	1	37	\$2,038.84	\$685.14	\$709.64	\$75,437	\$25,350	\$26,257	\$127,044	\$3,433.62	
S90	G30 Dist	9	0	2	\$1,461.01	\$685.14	\$310.83	\$2,922	\$1,370	\$622	\$4,914	\$2,456.98	
91	G30 Dist	9	1	69	\$2,038.84	\$685.14	\$709.64	\$140,680	\$47,275	\$48,965	\$236,920	\$3,433.62	
99	G30 Dist	10	1	85	\$739,804.00	\$20,289.00	\$3,986.00	\$62,863,340	\$1,724,565	\$338,810	\$64,946,715	\$764,079.00	
100	G30 Dist	10	1	314	\$5,451.00	\$4,433.19	\$3,300.00	\$1,711,614	\$1,392,023	\$1,036,200	\$4,139,837	\$13,184.19	
	tot G30 Dist			520				\$64,837,794	\$3,198,094	\$1,455,598	\$69,491,487	\$133,637.47	

Code	Rate	Meter Size (1)	Above Std (2)	Number of customers (3)	avg labor \$/meter	avg \$/meter	avg \$/regulator	tot lab	tot met	tot reg	tot cost	Average Meter & Regulator CAPEX/ Customer
41	Sml G50	4	1	1	\$1,651.88	\$603.42	\$494.47	\$1,652	\$603	\$494	\$2,750	\$2,749.77
51	Sml G50	5	1	2	\$1,651.88	\$603.42	\$494.47	\$3,304	\$1,207	\$989	\$5,500	\$2,749.77
61	Sml G50	6	1	146	\$2,038.84	\$566.35	\$320.15	\$297,671	\$82,687	\$46,742	\$427,100	\$2,925.34
81	Sml G50	8	1	58	\$2,038.84	\$685.14	\$709.64	\$118,253	\$39,738	\$41,159	\$199,150	\$3,433.62
91	Sml G50	9	1	43	\$2,038.84	\$685.14	\$709.64	\$87,670	\$29,461	\$30,515	\$147,646	\$3,433.62
99	Sml G50	10	1	41	\$739,804.00	\$20,289.00	\$3,986.00	\$30,331,964	\$831,849	\$163,426	\$31,327,239	\$764,079.00
100	Sml G50	10	1	37	\$5,451.00	\$4,433.19	\$3,300.00	\$201,687	\$164,028	\$122,100	\$487,815	\$13,184.19
	tot G50			328				\$31,042,200	\$1,149,574	\$405,425	\$32,597,199	\$99,381.70
81	G50 EG	8	1	3	\$2,038.84	\$685.14	\$709.64	\$6,117	\$2,055	\$2,129	\$10,301	\$3,433.62
99	G50 EG	10	1	30	\$739,804.00	\$20,289.00	\$3,986.00	\$22,194,120	\$608,670	\$119,580	\$22,922,370	\$764,079.00
100	G50 EG	10	1	5	\$5,451.00	\$4,433.19	\$3,300.00	\$27,255	\$22,166	\$16,500	\$65,921	\$13,184.19
110	G50 EG	12	1	6	\$2,506,778.00	\$88,986.00	\$0.00	\$15,040,668	\$533,916	\$0	\$15,574,584	\$2,595,764.00
	tot G50 EG			44				\$37,268,160	\$1,166,807	\$138,209	\$38,573,176	\$876,663.09
51	G40	5	1	1	\$1,651.88	\$603.42	\$494.47	\$1,652	\$603	\$494	\$2,750	\$2,749.77
81	G40	8	1	4	\$2,038.84	\$685.14	\$709.64	\$8,155	\$2,741	\$2,839	\$13,734	\$3,433.62
91	G40	9	1	3	\$2,038.84	\$685.14	\$709.64	\$6,117	\$2,055	\$2,129	\$10,301	\$3,433.62
99	G40	10	1	15	\$739,804.00	\$20,289.00	\$3,986.00	\$11,097,060	\$304,335	\$59,790	\$11,461,185	\$764,079.00
100	G40	10	1	7	\$5,451.00	\$4,433.19	\$3,300.00	\$38,157	\$31,032	\$23,100	\$92,289	\$13,184.19
	tot G40			30				\$11,151,141	\$340,767	\$88,352	\$11,580,259	\$386,008.65

Code	Pipe Diameter Inches	Pipe Type	New Business \$/ft	Replacement \$/ft
0.5P	0.5	P	\$146.46	\$176.54
1P	1	P	\$235.19	\$220.66
2P	2	P	\$230.98	\$196.21
3P	3	P	\$218.87	\$351.91
4P	4	P	\$537.03	\$821.46
6P	6	P	\$1,507.03	\$1,040.13
8P	8	P	\$2,177.99	\$1,602.57
0.5	0.5	S	\$445.65	\$251.60
0.75	0.75	S	\$445.65	\$251.60
1S	1	S	\$673.27	\$410.04
1.25	1.25	S	\$481.15	\$631.07
2S	2	S	\$887.66	\$688.76
3S	3	S	\$728.43	\$725.33
4S	4	S	\$903.83	\$740.56
6S	6	S	\$1,808.75	\$1,318.32
8S	8	S	\$2,645.28	\$1,812.13
10S	10	S	\$3,435.87	\$2,664.50
12S	12	S	\$4,390.84	\$3,004.50
16S	16	S	\$11,096.37	\$7,618.61
20S	20	S	\$11,096.37	\$7,618.61

Calculation of Weighted Average Service Line and Service Line Replacement Cost \$/customer

Calculation of Weighted Average Service Line and Service Line Replacement Cost \$/customer										replacement			
Code (1)	Rate	Pipe	Pipe frac (2)	Pipe Type (3)	# New Customers		New	Replacement	Service Line	Service Line	Service Line CAPEX \$'s	Replacement	
		Diameter Inches			last 5 years	Business \$/ft (6)	CAPEX \$/customer		CAPEX \$/customer	Service Line CAPEX \$'s			
					(4)	feet (5)		\$/ft (6)	\$/customer	\$/customer		CAPEX \$'s	
0.5P	SF	0	12	P	109,698	25.2	\$146.46	\$176.54	\$3,692	\$4,450	\$405,031,743	\$488,208,757	
0.75	SF	0	34	S	186	9.3	\$445.65	\$251.60	\$4,122	\$2,327	\$766,742	\$432,880	
1P	SF	1	0	P	43,508	32.4	\$235.19	\$220.66	\$7,620	\$7,149	\$331,542,120	\$311,049,555	
1S	SF	1	0	S	261	2.5	\$673.27	\$410.04	\$1,676	\$1,021	\$437,552	\$266,482	
2P	SF	2	0	P	117	97.7	\$230.98	\$196.21	\$22,576	\$19,178	\$2,641,347	\$2,243,809	
Tot SF					153,770				\$4,815	\$5,217	\$740,419,504	\$802,201,484	
0.5P	MF	0	12	P	2,206	19.9	\$146.46	\$176.54	\$2,912	\$3,510	\$6,423,022	\$7,742,049	
0.75	MF	0	34	S	80	1.0	\$445.65	\$251.60	\$423	\$239	\$33,869	\$19,122	
1P	MF	1	0	P	8,736	24.2	\$235.19	\$220.66	\$5,701	\$5,349	\$49,804,642	\$46,726,225	
1S	MF	1	0	S	402	8.3	\$673.27	\$410.04	\$5,608	\$3,416	\$2,254,557	\$1,373,092	
1.25	MF	1	25	S	26	10.6	\$481.15	\$631.07	\$5,110	\$6,702	\$132,855	\$174,250	
2P	MF	2	0	P	920	39.9	\$230.98	\$196.21	\$9,209	\$7,823	\$8,472,301	\$7,197,169	
2S	MF	2	0	S	1,005	1.9	\$887.66	\$688.76	\$1,669	\$1,295	\$1,677,142	\$1,301,336	
3P	MF	3	0	P	6	108.2	\$218.87	\$351.91	\$23,675	\$38,067	\$142,050	\$228,399	
3S	MF	3	0	S	21	86.0	\$728.43	\$725.33	\$62,645	\$62,378	\$1,315,539	\$1,309,942	
Tot MF					13,402				\$5,242	\$4,929.98	\$70,255,977	\$66,071,584	
0.5P	MM Band 1	0	12	P	250	40.7	\$146.46	\$176.54	\$5,961	\$7,185	\$1,490,225	\$1,796,257	
0.75	MM Band 1	0	34	S	48	1.1	\$445.65	\$251.60	\$490	\$277	\$23,530	\$13,285	
1P	MM Band 1	1	0	P	659	47.6	\$235.19	\$220.66	\$11,200	\$10,508	\$7,380,731	\$6,924,529	
1S	MM Band 1	1	0	S	158	2.7	\$673.27	\$410.04	\$1,804	\$1,099	\$285,090	\$173,628	
1.25	MM Band 1	1	25	S	6	2.2	\$481.15	\$631.07	\$1,044	\$1,369	\$6,265	\$8,216	
2P	MM Band 1	2	0	P	308	76.4	\$230.98	\$196.21	\$17,640	\$14,985	\$5,433,014	\$4,615,313	
2S	MM Band 1	2	0	S	150	20.9	\$887.66	\$688.76	\$18,543	\$14,388	\$2,781,478	\$2,158,217	
3P	MM Band 1	3	0	P	23	91.3	\$218.87	\$351.91	\$19,983	\$32,130	\$459,602	\$738,984	
3S	MM Band 1	3	0	S	15	25.9	\$728.43	\$725.33	\$18,844	\$18,764	\$282,666	\$281,464	
Tot MM 1					1,617				\$11,220	\$10,334	\$18,142,602	\$16,709,893	
0.5P	MM Band 2	0	12	P	8	27.8	\$146.46	\$176.54	\$4,064	\$4,899	\$32,514	\$39,191	
1S	MM Band 2	1	0	S	2	99.0	\$673.27	\$410.04	\$66,654	\$40,594	\$133,308	\$81,188	
1.25	MM Band 2	1	25	S	8	42.5	\$481.15	\$631.07	\$20,449	\$26,820	\$163,591	\$214,562	
2P	MM Band 2	2	0	P	4	739.5	\$230.98	\$196.21	\$170,807	\$145,099	\$683,228	\$580,398	
2S	MM Band 2	2	0	S	12	93.7	\$887.66	\$688.76	\$83,147	\$64,516	\$997,764	\$774,189	
3P	MM Band 2	3	0	P	1	96.0	\$218.87	\$351.91	\$21,011	\$33,784	\$21,011	\$33,784	
3S	MM Band 2	3	0	S	11	190.5	\$728.43	\$725.33	\$138,729	\$138,139	\$1,526,018	\$1,519,526	
4S	MM Band 2	4	0	S	6	205.3	\$903.83	\$740.56	\$185,583	\$152,059	\$1,113,497	\$912,352	
Tot MM 2					52				\$89,826	\$79,908	\$4,670,931	\$4,155,191	
0.5P	G10 Band 1	0	12	P	58	49.0	\$146.46	\$176.54	\$7,177	\$8,650	\$416,238	\$501,716	
0.75	G10 Band 1	0	34	S	214	2.3	\$445.65	\$251.60	\$1,038	\$586	\$222,210	\$125,454	
1P	G10 Band 1	1	0	P	572	79.3	\$235.19	\$220.66	\$18,644	\$17,491	\$10,664,229	\$10,005,075	
1S	G10 Band 1	1	0	S	945	0.8	\$673.27	\$410.04	\$566	\$344	\$534,443	\$325,492	
1.25	G10 Band 1	1	25	S	34	0.9	\$481.15	\$631.07	\$452	\$593	\$15,378	\$20,169	
2P	G10 Band 1	2	0	P	121	135.3	\$230.98	\$196.21	\$31,240	\$26,538	\$3,779,984	\$3,211,074	
2S	G10 Band 1	2	0	S	216	5.5	\$887.66	\$688.76	\$4,900	\$3,802	\$1,058,373	\$821,218	
3P	G10 Band 1	3	0	P	3	27.7	\$218.87	\$351.91	\$6,056	\$9,737	\$18,168	\$29,212	
4P	G10 Band 1	4	0	P	7	190.3	\$537.03	\$821.46	\$102,191	\$156,316	\$715,337	\$1,094,215	
tot Band 1					2,170				\$8,030	\$7,435	\$17,424,360	\$16,133,624	

Code (1)	Rate	Pipe Diameter Inches	Pipe frac (2)	Pipe Type (3)	# New Customers		New Business		Service Line		Replacement	
					last 5 years	Avg Length feet (5)	\$/ft (6)	\$/ft (6)	CAPEX \$/customer	CAPEX \$/customer	Service Line CAPEX \$'s	Service Line CAPEX \$'s
0.5P	G10 Band 2	0	12	P	31	34.0	\$146.46	\$176.54	\$4,980	\$6,002	\$154,368	\$186,069
0.75	G10 Band 2	0	34	S	323	3.2	\$445.65	\$251.60	\$1,426	\$805	\$460,624	\$260,055
1P	G10 Band 2	1	0	P	578	84.3	\$235.19	\$220.66	\$19,822	\$18,597	\$11,457,159	\$10,748,994
1S	G10 Band 2	1	0	S	961	0.8	\$673.27	\$410.04	\$532	\$324	\$511,141	\$311,300
1.25	G10 Band 2	1	25	S	21	0.9	\$481.15	\$631.07	\$433	\$568	\$9,094	\$11,927
2P	G10 Band 2	2	0	P	166	130.2	\$230.98	\$196.21	\$30,068	\$25,543	\$4,991,369	\$4,240,138
2S	G10 Band 2	2	0	S	150	4.4	\$887.66	\$688.76	\$3,879	\$3,010	\$581,860	\$451,480
3P	G10 Band 2	3	0	P	8	198.1	\$218.87	\$351.91	\$43,364	\$69,725	\$346,915	\$557,798
tot Band 2					2,238				\$8,272	\$7,492	\$18,512,531	\$16,767,761
0.5P	G10 Band 3	0	12	P	19	64.5	\$146.46	\$176.54	\$9,451	\$11,392	\$179,570	\$216,446
0.75	G10 Band 3	0	34	S	258	3.4	\$445.65	\$251.60	\$1,506	\$850	\$388,625	\$219,407
1P	G10 Band 3	1	0	P	618	80.3	\$235.19	\$220.66	\$18,881	\$17,714	\$11,668,645	\$10,947,408
1S	G10 Band 3	1	0	S	1,172	1.4	\$673.27	\$410.04	\$909	\$554	\$1,065,250	\$648,769
1.25	G10 Band 3	1	25	S	24	1.0	\$481.15	\$631.07	\$462	\$606	\$11,086	\$14,540
2P	G10 Band 3	2	0	P	451	149.3	\$230.98	\$196.21	\$34,476	\$29,287	\$15,548,457	\$13,208,321
2S	G10 Band 3	2	0	S	212	3.4	\$887.66	\$688.76	\$2,974	\$2,307	\$630,415	\$489,155
3P	G10 Band 3	3	0	P	14	139.9	\$218.87	\$351.91	\$30,626	\$49,243	\$428,768	\$689,406
4P	G10 Band 3	4	0	P	4	188.5	\$537.03	\$821.46	\$101,230	\$154,846	\$404,919	\$619,384
6P	G10 Band 3	6	0	P	12	201.3	\$1,507.03	\$1,040.13	\$303,409	\$209,409	\$3,640,913	\$2,512,911
tot Band 3					2,784				\$12,201	\$10,620	\$33,966,647	\$29,565,746
1P	G10 Band 4	1	0	P	13	70.3	\$235.19	\$220.66	\$16,536	\$15,514	\$214,974	\$201,686
1S	G10 Band 4	1	0	S	8	35.4	\$673.27	\$410.04	\$23,820	\$14,507	\$190,563	\$116,058
2P	G10 Band 4	2	0	P	59	166.4	\$230.98	\$196.21	\$38,437	\$32,652	\$2,267,769	\$1,926,456
2S	G10 Band 4	2	0	S	4	64.0	\$887.66	\$688.76	\$56,810	\$44,080	\$227,241	\$176,322
3P	G10 Band 4	3	0	P	8	214.0	\$218.87	\$351.91	\$46,838	\$75,310	\$374,703	\$602,477
3S	G10 Band 4	3	0	S	7	18.6	\$728.43	\$725.33	\$13,527	\$13,469	\$94,688	\$94,285
4P	G10 Band 4	4	0	P	12	332.3	\$537.03	\$821.46	\$178,471	\$272,997	\$2,141,646	\$3,275,966
tot Band 4					111				\$49,654	\$57,597	\$5,511,583	\$6,393,250
2P	G10 Band 5	2	0	P	4	81.0	\$230.98	\$196.21	\$18,709	\$15,893	\$74,836	\$63,573
4P	G10 Band 5	3	0	P	1	105.0	\$537.03	\$821.46	\$56,388	\$86,254	\$56,388	\$86,254
4S	G10 Band 5	4	0	S	4	201.3	\$903.83	\$740.56	\$181,895	\$149,037	\$727,581	\$596,149
6S	G10 Band 5	6	0	S	3	1,203.7	\$1,808.75	\$1,318.32	\$2,177,137	\$1,586,827	\$6,531,412	\$4,760,482
8S	G10 Band 5	8	0	S	4	326.0	\$2,645.28	\$1,812.13	\$862,360	\$590,754	\$3,449,441	\$2,363,016
tot Band 5					16				\$677,479	\$491,842	\$10,839,658	\$7,869,474
1P	GAC	1	0	P	1	10.0	\$235.19	\$220.66	\$2,352	\$2,207	\$2,352	\$2,207
1S	GAC	1	0	S	1	22.0	\$673.27	\$410.04	\$14,812	\$9,021	\$14,812	\$9,021
6S	GAC	6	0	S	1	116.0	\$1,808.75	\$1,318.32	\$209,815	\$152,926	\$209,815	\$152,926
tot GAC					3				\$75,660	\$54,718	\$226,979	\$164,153

Code (1)	Rate	Pipe Diameter Inches	Pipe frac (2)	Pipe Type (3)	# new Customers		Avg Length feet (5)	New Business \$/ft (6)	Replacement \$/ft (6)	Service Line CAPEX \$/customer	Replacement Service Line CAPEX \$/customer	Service Line CAPEX \$'s	Replacement Service Line CAPEX \$'s
					last 5 years	(4)							
0.5P	NGV	0	12	P	3	43.7	\$146.46	\$176.54	\$6,396	\$7,709	\$19,188	\$23,128	
0.75	NGV	0	34	S	2	160.5	\$445.65	\$251.60	\$71,527	\$40,382	\$143,054	\$80,764	
1P	NGV	1	0	P	5	155.8	\$235.19	\$220.66	\$36,643	\$34,378	\$183,215	\$171,891	
1S	NGV	1	0	S	5	123.8	\$673.27	\$410.04	\$83,351	\$50,763	\$416,755	\$253,816	
1.25	NGV	1	25	S	1	330.0	\$481.15	\$631.07	\$158,779	\$208,252	\$158,779	\$208,252	
2P	NGV	2	0	P	44	141.6	\$230.98	\$196.21	\$32,709	\$27,786	\$1,439,176	\$1,222,571	
2S	NGV	2	0	S	9	69.4	\$887.66	\$688.76	\$61,639	\$47,827	\$554,751	\$430,445	
3P	NGV	3	0	P	16	181.8	\$218.87	\$351.91	\$39,779	\$63,960	\$636,469	\$1,023,366	
3S	NGV	3	0	S	15	167.3	\$728.43	\$725.33	\$121,888	\$121,369	\$1,828,315	\$1,820,537	
4P	NGV	4	0	P	16	251.1	\$537.03	\$821.46	\$134,826	\$206,237	\$2,157,220	\$3,299,788	
4S	NGV	4	0	S	12	136.8	\$903.83	\$740.56	\$123,598	\$101,271	\$1,483,181	\$1,215,255	
6P	NGV	6	0	P	3	50.7	\$1,507.03	\$1,040.13	\$76,361	\$52,703	\$229,083	\$158,110	
6S	NGV	6	0	S	6	211.7	\$1,808.75	\$1,318.32	\$382,858	\$279,050	\$2,297,148	\$1,674,298	
tot NGV					137				\$84,280	\$84,542	\$11,546,335	\$11,582,222	
0.5P	GEN	0	12	P	8	378.5	\$146.46	\$176.54	\$55,435	\$66,819	\$443,479	\$534,552	
0.75	GEN	0	34	S	172	183.4	\$445.65	\$251.60	\$81,741	\$46,149	\$14,059,486	\$7,937,585	
1P	GEN	1	0	P	182	347.0	\$235.19	\$220.66	\$81,621	\$76,576	\$14,855,097	\$13,936,906	
1S	GEN	1	0	S	36	352.7	\$673.27	\$410.04	\$237,456	\$144,618	\$8,548,419	\$5,206,242	
1S	GEN	1	25	S	3	2,629.0	\$673.27	\$410.04	\$1,770,030	\$1,078,001	\$5,310,091	\$3,234,004	
2P	GEN	2	0	P	207	1,167.1	\$230.98	\$196.21	\$269,568	\$228,996	\$55,800,526	\$47,402,213	
2S	GEN	2	0	S	43	224.0	\$887.66	\$688.76	\$198,818	\$154,268	\$8,549,164	\$6,633,506	
3P	GEN	3	0	P	32	1,561.8	\$218.87	\$351.91	\$341,831	\$549,623	\$10,938,590	\$17,587,928	
4P	GEN	4	0	P	18	1,985.6	\$537.03	\$821.46	\$1,066,301	\$1,631,066	\$19,193,425	\$29,359,189	
tot GEN					701				\$196,431	\$188,063	\$137,698,278	\$131,832,126	
0.5P	G30 Dist	0	12	P	6	174.5	\$146.46	\$176.54	\$25,557	\$30,805	\$153,343	\$184,833	
0.75	G30 Dist	0	34	S	22	80.8	\$445.65	\$251.60	\$36,016	\$20,334	\$792,363	\$447,345	
1P	G30 Dist	1	0	P	6	113.8	\$235.19	\$220.66	\$26,773	\$25,118	\$160,636	\$150,707	
1S	G30 Dist	1	0	S	13	65.7	\$673.27	\$410.04	\$44,229	\$26,937	\$574,974	\$350,176	
1.25	G30 Dist	1	25	S	15	107.1	\$481.15	\$631.07	\$51,515	\$67,566	\$772,725	\$1,013,491	
2P	G30 Dist	2	0	P	48	358.6	\$230.98	\$196.21	\$82,829	\$70,363	\$3,975,792	\$3,377,412	
2S	G30 Dist	2	0	S	103	273.8	\$887.66	\$688.76	\$243,073	\$188,606	\$25,036,471	\$19,426,413	
3P	G30 Dist	3	0	P	46	383.0	\$218.87	\$351.91	\$83,836	\$134,798	\$3,856,466	\$6,200,730	
3S	G30 Dist	3	0	S	63	325.5	\$728.43	\$725.33	\$237,132	\$236,123	\$14,939,329	\$14,875,770	
4P	G30 Dist	4	0	P	14	481.3	\$537.03	\$821.46	\$258,464	\$395,360	\$3,618,501	\$5,535,034	
4S	G30 Dist	4	0	S	72	761.2	\$903.83	\$740.56	\$687,963	\$563,688	\$49,533,343	\$40,585,512	
6P	G30 Dist	6	0	P	3	1,282.0	\$1,507.03	\$1,040.13	\$1,932,004	\$1,333,445	\$5,796,013	\$4,000,334	
6S	G30 Dist	6	0	S	23	845.1	\$1,808.75	\$1,318.32	\$1,528,631	\$1,114,157	\$35,158,504	\$25,625,611	
8S	G30 Dist	8	0	S	5	1,265.8	\$2,645.28	\$1,812.13	\$3,348,390	\$2,293,792	\$16,741,951	\$11,468,961	
10S	G30 Dist	10	0	S	1	73.0	\$3,435.87	\$2,664.50	\$250,818	\$194,508	\$250,818	\$194,508	
tot G30 Dist					440				\$366,730	\$303,266	\$161,361,230	\$133,436,839	
2P	G30 Tran	2	0	P	3	1,363.0	\$230.98	\$196.21	\$314,821	\$267,438	\$944,462	\$802,315	
2S	G30 Tran	2	0	S	5	1,484.6	\$887.66	\$688.76	\$1,317,818	\$1,022,527	\$6,589,090	\$5,112,637	
4S	G30 Tran	4	0	S	1	53.0	\$903.83	\$740.56	\$47,903	\$39,250	\$47,903	\$39,250	
6S	G30 Tran	6	0	S	2	1,593.0	\$1,808.75	\$1,318.32	\$2,881,338	\$2,100,091	\$5,762,676	\$4,200,181	
8S	G30 Tran	8	0	S	1	42.0	\$2,645.28	\$1,812.13	\$111,102	\$76,109	\$111,102	\$76,109	
16S	G30 Tran	16	0	S	1	95.0	\$11,096.37	\$7,618.61	\$1,054,155	\$723,767	\$1,054,155	\$723,767	
tot G30 Tran					13				\$1,116,107	\$842,635	\$14,509,387	\$10,954,259	

Code (1)	Rate	Pipe	Pipe frac (2)	Pipe Type (3)	# new Customers		New	Replacement	Service Line		Replacement	
		Diameter Inches			last 5 years (4)	Avg Length feet (5)	Business \$/ft (6)		CAPEX \$/customer	CAPEX \$/customer	Service Line CAPEX \$'s	Service Line CAPEX \$'s
0.75	Sml G50	0	34	S	5	7.4	\$445.65	\$251.60	\$3,298	\$1,862	\$16,489	\$9,309
1P	Sml G50	1	0	P	21	113.4	\$235.19	\$220.66	\$26,678	\$25,029	\$560,232	\$525,604
1S	Sml G50	1	0	S	6	19.7	\$673.27	\$410.04	\$13,241	\$8,064	\$79,446	\$48,385
1.25	Sml G50	1	25	S	3	143.7	\$481.15	\$631.07	\$69,125	\$90,663	\$207,375	\$271,989
2P	Sml G50	2	0	P	37	103.7	\$230.98	\$196.21	\$23,959	\$20,353	\$886,486	\$753,064
2S	Sml G50	2	0	S	15	121.8	\$887.66	\$688.76	\$108,117	\$83,890	\$1,621,752	\$1,258,357
3P	Sml G50	3	0	P	2	159.5	\$218.87	\$351.91	\$34,910	\$56,130	\$69,819	\$112,261
3S	Sml G50	3	0	S	3	28.0	\$728.43	\$725.33	\$20,396	\$20,309	\$61,188	\$60,928
4P	Sml G50	4	0	P	3	284.3	\$537.03	\$821.46	\$152,695	\$233,569	\$458,084	\$700,708
4S	Sml G50	4	0	S	7	679.9	\$903.83	\$740.56	\$614,474	\$503,474	\$4,301,319	\$3,524,318
6P	Sml G50	6	0	P	2	131.5	\$1,507.03	\$1,040.13	\$198,174	\$136,777	\$396,348	\$273,554
6S	Sml G50	6	0	S	7	788.7	\$1,808.75	\$1,318.32	\$1,426,585	\$1,039,780	\$9,986,098	\$7,278,463
8S	Sml G50	8	0	S	4	82.0	\$2,645.28	\$1,812.13	\$216,913	\$148,595	\$867,651	\$594,378
10S	Sml G50	10	0	S	1	467.0	\$3,435.87	\$2,664.50	\$1,604,550	\$1,244,319	\$1,604,550	\$1,244,319
tot Sml G50					116				\$182,042	\$143,583	\$21,116,838	\$16,655,639
1.25	G50 EG	1	25	S	1	163.0	\$481.15	\$631.07	\$78,427	\$102,864	\$78,427	\$102,864
2S	G50 EG	2	0	S	2	27.0	\$887.66	\$688.76	\$23,967	\$18,596	\$47,934	\$37,193
3S	G50 EG	3	0	S	1	520.0	\$728.43	\$725.33	\$378,782	\$377,171	\$378,782	\$377,171
4S	G50 EG	4	0	S	2	22.5	\$903.83	\$740.56	\$20,336	\$16,663	\$40,672	\$33,325
6S	G50 EG	6	0	S	3	232.0	\$1,808.75	\$1,318.32	\$419,630	\$305,851	\$1,258,890	\$917,554
8S	G50 EG	8	0	S	2	586.0	\$2,645.28	\$1,812.13	\$1,550,133	\$1,061,909	\$3,100,267	\$2,123,817
tot G50 EG					11				\$445,907	\$326,538	\$4,904,972	\$3,591,923
2S	G40	2	0	S	6	86.0	\$887.66	\$688.76	\$76,339	\$59,233	\$458,032	\$355,398
3S	G40	3	0	S	4	129.3	\$728.43	\$725.33	\$94,149	\$93,749	\$376,597	\$374,995
4P	G40	4	0	P	2	1,477.5	\$537.03	\$821.46	\$793,459	\$1,213,713	\$1,586,918	\$2,427,426
4S	G40	4	0	S	7	437.3	\$903.83	\$740.56	\$395,231	\$323,835	\$2,766,616	\$2,266,847
6S	G40	6	0	S	3	5.7	\$1,808.75	\$1,318.32	\$10,250	\$7,471	\$30,749	\$22,412
8S	G40	8	0	S	2	26.5	\$2,645.28	\$1,812.13	\$70,100	\$48,021	\$140,200	\$96,043
16S	G40	16	0	S	1	108.0	\$11,096.37	\$7,618.61	\$1,198,408	\$822,809	\$1,198,408	\$822,809
tot G40					25				\$262,301	\$254,637	\$6,557,518	\$6,365,930

Notes::

(1) "code" shows Pipe type and pipe diameter size

(2) "Pipe fraction" is a code for the pipe size—the codes 12, 34, and 25 represent .5, .75, and .25 inch diameter pipes, respectively

(3) "Pipe type":**P** means plastic and **S** means steel.

(4)"# of new customers" represents new customers added to SoCalGas' system in the past 5 years. For residential, core commercial and industrial customers, new customer data were used (premises that initial gas service started between 2012-2016) while all the other rate classes cover the entire population that service line history could be matched by premise as very few large new customers are added to SoCalGas system each year.

(5) The average length was computed by dividing the total service line footage by rate class, line diameter, and pipe type by the number of customers used in the analysis

(6) New Business is newly installed pipe, and Replacement is when we replace existing pipe. The costs represent the unit cost that is the best representation of the cost per foot, by pipe size and pipe material, to install New Business service pipe and Replacement service pipe on the Gas Distribution system.

(7) Line Extension Credit, per SoCalGas' Rule 20, effective 04/2017

WATER HEATING	\$ 643
SPACE HEATING	\$ 698
COOKTOP & OVEN	\$ 114
DRYER STUB	\$ 160
Total	<u>\$ 1,615</u>

Code	Pipe Diameter Inches	Pipe Type	new Business \$/ft	Replacement \$/ft	avg labor and nonlabor \$/meter	avg \$/meter	avg \$/regulator	Total
0.5PS10	0.5	P	\$146.46	\$176.54	\$247	\$119	\$29	\$395
0.5P30	0.5	P	\$146.46	\$176.54	\$259	\$202	\$29	\$491
0.5PS40	0.5	P	\$146.46	\$176.54	\$155	\$615	\$263	\$1,032
1PS10	1	P	\$235.19	\$220.66	\$247	\$119	\$29	\$395
1P30	1	P	\$235.19	\$220.66	\$259	\$202	\$29	\$491
1P31	1	P	\$235.19	\$220.66	\$271	\$203	\$320	\$794
1PS40	1	P	\$235.19	\$220.66	\$155	\$615	\$263	\$1,032
1PS41	1	P	\$235.19	\$220.66	\$1,652	\$573	\$494	\$2,720
1PS50	1	P	\$235.19	\$220.66	\$155	\$615	\$263	\$1,032
1PS60	1	P	\$235.19	\$220.66	\$1,461	\$536	\$263	\$2,260
1PS80	1	P	\$235.19	\$220.66	\$1,461	\$655	\$311	\$2,427
2P30	2	P	\$230.98	\$196.21	\$259	\$202	\$29	\$491
0.75S10	0.75	S	\$445.65	\$251.60	\$247	\$119	\$29	\$395
0.7530	0.75	S	\$445.65	\$251.60	\$259	\$202	\$29	\$491
0.75S40	0.75	S	\$445.65	\$251.60	\$155	\$615	\$263	\$1,032
1S30	1	S	\$673.27	\$410.04	\$259	\$202	\$29	\$491
1SS40	1	S	\$673.27	\$410.04	\$155	\$615	\$263	\$1,032

Calculation of Weighted Average Service Line and Service Line Replacement Cost \$/customer

Summary of Pipeline Average Service Line and Service Line Replacement Cost by Customer														Average
Code (1)	Rate	Pipe	Pipe frac	Pipe Type	# New Customers		New	Replacement	Meter and Service Line	Replacement Service Line	Service Line	Replacement Service Line	Meter & Regulator	
		Diameter Inches	(2)	(3)	last 5 years (4)	Avg Length feet (5)	Business \$/ft (6)	\$/ft (6)	CAPEX \$/customer	CAPEX \$/customer	CAPEX \$'s	Service Line CAPEX \$'s	CAPEX/ Customer	
0.5PS10	SF	0	12	P	23,872	25.2	\$146.46	\$176.54	\$0	\$4,450	\$0	\$106,241,859	\$395.24	
0.5P30	SF	0	34	P	45,742	25.2	\$146.46	\$176.54	\$0	\$4,450	\$0	\$203,573,857	\$490.68	
0.5PS40	SF	1	0	P	2,106	25.2	\$146.46	\$176.54	\$0	\$4,450	\$0	\$9,372,711	\$1,032.45	
1PS10	SF	1	0	P	6,956	32.4	\$235.19	\$220.66	\$0	\$7,149	\$0	\$49,730,181	\$395.24	
1P30	SF	1	0	P	15,390	32.4	\$235.19	\$220.66	\$0	\$7,149	\$0	\$110,026,953	\$490.68	
1P31	SF	1	0	P	29	32.4	\$235.19	\$220.66	\$0	\$7,149	\$0	\$207,328	\$793.71	
1PS40	SF	1	0	P	3,905	32.4	\$235.19	\$220.66	\$0	\$7,149	\$0	\$27,917,820	\$1,032.45	
1PS41	SF	1	0	P	44	32.4	\$235.19	\$220.66	\$0	\$7,149	\$0	\$314,567	\$2,719.56	
1PS50	SF	1	0	P	486	32.4	\$235.19	\$220.66	\$0	\$7,149	\$0	\$3,474,535	\$1,032.45	
1PS60	SF	1	0	P	454	32.4	\$235.19	\$220.66	\$0	\$7,149	\$0	\$3,245,759	\$2,260.15	
1PS80	SF	1	0	P	125	32.4	\$235.19	\$220.66	\$0	\$7,149	\$0	\$893,656	\$2,426.78	
2P30	SF	1	0	P	27	97.7	\$230.98	\$196.21	\$0	\$19,178	\$0	\$517,802	\$490.68	
0.75S10	SF	0	34	S	52	9.3	\$445.65	\$251.60	\$0	\$2,327	\$0	\$121,020	\$395.24	
0.7530	SF	0	34	S	54	9.3	\$445.65	\$251.60	\$0	\$2,327	\$0	\$125,675	\$490.68	
0.75S40	SF	0	34	S	52	9.3	\$445.65	\$251.60	\$0	\$2,327	\$0	\$121,020	\$1,032.45	
1S30	SF	1	0	S	60	2.5	\$673.27	\$410.04	\$0	\$1,021	\$0	\$61,260	\$490.68	
1SS40	SF	1	0	S	54	2.5	\$673.27	\$410.04	\$0	\$1,021	\$0	\$55,134	\$1,032.45	
Tot SF					99,408				\$0	\$5,191	\$0	\$516,001,139	\$509	
Service Cost for CAPEX													(\$509)	

Notes::

- (1) "code" shows Pipe type and pipe diameter size
- (2) "Pipe fraction" is a code for the pipe size—the codes 12, 34, and 25 represent .5, .75, and .25 inch diameter pipes, respectively
- (3) "Pipe type": **P** means plastic and **S** means steel.
- (4) "# of new customers" represents new customers added to SoCalGas' system in the past 5 years. For residential, core commercial and industrial customers, new customer data were used (premises that initial gas service started between 2012-2016) while all the other rate classes cover the entire population that service line history could be matched by premise as very few large new customers are added to SoCalGas system each year.
- (5) The average length was computed by dividing the total service line footage by rate class, line diameter, and pipe type by the number of customers used in the analysis
- (6) New Business is newly installed pipe, and Replacement is when we replace existing pipe. The costs represent the unit cost that is the best representation of the cost per foot, by pipe size and pipe material, to install New Business service pipe and Replacement service pipe on the Gas Distribution system.
- (7) Line Extension Credit, per SoCalGas' Rule 20, effective 07/2024
- | | |
|----------------------|------|
| WATER HEATING | \$ - |
| SPACE HEATING | \$ - |
| COOKTOP & OVEN | \$ - |
| DRYER STUB | \$ - |
| Total | \$ - |

Code	Pipe Diameter Inches	Pipe Type	new Business \$/ft	Replacement \$/ft	avg labor and nonlabor \$/meter	avg \$/meter	avg \$/regulator	Total
0.5PM10	0.5	P	\$146.46	\$176.54	\$205	\$118	\$7	\$330
0.5P30	0.5	P	\$146.46	\$176.54	\$259	\$201	\$29	\$489
0.5PS40	0.5	P	\$146.46	\$176.54	\$155	\$645	\$263	\$1,063
1PM10	1	P	\$235.19	\$220.66	\$205	\$118	\$7	\$330
1P30	1	P	\$235.19	\$220.66	\$259	\$201	\$29	\$489
1P31	1	P	\$235.19	\$220.66	\$271	\$201	\$320	\$792
1PS40	1	P	\$235.19	\$220.66	\$155	\$645	\$263	\$1,063
1PS41	1	P	\$235.19	\$220.66	\$1,652	\$603	\$494	\$2,750
2PM10	1	P	\$235.19	\$220.66	\$205	\$118	\$7	\$330
2P30	1	P	\$235.19	\$220.66	\$259	\$201	\$29	\$489
1SM10	1	S	\$673.27	\$410.04	\$1,461.01	\$566.35	\$263	\$2,290
1S30	1	S	\$673.27	\$410.04	\$259	\$201	\$29	\$489
1SS40	1	S	\$673.27	\$410.04	\$155	\$645	\$263	\$1,063
2SM10	2	S	\$887.66	\$688.76	\$205	\$118	\$7	\$330

Calculation of Weighted Average Service Line and Service Line Replacement Cost \$/customer

Code (1)	Rate	Pipe Diameter	Pipe frac	Pipe Type	# New Customers	Avg Length	New Business	Replacement	Meter and Service Line	Replacement Service Line	Service Line	Replacement Service Line	Average Meter & Regulator
		Inches	(2)	(3)	last 5 years	feet (5)	\$/ft (6)	\$/ft (6)	CAPEX	CAPEX	CAPEX \$'s	CAPEX \$'s	CAPEX/ Customer
0.5PM10	MF	0	12	P	670	19.9	\$146.46	\$176.54	\$0	\$3,510	\$0	\$2,351,393	\$329.93
0.5P30	MF	0	12	P	744	19.9	\$146.46	\$176.54	\$0	\$3,510	\$0	\$2,611,099	\$489.40
0.5PS40	MF	1	12	P	46	19.9	\$146.46	\$176.54	\$0	\$3,510	\$0	\$161,439	\$1,062.66
1PM10	MF	1	0	P	3,330	24.2	\$235.19	\$220.66	\$0	\$5,349	\$0	\$17,811,164	\$329.93
1P30	MF	1	0	P	2,180	24.2	\$235.19	\$220.66	\$0	\$5,349	\$0	\$11,660,161	\$489.40
1PS40	MF	1	0	P	152	24.2	\$235.19	\$220.66	\$0	\$5,349	\$0	\$813,002	\$1,062.66
2PM10	MF	1	0	P	452	39.9	\$235.19	\$220.66	\$0	\$8,798	\$0	\$3,976,492	\$329.93
2P30	MF	1	0	P	112	39.9	\$235.19	\$220.66	\$0	\$8,798	\$0	\$985,325	\$489.40
1SM10	MF	1	0	S	56	8.3	\$673.27	\$410.04	\$0	\$3,416	\$0	\$191,277	\$2,290.35
1S30	MF	1	0	S	72	8.3	\$673.27	\$410.04	\$0	\$3,416	\$0	\$245,927	\$489.40
1SS40	MF	1	0	S	26	8.3	\$673.27	\$410.04	\$0	\$3,416	\$0	\$88,807	\$1,062.66
2SM10	MF	2	0	S	103	1.9	\$887.66	\$688.76	\$0	\$1,295	\$0	\$133,371	\$329.93
Tot MF					7,943				\$0	\$5,165	\$0	\$41,029,457	\$427
Service Cost for CAPEX													(\$427)

Notes::

- (1) "code" shows Pipe type and pipe diameter size
- (2) "Pipe fraction" is a code for the pipe size—the codes 12, 34, and 25 represent .5, .75, and .25 inch diameter pipes, respectively
- (3) "Pipe type": **P** means plastic and **S** means steel.
- (4) "# of new customers" represents new customers added to SoCalGas' system in the past 5 years. For residential, core commercial and industrial customers, new customer data were used (premises that initial gas service started between 2012-2016) while all the other rate classes cover the entire population that service line history could be matched by premise as very few large new customers are added to SoCalGas system each year.
- (5) The average length was computed by dividing the total service line footage by rate class, line diameter, and pipe type by the number of customers used in the analysis
- (6) New Business is newly installed pipe, and Replacement is when we replace existing pipe. The costs represent the unit cost that is the best representation of the cost per foot, by pipe size and pipe material, to install New Business service pipe and Replacement service pipe on the Gas Distribution system.
- (7) Line Extension Credit, per SoCalGas' Rule 20, effective 07/2024
- | | | |
|----------------------|----|---|
| WATER HEATING | \$ | - |
| SPACE HEATING | \$ | - |
| COOKTOP & OVEN | \$ | - |
| DRYER STUB | \$ | - |
| Total | \$ | - |

SCG 2027 TCAP
LRMC Customer Cost
Big GEMS Investment by Customer Class for Retail Noncore (exclusive use on Cust MC)

	NonCore C&I Distribution G30	NonCore C&I Transmission G30	Total NonCore C&I G30	EG G-50	EOR G-40	LB	SDG&E	SWG	Vernon	Mexicali	Source
# of Meters											
ROTARY 11M & LARGER: (*)			0	1	2	1	0	6	0	0	
TURBINE MSA'S (*)			3	29	2	0	1	7	0	1	
ORIFICE METERS (ultra sonic)			5	38	0	4	10	0	2	0	
Total # meters			8	68	4	5	11	13	2	1	
	Exclusive Use Meter Cost \$/meter										
Investment in Meters:											
ROTARY 11M & LARGER: (*)	\$13,184	\$0	\$0	\$13,184	\$26,367	\$13,184	\$0	\$79,102	\$0	\$0	
TURBINE MSA'S (*)	\$764,079	\$2,009,022	\$283,215	\$2,292,237	\$22,158,291	\$1,528,158	\$0	\$764,079	\$5,348,553	\$0	\$764,079
ORIFICE METERS (ultra sonic)	\$2,595,764	\$11,375,234	\$1,603,586	\$12,978,820	\$98,639,032	\$0	\$10,383,056	\$25,957,640	\$0	\$0	
Total Investment \$'s	2021 \$s	\$13,384,256	\$1,886,801	\$15,271,057	\$120,810,507	\$1,554,525	\$10,396,240	\$26,721,719	\$5,427,655	\$5,191,528	\$764,079
allocation of Total NonCore C&I to Distribution & Transmission		88%	12%								
Total Investment \$'s	2021 \$s	\$17,789,737	\$2,507,849	\$20,297,586	\$160,575,762	\$2,066,203	\$13,818,203	\$35,517,278	\$7,214,189	\$6,900,340	\$1,015,579
2024 Number of Customers		490	17	507	367	29	1	1	1	1	Tab 'cust 2'
Exclusive Use Cost Per Customer	2021 \$s	\$36,305.59	\$147,520.52	\$40,034.69	\$437,536.14	\$71,248.39	\$13,818,202.97	\$35,517,278.40	\$7,214,188.70	\$6,900,339.96	\$1,015,578.62

Tab 'cust 2'

Note : This is part of Exclusive Use Facilities Costs

Exclusive Use Meter Cost \$/meter	2021 \$s	TURBINE METERS 4"-12"	ROTARY METERS 4" - 6"	ULTRASONIC METERS 4" - 16"
Avg. Labor Cost		\$110,525	\$1,144	\$230,483
Avg. Contract Cost		\$431,457	\$0	\$600,495
Avg. Materials Cost		\$222,097	\$12,040	\$1,764,786
TOTAL		\$764,079	\$13,184	\$2,595,764

SCG 2027 TCAP
LRMC Customer Cost
Allocation of Customer-Related Distribution O&M

		Core														
		Residential						Non-Residential								
		Single Family	Multi Family	Master Meter		Residential Total	G-10						Gas Air Conditioning	Natruatl Gas Vehicle	Gas Engine	
				Small	Large		Very Small	Small	Medium	Large	Very Large	Total				
1	2024 Number of Customers	3,861,103	1,807,189	120,098	55	5,788,445	86,340	64,026	47,978	2,154	317	200,815	4	368	571	
Customer Services O&M Costs																
2	Total Cost:	2021 M\$e	\$85,491	\$40,014	\$2,659	\$1	\$128,165	\$4,252	\$4,782	\$12,338	\$1,169	\$249	\$22,789	\$1	\$84	\$128
3	Cost Per Customer:	2021 \$s	22.14	22.14	22.14	22.14	22.14	49.24	74.68	257.15	542.59	785.70	113.48	213.30	228.05	223.92
4		2027 \$s	25.35	25.35	25.35	25.35	25.35	56.38	85.50	294.41	621.19	899.53	129.92	244.20	261.09	256.36
							84.6%	2.8%	3.2%	8.1%	0.8%	0.2%		0.0%	0.1%	0.1%
Customer Accounts O&M Costs																
5	Total Cost:	2021 M\$e	\$53,576	\$25,076	\$1,666	\$1	\$80,319	\$1,111	\$687	\$5,977	\$163	\$118	\$8,057	\$4	\$285	\$49
6	Cost Per Customer:	2021 \$s	13.88	13.88	13.88	13.88	13.88	12.87	10.74	124.59	75.86	371.03	40.12	1,079.28	774.24	84.97
7		2027\$s	15.89	15.89	15.89	15.89	15.89	14.74	12.29	142.64	86.85	424.79	45.94	1,235.64	886.41	97.28
8																
9	segmentation by number of customers		66.70%	31.22%	2.07%	0.001%										
Meters, Reg & MSAs O&M Costs																
10	Total Cost	2021 M\$e	\$5,590	\$2,196	\$561	\$4	\$8,351	\$3	\$4	\$5	\$1	\$0	\$13	\$0	\$0	\$0
11	Cost Per Customer:	2021 \$s	1.45	1.22	4.67	64.09	1.44	0.03	0.06	0.11	0.39	0.57	0.06			
12		2027\$s	1.66	1.39	5.35	73.38	1.65	0.04	0.06	0.13	0.44	0.65	0.07	0.65	0.65	0.65
Service Lines O&M Costs																
13	Total Costs	2021M \$s	\$45,310													
14		2027 \$s	\$51,874,422													
15	Total Service Line Footage		233,579,752	58,907,774	11,635,093	13,796	304,136,415	12,737,629	6,973,402	6,630,225	564,279	115,761	27,021,296	250	62,904	627,475
16	Percent of Total Footage		70.35%	17.74%	3.50%	0.00%	91.60%	3.84%	2.10%	2.00%	0.17%	0.03%	8.14%	0.00%	0.02%	0.19%
17	Allocated SL O&M Costs	2027 \$s	\$36,491,550	\$9,203,007	\$1,817,720	\$2,155	\$47,514,432	\$1,989,966	\$1,089,436	\$1,035,823	\$88,156	\$18,085	\$4,221,466	\$39	\$9,827	\$98,029
18	Cost Per Customer	2027\$s	\$9.45	\$5.09	\$15.14	\$39.19	\$8.21	\$23.05	\$17.02	\$21.59	\$40.93	\$57.05	\$21.02	\$9.75	\$26.70	\$171.68

Source: Costs from Rick Ramirez, 06/15/2022 and Service Footage from Ken Parris, 2/15/2025

Calculation of Customer Service & Information Cost (CSI) Costs Accounts (FERC Accounts 907 to 910):															
5	Total Cost:	2021 M\$s	\$13,252	\$6,202	\$412	\$0	\$19,866	\$831.16	\$616.35	\$461.86	\$12,214.74	\$1,797.62	\$15,922	\$0	\$3,053
3	Cost Per Customer:	2021 \$s	3.43	3.43	3.43	3.43	3.43	9.63	9.63	9.63	5,670.73	5,670.73	79.29	0.00	8,294.95
4		2024 \$s	3.93	3.93	3.93	3.93	3.93	11.02	11.02	11.02	6,492.29	6,492.29	90.77	0.00	9,496.70
							46.5%	1.9%	1.4%	1.1%	28.6%	4.2%	37.3%	0.0%	7.1%

Calculation of Customer Service & Information Cost (CSI) Costs Accounts (FERC Accounts 907 to 910):

		2021 Costs M\$	GRC Exclusion Items	Other Adjustments	2021 Costs in Transport Rates		Exclusions	2021 \$
139	Calculation of Customer Service & Information Costs (CSI Costs):							
140	907 Cus Svc-Supervision + Payroll Taxes	\$274	\$0	\$0	\$274	FERC Form 2	Self Generation (acct 908)	\$10,876,259
141	908 Cus Svc-Cust Assist Exp (PBR Ex DAP, DSM &Self-Gen)	\$267,147	(\$228,960)	\$0	\$38,187	FERC Form 2	Energy Efficiency (acct 908)	\$115,795,522
142	909 Cus Svc-Info & Instruction Exp	\$1,835	\$0	\$0	\$1,835	FERC Form 2	Low Income Energy Efficiency (acct 908)	\$102,073,863
143	910 Cus Svc-Misc CSI Exp	\$2,436	\$0	\$0	\$2,436	FERC Form 2	AB802MA (acct 908)	\$213,621
144		\$271,692	(\$228,960)	\$0	\$42,732		MEOMA (acct 908)	\$0
147							WDRMA (acct 908 and 907001)	\$596
148	CS&I O&M, 2021 \$000's				\$42,732			\$228,959,861
149								

		Residential	CCI	G-AC	G-GEN	NGV	Total Core	NCCI	EG Tier 1	EG Tier 2	EOR	Total Retail NonCore	Long Beach
1	Calculation of CSI Cost Allocator:												
2	Energy Markets Costs:												
3	Mgmt estimate - FTE		0.3	0.0	0.0	0.0	0	0.7	0.2	3.3	2.2	6.4	0.6
4	Energy Markets	0.0%	2.8%	0.0%	0.0%	0.0%	2.8%	7.3%	2.4%	36.1%	23.5%	69.3%	6.5%
5	Energy Markets	\$884	\$25	\$0	\$0	\$0	\$25	\$65	\$21	\$319	\$207	\$613	\$57
6	Large C&I:												
7	# Large C&I Customers	0	2,471	0	0	0	2,471	507	0	0	0	507	0
8	% Large C&I only	0.0%	83.0%	0.0%	0.0%	0.0%	83.0%	17.0%	0.0%	0.0%	0.0%	17.0%	0.0%
9	Large C&I	\$5,719	\$4,745	\$0	\$0	\$0	\$4,745	\$974	\$0	\$0	\$0	\$974	\$0
10	NGV	\$2,553	\$0	\$0	\$0	\$2,553	\$2,553	\$0	\$0	\$0	\$0	\$0	\$0
11	Residential	\$10,728	\$0	\$0	\$0	\$0	\$10,728	\$0	\$0	\$0	\$0	\$0	\$0
12	Small Business												
13	# G10, G-AC, G-GE Customers only	0	200,815	0	0	0	200,815	0	0	0	0	0	0
14	Small Business	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
15	Small Business	\$1,617	\$1,617	\$0	\$0	\$0	\$1,617	\$0	\$0	\$0	\$0	\$0	\$0
16	Econ Development												
17	# Large C&I Customers	0	2,471	0	0	0	2,471	507	0	0	0	507	0
18	% Large C&I only	0.0%	83.0%	0.0%	0.0%	0.0%	83.0%	17.0%	0.0%	0.0%	0.0%	17.0%	0.0%
19	Econ Development	\$8,353	\$6,931	\$0	\$0	\$0	\$6,931	\$1,422	\$0	\$0	\$0	\$1,422	\$0
20	Other Residential	\$5,889	\$0	\$0	\$0	\$0	\$5,889	\$0	\$0	\$0	\$0	\$0	\$0
21	Total	\$35,743	\$16,617	\$13,318	\$0	\$0	\$32,488	\$2,460	\$21	\$319	\$207	\$3,008	\$57
22	Allocator %	46.5%	37.3%	0.0%	0.0%	7.1%	90.9%	6.9%	0.1%	0.9%	0.6%	8.4%	0.2%

SCG 2027 CAP
LRMC Customer Cost
Allocation of Customer-Related Distribution O&M

Noncore														Total Over All Customers	
Non-Residential															
G-30			Small EG	EG G-50	EOR G-40	Wholesale				Vernon	Intl				
Distribution	Transmission	Total				LB	SDG&E	SWG	ECOGAS						
1	2024 Number of Customers	490	17	507	326	41	29	1	1	1	1	1		5,991,111	
Customer Services O&M Costs															
2	Total Cost	2021 M\$\$		\$329	\$69	\$9	\$1	\$0	\$0	\$0	\$0	\$0		151,574	
3	Cost Per Customer:	2021 \$\$		648.54	210.55	210.55	43.13	0.00	0.00	0.00	0.00	0.00		\$151,574	
4		2027 \$\$		742.50	241.06	241.06	49.38	0.00	0.00	0.00	0.00	0.00			
				Total EG	\$77										
				0.2%		0.1%	0.0%								
Customer Accounts O&M Costs															
5	Total Cost:	2021 M\$\$		\$898	\$569	\$72	\$51	\$7	\$5	\$11	\$4	\$3		\$90,332	
6	Cost Per Customer:	2021 \$s		1,770.87	1,744.37	1,744.37	1,755.14	6,530.71	5,087.00	10,861.85	3,643.28	2,921.42			
7		2027\$s		2,027.43	1,997.09	1,997.09	2,009.42	7,476.87	5,823.99	12,435.50	4,171.11	3,344.67			
8															
9	segmentation by number of customers				EG O&M cost	\$640	89%	11%	note: split EG costs by # of customers						
Meters, Reg & MSAs O&M Costs															
10	Total Cost	2021 M\$\$		\$62	\$513	\$61	\$42	\$8	\$8	\$17	\$1	\$1		\$9,077	
11	Cost Per Customer:	2021 \$s		122.29	1,573.62	1,487.80	1,448.28	8,000.00	8,000.00	17,000.00	1,000.00	1,000.00			
12		2027\$s	140.00	140.00	140.00	1,801.60	1,703.36	1,658.10	9,159.02	9,159.02	19,462.93	1,144.88	1,144.88		
Service Lines O&M Costs															
13	Total Costs	2021M \$s													
14		2027 \$s													
15	Total Service Line Footage		104,737	16,542	121,280	46,832	16,273	11,668	0	0	0	0		332,044,394	
16	Percent of Total Footage		0.03%	0.00%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		100.00%	
17	Allocated SL O&M Costs	2027 \$s	\$16,363	\$2,584	\$18,947	\$7,317	\$2,542	\$1,823	\$0	\$0	\$0	\$0		\$51,874,422	
18	Cost Per Customer	2027\$s	\$33.39	\$152.02	\$37.37	\$22.44	\$62.01	\$62.86	\$0.00	\$0.00	\$0.00	\$0.00		\$8.66	

Source: Costs from Rick Ramirez, 06/15/2022 and Serv

Calculation of Customer Service & Information													
Total Cost:	2021 M\$s			\$2,941	\$26	\$382	\$248	\$69	\$65	\$75	\$55	\$30	\$42,732
Cost Per Customer:	2021 \$s			5,801.69	78.55	9,309.42	8,546.13	68,590.22	64,946.55	75,148.83	55,473.00	30,252.33	7.13
	2024 \$s			6,642.23	89.93	10,658.15	9,784.27	78,527.43	74,355.88	86,036.24	63,509.82	34,635.22	
		0.0%	0.0%	6.9%	0.1%	0.9%	0.6%	0.2%	0.2%	0.2%	0.1%	0.1%	100.0%

Calculation of Customer Service & Information

139 Calculation of Customer Service & Information
 140 907 Cus Svc-Supervision + Payroll Taxes
 141 908 Cus Svc-Cust Assist Exp (PBR Ex DAP, DSM)
 142 909 Cus Svc-Info & Instruction Exp
 143 910 Cus Svc-Misc CSI Exp
 144
 147
 148 CS&I O&M, 2021 \$000's
 149

	SDG&E	South West Gas	Vernon	Total Whole sale	DGN	UBS	Total Noncore	SYSTEM TOTAL	Sources
1 <u>Calculation of CSI Cost Allocator:</u>									
2 Energy Markets Costs:	0.6	0.7	0.5	2.3	0.3	0.0	8.9	9.2	
3 Mgmt estimate - FTE	6.1%	7.1%	5.3%	25.0%	2.9%	0.0%	97.2%	100.0%	
4 Energy Markets									
5 Energy Markets	\$54	\$63	\$46	\$221	\$25	\$0	\$859	\$884	
6 Large C&I:									
7 # Large C&I Customers	0	0	0	0	0	0	507	2,978	2021 Customer Count
8 % Large C&I only	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	17.0%	100.0%	
9 Large C&I	\$0	\$0	\$0	\$0	\$0	\$0	\$974	\$5,719	
10 NGV	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,553	
11 Residential	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,728	
12 Small Business									
13 # G10, G-AC, G-GE Customers only	0	0	0	0	0	0	0	200,815	20213 Customer Count from SCG Cust Cost model "cust 2"
14 Small Business	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	
15 Small Business	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,617	
16 Econ Development									
17 # Large C&I Customers	0	0	0	0	0	0	507	2,978	2013 Customer Count from SCG Cust Cost model "cust 2"
18 % Large C&I only	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	17.0%	100.0%	
19 Econ Development	\$0	\$0	\$0	\$0	\$0	\$0	\$1,422	\$8,353	
20 Other Residential	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,889	
21 Total	\$54	\$63	\$46	\$221	\$25	\$0	\$3,255	\$35,743	\$35,743
22 Allocator %	0.2%	0.2%	0.1%	0.6%	0.1%	0.0%	9.1%	100.0%	

100.6%

SCG 2027 CAP
LRMC Customer Cost
Weighted Average RECC and Replacement Factors

\$10

Line			Excluded AVERAGE LABOR COST	AVERAGE METER COST	AVERAGE REGULATOR COST	AVERAGE TOTAL COST	WEIGHTED REPLACEMENT	WEIGHTED RECC	WEIGHTED PVRR
1.									
2.	CUSTOMER CLASS	RATE			Dollars		Percent	Percent	
3.	SINGLE FAMILY	GR	257.00	202.42	46.32	505.73	1.88%	8.57%	121.49%
4.	MULTIPLE FAMILY	GR	217.60	141.87	14.83	374.31	1.64%	8.57%	121.52%
5.	MASTER METERED BAND 1	GM,GS	841.28	504.51	295.51	1641.30	1.78%	8.48%	121.62%
6.	MASTER METERED BAND 2	GM,GS	17976.74	2677.02	1860.74	22514.50	0.73%	8.40%	121.89%
7.	RESIDENTIAL WEIGHTED AVERAGE		170.67	146.45	32.51	349.62	1.96%	8.58%	121.46%
8.	SMALL CORE BAND 1	G-10	340.12	263.02	104.02	707.17	1.93%	8.54%	121.53%
9.	SMALL CORE BAND 2	G-10	508.71	451.10	206.13	1165.95	2.08%	8.54%	121.51%
10.	SMALL CORE BAND 3	G-10	1159.64	728.69	434.08	2322.41	1.82%	8.49%	121.61%
11.	SMALL CORE BAND 4	G-10	3620.77	2445.16	1909.29	7975.21	1.95%	8.47%	121.62%
12.	SMALL CORE BAND 5	G-10	4897.05	3921.86	2931.85	11750.77	2.09%	8.48%	121.59%
13.	G10 AVERAGE		430.93	901.17	194.53	1,526.63	2.75%	8.68%	121.21%
14.	GAS COOLING	GAC	2605.71	1410.99	1070.05	5086.75	1.75%	8.46%	121.67%
15.	Natural Gas Vehicles	NGV	79940.63	4276.83	2079.11	86296.57	0.27%	8.37%	121.99%
16.	GAS ENGINES	GENG	1844.30	800.81	585.81	3230.92	1.54%	8.45%	121.71%
17.	NONCORE COMM/IND TRANSMISSION	G-30	275104.17	9282.22	2850.56	287236.96	0.16%	8.37%	122.02%
18.	NONCORE COMM/IND DISTRIBUTION	G-30	124688.07	6150.18	2799.23	133637.47	0.25%	8.37%	122.00%
19.	NONCORE COMM/IND TOTAL	G-30	129,731.60	6,255.20	2,800.95	138787.75	0.24%	8.37%	122.00%
20.	COGENERATION	G-50	94640.85	3504.80	1236.05	99381.70	0.18%	8.37%	122.01%
21.	EOR	G-40	371704.69	11358.89	2945.07	386008.65	0.14%	8.37%	122.02%
22.	SYSTEM AVERAGE		197.86	172.66	38.38	408.89	1.97%	8.58%	121.46%
22.	INVERSE OF BOOK LIFE		0.00%	4.00%	3.03%				
23.	RECC		8.35%	8.97%	8.04%				
23.	PVRR		122.07%	120.62%	122.07%				

File = SCG 2027CAP LRMC Customer Costs

Tab = cust 10 avg RECC

SCG 2027 CAP
LRMC Customer Cost
Weighted Average RECC and Replacement Factors

Weighted Average RECC and Replacement Factor for Exclusive Use Facilities

Line			GEMs	AVERAGE TOTAL COST	WEIGHTED REPLACEMENT	WEIGHTED RECC
1.						
2.	<u>CUSTOMER CLASS</u>	<u>RATE</u>	Dollars	Dollars	Percent	
3.	NONCORE COMM/IND TRANSMISSION	G-30	2,507,849	2,507,849	4.00%	8.97%
4.	NONCORE COMM/IND DISTRIBUTION	G-30	17,789,737	17,789,737	4.00%	8.97%
5.	NONCORE COMM/IND TOTAL	G-30	20,297,586	20,297,586	4.00%	8.97%
6.	COGENERATION	G-50	160,575,762	160,575,762	4.00%	8.97%
7.	EOR	G-40	2,066,203	2,066,203	4.00%	8.97%
8.	LONG BEACH		13,818,203	13,818,203	4.00%	8.97%
9.	SAN DIEGO GAS & ELECTRIC		35,517,278	35,517,278	4.00%	8.97%
10.	SOUTHWEST GAS		7,214,189	7,214,189	4.00%	8.97%
11.	VERNON		6,900,340	6,900,340	4.00%	8.97%
12.	DGN		1,015,579	1,015,579	4.00%	8.97%
13.	SYSTEM TOTAL		267,702,726	267,702,726	4.00%	8.97%
14.	INVERSE OF BOOK LIFE		4.00%			
15.	RECC factors		8.97%			

Source: Meter cost detail

SOUTHERN CALIFORNIA GAS

2024 Economic Assumptions Update LEVELIZED ANNUAL CAPITAL COST AND RECC FACTORS

utility ☒ social

Auth ROR ==> 7.67%

Fed Tax Rate ==> 21.00%

State Tax Rate ==> 8.84% 1 Valorum Rate ==>

1.303%

FERC Account	Account Name	Book Life	Fed Tax Life	State Tax Life	Percent Salvage	Normlzd Federal Taxes ?	Normlzd State Taxes ?	Depreciation Method		LACC Components (in percent)					RECC Factors	PVCC Factors	Sum of Rev Req		
								Federal Tax	State Tax	Book Depr	Return on Capital	Income Taxes	Property Taxes	Total LACC					
GAS UNDERGROUND STORAGE		9	10	11	12	13	14	15		16		19	20	21	22	23	25	26	27
G-352	Wells	49	15	22	-70%	TRUE	FALSE	db/sl	150%	db/sl	200%	3.47	4.13	1.07	0.73	9.40	6.97	119.28	228.01
G-353	Lines	54	15	22	-40%	TRUE	FALSE	db/sl	150%	db/sl	200%	2.59	4.73	1.19	0.86	9.38	6.87	119.94	288.81
G-354	Compressor Station Equipment	41	15	22	-15%	TRUE	FALSE	db/sl	150%	db/sl	200%	2.80	4.77	1.21	0.87	9.65	7.32	119.70	283.44
G-356	Purification Equipment	39	15	22	-30%	TRUE	FALSE	db/sl	150%	db/sl	200%	3.33	4.45	1.14	0.79	9.72	7.43	119.56	258.93
GAS TRANSMISSION PLANT																			
G-365.1	Land	0	0	0	0%	FALSE	FALSE	none	0%	none	0%	0.00	7.67	2.23	1.30	11.21	n/a	146.06	1153.21
G-366	Structures & Improvements	47	39	45	-40%	TRUE	FALSE	sl	0%	db/sl	0%	2.98	5.00	1.50	0.82	10.30	7.67	130.04	294.92
G-367	Mains	64	15	22	-60%	TRUE	FALSE	db/sl	150%	db/sl	200%	2.50	4.72	1.19	0.86	9.28	6.69	119.90	271.07
G-368	Compressor Station Equipment	50	15	22	-15%	TRUE	FALSE	db/sl	150%	db/sl	200%	2.30	4.99	1.25	0.92	9.46	6.99	120.21	318.28
G-369	Measuring & Regulating Equipment	46	15	22	-50%	TRUE	FALSE	db/sl	150%	db/sl	200%	3.26	4.34	1.11	0.77	9.49	7.09	119.54	252.59
G-371	Other Equipment	21	15	22	-10%	TRUE	FALSE	db/sl	150%	db/sl	200%	5.24	4.34	1.18	0.73	11.49	9.62	118.07	207.38
GAS DISTRIBUTION PLANT																			
G-374.1	Land	0	0	0	0%	FALSE	FALSE	none	0%	db/sl	0%	0.00	7.67	2.23	1.30	11.21	n/a	146.06	1153.21
G-374.2	Land Rights	40	40	40	0%	FALSE	FALSE	sl	0%	db/sl	0%	2.50	5.50	1.60	0.92	10.51	8.01	129.92	323.23
G-375	Structures & Improvements	40	39	45	-10%	TRUE	FALSE	sl	0%	db/sl	0%	2.75	5.31	1.58	0.88	10.52	8.01	129.98	310.59
G-376	Mains	68	20	35	-80%	TRUE	FALSE	db/sl	150%	db/sl	200%	2.65	4.71	1.30	0.83	9.49	6.80	122.83	234.45
G-378	Measuring & Regulating Equipment	47	20	35	-95%	TRUE	FALSE	db/sl	150%	db/sl	200%	4.15	3.80	1.10	0.63	9.67	7.21	122.15	193.11
G-380	Services	67	20	35	-115%	TRUE	FALSE	db/sl	150%	db/sl	200%	3.21	4.27	1.21	0.74	9.43	6.77	122.02	149.84
G-381	Meters	25	20	35	5%	TRUE	FALSE	db/sl	150%	db/sl	200%	3.80	4.91	1.44	0.84	10.99	8.97	120.62	235.78
G-382	Meter & Regulator Installations	30	20	35	-10%	TRUE	FALSE	db/sl	150%	db/sl	200%	3.67	4.70	1.33	0.81	10.51	8.35	122.07	249.14
G-383	House Regulators	33	20	35	5%	TRUE	FALSE	db/sl	150%	db/sl	200%	2.88	5.07	1.42	0.89	10.26	8.04	122.07	274.07
G-387	Other Equipment	21	20	35	5%	TRUE	FALSE	db/sl	150%	db/sl	200%	4.52	4.84	1.46	0.81	11.64	9.75	119.59	216.63
GAS GENERAL PLANT																			
G-390	Structures & Improvements	33	39	45	-15%	TRUE	FALSE	sl	0%	db/sl	0%	3.48	5.05	1.53	0.81	10.88	8.52	129.38	276.54
G-391.1	Office Furniture & Equipment	14	7	10	0%	TRUE	FALSE	db/sl	200%	db/sl	200%	7.14	4.03	1.04	0.71	12.93	11.40	108.64	169.65
G-391.2	Computer Equipment	5	5	6	0%	TRUE	FALSE	db/sl	200%	db/sl	200%	20.00	3.98	1.16	0.56	25.70	24.62	103.50	126.80
G-393	Stores Equipment	20	20	35	0%	TRUE	FALSE	db/sl	150%	db/sl	200%	5.00	4.71	1.42	0.77	11.91	10.04	119.81	210.55
G-394.1	Shop & Garage Equipment	29	20	35	0%	TRUE	FALSE	db/sl	150%	db/sl	200%	3.45	4.88	1.40	0.85	10.57	8.44	121.61	251.63
G-394.3	Large Portable Tools	24	20	35	0%	TRUE	FALSE	db/sl	150%	db/sl	200%	4.17	4.78	1.40	0.81	11.16	9.16	120.73	228.83
G-395	Laboratory Equipment	25	20	35	0%	TRUE	FALSE	db/sl	150%	db/sl	200%	4.00	4.80	1.40	0.82	11.01	8.99	120.93	233.39
G-397	Communications Equipment	15	7	10	0%	TRUE	FALSE	db/sl	200%	db/sl	200%	6.67	4.05	1.03	0.73	12.47	10.91	108.90	174.21
G-398	Miscellaneous Equipment	20	20	35	0%	TRUE	FALSE	db/sl	150%	db/sl	200%	5.00	4.71	1.42	0.77	11.91	10.04	119.81	210.55
		10	3	3	0%	TRUE	FALSE	sl	0%	db/sl	0%	10.00	3.71	0.81	0.67	15.19	13.87	103.47	148.05
		15	3	3	0%	TRUE	FALSE	sl	0%	db/sl	0%	6.67	3.82	0.79	0.73	12.01	10.51	104.88	170.84
		20	3	3	0%	TRUE	FALSE	sl	0%	db/sl	0%	5.00	3.96	0.80	0.77	10.54	8.88	106.01	193.63
		3	3	3	0%	TRUE	FALSE	sl	0%	db/sl	0%	33.33	3.96	1.15	0.46	38.90	38.06	100.86	116.14
		6	3	3	0%	TRUE	FALSE	sl	0%	db/sl	0%	16.67	3.71	0.90	0.59	21.86	20.74	102.08	129.82

File = SCG 2027CAP LRMC Customer Costs

Tab = 2024 RECC

Table 1 Calculation of Marginal Customer Costs 2027 \$/Customer					
Customer Class	CAPEX \$/customer	RECC %	Annualized CAPEX (\$/customer/year)	O&M and Loaders (\$/customer/ year)	Marginal Unit Cost 2024 (\$/customer/ year)
Residential	\$0.00	NA	\$0.00	\$106.32	\$106.32
Core C/I ¹⁴	\$16,092.55	6.98%	\$1,123.24	\$555.92	\$1,679.16
Gas A/C ¹⁵					
Gas Engine ¹⁶	\$269,069.90	6.79%	\$18,279.37	\$1,015.02	\$19,294.39
NGV	\$229,873.20	7.58%	\$17,423.40	\$20,617.22	\$38,040.62
Noncore C/I ¹⁷	\$755,145.54	7.28%	\$54,981.81	\$18,527.91	\$73,509.72
Small EG ¹⁸	\$379,253.54	7.33%	\$27,807.46	\$8,022.30	\$35,829.76
Large EG ¹⁹	\$2,219,865.48	8.05%	\$178,778.01	\$28,327.74	\$207,105.74
EOR ²⁰	\$944,927.05	7.81%	\$73,831.43	\$26,207.01	\$100,038.45
Long Beach ²¹	\$13,818,202.97	8.97%	\$1,239,598.65	\$183,864.62	\$1,423,463.27
SDG&E ²²	\$35,517,278.40	8.97%	\$3,186,171.93	\$172,611.25	\$3,358,783.18
Southwest Gas ²³	\$7,214,188.70	8.97%	\$647,167.99	\$227,861.02	\$875,029.00
Vernon ²⁴	\$6,900,339.96	8.97%	\$619,013.35	\$132,978.03	\$751,991.38
Ecogas ²⁵	\$1,015,578.62	8.97%	\$91,105.18	\$75,592.79	\$166,697.98

¹⁴ Core C&I are the Core Commercial & Industrial customers

¹⁵ Gas A/C are the Gas Air Conditioning for Commercial & Industrial customers', Chapter 12 proposed to be eliminated

¹⁶ Gas Engine are Core Gas Engine Water Pumping Service for Commercial and Industrial

¹⁷ Noncore C/I are Noncore Commercial & Industrial customers

¹⁸ Small EG are Electric Generation customers with usage less than 3 million therms/year

¹⁹ Large EG are Electric Generation customers with usage greater than 3 million therms/year

²⁰ EOR are Enhanced Oil Refinery customers

²¹ Long Beach is the Wholesale - City of Long Beach customer

²² SDG&E is the Wholesale – San Diego Gas & Electric customer

²³ SW Gas is the Wholesale – Southwest Gas Corporation's service territory in southern California

²⁴ Vernon is the Wholesale – City of Vernon customer

²⁵ Ecogas is the Wholesale – ECOGAS Mexico, S. de R.L. de C.V. customer

NA Not applicable

File = SCG 2027TCAP LRM Customer Costs

Tab = Testimony tables

**SoCalGas
2027 CAP**

**Section 2
Long Run Marginal Distribution Cost Model**

Workpapers to the Prepared Written Testimony of Marjorie Schmidt-Pines

General Information about the Distribution Model

This model estimates Demand-related Long Run Marginal Costs (LRMC) for SoCalGas' Distribution Systems, separately for High Pressure and Medium Pressure Distribution Systems.

This workbook contains multiples sheets. These sheets are categorized into:

- a) **Input/Calculations Sheets,**
- b) **Output/Calculation Sheets, and**

Below is a description of each of these sheets

Input/Calculation Sheets:

HPD_Peak_Month_Demand: Cost Driver for High Pressure Distribution Mains. It contains 3 Tables:

- 1: Peak Month Demand by Customer Class: Historical Data,
- 2: Peak Month Demand by Customer Class: Forecast Data,
- 3: Number of customers by class: Historical Data,
- 4: Number of customers by class: Forecasted Data, and
- 5: Level of usage of High Pressure Distribution Service by Customer Class.

MPD_Pea contains 3 Tables:

- 1: Peak Day Demand by Customer Class: Historical Data,
- 2: Peak Day Demand by Customer Class: Forecast Data, and
- 3: Level of Usage of Medium Pressure Distribution Services by Customer Class.

IN_Investment_History: It contains Historical inputs needed to estimate Annualized Investment-related LRMC. It includes 9 Tables:

- 1: High Pressure Distribution (HPD) Mains Footage Investment: New Business & Replacement Combined,
- 2: Total Plastic Distribution Mains Footage Investment: New Business & Replacement Combined,
(Note: no HP Plastic Distribution Mains)
- 3: Total Steel Distribution Mains (including HP) Footage Investment: New Business & Replacement Combined,
(Medium Pressure (MP) Steel Distribution Mains Footage is calculated as the residual)
- 4: Plastic New Business Vs. Replacement Distribution Mains Footage: Based on a Sample Survey,
- 5: Steel New Business Vs. Replacement Distribution Mains Footage: Based on a Sample Survey,
- 6: Plastic Mains Pressure Betterment Investment as a Fraction of Total Plastic Mains Investment,
- 7: Steel Mains Pressure Betterment Investment as a Fraction of Total Steel Mains Investment,
- 8: Contribution in Aid of Construction as a Fraction of Total Distribution Mains Cost,
- 9: Account 378 (Meters & Regulator Stations) Investment Info.

OUT_Investment_Forecast: It contains Forecasted inputs needed to estimate Annualized Investment-related LRMC. It includes 1 Table:

- 1: Forecasted Distribution-related Investment Costs:

Intermediate Output/Calculation Sheets:

HPD_Peak_Month_Demand: It calculates 4 Tables:

- 1: Peak Month Demand for Additional Customers Served by Customer Class,
- 2: Average Coincident Peak Month Demand per Customer,
- 3: Coincident Peak Month Demand for additional Customer served, and
- 4: High Pressure Distribution-Service-Usage-Weighted Coincident Peak Month Demand for Additional Customers Served.

Peak_Day_Demand: It calculates 5 Tables:

- 1: Number of Customers by Class,
- 2: Number of Additional Customers Served,
- 3: Average Peak Day Demand per Customer,
- 4: Peak Day Demand for Additional Customer served, and
- 5: Medium Pressure Distribution-Service-Usage-Weighted Peak Day Demand for Additional Customers Served.

OUT_Investment_History: It contains 4 Tables:

- 1: Plastic Distribution Mains: New Business, Pressure Betterment & Contribution in Aid of New Construction.
- 2: Steel Distribution Mains: New Business, Pressure Betterment & Contribution in Aid of New Construction.
- 3: High Pressure Distribution Mains: New Business, Pressure Betterment & Contribution in Aid of New Construction.
- 4: Load-Growth-related HP & MP Distribution Investments by Components & Total

OUT_Investment_Forecast: It contains 1 Table:

- 1: Allocation Factor, High & Medium Pressure Distribution Mains Forecasted Investments

OUT_MP_LRMC: It contains 4 Table:

- 1: System Demand Determinate, it estimates the distribution LRMC
- 2: Regression of Distribution Investment, it estimates Regression Coefficients for MP and HP Investment
- 3: Calculate Weighted Average RECC Factor, it estimates Regression Coefficients for HP Investment
- 4: % Share of investment between MPD and HPD

MPD Peak Day Demand
2027 CAP

Year	Residential	Core C&I G-10	Gas AC	NGV	Gas Eng	Total Core	NonCore C&I G-30	EOR G-40	EG G-50	Total Noncore	Wholesale	Total System	Cummulative Total
Table 1: Peak Day Demand by Customer Class (Mcf/d): Analysis Period													
2014	1,996,817	573,721	168	31,012	2,867	2,604,585	542,150	57,110	879,121	1,478,382		4,082,967	
2015	1,988,767	572,712	141	29,666	2,382	2,593,667	496,668	55,160	791,482	1,343,310		3,936,978	
2016	1,948,436	558,008	165	35,493	3,171	2,545,272	589,822	63,826	754,670	1,408,319		3,953,591	
2017	2,045,432	602,845	180	38,377	3,605	2,690,440	556,756	45,544	607,780	1,210,080		3,900,520	
2018	2,052,420	592,539	41	38,879	2,700	2,686,580	547,571	54,395	606,461	1,208,426		3,895,006	
2019	2,065,216	590,326	34	39,880	2,474	2,697,930	560,517	50,291	764,065	1,374,874		4,072,804	
2020	2,097,874	551,754	18	34,484	3,224	2,687,355	544,678	48,329	708,147	1,301,154		3,988,508	
2021	2,037,574	570,959	30	41,707	2,701	2,652,971	530,021	25,787	758,197	1,314,005		3,966,976	
2022	2,027,559	563,570	26	46,677	2,164	2,639,996	565,984	28,532	885,660	1,480,176		4,120,172	
2023	2,048,895	589,152	27	49,152	2,289	2,689,515	505,591	26,136	777,852	1,309,578		3,999,094	
2024	2,023,627	571,169	40	50,498	2,669	2,648,003	519,633	24,837	753,373	1,297,844		3,945,846	
2025	2,080,110	558,112	0	57,621	2,577	2,698,420	492,231	27,299	780,042	1,299,573	0	3,997,993	
2026	2,058,879	548,621	0	60,859	2,577	2,670,936	486,576	27,709	778,569	1,292,854	0	3,963,789	
2027	2,044,175	543,125	0	63,633	2,577	2,653,509	482,112	28,520	847,976	1,358,609	0	4,012,118	
2028	2,032,657	539,525	0	65,887	2,577	2,640,646	478,367	28,146	855,956	1,362,468	0	4,003,115	
2029	2,027,001	536,371	0	67,552	2,577	2,633,501	476,525	27,783	859,919	1,364,227	0	3,997,727	
2030	2,020,659	533,251	0	68,203	2,577	2,624,690	474,860	27,433	874,084	1,376,377	0	4,001,067	

Source: Historical from Demand Forecast through 2024 ; Demand Forecast Final TCAP, update

Table 1': Number of Customers by Class

2014	5,446,579	204,616	9	218	712	5,652,134	571	32	228	831	0	5,652,965	
2015	5,475,689	203,977	10	226	714	5,680,616	565	34	247	846	0	5,681,462	
2016	5,516,213	203,580	9	245	718	5,720,765	554	33	313	900	0	5,721,665	
2017	5,552,767	203,710	9	251	711	5,757,448	572	24	344	940	0	5,758,388	
2018	5,585,261	203,226	6	262	691	5,789,448	567	24	346	937	0	5,790,383	
2019	5,621,561	203,895	5	262	682	5,826,405	572	23	350	945	0	5,827,350	
2020	5,651,072	202,864	4	282	658	5,854,880	565	22	367	954	0	5,855,834	
2021	5,684,763	202,835	4	290	639	5,888,531	554	22	364	940	0	5,889,471	
2022	5,723,327	201,480	3	290	614	5,925,714	528	25	371	924	0	5,926,638	
2023	5,759,942	202,060	4	295	597	5,962,898	521	23	367	911	0	5,963,809	
2024	5,788,445	200,815	4	303	571	5,990,138	507	22	367	896	0	5,991,034	
2025	5,795,093	201,979	0	373	603	5,998,049	520	29	369	918	0	5,998,966	
2026	5,811,248	201,890	0	378	603	6,014,120	514	28	369	911	0	6,015,031	
2027	5,827,688	201,770	0	384	603	6,030,445	508	28	366	902	0	6,031,347	
2028	5,844,299	201,677	0	390	603	6,046,969	502	28	366	896	0	6,047,865	
2029	5,861,412	201,624	0	396	603	6,064,035	496	27	366	889	0	6,064,924	
2030	5,879,378	201,569	0	402	603	6,081,952	490	27	366	883	0	6,082,834	

Table 2: Number of Additional Customers Served by Customer Class = change in # customers each ye

2014	0	0	0	0	0	0	0	0	0	0	0
2015	29,110	0	1	8	2	29,121	0	2	19	21	0
2016	40,524	0	1	19	4	40,547	0	0	66	66	0
2017	36,554	130	0	6	0	36,690	18	0	31	49	0
2018	32,494	0	0	11	0	32,505	0	0	2	2	0
2019	36,300	669	0	0	0	36,969	5	0	4	9	0
2020	29,511	0	0	20	0	29,531	0	0	17	17	0
2021	33,691	0	0	8	0	33,699	0	0	0	0	0
2022	38,564	0	0	0	0	38,564	0	3	7	10	0
2023	36,615	580	1	5	0	37,201	0	0	0	0	0
2024	28,503	0	0	8	0	28,511	0	0	0	0	0
2025	6,648	1,164	0	70	32	7,915	13	7	2	22	0
2026	16,155	0	0	5	0	16,160	0	0	0	0	0
2027	16,439	0	0	6	0	16,445	0	0	0	0	0
2028	16,611	0	0	6	0	16,617	0	0	0	0	0
2029	17,113	0	0	6	0	17,119	0	0	0	0	0
2030	17,966	0	0	6	0	17,972	0	0	0	0	0

Table 2: Average Peak Day Demand Per Customer (Mcf/d) = Total Demand by class / total # customers in clas

2014	0	0	0	0	0	0	0	0	0	0	0
2015	0.36	2.81	14.10	131.26	3.34	0.46	879.06	1622.34	3204.38	1587.84	0.00
2016	0.35	2.74	18.30	144.87	4.42	0.44	1064.66	1934.13	2411.09	1564.80	0.00
2017	0.37	2.96	20.05	152.90	5.07	0.47	973.35	1897.66	1766.80	1287.32	0.00
2018	0.37	2.92	6.85	148.39	3.91	0.46	965.73	2266.44	1752.78	1289.66	0.00
2019	0.37	2.90	6.80	152.22	3.63	0.46	979.93	2186.56	2183.04	1454.89	0.00
2020	0.37	2.72	4.55	122.28	4.90	0.46	964.03	2196.76	1929.56	1363.89	0.00
2021	0.36	2.81	7.44	143.82	4.23	0.45	956.72	1172.15	2082.96	1397.88	0.00
2022	0.35	2.80	8.51	160.96	3.52	0.45	1071.94	1141.28	2387.22	1601.92	0.00
2023	0.36	2.92	6.83	166.62	3.83	0.45	970.42	1136.35	2119.49	1437.52	0.00
2024	0.35	2.84	9.97	166.66	4.67	0.44	1024.92	1128.97	2052.79	1448.49	0.00
2025	0.36	2.76	0.00	154.48	4.27	0.45	946.60	953.80	2113.94	1416.24	0.00
2026	0.35	2.72	0.00	161.00	4.27	0.44	946.65	980.88	2109.94	1418.77	0.00
2027	0.35	2.69	0.00	165.71	4.27	0.44	949.04	1022.87	2316.88	1506.41	0.00
2028	0.35	2.68	0.00	168.94	4.27	0.44	952.92	1022.64	2338.68	1521.42	0.00
2029	0.35	2.66	0.00	170.59	4.27	0.43	960.74	1022.63	2349.50	1534.27	0.00

Table 3: Peak Day Demand For Additional Customers Served (Mcf/d) = # additional customers * average demand per custome

2014	0	0	0	0	0	0	0	0	0	0	0
2015	10,573	0	14	1,050	7	11,644	0	3,245	60,883	64,128	0
2016	14,314	0	0	2,753	18	17,084	0	0	159,132	159,132	0
2017	13,465	385	0	917	0	14,767	17,520	0	54,771	72,291	0
2018	11,941	0	0	1,632	0	13,573	0	0	3,506	3,506	0
2019	13,336	1,937	0	0	0	15,273	4,900	0	8,732	13,632	0
2020	10,956	0	0	2,446	0	13,401	0	0	32,802	32,802	0
2021	12,076	0	0	1,151	0	13,226	0	0	0	0	0
2022	13,662	0	0	0	0	13,662	0	3,424	16,711	20,134	0
2023	13,024	1,691	7	833	0	15,556	0	0	0	0	0
2024	9,965	0	0	1,333	0	11,298	0	0	0	0	0
2025	2,386	3,217	0	10,814	138	16,555	12,306	6,316	4,228	22,849	0
2026	5,724	0	0	805	0	6,529	0	0	0	0	0
2027	5,766	0	0	994	0	6,761	0	0	0	0	0
2028	5,777	0	0	1,014	0	6,791	0	0	0	0	0
2029	5,918	0	0	1,024	0	6,942	0	0	0	0	0

Table 1: Level of Usage of Medium Pressure Distribution Service by Customer Class

all years	99.62%	94.82%	100.00%	56.20%	75.83%	0.00%	0.00%	0.00%
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Table 4: Medium Pressure Distribution-Service-Usage-Weighted Peak Day Demand For Additional Customers Served (Mcf/d) = total demand for additional customers * % of customers that use HPD system

2014	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	10,532	0	14	590	5	11,142	0	0	0	0	0	11,142	11,142
2016	14,259	0	0	1,547	13	15,820	0	0	0	0	0	15,820	26,961
2017	13,414	365	0	516	0	14,294	0	0	0	0	0	14,294	41,256
2018	11,895	0	0	917	0	12,812	0	0	0	0	0	12,812	54,068
2019	13,285	1,837	0	0	0	15,122	0	0	0	0	0	15,122	69,190
2020	10,914	0	0	1,374	0	12,288	0	0	0	0	0	12,288	81,478
2021	12,030	0	0	647	0	12,676	0	0	0	0	0	12,676	94,154
2022	13,610	0	0	0	0	13,610	0	0	0	0	0	13,610	107,764
2023	12,975	1,604	7	468	0	15,053	0	0	0	0	0	15,053	122,817
2024	9,927	0	0	749	0	10,676	0	0	0	0	0	10,676	133,493
2025	2,377	3,050	0	6,077	105	11,609	0	0	0	0	0	11,609	145,102
2026	5,702	0	0	452	0	6,154	0	0	0	0	0	6,154	151,256
2027	5,744	0	0	559	0	6,303	0	0	0	0	0	6,303	157,560
2028	5,755	0	0	570	0	6,325	0	0	0	0	0	6,325	163,885
2029	5,896	0	0	575	0	6,471	0	0	0	0	0	6,471	170,355

HPD Peak Month
2027 CAP

Year	Residential	Core C&I G10	Gas AC	NGV	Gas Eng	Total Core	NonCore C&I G-30	EOR G-40	EG G-50	Total Noncore	Wholesale	Total System	Cumulative Total
Table 1: Coincident Peak Month Demand by Customer Class (Mcf): Analysis Period													
2014	34,495,941	11,440,059	5,216	961,365	88,873	46,991,454	13,118,963	1,770,415	21,835,259	36,724,637		83,716,091	
2015	34,061,633	11,404,852	4,371	919,641	73,833	46,464,330	12,018,388	1,709,949	19,658,518	33,386,855		79,851,185	
2016	32,615,258	10,962,751	5,105	1,100,279	98,288	44,781,681	14,272,532	1,978,620	18,744,194	34,995,345		79,777,026	
2017	35,438,628	12,348,883	5,593	1,189,689	111,750	49,094,543	13,472,390	1,411,859	15,095,793	29,980,042		79,074,585	
2018	35,490,945	12,044,253	1,275	1,205,263	83,698	48,825,434	13,250,126	1,686,235	15,063,031	29,999,392		78,824,826	
2019	35,704,708	11,954,816	1,055	1,236,293	76,692	48,973,563	13,563,407	1,559,018	18,977,545	34,099,970		83,073,533	
2020	36,554,720	10,785,027	564	1,069,007	99,958	48,509,275	13,180,122	1,498,188	17,588,672	32,266,981		80,776,257	
2021	34,529,526	11,387,428	923	1,292,908	83,739	47,294,526	12,825,458	799,403	18,831,785	32,456,645		79,751,171	
2022	34,004,093	11,181,026	791	1,446,988	67,092	46,699,990	13,695,681	884,493	21,997,670	36,577,844		83,277,834	
2023	34,501,764	11,975,444	847	1,523,716	70,953	48,072,725	12,234,287	810,216	19,319,970	32,364,473		80,437,198	
2024	33,497,024	11,439,074	1,236	1,565,423	82,731	46,585,488	12,574,097	769,956	18,711,974	32,056,026		78,641,514	
2025	35,111,744	11,529,421	1,245	1,895,404	84,759	48,622,573	14,020,038	897,988	17,734,101	32,652,127		81,274,700	
2026	34,415,707	11,247,981	1,245	2,001,897	84,759	47,751,589	13,867,764	897,988	17,667,430	32,433,181	0	80,184,770	
2027	33,805,086	11,048,355	1,245	2,093,147	84,759	47,032,592	13,747,242	938,160	19,177,500	33,862,902	0	80,895,494	
2028	33,246,789	10,889,602	1,245	2,167,318	84,759	46,389,713	13,645,989	925,831	20,700,295	35,272,115	0	81,661,827	
2029	32,871,870	10,742,145	1,245	2,222,078	84,759	45,922,096	13,593,675	913,909	20,815,822	35,323,405	0	81,245,502	
2030	32,493,107	10,604,611	1,245	2,243,490	84,759	45,427,211	13,547,031	902,390	20,285,582	34,735,004	0	80,162,214	

Source: Historical from Demand Forecast through 2024 William Guo, updated 5-2025; Demand Forecast Final TCAP xxx-xxxx, updat

Table 1': Number of Customers by Class

2014	5,446,579	204,616	9	218	712	5,652,134	571	32	228	831	0	5,652,965	
2015	5,475,689	203,977	10	226	714	5,680,616	565	34	247	846	0	5,681,462	
2016	5,516,213	203,580	9	245	718	5,720,765	554	33	313	900	0	5,721,665	
2017	5,552,767	203,710	9	251	711	5,757,448	572	24	344	940	0	5,758,388	
2018	5,585,261	203,226	6	262	691	5,789,446	567	24	346	937	0	5,790,383	
2019	5,621,561	203,895	5	262	682	5,826,405	572	23	350	945	0	5,827,350	
2020	5,651,072	202,864	4	282	658	5,854,880	565	22	367	954	0	5,855,834	
2021	5,684,763	202,835	4	290	639	5,888,531	554	22	364	940	0	5,889,471	
2022	5,723,327	201,480	3	290	614	5,925,714	528	25	371	924	0	5,926,638	
2023	5,759,942	202,060	4	295	597	5,962,698	521	23	367	911	0	5,963,809	
2024	5,788,445	200,815	4	303	571	5,990,138	507	22	367	896	0	5,991,034	
2025	5,795,093	201,979	0	373	603	5,998,049	520	29	369	940	0	5,998,989	
2026	5,811,248	201,890	0	378	603	6,014,120	514	28	369	1,019	0	6,015,139	
2027	5,827,688	201,770	0	384	603	6,030,445	508	28	366	902	0	6,031,347	
2028	5,844,299	201,677	0	390	603	6,046,969	502	28	366	896	0	6,047,865	
2029	5,861,412	201,624	0	396	603	6,064,035	496	27	366	889	0	6,064,924	
2030	5,879,378	201,569	0	402	603	6,081,952	490	27	366	883	0	6,082,834	
2031	5,897,736	201,491	0	408	603	6,100,238	484	26	366	876	0	6,101,114	

Table 2': Number of Additional Customers Served by Customer Class = change in # customers each year

2014	0	0	0	0	0	0	0	0	0	0	0
2015	29,110	0	1	8	2	29,121	0	2	19	15	29,136
2016	40,524	0	0	19	4	40,547	0	0	66	54	40,601
2017	36,554	130	0	6	0	36,690	18	0	31	40	36,730
2018	32,494	0	0	11	0	32,505	0	0	2	0	32,505
2019	36,300	669	0	0	0	36,969	5	0	4	8	36,977
2020	29,511	0	0	20	0	29,531	0	0	17	9	29,540
2021	33,691	0	0	8	0	33,699	0	0	0	0	33,699
2022	38,564	0	0	0	0	38,564	0	3	7	0	38,564
2023	36,615	580	1	5	0	37,201	0	0	0	0	37,201
2024	28,503	0	0	8	0	28,511	0	0	0	0	28,511
2025	6,648	1,164	0	70	32	7,915	13	7	2	44	7,959
2026	16,155	0	0	5	0	16,160	0	7	0	79	16,239
2027	16,439	0	0	6	0	16,445	0	0	0	0	16,445
2028	16,611	0	0	6	0	16,617	0	0	0	0	16,617
2029	17,113	0	0	6	0	17,119	0	0	0	0	17,119
2030	17,966	0	0	6	0	17,972	0	0	0	0	17,972

Table 2: Average Coincident Peak Month Demand Per Customer (Mcf) = Total Demand by class / total # customers in class

Average Cost Customer Year Month Demand Total Customer (mm) Total Cost (\$mm) By Class: R/P Customers: R/P												
Year	Cost	Customer	Year	Month	Demand	Total Customer (mm)	Total Cost (\$mm)	By Class: R/P	Customers: R/P	Cost	Customer	
2014	6.2	55.9	437.1	4,069.2	103.4	4,672	21,271.5	50,292.6	79,589.1	39,464.4	0.0	44,136
2016	5.9	53.8	567.3	4,490.9	136.9	5,255	25,762.7	59,958.2	59,885.6	38,883.7	0.0	44,139
2017	6.4	60.6	621.4	4,739.8	157.2	5,585	23,553.1	58,827.5	43,883.1	31,893.7	0.0	37,479
2018	6.4	59.3	212.4	4,600.2	121.1	4,999	23,368.8	70,259.8	43,534.8	32,016.4	0.0	37,016
2019	6.4	58.6	210.9	4,718.7	112.5	5,107	23,712.3	67,783.4	54,221.6	36,084.6	0.0	41,192
2020	6.5	53.2	141.1	3,790.8	151.9	4,143	23,327.6	68,099.4	47,925.5	33,822.8	0.0	37,966
2021	6.1	56.1	230.8	4,458.3	131.0	4,882	23,150.6	36,336.5	51,735.7	34,528.3	0.0	39,411
2022	5.9	55.5	263.7	4,989.6	109.3	5,424	25,938.8	35,379.7	59,292.9	39,586.4	0.0	45,010
2023	6.0	59.3	211.8	5,165.1	118.8	5,561	23,482.3	35,226.8	52,643.0	35,526.3	0.0	41,087
2024	5.8	57.0	309.0	5,166.4	144.9	5,683	24,801.0	34,998.0	50,986.3	35,776.8	0.0	41,460
2025	6.1	57.1	0.0	5,081.5	140.5	5,285	26,961.6	31,374.7	48,059.9	34,736.3	0.0	40,021
2026	5.9	55.7	0.0	5,296.0	140.5	5,498	26,980.1	31,788.2	47,879.2	31,816.3	0.0	37,314
2027	5.8	54.8	0.0	5,450.9	140.5	5,652	27,061.5	33,646.5	52,397.5	37,546.9	0.0	43,199
2028	5.7	54.0	0.0	5,557.2	140.5	5,757	27,183.2	33,638.9	56,558.2	39,387.2	0.0	45,145
2029	5.6	53.3	0.0	5,611.3	140.5	5,811	27,406.6	33,638.8	56,873.8	39,726.3	0.0	45,537

Table 3: Coincident Peak Month Demand For Additional Customers Served (Mcf) = # additional customers * average demand per customer

Year	Confidentiality Demand	Monthly Demand	For Additional Customers	Salvaged (mty)	Additional Customers	Average Demand per Customer						
2014	0	0	0	0	0	0	0	0	0	0	0	0
2015	181,079	0	437	32,554	207	136,049,200	0	100,585	1,512,194	591,966	0	1,285,953,089
2016	239,603	0	0	85,328	548	213,068,597	0	0	3,952,450	2,099,721	0	1,792,070,131
2017	233,293	7,881	0	28,439	0	204,928,047	423,956	0	1,360,377	1,275,746	0	1,376,605,653
2018	206,480	0	0	50,603	0	162,506,163	0	0	87,070	0	0	1,203,200,113
2019	230,555	39,225	0	0	0	188,801,015	118,561	0	216,886	288,677	0	1,523,143,017
2020	190,896	0	0	75,816	0	122,359,413	0	0	814,734	304,405	0	1,121,523,151
2021	204,641	0	0	35,666	0	164,530,058	0	0	0	0	0	1,328,100,796
2022	229,121	0	0	0	0	209,173,150	0	106,139	415,050	0	0	1,735,783,527
2023	219,322	34,375	212	25,826	0	206,875,522	0	0	0	0	0	1,528,489,976
2024	164,943	0	0	41,331	0	162,028,015	0	0	0	0	0	1,182,060,783
2025	40,262	66,449	0	355,706	4,535	41,831,153	350,501	207,745	96,120	1,528,397	0	318,524,654
2026	95,674	0	0	26,480	0	88,849,998	0	0	0	2,525,897	0	605,961,872
2027	95,360	0	0	32,705	0	92,947,992	0	0	0	0	0	710,416,927
2028	94,496	0	0	33,343	0	95,671,243	0	0	0	0	0	750,170,856
2029	95,975	0	0	33,668	0	99,475,672	0	0	0	0	0	779,567,723
2030	0	0	0	0	0	0	0	0	0	0	0	0

Table 1: Level of Usage of High Pressure Distribution Service by Customer Class

all years	100.00%	99.37%	100.00%	90.98%	94.30%	0.00%	0.00%	0.00%
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Table 4: High Pressure Distribution-Service-Usage-Weighted Coincident Peak Month Demand For Additional Customers Served (Mcf) = total demand for additional customers * % of customers that use HPD syst

2014	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	181,072	0	437	29,618	195	181,704	0	0	0	0	0	0	181,704	181,704
2016	239,593	0	0	77,632	516	240,109	0	0	0	0	0	0	240,109	421,813
2017	233,283	7,831	0	25,874	0	241,114	0	0	0	0	0	0	241,114	662,927
2018	206,471	0	0	46,039	0	206,471	0	0	0	0	0	0	206,471	869,398
2019	230,545	38,977	0	0	0	269,523	0	0	0	0	0	0	269,523	1,138,921
2020	190,888	0	0	68,978	0	190,888	0	0	0	0	0	0	190,888	1,329,808
2021	204,632	0	0	32,450	0	204,632	0	0	0	0	0	0	204,632	1,534,440
2022	229,111	0	0	0	0	229,111	0	0	0	0	0	0	229,111	1,763,551
2023	219,313	34,158	212	23,496	0	253,682	0	0	0	0	0	0	253,682	2,017,234
2024	164,936	0	0	37,603	0	164,936	0	0	0	0	0	0	164,936	2,182,170
2025	40,281	66,030	0	323,623	4,277	110,587	0	0	0	0	0	0	110,587	2,292,757
2026	95,670	0	0	24,092	0	95,670	0	0	0	0	0	0	95,670	2,388,426
2027	95,356	0	0	29,756	0	95,356	0	0	0	0	0	0	95,356	2,483,783
2028	94,492	0	0	30,336	0	94,492	0	0	0	0	0	0	94,492	2,578,275
2029	95,971	0	0	30,631	0	95,971	0	0	0	0	0	0	95,971	2,674,246
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	2,674,246

TABLE - 1 FORECASTED DISTRIBUTION INVESTMENT

		Pressure	New Business	FERC Account #378	Total
Year	New Business	Betterment	Forfeiture	Meter & Reg. Station	Distribution
2012	\$11,307,459	\$18,578,855	(\$2,564,785)	\$7,845,106	\$35,166,634
2013	\$19,813,570	\$16,516,777	(\$1,866,998)	\$8,316,250	\$42,779,599
2014	\$20,144,563	\$53,568,457	(\$2,938,240)	\$6,967,124	\$77,741,904
2015	\$25,504,301	\$31,731,305	(\$3,624,013)	\$6,622,661	\$60,234,254
2016	\$25,150,192	\$44,246,432	(\$7,499,486)	\$5,314,881	\$67,212,019
2017	\$30,452,297	\$33,359,289	(\$9,874,188)	\$5,451,961	\$59,389,359
2018	\$34,138,934	\$21,743,552	(\$3,783,834)	\$7,011,559	\$59,110,211
2019	\$33,437,711	\$27,628,652	(\$4,897,523)	\$6,960,835	\$63,129,675
2020	\$28,936,556	\$54,907,150	(\$3,024,569)	\$11,602,736	\$92,421,873
2021	\$33,291,769	\$24,065,823	(\$2,333,457)	\$19,668,326	\$74,692,461
Forecast 2022	\$30,990,714	\$29,094,972	(\$4,667,819)	\$19,668,326	\$75,086,193
2023	\$33,035,653	\$28,272,105	(\$4,773,643)	\$19,668,326	\$76,202,442
2024	\$0	\$28,177,382	\$0	\$19,668,326	\$47,845,708
2025	\$0	\$9,022,704	\$0	\$19,668,326	\$48,691,030
2026	\$0	\$9,853,385	\$0	\$19,668,326	\$49,561,711
2027	\$0	\$0,790,186	\$0	\$19,668,326	\$50,458,512
2028	\$0	\$1,713,892	\$0	\$19,668,326	\$51,382,218
2029	\$0	\$2,665,309	\$0	\$19,668,326	\$52,333,635
2030	\$0	\$3,645,268	\$0	\$19,668,326	\$53,313,594

[sempa-grc-fact-sheet.pdf](#)

Post Test Years Escalate 3.%, per GRC Decision

2027

2027\$

TABLE - 1 FORECASTED DISTRIBUTION INVESTMENT

		Pressure	New Business	FERC Account #378	Total		
Year	New Business	Betterment	Forfeiture	Meter & Reg. Station	Distribution		
2015	\$36,043,355	\$44,843,522	(\$5,121,552)	\$11,444,627	\$87,209,953	1.413227	1.728101
2016	\$34,985,320	\$61,549,256	(\$10,432,203)	\$9,082,462	\$95,184,834	1.391056	1.708874
2017	\$41,761,840	\$45,748,447	(\$13,541,319)	\$8,934,165	\$82,903,133	1.371386	1.638707
2018	\$46,245,448	\$29,454,355	(\$5,125,675)	\$10,961,822	\$81,535,950	1.354625	1.563393
2019	\$43,848,765	\$36,231,017	(\$6,422,399)	\$10,541,611	\$84,198,993	1.311357	1.514418
2020	\$37,006,804	\$70,220,456	(\$3,868,105)	\$17,097,668	\$120,456,824	1.278895	1.473589
Forecast 2021	\$40,785,834	\$29,483,103	(\$2,858,724)	\$24,796,790	\$92,207,003	1.225103	1.260747 Forecast
2022	\$37,966,806	\$35,644,326	(\$5,718,558)	\$24,796,790	\$92,689,365	1.225103	1.260747
2023	\$40,472,066	\$34,636,230	(\$5,848,202)	\$24,796,790	\$94,056,884	1.225103	1.260747
2024	\$0	\$34,520,185	\$0	\$24,796,790	\$59,316,975	1.225103	1.260747
2025	\$0	\$35,555,791	\$0	\$24,796,790	\$60,352,581	1.225103	1.260747
2026	\$0	\$36,622,464	\$0	\$24,796,790	\$61,419,255	1.225103	1.260747
2027	\$0	\$37,721,138	\$0	\$24,796,790	\$62,517,929	1.225103	1.260747
2028	\$0	\$38,852,772	\$0	\$24,796,790	\$63,649,563	1.225103	1.260747
2029	\$0	\$40,018,356	\$0	\$24,796,790	\$64,815,146	1.225103	1.260747
2030	\$0	\$41,218,906	\$0	\$24,796,790	\$66,015,697	1.225103	1.260747

Global Insight
Plastic mains
JUGPDM@PCF

Meas. & Reg. St. Equip.
JUGPDSTM&R@PCF

2017 – 2021 Values

New Business Column

This includes historical, actual loaded costs of Budget Codes (BCs) 151 – 153. The figures are in recorded-year dollars and *not* constant 2021\$
Due to the little to no HP new business main projects, these costs can be assumed to be entirely medium pressure work

Pressure Betterment Column

This includes historical, actual loaded costs of BC 251. The figures are in recorded-year dollars and *not* constant 2021\$

Prior to 2021 includes historical. The figures are in recorded-year dollars and *not* constant 2021\$

2022 – 2024 Values

New Business Column

This is the forecast costs of BCs 151 – 153 based on the RO model output of our TY2024 GRC. The figures are in constant 2021\$.

Pressure Betterment Column

This is the forecast costs of BC 251 based on the RO model output of our TY2024 GRC. The figures are in constant 2021\$

TABLE - 2 High Pressure FORECASTED DISTRIBUTION INVESTMENT

Year	New Business	Pressure	New Business Forfeiture	FERC Account #378	Total	Hp Inventory As Fraction of Reg. Station
		Betterment		Meter & Reg. Station	Distribution	
2012	\$0	\$9,103,639	\$0	\$998,034	\$10,101,673	0.1272
2013	\$0	\$8,093,221	\$0	\$1,096,137	\$9,189,358	0.1318
2014	\$0	\$26,248,544	\$0	\$909,837	\$27,158,381	0.1306
2015	\$0	\$15,548,339	\$0	\$867,304	\$16,415,643	0.1310
2016	\$0	\$21,680,752	\$0	\$695,240	\$22,375,991	0.1308
2017	\$0	\$16,346,052	\$0	\$715,297	\$17,061,349	0.1312
2018	\$0	\$10,654,340	\$0	\$919,215	\$11,573,556	0.1311
2019	\$0	\$13,538,039	\$0	\$915,350	\$14,453,389	0.1315
2020	\$0	\$26,904,504	\$0	\$1,540,843	\$28,445,347	0.1328
2021	\$0	\$11,792,253	\$0	\$2,611,954	\$14,404,207	0.1328
2022	\$0	\$14,256,536	\$0	\$2,611,954	\$16,868,490	0.1328
2023	\$0	\$13,853,331	\$0	\$2,611,954	\$16,465,285	0.1328
2024	\$0	\$13,806,917	\$0	\$2,611,954	\$16,418,871	0.1328
2025	0	\$14,221,125	\$0	2,611,954	\$16,833,079	0.1328
2026	0	\$14,647,759	\$0	2,611,954	\$17,259,712	0.1328
2027	0	\$15,087,191	\$0	2,611,954	\$17,699,145	0.1328
2028	0	\$15,539,807	\$0	2,611,954	\$18,151,761	0.1328
2029	0	\$16,006,001	\$0	2,611,954	\$18,617,955	0.1328
2030	0	\$16,486,181	\$0	2,611,954	\$19,098,135	0.1328

FY1 – as a follow-up for the HP/MP split, please utilize 6.43% (% of DOT-Distribution jurisdiction HP lines within Gas Distribution; 3,325 miles out of 51,671). Please let me know if you have any questions!

Song Ik, No Longer

HP	49%
	(\$ 92,526,097.77)
MP	51%
	(\$ 96,035,970.76)
	(\$ 188,562,068.53)

This split was derived from the type of projects that contribute to the historical cost during 2012 – 2021

TABLE - 2 High Pressure FORECASTED DISTRIBUTION INVESTMENT

Year	New Business	Pressure	New Business Forfeiture	FERC Account #378	Total	Cumulative
		Betterment		Meter & Reg. Station	Distribution	Distribution
2015	\$0	\$21,973,326	\$0	\$1,496,788	\$23,472,114	\$23,472,114
2016	\$0	\$30,159,135	\$0	\$1,188,077	\$31,347,212	\$54,819,327
2017	\$0	\$22,416,739	\$0	\$1,172,163	\$23,588,901	\$78,408,228
2018	\$0	\$14,432,634	\$0	\$1,437,095	\$15,869,729	\$94,277,957
2019	\$0	\$17,753,198	\$0	\$1,386,222	\$19,139,420	\$113,417,377
2020	\$0	\$34,408,024	\$0	\$2,270,570	\$36,678,594	\$150,095,971
2021	\$0	\$14,446,720	\$0	\$3,293,014	\$17,739,734	\$167,835,705
2022	\$0	\$17,465,720	\$0	\$3,293,014	\$20,758,734	\$188,594,439
2023	\$0	\$16,971,753	\$0	\$3,293,014	\$20,264,767	\$208,859,205
2024	\$0	\$16,914,891	\$0	\$3,293,014	\$20,207,904	\$229,067,110
2025	\$0	\$17,422,337	\$0	\$3,293,014	\$20,715,351	\$249,782,461
2026	\$0	\$17,945,008	\$0	\$3,293,014	\$21,238,021	\$271,020,482
2027	\$0	\$18,483,358	\$0	\$3,293,014	\$21,776,372	\$292,796,854
2028	\$0	\$19,037,859	\$0	\$3,293,014	\$22,330,872	\$315,127,726
2029	\$0	\$19,608,994	\$0	\$3,293,014	\$22,902,008	\$338,029,734
2030	\$0	\$20,197,264	\$0	\$3,293,014	\$23,490,278	\$361,520,012

53 (32.5%) to the overall NB worksheet

TABLE - 3 Medium Pressure FORECASTED DISTRIBUTION INVESTMENT

Year	Pressure		New Business Forfeiture	FERC Account #378		Total
	New Business	Betterment		Meter & Reg. Station	Distribution	
2012	\$11,307,459	\$9,475,216	(\$2,564,785)	\$6,847,072	\$25,064,961	
2013	\$19,813,570	\$8,423,556	(\$1,866,998)	\$7,220,113	\$33,590,242	
2014	\$20,144,563	\$27,319,913	(\$2,938,240)	\$6,057,287	\$50,583,523	
2015	\$25,504,301	\$16,182,966	(\$3,624,013)	\$5,755,358	\$43,818,611	
2016	\$25,150,192	\$22,565,680	(\$7,499,486)	\$4,619,641	\$44,836,028	
2017	\$30,452,297	\$17,013,237	(\$9,874,188)	\$4,736,664	\$42,328,010	
2018	\$34,138,934	\$11,089,212	(\$3,783,834)	\$6,092,344	\$47,536,655	
2019	\$33,437,711	\$14,090,613	(\$4,897,523)	\$6,045,485	\$48,676,286	
2020	\$28,936,556	\$28,002,647	(\$3,024,569)	\$10,061,893	\$63,976,526	
2021	\$33,291,769	\$12,273,570	(\$2,333,457)	\$17,056,372	\$60,288,254	
2022	\$30,990,714	\$14,838,435	(\$4,667,819)	\$17,056,372	\$58,217,703	
2023	\$33,035,653	\$14,418,774	(\$4,773,643)	\$17,056,372	\$59,737,156	
2024	\$0	\$14,370,465	\$0	\$17,056,372	\$31,426,837	
2025	\$0	\$14,801,579	\$0	\$17,056,372	\$31,857,951	
2026	\$0	\$15,245,626	\$0	\$17,056,372	\$32,301,999	
2027	\$0	\$15,702,995	\$0	\$17,056,372	\$32,759,367	
2028	\$0	\$16,174,085	\$0	\$17,056,372	\$33,230,457	
2029	\$0	\$16,659,307	\$0	\$17,056,372	\$33,715,880	
2030	\$0	\$17,159,087	\$0	\$17,056,372	\$34,215,459	

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TABLE - 3 Medium Pressure FORECASTED DISTRIBUTION INVESTMENT

Year	Pressure		New Business Forfeiture	FERC Account #378		Total	Cumulative
	New Business	Betterment		Meter & Reg. Station	Distribution	Distribution	Distribution
2015	\$36,043,355	\$22,870,196	(\$5,121,552)	\$9,945,839	\$63,737,838	\$63,737,838	
2016	\$34,985,320	\$31,390,120	(\$10,432,203)	\$7,894,385	\$63,837,622	\$127,575,461	
2017	\$41,761,840	\$23,331,708	(\$13,541,319)	\$7,762,003	\$59,314,232	\$186,889,692	
2018	\$46,245,448	\$15,021,721	(\$5,125,675)	\$9,624,727	\$65,666,221	\$252,555,914	
2019	\$43,848,765	\$18,477,819	(\$6,422,399)	\$9,155,389	\$65,059,573	\$317,615,487	
2020	\$37,006,804	\$35,812,433	(\$3,868,105)	\$14,827,098	\$83,778,230	\$401,393,717	
2021	\$40,785,834	\$15,036,383	(\$2,858,724)	\$21,503,777	\$74,467,269	\$475,860,985	
2022	\$37,966,806	\$18,178,606	(\$5,718,558)	\$21,503,777	\$71,930,631	\$547,791,616	
2023	\$40,472,066	\$17,664,477	(\$5,848,202)	\$21,503,777	\$73,792,117	\$621,583,734	
2024	\$0	\$17,605,294	\$0	\$21,503,777	\$39,109,071	\$660,692,805	
2025	\$0	\$18,133,453	\$0	\$21,503,777	\$39,637,230	\$700,330,034	
2026	\$0	\$18,677,457	\$0	\$21,503,777	\$40,181,233	\$740,511,268	
2027	\$0	\$19,237,781	\$0	\$21,503,777	\$40,741,557	\$781,252,825	
2028	\$0	\$19,814,914	\$0	\$21,503,777	\$41,318,690	\$822,571,515	
2029	\$0	\$20,409,361	\$0	\$21,503,777	\$41,913,138	\$864,484,653	
2030	\$0	\$21,021,642	\$0	\$21,503,777	\$42,525,419	\$907,010,072	

TABLE 8
Distribution Long Run Marginal Cost Estimate (2024\$)
SOUTHERN CALIFORNIA GAS COMPANY
2027 CAP

System	MPD	HPD
Demand Determinate	mcf/d	mcf/month
Capital-related LRMIC:		
Medium Pressure Regression Coefficient =	\$5,044	\$117.30
Weighted RECC Factor =	6.89%	6.84%
Annualized Capital-related LRMIC	\$347.65	\$8.02
O&M-related LRMIC:		
Total Distribution O&M costs (2021 \$000's) =	\$129,425	\$129,425
escalation 2021 to 2027	1.1449	1.1449
Total Distribution O&M costs (2027 \$000's) =	\$148,176	\$148,176
% Share of Investment	73%	27%
Peak Day Demand	6,031	6,031
O&M-related LRMIC	\$17.87	\$6.69740
A&G-related LRMIC:		
A&G Factor, as a Percent of O&M-related LRMIC	46.92%	46.92%
A&G-related LRMIC	\$8.38	\$3.14235
General Plant (GP)-related LRMIC:		
GP Factor, as a Percent of O&M-related LRMIC	44.95%	44.95%
GP-related LRMIC	\$8.03	\$3.01070
Material & Supply (M&S)-related LRMIC:		
Total Distribution M&S costs (2024 \$000's) =	\$5,628	\$5,628
% Share of Investment	73%	27%
Demand Determinates	6,048	6,048
M&S-related LRMIC	\$0.68	\$0.25369
Distribution LRMIC =	\$382.61 \$/Mcf/d	\$21.13 \$Mcf/mo

TABLE 7
Regression of Distribution Investment
SOUTHERN CALIFORNIA GAS COMPANY
2027 CAP

System	MPD	MPD	HPD	HPD
	Cumulative	Peak Day Cumulative	Cumulative	Peak Month Cumulative
Year	Investment \$000	Demand MMcf/d	Investment \$000	Demand MMcf/ Month
2015	\$63,738	11	\$23,472	182
2016	\$127,575	27	\$54,819	422
2017	\$186,890	41	\$78,408	663
2018	\$252,556	54	\$94,278	869
2019	\$317,615	69	\$113,417	1,139
2020	\$401,394	81	\$150,096	1,330
2021	\$475,861	94	\$167,836	1,534
2022	\$547,792	108	\$188,594	1,764
2023	\$621,584	123	\$208,859	2,017
2024	\$660,693	133	\$229,067	2,182
2025	\$700,330	145	\$249,782	2,293
2026	\$740,511	151	\$271,020	2,388
2027	\$781,253	158	\$292,797	2,484
2028	\$822,572	164	\$315,128	2,578
2029	\$864,485	170	\$338,030	2,674
Regression Coefficient	\$5,043.62		\$117.30	

Calculate Weighted Average RECC Factor:

System	MPD		MPD		HPD		HPD	
	New Business	Pressure Betterment	New Business	Account #378	New Business	Pressure	New Business	Account #378
Historical Investment	\$000's	\$000	Forfeiture \$000	Meter & Reg Stations \$000	\$000's	Betterment \$000	Forfeiture \$000	Meter & Reg Stations \$000
2015	\$36,043	\$22,870	(\$5,122)	\$9,946	\$0	\$21,973	\$0	\$1,499
2016	\$34,985	\$31,390	(\$10,432)	\$7,894	\$0	\$30,159	\$0	\$1,188
2017	\$41,762	\$23,332	(\$13,541)	\$7,762	\$0	\$22,417	\$0	\$1,172
2018	\$46,245	\$15,022	(\$5,126)	\$9,525	\$0	\$14,433	\$0	\$1,437
2019	\$43,849	\$18,478	(\$6,422)	\$9,155	\$0	\$17,753	\$0	\$1,386
2020	\$37,007	\$35,812	(\$3,868)	\$14,827	\$0	\$34,408	\$0	\$2,271
2021	\$40,786	\$15,036	(\$2,859)	\$21,504	\$0	\$14,447	\$0	\$3,293
2022	\$37,967	\$18,179	(\$5,719)	\$21,504	\$0	\$17,466	\$0	\$3,293
2023	\$40,472	\$17,664	(\$5,848)	\$21,504	\$0	\$16,972	\$0	\$3,293
2024	\$0	\$17,605	\$0	\$21,504	\$0	\$16,915	\$0	\$3,293
Total Invest \$000	\$323,073	\$192,519	(\$53,815)	\$135,179	\$0	\$184,969	\$0	\$20,626
	Total Invest \$000's	% of Total	RECC %	Weghted RECC%	Total Invest \$000's	% of Total	RECC %	Weghted RECC%
New Business \$000's	\$323,073	54%	6.80%	3.68%	\$0	0%	6.80%	0.00%
Pressure Betterment	\$192,519	32%	6.80%	2.19%	\$184,969	90%	6.80%	6.12%
CIAC	(\$53,815)	-9%	6.80%	-0.61%	\$0	0%	6.80%	0.00%
subtotal	\$461,776	77%		5.26%	\$184,969	90%		6.12%
Meter & Reg Stations #378	\$135,179	23%	7.21%	1.63%	\$20,626	10%	7.21%	0.72%
Total	\$596,955	100%		6.89%	\$205,595	100%		6.84%

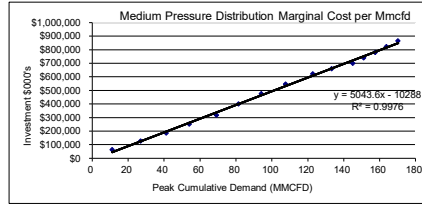
% Share of Investment between MPD and HPD:

	Investment \$000's	% Share
MPD Investment	\$781,253	73%
HPD Investment	\$292,797	27%
	\$1,074,050	100%

Marginal MPD Costs

Year	Cumulative MMcfd	Cumulative CAPEX \$000's
2015	11	\$63,736
2016	27	\$127,575
2017	41	\$186,890
2018	54	\$252,556
2019	69	\$317,615
2020	81	\$401,394
2021	94	\$475,861
2022	108	\$547,792
2023	123	\$621,584
2024	133	\$660,693
2025	145	\$700,330
2026	151	\$740,511
2027	158	\$781,253
2028	164	\$822,572
2029	170	\$864,485

Marginal MPD Investment per MMCF



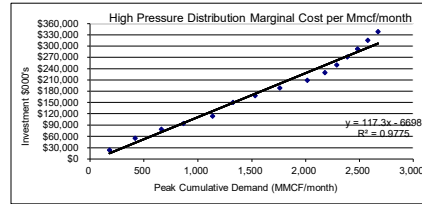
Marginal MP Distribution Cost

Marginal Cost for Medium Pressure Distribution (MPD) (2027 \$/Mcf peak day)	
Capital-related Charge:	
MPD Regression Coefficient \$/Mcf	\$5,043.62
x RECC Factor	6.89%
= Annualized Capital-related Charge (\$/Mcf)	\$347.65
+ Direct O&M	\$17.87
+ A&G	\$8.38
+ GP	\$8.03
+ M&S	\$0.68
= Marginal Unit Cost (\$/Mcf)	\$382.61

Marginal HPD Costs

Year	Cumulative Mmcf/ month	Cumulative CAPEX \$000's
2015	182	\$23,472
2016	422	\$54,819
2017	663	\$78,408
2018	869	\$94,278
2019	1,139	\$113,417
2020	1,330	\$150,096
2021	1,534	\$167,836
2022	1,764	\$188,594
2023	2,017	\$208,859
2024	2,182	\$229,067
2025	2,293	\$249,782
2026	2,388	\$271,020
2027	2,454	\$292,797
2028	2,578	\$315,128
2029	2,674	\$338,030

Marginal HPD Investment per MMCF/month



Marginal HP Distribution Cost

Table 5 Marginal Cost for High Pressure Distribution (2027 \$/MCF/month)	
Capital-related Charge:	
HPD Regression Coefficient \$/Mcf/month	\$117.30
x RECC Factor	6.84%
= Annualized Capital-related Charge (\$/Mcf/month)	\$8.02
+ Direct O&M	\$6.70
+ A&G	\$3.14
+ GP	\$3.01
+ M&S	\$0.25
= Marginal HP Distribution Cost(\$/MCF/month)	\$21.13