

Application of SOUTHERN CALIFORNIA GAS )  
COMPANY for authority to update its gas revenue )  
requirement and base rates )  
effective January 1, 2019 (U 904-G) )

Application No. 17-10-008  
Exhibit No.: (SCG-44-WP-2R)

SECOND REVISED  
WORKPAPERS TO PREPARED  
DIRECT TESTIMONY OF  
JAWAAD A. MALIK  
ON BEHALF OF SOUTHERN CALIFORNIA GAS COMPANY

BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA

April 2018



PROPOSED POST-TEST YEAR RATEMAKING MECHANISM – SCG

A. REVENUE REQUIREMENT

This Post-Test Year (PTY) ratemaking mechanism proposes to adjust Test Year (TY) authorized revenue requirement in PTY’s 2020, 2021 and 2022 for:

1. Labor and non-labor costs based on IHS/Markit Global Insight’s (GI) forecast (Section B.1.),
2. Medical costs based on the Willis Towers Watson’s actuarial forecast (Section B.2), and
3. Calculating PTY capital-related revenue requirements using:
  - a) An escalated 5-year average level of capital additions (Section C), and
  - b) A forecast for Pipeline Safety Enhancement Plan (PSEP) capital additions beyond TY 2019 (Section E).

The base margin amounts adopted in SoCalGas’ TY 2019 are from the testimony of SoCalGas witness Khai Nguyen (Exhibit SCG-43) and utilized throughout these workpapers. The table below summarizes the total revenue requirement with SoCalGas PTY ratemaking mechanism including Miscellaneous Revenues and Franchise Fees & Uncollectible (FF&U).

Table 1

Line No.	Description (\$ in millions)	PTY – 2020	PTY – 2021	PTY – 2022
1	Total O&M Margin (excluding Medical and	\$1,468.1	\$1,505.9	\$1,544.0
2	Medical Expense	74.1	78.6	82.9
3	Capital Related Costs (Depreciation, Taxes, Return)	1,480.1	1,595.5	1,713.3
4	PSEP Capital Related Costs	13.7	48.1	89.7
5	Total (L1 + L2 + L3 + L4)	3,035.9	3,228.1	3,430.0
6	FF&U (FF = 1.372%, U = .316%)	48.6	49.3	50.1
7	Total Base Margin (L5 + L6)	3,084.5	3,277.5	3,480.1
8	Miscellaneous Revenues	83.1	83.1	83.1
9	Total Revenue Requirement (L7 + L8)	<u>\$3,167.7</u>	<u>\$3,360.6</u>	<u>\$3,563.2</u>
10	Revenue Requirement Increase \$	\$236.9	\$192.9	\$202.6
11	Revenue Requirement Increase %	8.08%	6.09%	6.03%

**B. OPERATION & MAINTENANCE (“O&M”) EXPENSES**

The starting base for O&M escalation is the TY 2019 revenue requirement excluding miscellaneous revenues, capital related margin, medical expense, franchise fees, and uncollectibles (O&M Margin). Medical costs are escalated separately, as described below in section B2. After the PTY O&M and medical expenses are escalated, these costs will be grossed up for FF&U using the factors authorized in the TY 2019.

1. Escalation of O&M (excluding medical): For simplicity in calculating PTY escalation, a single weighted average gas O&M utility input price index (GOMPI) is used to adjust O&M expenses to reflect the expected cost inflation of goods and services that SoCalGas will incur to serve its customers. The calculation of GOMPI is described in Mr. Scott Wilder’s testimony (Ex. SCG-40). The PTY O&M revenue requirement is calculated below (differences due to rounding) in Table-2:

Table 2

Line No.	O&M Expense Adjustment (\$ in millions)	TY – 2019	PTY – 2020	PTY – 2021	PTY – 2022
1	Prior Year O&M Margin		\$1,429.4	\$1,468.1	\$1,505.9
2	O&M Escalation Rate		2.70%	2.58%	2.53%
3	Attrition Year O&M Escalation (L1 * L2)		\$38.6	\$37.8	\$38.2
4	O&M Expense (L1 + L3)	\$1,429.4	\$1,468.1	\$1,505.9	\$1,544.0

2. Escalation of Medical Costs: Medical costs adopted in SoCalGas’ TY 2019 will be escalated annually using the Willis Towers Watson’s medical escalation projections as described in the direct testimony of SoCalGas witness Ms. Debbie Robinson (Exhibit SCG-30). The associated revenue requirement prior to FF&U gross up is calculated below (differences due to rounding) in Table-3:

Table 3

Line No.	Medical Cost Adjustment (\$ in millions)	TY – 2019	PTY – 2020	PTY – 2021	PTY – 2022
1	Prior Year Medical Expense (net)		\$69.6	\$74.1	\$78.6
2	Medical Escalation Rate		6.50%	6.00%	5.50%
3	Attrition Year Medical Escalation (L1 * L2)		\$4.5	\$4.4	\$4.3
4	Medical Expense (L1+ L3)	\$69.6	\$74.1	\$78.6	\$82.9

C. CAPITAL-RELATED

1. 5-Year Capital Additions Average

This section describes the development of PTY plant additions and other PTY rate base changes to determine the capital-related revenue requirement (authorized return, depreciation expense, tax, and franchise fee and uncollectible gross ups). The recorded (2015-2016) plant additions are taken from historically recorded rate base. The recorded (2016) and forecasted (2017-2019) rate base components, plant additions and plant retirements are from the testimony of SoCalGas witness Mr. Patrick Moersen (Exhibit SCG-35\_PMoersen\_Ratebase\_WP). Once each attrition year net plant additions are computed, incremental depreciation reserve, and deferred taxes are calculated in order to determine the rate base for each attrition year. The change in year over year rate base is then utilized to calculate the capital costs components of the revenue requirement.

Table 4

Line No.	Capital-Related Attrition (\$ in millions)	TY – 2019	PTY – 2020	PTY – 2021	PTY – 2022
1	Prior Year Capital-Related Costs		\$1,300.7	\$1,480.1	\$1,595.5
2	Capital-Related Attrition		179.3	115.5	117.8
3	Capital-Related Costs (L1+ L2)	\$1,300.7	\$1,480.1	\$1,595.5	\$1,713.3

The development of the PTY rate base and the derivation of individual revenue requirement components are described in detail below.

1. Rate Base: The starting point in developing rate base for each attrition year is the prior year plant in service. Weighted average (WAVG) net plant additions for the attrition year are added, and current year changes to the net depreciation and accumulated deferred tax reserve are made.
  - a) Weighted Net Plant Additions
    - 1) The starting point used for the plant additions for the PTY is a five-year average of plant additions. The five-year average is comprised of two years of recorded (2015-2016, refer to Table-12, Line 7) and three years of forecasted (2017-2019 from the test year RO model, see Table-14, Line 13) capital additions. Each year is escalated to test year dollars and then averaged (Table-6, Line 7-9). The five-year average is then escalated to 2020, 2021 and 2022 (Table-6, Line 10).

- 2) Plant retirements for the PTY are also calculated using a five-year average of retirements. The five-year average is comprised of two years of recorded (2015-2016, refer to Table-13, Line 7) and three years of forecasted (2017-2019) capital retirements from the Test Year RO model (Table-14, Line 14). Each year is escalated to test year dollars (Table-6, Lines 11-13) and then averaged. The resulting five-year average is then escalated to 2020, 2021 and 2022 (Table-6, Line 14).
- 3) WAVG Net Plant Additions: Each PTY's WAVG net plant additions is calculated using the ratio of the prior year WAVG net plant additions balance to the prior year end of year (EOY) net plant additions balance multiplied by the attrition-year's EOY net plant additions. (Table-6, Line 2)
  - a. e.g.  $(\$584,906 / \$1,764,069) * \$1,156,400 = \$383,424$
  - b) Change in Accumulated Depreciation Reserve: Each PTY's WAVG net depreciation reserve is calculated using the ratio of the attrition year WAVG plant in service balance to the prior year WAVG plant in service balance multiplied by the prior year's net depreciation reserve. Net depreciation reserve includes annual retirements, cost of removal and salvage. (Table-6, Line 5)
    - 1) e.g.  $(\$17,484,272 / \$15,921,686) * \$208,689 = \$229,170$
  - c) Working Capital and Other: SoCalGas is not proposing to change the rate base elements of Materials and Supplies, Working Cash, Customer Advances for Construction, and deferred revenue from the Test Year 2019 amounts. (Table 5, Line 4,5,7,8)
  - d) Repair Deductions Rate Base Adjustment (2016 – 2038) (Table-5, Line 9): SoCalGas proposes to continue the amortization of this rate base adjustment as ordered in D.16-06-054, page 192, and adjusted for Tax Cuts & Jobs Act (TCJA) as discussed in the testimony and workpapers of witness Ragan Reeves (Exhibit SCG-37-R2/Exhibit SCG-37-WP-R2).
  - e) Accumulated Deferred Taxes – 2017 Tax Cuts & Jobs Act Adj (Table-5, Line 11): SoCalGas calculated this rate base adjustment using the average rate assumption method (ARAM) as explained by witness Ragan Reeves (Exhibit SCG-37-R2). SoCalGas proposes to continue the amortization of this adjustment into the PTYs.

f) Change in Accumulated Deferred Taxes – Plant: Each PTY’s WAVG accumulated deferred taxes is calculated using the ratio of the test year level of deferred taxes to the test year WAVG plant in service. (Table-5, Line 13)

1) e.g.  $\$749,743 / \$15,921,686 * \$17,484,272 = \$823,324$

g) Change in Accumulated Deferred Taxes – CIAC: Each PTY’s WAVG accumulated deferred taxes is calculated using the ratio of the test year level of deferred taxes to the test year WAVG plant in service. (Table 5, Line 14)

1) e.g.  $(-\$144,399 / \$15,921,686) * \$17,484,272 = -\$158,570$

The resulting Weighted Average Depreciated Rate Base and supporting calculations are shown in the tables below:

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Table 5

		2019 RO Model					2020-2022 Attrition Year				
Line No.	Account Description	Recorded Year 2016	Estimated Year 2017	Estimated Year 2018	Test Year 2019	AY 2020	AY 2021	AY 2022	AY 2020	AY 2021	AY 2022
<b>Fixed Capital</b>											
1	Plant In Service	12,560,245	13,392,793	14,596,651	15,921,686	17,484,272	18,649,755	19,843,368			
2	Work-In-Progress (non-interest bearing)	507	576	598	666	666	666	666			
3	Total Fixed Capital	12,560,752	13,393,369	14,597,250	15,922,351	17,484,938	18,650,420	19,844,034			
<b>Working Capital</b>											
4	Materials & Supplies	21,490	22,981	23,769	24,506	24,506	24,506	24,506			
5	Working Cash	(341)	(353)	(365)	169,122	169,122	169,122	169,122			
6	Total Working Capital	21,149	22,628	23,403	193,628	193,628	193,628	193,628			
<b>Other</b>											
7	Customer Advances For Construction	(97,909)	(95,539)	(96,209)	(96,879)	(96,879)	(96,879)	(96,879)			
8	Deferred Revenue - ITCC	(38,640)	(38,029)	(36,430)	(33,616)	(33,616)	(33,616)	(33,616)			
9	Repair Deductions Rate Base Adjustment (2016 - 2038)	(14,300)	(13,650)	(13,000)	(12,350)	(11,700)	(11,050)	(10,400)			
10	Total Other	(150,848)	(147,218)	(145,638)	(142,845)	(142,195)	(141,545)	(140,895)			
<b>Deductions For Reserves</b>											
11	Accumulated Deferred Taxes - 2017 Tax Cuts & Jobs Act Adj			523,878	509,818	495,758	481,698	467,638			
12	Accumulated Depreciation Reserve	6,788,175	7,089,003	7,450,199	7,861,368	8,310,208	8,795,883	9,313,283			
13	Accumulated Deferred Taxes - Plant	1,186,177	1,248,690	793,468	749,743	823,324	878,206	934,413			
14	Accumulated Deferred Taxes - CIAC	(124,794)	(135,669)	(140,819)	(144,399)	(158,570)	(169,141)	(179,966)			
15	Accumulated Deferred Investment Tax Credits	0	0	0	0	0	0	0			
16	Total Deductions For Reserves	7,849,558	8,202,024	8,626,727	8,976,530	9,470,720	9,986,646	10,535,368			
17	Weighted Average Depreciated Rate Base	4,581,494	5,066,756	5,848,288	6,996,605	8,065,652	8,715,857	9,361,399			

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Table 6

2020-2022 Attrition Year Calc													
Line No.	2019 RO Model			2020-2022 Attrition Year Calc									
	2019	2020	2021	2022	2019	2020	2021	2022	2019	2020	2021	2022	
1	Plant In Service	End of Year	End of Year	End of Year	End of Year	End of Year	End of Year	End of Year	End of Year	End of Year	End of Year	End of Year	End of Year
2	Beginning of the Year	15,336,780	17,100,849	17,100,849	17,100,849	18,257,249	18,257,249	18,257,249	19,441,040	19,441,040	19,441,040	19,441,040	1,183,791
3	Net Additions	1,764,069	584,906	1,156,400	383,424	(201,483)	392,505	9,082	1,183,791	1,213,415	402,328	9,822	9,822
4	Total Fixed Capital	17,100,849	15,921,686	18,257,249	17,484,272	1,562,587	18,649,755	1,165,482	20,654,456	20,654,456	19,843,368	1,193,614	1,193,614
5	Accum Depreciation	End of Year	End of Year	End of Year	End of Year	End of Year	End of Year	End of Year	End of Year	End of Year	End of Year	End of Year	End of Year
6	Beginning of the Year	7,652,678	8,081,037	8,081,037	8,081,037	428,359	8,551,436	470,399	8,551,436	8,551,436	8,551,436	8,551,436	501,755
7	Depreciation Reserve	428,359	208,689	470,399	229,170	20,481	244,447	15,276	501,755	533,868	260,092	15,645	15,645
8	Total	8,081,037	7,861,368	8,551,436	8,310,208	448,840	8,795,883	485,675	9,053,192	9,587,060	9,313,283	517,400	517,400
9	Capital Additions	Recorded	Forecast	PTY		Escalation Rate		Escalation Rate		Escalation Rate		Escalation Rate	
10	Capital Additions (2016\$)	766,383	752,748	2015 (2016\$)	2016 (2016\$)	2017 (2017\$)	2018 (2018\$)	2019 (2019\$)	2020	2021	2022	2022	2022
11	Capital Additions (2019\$)	760,628	752,748	1,311,816	1,133,465	1,701,585	1,874,252	1,874,252	2.77%	2.37%	2.50%	2.50%	2.50%
12	Capital Additions 5-Year Average	837,812	829,132	1,444,931	1,248,483	1,874,252	1,874,252	1,874,252	1,281,415	1,311,766	1,344,593	1,344,593	1,344,593
13	Retirements	126,816	127,664	121,945	86,611	110,183	110,183	110,183	125,014	127,975	131,178	131,178	131,178
14	Retirements (2016\$)	125,864	127,664	117,682	80,969	100,032	100,032	100,032	125,014	127,975	131,178	131,178	131,178
15	Retirements (2019\$)	138,636	140,618	129,624	89,185	110,183	110,183	110,183	125,014	127,975	131,178	131,178	131,178
16	Retirements 5-Year Average	138,636	140,618	129,624	89,185	110,183	110,183	110,183	125,014	127,975	131,178	131,178	131,178
17	Plant Additions for Ratebase	1,156,400	1,183,791	1,213,415	1,213,415	1,213,415	1,213,415	1,213,415	1,156,400	1,183,791	1,213,415	1,213,415	1,213,415



2. Revenue Requirement: The capital-related revenue requirement components for each attrition year are calculated using the methodologies described below:
- h) Depreciation Expense: Depreciation expense is calculated by multiplying the current PTY plant-in-service weighted average increase by the test year's system average depreciation rate. (Table-8, Lines 1-7)
  - i) Ad Valorem Tax: Ad Valorem Tax is calculated by multiplying the current attrition year additions by the test year's system ad valorem tax rate. (Table-8, Lines 8-14)
  - j) State Tax Depreciation: State Tax Depreciation income tax expense is calculated by multiplying the current attrition year additions by the test year's system average state tax depreciation rate and by the state income tax rate. (Table-10, Lines 10-18)
  - k) Payroll Tax: Payroll Tax is calculated by multiplying the prior year payroll taxes by the current attrition year labor escalation rate forecasted by Global Insight. (Table-8, Lines 15-19)
  - l) Federal Tax Depreciation: Federal Tax Depreciation income tax expense is calculated by multiplying current attrition year additions by the test year's system average federal tax depreciation rate and by the federal income tax rate. (Table-10, Lines 1-9)
  - m) California Corporation Franchise Tax (Prior Year): Prior Year's state income tax is a deduction for federal income tax purposes. (Table-11, Lines 1-22)
  - n) Long-Term Debt Cost: Long-Term Debt Cost is calculated by multiplying the attrition year change in weighted average rate base by the authorized weighted cost of Long Term Debt. (Table-9, Lines 4-10)
  - o) Preferred Stock Cost: Preferred Stock Cost is calculated by multiplying the attrition year change in weighted average rate base by the authorized weighted return on Preferred Stock. (Table-9, Lines 11-17)
  - p) Common Equity Cost: Common Equity Cost is calculated by multiplying the attrition year change in weighted average rate base by the authorized weighted return on Common Equity. (Table-9, Lines 18-25)

q) Gross Ups: All revenue requirement components which are not directly deductible for income taxes are grossed up for income taxes. These are Book Depreciation, State Tax Depreciation, Federal Tax Depreciation, Preferred Stock Cost, Common Equity Cost, and California Corporation Franchise Tax (Prior Year). All revenue requirement components are grossed up for FF&U using the factors referenced in Section D.

3. Tax Law Changes: SoCalGas’ revenue requirement will reflect all tax law changes (depreciation policy) and tax rate changes, including but not limited to changes in income taxes, payroll taxes, and ad valorem taxes.

D. Franchise Fees and Uncollectible Gross Up: The total resulting O&M will be grossed up for FF&U using the franchise fee factors of 1.3720% and the uncollectible factor of 0.316%. The calculation of the gross up factor is shown below:

Table 7

Line No.	Description	
1	Revenues	1.000000
2	Uncollectible Tax Rate	0.003160
3	Uncollectible Amount Applied	1.000000
4	Less: Uncollectible (L2 * L3)	0.003160
5	Subtotal (L3 - L4)	0.996840
6	Franchise Fees Tax Rate	0.013720
7	Franchise Fees Amount Applied (L5)	0.996840
8	Less: Franchise Fees (L6 * L7)	0.013677
9	Subtotal (L7 - L8)	0.983163
10	Franchise Fee and Uncollectible Factor (1 / L9)	1.017125

E. PSEP Capital-Related Costs

Please see workpapers SCG-44-WP-2R JAM PSEP-1 to SCG-44-WP-2R JAM PSEP-11 for PSEP capital-related revenue requirements calculations.

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**Table 8**

Southern California Gas Company  
2019 GRC  
Calculation of Revenue Requirement Increase  
(Thousands of Dollars)

		<b>Section-1</b>			
Line	Depreciation Expense	2019	2020	2021	2022
1	2019 Accrual	606,830			
2	/ 2019 Wtd Avg Plant in Service	15,921,686			
3	= System Average Depreciation Rate	3.81%	3.81%	3.81%	3.81%
4	x Plant in Service Weighted Average Increase		1,562,587	1,165,482	1,193,614
5	= Increase in Depreciation Expense		59,556	44,421	45,493
6	x Net-to-Gross Multiplier	1.4123518	1.4123518	1.4123518	1.4123518
7	= Increase in Revenue Requirements		84,113	62,737	64,252
<u>Ad Valorem Taxes</u>					
8	2019 Ad Valorem Taxes	83,366			
9	/ 2019 Plant in Service	17,100,849			
10	= System Average Ad Valorem Tax Rate	0.49%	0.49%	0.49%	0.49%
11	x Current Attrition Year Additions		1,156,400	1,183,791	1,213,415
12	= Increase Full Year Additions		5,637	5,771	5,915
13	x Franchise Fee and Uncollectible Factor	1.0171249	1.0171249	1.0171249	1.0171249
14	= Increase in Revenue Requirements		5,734	5,870	6,017
<u>Payroll Taxes</u>					
15	Prior Year Payroll Taxes		48,831	50,317	51,806
16	x Current Year Labor Escalation Rate		3.04%	2.96%	2.88%
17	= Increase in Full Year Additions		1,486	1,489	1,490
18	x Franchise Fee and Uncollectible Factor		1.0171249	1.0171249	1.0171249
19	= Increase in Revenue Requirements		1,511	1,515	1,515

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**Table 9**

Southern California Gas Company  
2019 GRC  
Calculation of Revenue Requirement Increase  
(Thousands of Dollars)

		<b>Section-2</b>			
Line	Change in Weighed Average Ratebase	2019	2020	2021	2022
1	2019 Test Year Weighted Average Ratebase	6,996,605	6,996,605		
2	Weighted Average Ratebase		8,065,652	8,715,857	9,361,399
3	Change in Weighted Average Ratebase		1,069,047	650,205	645,542
<u>Long Term Debt</u>					
4	Prior Year Return on Debt	4.33%	4.33%	4.33%	4.33%
5	x Prior Year Debt Capitalization	45.60%	45.60%	45.60%	45.60%
6	= Prior Year Weighted Cost of Debt	1.97%	1.97%	1.97%	1.97%
7	x Change in Weighted Average Ratebase		1,069,047	650,205	645,542
8	= Change in Weighted Average Cost of Debt		21,108	12,838	12,746
9	x Franchise Fee and Uncollectible Factor		1.0171249	1.0171249	1.0171249
10	= Increase in Revenue Requirements		21,470	13,058	12,964
<u>Preferred Stock</u>					
11	Prior Year Return on Preferred Stock	6.00%	6.00%	6.00%	6.00%
12	x Prior Year Preferred Stock Capitalization	2.40%	2.40%	2.40%	2.40%
13	= Prior Year Weighted Cost of Preferred Stock	0.14%	0.14%	0.14%	0.14%
14	x Change in Weighted Average Ratebase		1,069,047	650,205	645,542
15	= Change in Weighted Cost of Preferred Stock		1,539	936	930
16	x Net-to-Gross Multiplier	1.4123518	1.4123518	1.4123518	1.4123518
17	= Increase in Revenue Requirements		2,174	1,322	1,313
<u>Common Equity</u>					
18	Prior Return on Common Equity	10.05%	10.05%	10.05%	10.05%
19	x Prior Year Common Equity Capitalization	52.00%	52.00%	52.00%	52.00%
20	= Prior Year Weighted Cost of Common Equity	5.23%	5.23%	5.23%	5.23%
21	x Change in Weighted Average Ratebase		1,069,047	650,205	645,542
22	= Change in Weighted Cost of Common Equity		55,868	33,980	33,736
23	x Net-to-Gross Multiplier	1.4123518	1.4123518	1.4123518	1.4123518
24	= Increase in Revenue Requirements		78,906	47,991	47,647
25	Total Increase in Revenue Requirements		102,550	62,372	61,924

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Table 10

Southern California Gas Company  
2019 GRC  
Calculation of Revenue Requirement Increase  
(Thousands of Dollars)

<b>Section-3</b>					
<u>Line</u>	<u>Federal Tax Depreciation (ACRS/MACRS Basis)</u>	2019	2020	2021	2022
1	2019 Federal Tax Depreciation	440,099			
2	/ 2019 Plant in Service	17,100,849			
3	= System Average Federal Tax Depreciation Rate	2.57%	2.57%	2.57%	2.57%
4	x Current Attrition Year Additions		1,156,400	1,183,791	1,213,415
5	= Increase in Federal Tax Depreciation Expense		29,761	30,465	31,228
6	x -Federal Income Tax Rate	(0.210)	(0.210)	(0.210)	(0.210)
7	= Federal Income Taxes		(6,250)	(6,398)	(6,558)
8	x Net-to-Gross Multiplier	1.4123518	1.4123518	1.4123518	1.4123518
9	= Increase in Revenue Requirements		(8,827)	(9,036)	(9,262)
	<u>State Tax Depreciation</u>				
10	2019 State Tax Depreciation	588,552			
11	/ 2019 Plant in Service	17,100,849			
12	= System Average State Tax Depreciation Rate	3.44%	3.44%	3.44%	3.44%
13	x Current Attrition Year Additions		1,156,400	1,183,791	1,213,415
14	= Increase in State Tax Depreciation Expense		39,799	40,742	41,762
15	x -State Income Tax Rate		(0.0884)	(0.0884)	(0.0884)
16	= State Income Taxes		(3,518)	(3,602)	(3,692)
17	x Net-to-Gross Multiplier	1.4123518	1.4123518	1.4123518	1.4123518
18	= Increase in Revenue Requirements		(4,969)	(5,087)	(5,214)

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Table 11

Southern California Gas Company  
2019 GRC  
Calculation of Revenue Requirement Increase  
(Thousands of Dollars)

<b>Section-4</b>				
<u>Line</u>	<u>California Corporation Franchise Tax (Prior Year)</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
1	+ Depreciation		84,113	62,737
2	+ State Tax Depreciation		(4,969)	(5,087)
3	+ Federal Tax Depreciation (ACRS/MACRS)		(8,827)	(9,036)
4	+ Ratebase: Preferred Stock		2,174	1,322
5	+ Ratebase: Common Stock Equity		78,906	47,991
6	+ Financial Component: Preferred Stock		-	-
7	:Common Equity		-	-
8	+ CCFT		(789)	(2,905)
9	+ State & Federal Rate Changes		-	-
10	= Increase in Revenue Requirements		150,608	95,023
11	x Prior Year State Income Tax Cumulative Component		0.088400	0.088400
12	= Prior Year State Income Tax Increase		13,314	8,400
13	+ Prior Year State Income Tax (State Tax Depreciation Expense)		(3,518)	(3,602)
14	+ Prior Year State Income Tax (State Rate Change)		-	-
15	= Prior Year Total State Income Taxes		9,796	4,798
16	Prior Year Current California Corp Franchise Tax	7,101	16,897	21,695
17	- Prior Year CCFT Deductible for Federal Income Taxes	4,440	7,101	16,897
18	= Increase CCFT Deduction on Federal Income Taxes	2,662	9,796	4,798
19	x -Federal Income Tax Rate	(0.2100)	(0.2100)	(0.2100)
20	= Federal Income Taxes	(559)	(2,057)	(1,008)
21	x Net-to-Gross Multiplier	1.4123518	1.4123518	1.4123518
22	= Increase in Revenue Requirements	(789)	(2,905)	(1,423)

Southern California Gas Company 2019 GRC - Second Revised  
Post-Test Year Ratemaking – Workpapers

Table 12

Line No.	Description (\$ in dollars)	2015 Additions	2016 Additions
1	Intangible	0	0
2	Storage	133,676,696	89,966,359
3	Transmission	102,469,928	82,628,733
4	Distribution	348,902,169	426,062,987
5	General Plant	180,396,910	154,089,845
6	Cushion Gas Purchases	937,167	0
7	Total Additions (L1 + L2 + L3 + L4 + L5 + L6)	766,382,870	752,747,924

Note: This table excludes SECCBA, Native Gas Production, AMI, and Aliso leak costs.

Table 13

Line No.	Description (\$ in dollars)	2015 Retirements	2016 Retirements
1	Intangible	0	0
2	Storage	7,161,105	14,944,464
3	Transmission	5,025,441	10,024,057
4	Distribution	50,269,767	54,529,434
5	General Plant	64,359,822	48,165,721
6	Cushion Gas Purchases	0	0
7	Total Retirements (L1 + L2 + L3 + L4 + L5 + L6)	126,816,135	127,663,676

Note: This table excludes PSEP and Native Gas Production which are not part of the TY2019 GRC scope.

Southern California Gas Company 2019 GRC - Second Revised  
Post-Test Year Ratemaking – Workpapers

Table 14

Southern California Gas Company  
Calculation of Monthly CWIP, Plant and Accumulated Depreciation Balances  
(Thousands of Dollars)

Asset Type: Total Utility Plant

Line No.		2017	2018	2019
1	Beg Month CWIP Balance	605,070	437,537	599,812
2	Expenditures	1,127,859	1,319,993	1,704,094
3	Expenditures - AFUDC	63,942	54,731	70,668
4	Total Expenditures	<u>1,191,800</u>	<u>1,374,724</u>	<u>1,774,762</u>
5	Additions	1,301,181	1,167,297	1,796,396
6	Additions - AFUDC	58,153	45,152	77,856
7	Total Additions	<u>1,359,334</u>	<u>1,212,449</u>	<u>1,874,252</u>
8	End Month CWIP	437,537	599,812	500,322
9	Interest Bearing CWIP	436,979	599,175	499,629
10	Non-interest Bearing CWIP	558	637	693
11	End Month CWIP	<u>437,537</u>	<u>599,812</u>	<u>500,322</u>
12	Beg Month Plant Balance	12,972,482	14,210,941	15,336,780
13	Additions	1,359,334	1,212,449	1,874,252
14	Retirements	121,945	86,611	110,183
15	Transfers	1,070	0	0
16	End Month Plant Balance	<u>14,210,941</u>	<u>15,336,780</u>	<u>17,100,849</u>
17	Depreciation Accrual Accrual Monthly Rate	494,920	538,779	606,830
18	Beg Month Reserve Balance	6,928,247	7,254,057	7,652,678
19	Provision	494,920	538,779	606,830
20	Retirements	121,945	86,611	110,183
21	Salvage	1,712	1,834	1,846
22	Removal Costs	48,891	55,382	70,134
23	Transfers	14	0	0
24	End Month Reserve Balance	<u>7,254,057</u>	<u>7,652,678</u>	<u>8,081,037</u>



**SECOND REVISED 2019 GRC POST TEST YEAR  
PIPELINE SAFETY ENHANCEMENT PLAN (PSEP)  
WORKPAPERS**

**WORKPAPER TITLE**

Direct Costs

**WITNESS**

Jawaad A. Malik

(2016 \$ in Thousands of Dollars)

Line No.	Phase	In Service Date	Total	Prior to 2017 <sup>1</sup>	2017	2018	2019	2020	2021	2022	
<b>FERC 376 Distribution Mains</b>											
1	36-9-09 North Section 14	Phase 1B	Jan-20	\$19,980	\$735	\$0	\$0	\$14,985	\$4,260	\$0	\$0
2	36-9-09 North Section 15	Phase 1B	May-20	\$14,193	\$694	\$0	\$0	\$0	\$13,499	\$0	\$0
3	36-9-09 North Section 16	Phase 1B	Aug-20	\$18,036	\$726	\$0	\$0	\$0	\$17,310	\$0	\$0
4	36-1032 Section 11	Phase 1B	Sep-20	\$8,692	\$443	\$0	\$0	\$0	\$8,249	\$0	\$0
5	PSEP PMO		Dec-20	\$3,129	\$0	\$0	\$0	\$0	\$3,129	\$0	\$0
6	Valve Enhancement Plan	Phase 1B	Jun-20	\$7,380	\$0	\$0	\$590	\$590	\$6,199	\$0	\$0
7	36-1032 Section 12	Phase 1B	Feb-21	\$26,601	\$515	\$0	\$0	\$0	\$0	\$26,086	\$0
8	36-1032 Section 13	Phase 1B	Jul-21	\$17,811	\$457	\$0	\$0	\$0	\$0	\$17,355	\$0
9	36-1032 Section 14	Phase 1B	Nov-21	\$13,937	\$439	\$0	\$0	\$0	\$0	\$13,498	\$0
10	44-1008	Phase 1B	Jul-21, Jul-22	\$153,164	\$36	\$160	\$0	\$0	\$0	\$76,386	\$76,582
11	PSEP PMO		Dec-21	\$3,129	\$0	\$0	\$0	\$0	\$0	\$3,129	\$0
12	Valve Enhancement Plan	Phase 1B	Jun-21	\$7,380	\$0	\$0	\$0	\$590	\$590	\$6,199	\$0
13	Fourth Year PSEP PMO		Dec-22	\$3,091	\$0	\$0	\$0	\$0	\$0	\$0	\$3,091
14	<b>Subtotal FERC 376 (L1 + L2 + ... + L13)</b>			<b>\$296,524</b>	<b>\$4,046</b>	<b>\$160</b>	<b>\$590</b>	<b>\$16,166</b>	<b>\$53,237</b>	<b>\$142,653</b>	<b>\$79,673</b>
<b>FERC 367 Transmission Mains</b>											
15	407	Phase 2A	Oct-20	\$962	\$0	\$12	\$0	\$0	\$949	\$0	\$0
16	235 West Section 2	Phase 2A	Dec-20	\$11,181	\$0	\$47	\$0	\$0	\$11,134	\$0	\$0
17	235 West Section 3	Phase 2A	Jun-20	\$3,370	\$0	\$14	\$0	\$1,123	\$2,232	\$0	\$0
18	2000 Section E	Phase 2A	Dec-20	\$1,565	\$0	\$26	\$39	\$0	\$1,501	\$0	\$0
19	2000-E Cactus City Compressor Station	Phase 2A	Dec-20	\$6,698	\$0	\$0	\$0	\$0	\$6,698	\$0	\$0
20	2000 Blythe to Cactus City Hydrotest	Phase 2A	Dec-20	\$11,908	\$0	\$80	\$0	\$0	\$11,829	\$0	\$0
21	PSEP PMO		Dec-20	\$6,073	\$0	\$0	\$0	\$0	\$6,073	\$0	\$0
22	Allowance for Pipeline Failure	Phase 2A	Jun-20	\$2,057	\$0	\$0	\$0	\$0	\$2,057	\$0	\$0
23	Valve Enhancement Plan	Phase 1B	Jun-20	\$74,620	\$0	\$0	\$5,970	\$5,970	\$62,681	\$0	\$0
24	235 West Section 1	Phase 2A	Dec-21	\$12,106	\$15	\$51	\$0	\$0	\$0	\$12,040	\$0
25	2001 W Section E	Phase 2A	Jun-21	\$3,000	\$0	\$54	\$0	\$0	\$0	\$2,946	\$0
26	2001 W Section D	Phase 2A	Sep-21	\$4,873	\$0	\$98	\$0	\$0	\$0	\$4,774	\$0
27	2001 W Section C	Phase 2A	Dec-21	\$3,361	\$0	\$52	\$0	\$0	\$0	\$3,309	\$0
28	2000 Chino Hills	Phase 2A	Dec-21	\$11,371	\$0	\$3	\$0	\$0	\$0	\$11,368	\$0
29	1011	Phase 2A	Jul-21	\$746	\$0	\$14	\$0	\$0	\$0	\$732	\$0
30	85 Elk Hills to Lake Station	Phase 1B	Dec-21	\$88,906	\$3,404	\$1,378	\$2,862	\$7,175	\$12,965	\$61,122	\$0
31	PSEP PMO		Dec-21	\$6,073	\$0	\$0	\$0	\$0	\$0	\$6,073	\$0
32	Allowance for Pipeline Failures	Phase 2A	Jun-21	\$2,057	\$0	\$0	\$0	\$0	\$0	\$2,057	\$0
33	Valve Enhancement Plan	Phase 1B	Jun-21	\$74,620	\$0	\$0	\$0	\$5,970	\$5,970	\$62,681	\$0
34	225 North	Phase 2A	Dec-22	\$4,846	\$0	\$121	\$0	\$89	\$89	\$89	\$4,457
35	1030	Phase 2A	Dec-22	\$8,039	\$0	\$48	\$0	\$202	\$202	\$202	\$7,384
36	5000	Phase 2A	Dec-22	\$4,507	\$0	\$97	\$0	\$7	\$7	\$7	\$4,390
37	2005	Phase 2A	Dec-22	\$927	\$0	\$42	\$0	\$29	\$29	\$29	\$798
38	2001E	Phase 2A	Sep-22	\$8,462	\$0	\$40	\$0	\$189	\$189	\$189	\$7,854
39	2001 East Replacement	Phase 2A	Sep-22	\$3,817	\$0	\$87	\$0	\$6	\$6	\$6	\$3,712
40	2001 West	Phase 2A	Sep-22	\$1,712	\$0	\$42	\$0	\$97	\$97	\$97	\$1,380
41	Fourth Year PSEP PMO		Dec-22	\$6,001	\$0	\$0	\$0	\$0	\$0	\$0	\$6,001
42	<b>Subtotal FERC 367 (L15 +L16 + ... + L41)</b>			<b>\$363,858</b>	<b>\$3,419</b>	<b>\$2,306</b>	<b>\$8,870</b>	<b>\$20,857</b>	<b>\$124,707</b>	<b>\$167,722</b>	<b>\$35,977</b>
43	<b>Total Capital (L14 + L42)</b>			<b>\$660,382</b>	<b>\$7,465</b>	<b>\$2,465</b>	<b>\$9,461</b>	<b>\$37,023</b>	<b>\$177,944</b>	<b>\$310,374</b>	<b>\$115,650</b>

<sup>1</sup> Prior to 2017 represents actual costs recorded in prior period

\*Numbers may not add due to rounding.

**WORKPAPER TITLE**

Annual Escalation Rates and Factors

**WITNESS**

Jawaad A. Malik

			% Change						
			2016	2017	2018	2019	2020	2021	2022
Line No.	<u>Cost Category</u>								
1	Gas Distribution - Capital	Gas Distribution Plant	0.00%	3.62%	3.23%	2.97%	2.77%	2.37%	2.50%
2	Gas Transmission - Capital	Gas Transmission Plant	0.00%	3.62%	3.23%	2.97%	2.77%	2.37%	2.50%
			Escalation Factor (2016 Base)						
			2016	2017	2018	2019	2020	2021	2022
	<u>Cost Category</u>								
3	Gas Distribution - Capital	Gas Distribution Plant	1.0000	1.0362	1.0697	1.1015	1.1319	1.1588	1.1878
4	Gas Transmission - Capital	Gas Transmission Plant	1.0000	1.0362	1.0697	1.1015	1.1319	1.1588	1.1878
			Escalation Factor						
			2016	2017	2018	2019	2020	2021	2022
	<u>Cost Category</u>								
5	Gas Distribution - Capital	Gas Distribution Plant	0.0000	0.0362	0.0697	0.1015	0.1319	0.1588	0.1878
6	Gas Transmission - Capital	Gas Transmission Plant	0.0000	0.0362	0.0697	0.1015	0.1319	0.1588	0.1878

Factors shown above are from escalation indices published in the IHS Global Insight 1st Quarter 2017 Utility Cost Forecast.

**WORKPAPER TITLE**

Overhead Factor

**WITNESS**

Jawaad A. Malik

Line No.		2017	2018	2019	2020 <sup>1</sup>	2021 <sup>1</sup>	2022 <sup>1</sup>
1	Composite Overhead Factor (%)	12.12%	9.55%	8.08%	9.92%	9.92%	9.92%

Factors shown above are from the 2019 GRC RO model

<sup>1</sup> Composite overhead factor (%) was derived by averaging the 2017 through 2019 composite overhead factor (%)

<b>WORKPAPER TITLE</b> Cost of Removal Factor
<b>WITNESS</b> Jawaad A. Malik

Line No.	Asset ID	Description	Cost of Removal Percentage
1	70	Trans - Depreciable	-6.12%
2	100	Dist - Depreciable	-3.23%

Factors shown above are from the 2019 GRC RO model

**WORKPAPER TITLE**

Fully Loaded and Escalated Costs

**WITNESS**

Jawaad A. Malik

(\$ in Thousands of Dollars)

Line No.		Total	Prior to 2017 <sup>1</sup>	2017	2018	2019	2020	2021	2022
	<b>FERC 376 Distribution Mains</b>								
1	Total Direct Capital (WP PSEP-1, L14)	\$296,524	\$4,046	\$160	\$590	\$16,166	\$53,237	\$142,653	\$79,673
2	Escalation Impact (L1 * WP PSEP-2, L5)	\$46,317	\$0	\$6	\$41	\$1,640	\$7,024	\$22,647	\$14,959
3	Overhead ((L1 + L2) * WP PSEP-3, L1) (1)	\$33,518	\$241	\$20	\$60	\$1,439	\$5,977	\$16,395	\$9,386
4	Cost of Removal ((L1 + L2+ L3) * WP PSEP-4, L1)	(\$12,021)	\$0	(\$6)	(\$22)	(\$622)	(\$2,140)	(\$5,870)	(\$3,361)
	Total Capital (Loaded & Escalated, less Cost of Removal) (L1 + L2 + L3 + L4)	\$364,338	\$4,286	\$179	\$669	\$18,624	\$64,098	\$175,824	\$100,657
5	Capital - Property Tax	\$1,155	\$7	\$45	\$53	\$149	\$221	\$421	\$258
6	Capital - AFUDC	\$8,599	\$53	\$370	\$401	\$1,161	\$1,569	\$3,122	\$1,924
7	<b>Subtotal FERC 376 (L5 + L6 + L7)</b>	<b>\$374,093</b>	<b>\$4,347</b>	<b>\$594</b>	<b>\$1,124</b>	<b>\$19,933</b>	<b>\$65,888</b>	<b>\$179,368</b>	<b>\$102,839</b>
	<b>FERC 367 Transmission Mains</b>								
9	Total Direct Capital (WP PSEP-1, L42)	\$363,858	\$3,419	\$2,306	\$8,870	\$20,857	\$124,707	\$167,722	\$35,977
10	Escalation Impact (L9 * WP PSEP-2, L6)	\$52,654	\$0	\$84	\$618	\$2,116	\$16,454	\$26,627	\$6,755
11	Overhead ((L9 + L10) * WP PSEP-3, L1)	\$41,135	\$567	\$290	\$906	\$1,857	\$14,001	\$19,276	\$4,238
12	Cost of Removal ((L9 + L10+ L11) * WP PSEP-4, L2)	(\$27,787)	\$0	(\$164)	(\$637)	(\$1,521)	(\$9,504)	(\$13,084)	(\$2,877)
	Total Capital (Loaded & Escalated, less Cost of Removal) (L9 + L10 + L11 + L12)	\$429,860	\$3,987	\$2,515	\$9,758	\$23,309	\$145,659	\$200,540	\$44,093
13	Capital - Property Tax	\$2,644	\$7	\$53	\$117	\$291	\$832	\$1,154	\$191
14	Capital - AFUDC	\$19,699	\$53	\$441	\$903	\$2,232	\$6,180	\$8,397	\$1,493
15	<b>Subtotal FERC 367 (L13 + L14 + L15)</b>	<b>\$452,203</b>	<b>\$4,047</b>	<b>\$3,008</b>	<b>\$10,778</b>	<b>\$25,832</b>	<b>\$152,670</b>	<b>\$210,090</b>	<b>\$45,777</b>
16	<b>Total Capital (L8 + L16)</b>	<b>\$826,295</b>	<b>\$8,394</b>	<b>\$3,602</b>	<b>\$11,902</b>	<b>\$45,766</b>	<b>\$218,557</b>	<b>\$389,458</b>	<b>\$148,616</b>

<sup>1</sup> Prior to 2017 represents actual costs recorded in prior period  
Numbers may not add due to rounding.

**Southern California Gas Company**  
**2019 GRC Post Test Year PSEP Capital Related Costs**  
Revenue Requirement Summary (\$ in Thousands of Dollars)

	Total	2017	2018	2019	2020	2021	2022
<b>Revenue Requirement - Total</b>	151,475	-	-	-	13,650	48,096	89,728
FF&U:	2,550	-	-	-	230	810	1,511
O&M:	-	-	-	-	-	-	-
Working Capital:	-	-	-	-	-	-	-
Depreciation:	33,111	-	-	-	3,071	10,700	19,340
Return on Common:	63,051	-	-	-	5,997	20,582	36,472
Return on Preferred:	1,737	-	-	-	165	567	1,005
Return On Debt:	23,822	-	-	-	2,266	7,776	13,780
Federal Taxes:	17,832	-	-	-	1,717	5,746	10,369
State Taxes:	2,063	-	-	-	205	406	1,451
Property Taxes:	7,309	-	-	-	-	1,508	5,800

	Total	2017	2018	2019	2020	2021	2022
<b>Revenue Requirement - Distribution</b>	69,618	-	-	-	6,733	22,910	39,975
FF&U:	1,172	-	-	-	113	386	673
O&M:	-	-	-	-	-	-	-
Working Capital:	-	-	-	-	-	-	-
Depreciation:	15,304	-	-	-	1,496	5,079	8,729
Return on Common:	28,396	-	-	-	2,840	9,520	16,037
Return on Preferred:	782	-	-	-	78	262	442
Return On Debt:	10,729	-	-	-	1,073	3,597	6,059
Federal Taxes:	8,151	-	-	-	860	2,751	4,540
State Taxes:	2,217	-	-	-	273	746	1,198
Property Taxes:	2,867	-	-	-	-	570	2,296

	Total	2017	2018	2019	2020	2021	2022
<b>Revenue Requirement - Transmission</b>	81,857	-	-	-	6,918	25,186	49,753
FF&U:	1,378	-	-	-	116	424	838
O&M:	-	-	-	-	-	-	-
Working Capital:	-	-	-	-	-	-	-
Depreciation:	17,807	-	-	-	1,575	5,621	10,611
Return on Common:	34,655	-	-	-	3,158	11,063	20,435
Return on Preferred:	955	-	-	-	87	305	563
Return On Debt:	13,093	-	-	-	1,193	4,180	7,721
Federal Taxes:	9,682	-	-	-	857	2,996	5,829
State Taxes:	(155)	-	-	-	(68)	(340)	253
Property Taxes:	4,442	-	-	-	-	938	3,504

**Southern California Gas Company**  
**2019 GRC Post Test Year PSEP Capital Related Costs**  
 FF&U Summary (\$ in Thousands of Dollars)

	<b>Total</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
O&M	-	-	-	-	-	-	-
Working Capital	-	-	-	-	-	-	-
Depreciation	33,111	-	-	-	3,071	10,700	19,340
Return on Common	63,051	-	-	-	5,997	20,582	36,472
Return on Preferred	1,737	-	-	-	165	567	1,005
Return On Debt	23,822	-	-	-	2,266	7,776	13,780
Federal Taxes	17,832	-	-	-	1,717	5,746	10,369
State Taxes	2,063	-	-	-	205	406	1,451
Property Taxes	7,309	-	-	-	-	1,508	5,800
Sum	148,925	-	-	-	13,421	47,286	88,218
FF&U Rate		-	-	-	1.71%	1.71%	1.71%
<b>FF&amp;U</b>	<b>2,550</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>230</b>	<b>810</b>	<b>1,511</b>



**Southern California Gas Company**  
**2019 GRC Post Test Year PSEP Capital Related Costs**  
Rate Base and Return (\$ in Thousands of Dollars)

	Total	2017	2018	2019	2020	2021	2022
Average Monthly Rate Base		-	-	-	114,756	393,840	697,891
Return on Equity (\$)	63,051	-	-	-	5,997	20,582	36,472
Weighted Return on Equity (%)		-	-	-	5.23%	5.23%	5.23%
Return on Preferred (\$)	1,737	-	-	-	165	567	1,005
Weighted Return on Preferred (%)		-	-	-	0.14%	0.14%	0.14%
Return on Debt (\$)	23,822	-	-	-	2,266	7,776	13,780
Weighted Return on Debt (%)		-	-	-	1.97%	1.97%	1.97%
Total Return	88,610	-	-	-	8,428	28,926	51,256
Total Rate of Return		-	-	-	7.34%	7.34%	7.34%

**Southern California Gas Company**  
**2019 GRC Post Test Year PSEP Capital Related Costs**  
 Property Taxes (\$ in Thousands of Dollars)

	Total	2016	2017	2018	2019	2020	2021	2022
Average of Month-End Rate Base		-	-	-	-	114,565	393,147	696,720
Property Tax Rate	0.41%	-	-	-	-	0.00%	0.38%	0.83%
<b>Property Tax</b>	<b>7,309</b>	-	-	-	-	-	1,508	5,800

**Southern California Gas Company**  
**2019 GRC Post Test Year PSEP Capital Related Costs**  
Income Taxes (\$ in Thousands of Dollars)

	<b>Total</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
Revenue	151,475	-	-	-	13,650	48,096	89,728
Operational Costs	(42,970)	-	-	-	(3,300)	(13,018)	(26,651)
EBIT	108,505	-	-	-	10,350	35,078	63,077
Income Taxes	(19,895)	-	-	-	(1,922)	(6,153)	(11,821)
NOI	88,610	-	-	-	8,428	28,926	51,256
Interest	(23,822)	-	-	-	(2,266)	(7,776)	(13,780)
Interest During Construction	(28,192)	(811)	(1,304)	(3,393)	(7,748)	(11,519)	(3,417)
Preferred Dividends	(1,737)	-	-	-	(165)	(567)	(1,005)
<b>Earnings for Common</b>	<b>34,859</b>	<b>(811)</b>	<b>(1,304)</b>	<b>(3,393)</b>	<b>(1,751)</b>	<b>9,063</b>	<b>33,055</b>

<b>FIT Detail</b>	<b>Total</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
EBIT	108,505	-	-	-	10,350	35,078	63,077
Difference in Depreciation	844	-	-	-	90	267	486
State Taxes (Prior Period)	611	-	-	-	-	205	406
Salvage	-	-	-	-	-	-	-
Interest	23,822	-	-	-	2,266	7,776	13,780
Total Federal EBT Adjustments	(23,590)	-	-	-	(2,175)	(7,714)	(13,700)
Federal EBT	84,916	-	-	-	8,175	27,364	49,377
Federal Tax Rate		-	-	-	21.0%	21.0%	21.0%
<b>FIT</b>	<b>17,832</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,717</b>	<b>5,746</b>	<b>10,369</b>

<b>SIT Detail</b>	<b>Total</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
EBIT	108,505	-	-	-	10,350	35,078	63,077
Difference in Depreciation	(61,350)	-	-	-	(5,764)	(22,707)	(32,879)
Salvage	-	-	-	-	-	-	-
Interest	23,822	-	-	-	2,266	7,776	13,780
Total State EBT Adjustments	(85,172)	-	-	-	(8,030)	(30,483)	(46,659)
State EBT	23,334	-	-	-	2,320	4,595	16,418
State Tax Rate		-	-	-	8.84%	8.84%	8.84%
<b>SIT</b>	<b>2,063</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>205</b>	<b>406</b>	<b>1,451</b>

**Southern California Gas Company**  
**2019 GRC Post Test Year PSEP Capital Related Costs**  
Rate Base Detail (\$ in Thousands of Dollars)

		2016	2017	2018	2019	2020	2021	2022
<i>January</i>	Historical Costs		-	-	-	24,668	234,083	674,274
	Accumulated Depreciation		-	-	-	(56)	(3,584)	(15,251)
	Deferred Taxes Impacting Rate Base		-	-	-	(4)	(1,762)	(8,117)
	Month End Rate Base		-	-	-	24,608	228,737	650,907
	New Investment		-	-	-	24,668	-	-
	<b>Average Monthly Rate Base</b>		-	-	-	<b>24,638</b>	<b>229,112</b>	<b>651,971</b>
<i>February</i>	Historical Costs		-	-	-	24,668	266,909	674,274
	Accumulated Depreciation		-	-	-	(112)	(4,172)	(16,732)
	Deferred Taxes Impacting Rate Base		-	-	-	(8)	(2,007)	(8,765)
	Month End Rate Base		-	-	-	24,548	260,730	648,777
	New Investment		-	-	-	-	32,826	-
	<b>Average Monthly Rate Base</b>		-	-	-	<b>24,578</b>	<b>261,146</b>	<b>649,842</b>
<i>March</i>	Historical Costs		-	-	-	24,668	266,909	674,274
	Accumulated Depreciation		-	-	-	(168)	(4,760)	(18,213)
	Deferred Taxes Impacting Rate Base		-	-	-	(13)	(2,252)	(9,414)
	Month End Rate Base		-	-	-	24,488	259,896	646,647
	New Investment		-	-	-	-	-	-
	<b>Average Monthly Rate Base</b>		-	-	-	<b>24,518</b>	<b>260,313</b>	<b>647,712</b>
<i>April</i>	Historical Costs		-	-	-	24,668	266,909	674,274
	Accumulated Depreciation		-	-	-	(224)	(5,348)	(19,694)
	Deferred Taxes Impacting Rate Base		-	-	-	(17)	(2,498)	(10,063)
	Month End Rate Base		-	-	-	24,428	259,063	644,518
	New Investment		-	-	-	-	-	-
	<b>Average Monthly Rate Base</b>		-	-	-	<b>24,458</b>	<b>259,480</b>	<b>645,582</b>
<i>May</i>	Historical Costs		-	-	-	42,197	266,909	674,274
	Accumulated Depreciation		-	-	-	(319)	(5,935)	(21,175)
	Deferred Taxes Impacting Rate Base		-	-	-	(30)	(2,743)	(10,712)
	Month End Rate Base		-	-	-	41,848	258,230	642,388
	New Investment		-	-	-	17,529	-	-
	<b>Average Monthly Rate Base</b>		-	-	-	<b>41,902</b>	<b>258,647</b>	<b>643,453</b>
<i>June</i>	Historical Costs		-	-	-	148,845	374,515	674,274
	Accumulated Depreciation		-	-	-	(645)	(6,756)	(22,655)
	Deferred Taxes Impacting Rate Base		-	-	-	(148)	(3,095)	(11,361)
	Month End Rate Base		-	-	-	148,052	364,665	640,258
	New Investment		-	-	-	106,647	107,606	-
	<b>Average Monthly Rate Base</b>		-	-	-	<b>148,274</b>	<b>365,250</b>	<b>641,323</b>
<i>July</i>	Historical Costs		-	-	-	148,845	493,946	772,735
	Accumulated Depreciation		-	-	-	(971)	(7,846)	(24,360)
	Deferred Taxes Impacting Rate Base		-	-	-	(265)	(3,545)	(12,091)
	Month End Rate Base		-	-	-	147,608	482,554	736,284
	New Investment		-	-	-	-	119,431	98,460
	<b>Average Monthly Rate Base</b>		-	-	-	<b>147,830</b>	<b>483,325</b>	<b>737,501</b>
<i>August</i>	Historical Costs		-	-	-	171,277	493,946	772,735
	Accumulated Depreciation		-	-	-	(1,348)	(8,937)	(26,064)
	Deferred Taxes Impacting Rate Base		-	-	-	(407)	(3,995)	(12,821)
	Month End Rate Base		-	-	-	169,522	481,013	733,850
	New Investment		-	-	-	22,432	-	-
	<b>Average Monthly Rate Base</b>		-	-	-	<b>169,781</b>	<b>481,784</b>	<b>735,067</b>
<i>September</i>	Historical Costs		-	-	-	182,143	500,053	790,591
	Accumulated Depreciation		-	-	-	(1,749)	(10,041)	(27,806)
	Deferred Taxes Impacting Rate Base		-	-	-	(564)	(4,459)	(13,589)
	Month End Rate Base		-	-	-	179,830	485,554	749,196
	New Investment		-	-	-	10,867	6,108	17,856
	<b>Average Monthly Rate Base</b>		-	-	-	<b>180,109</b>	<b>486,337</b>	<b>750,451</b>
<i>October</i>	Historical Costs		-	-	-	183,338	500,053	790,591
	Accumulated Depreciation		-	-	-	(2,153)	(11,145)	(29,548)
	Deferred Taxes Impacting Rate Base		-	-	-	(725)	(4,922)	(14,356)
	Month End Rate Base		-	-	-	180,460	483,987	746,686
	New Investment		-	-	-	1,195	-	-
	<b>Average Monthly Rate Base</b>		-	-	-	<b>180,742</b>	<b>484,770</b>	<b>747,941</b>
<i>November</i>	Historical Costs		-	-	-	183,338	518,033	790,591
	Accumulated Depreciation		-	-	-	(2,557)	(12,290)	(31,291)
	Deferred Taxes Impacting Rate Base		-	-	-	(886)	(5,445)	(15,124)
	Month End Rate Base		-	-	-	179,895	500,298	744,176
	New Investment		-	-	-	-	17,979	-
	<b>Average Monthly Rate Base</b>		-	-	-	<b>180,177</b>	<b>501,132</b>	<b>745,431</b>
<i>December</i>	Historical Costs		-	-	-	234,083	674,274	826,295
	Accumulated Depreciation		-	-	-	(3,071)	(13,770)	(33,111)
	Deferred Taxes Impacting Rate Base		-	-	-	(1,525)	(7,468)	(16,226)
	Year End Rate Base		-	-	-	229,488	653,036	776,959
	New Investment		-	-	-	50,745	156,242	35,705
	<b>Average Monthly Rate Base</b>		-	-	-	<b>230,064</b>	<b>654,788</b>	<b>778,420</b>
<b>Average of Month-End Rate Base</b>			-	-	-	<b>114,565</b>	<b>393,147</b>	<b>696,720</b>
<b>Average Monthly Rate Base</b>			-	-	-	<b>114,756</b>	<b>393,840</b>	<b>697,891</b>