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Witness : T. Renaghan



OFFICE OF RATEPAYER ADVOCATES
CALIFORNIA PUBLIC UTILITIES COMMISSION

**Report on the Results of Operations
for
San Diego Gas & Electric Company
Southern California Gas Company
Test Year 2019
General Rate Case**

Cost Escalation

San Francisco, California
April 13, 2018

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1 **COST ESCALATION**

2 **I. INTRODUCTION**

3 This exhibit presents the analyses and recommendations of the Office of
4 Ratepayer Advocates (ORA) regarding the Cost Escalation proposals of San Diego
5 Gas & Electric Company (SDG&E) and Southern California Gas Company (SCG or
6 SoCalGas), otherwise known as the Sempra Utilities (Sempra).

7 ORA and the Sempra Utilities present forecasts of labor, non-labor, shared
8 services and capital escalation for 2017, 2018, and Test Year (TY) 2019. ORA's
9 recommended escalation rates, presented below, reflect the use of more recent
10 forecast information. Specifically, ORA relied upon the Second Quarter 2017 Global
11 Insight Power Planner forecast while Sempra relied upon the First Quarter 2017
12 Global Insight Power Planner forecast.

13 **II. SUMMARY OF RECOMMENDATIONS**

14 ORA forecasts lower labor and non-labor escalation rates than the Sempra
15 Utilities. For capital escalation, ORA forecasts higher escalation rates than the
16 Sempra Utilities.

17 The following tables compare ORA's forecasts of SDG&E's and SoCalGas'
18 labor, non-labor, shared services, and capital escalation rates compared to the
19 utilities' forecasts:¹

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¹ The SDG&E and SoCalGas labor, non-labor, and shared services indexes are constructed as weighted averages of historic and forecast indexes taken from the IHS Global Insight Power Planner (Global Insight). The Global Insight indexes and the weightings are discussed in greater detail in Section V of this testimony.

1 Table 28-1 compares ORA's and SDG&E's 2017-2019 forecasts of cost
 2 escalation on a yearly percentage basis.

3 **Table 28-1**
 4 **Comparison of ORA's and SDG&E's Forecasts of**
 5 **2017-2019 Labor and Non-Labor Annual Escalation Rates**

Description	ORA Recommended			SDG&E Proposed ²		
	2017	2018	2019	2017	2018	2019
Labor	2.43%	2.76%	2.90%	2.59%	2.89 %	3.00%
Non-Labor						
Electric Non-Labor	1.51%	1.52%	1.54%	1.44%	1.64%	1.90%
Gas Non-Labor	1.97%	1.52%	1.76%	1.99%	1.72%	1.99%
Shared Services	1.93%	2.12%	2.32%	2.02%	2.42%	2.46%

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7 Table 28-2 compares ORA's and SDG&E's 2017-2019 forecasts of cost
 8 escalation on a compound basis.

9 **Table 28-2**
 10 **Comparison of ORA's and SDG&E's Forecasts of**
 11 **2017-2019 Labor and Non-Labor Compound Escalation Rates**

Description	ORA Recommended			SDG&E Proposed ³		
	2017	2018	2019	2017	2018	2019
Labor	1.0243	1.0526	1.0831	1.0259	1.0566	1.0884
Non-Labor						
Electric Non-Labor	1.0151	1.0305	1.0464	1.0144	1.0310	1.0506
Gas Non-Labor	1.0197	1.0351	1.0534	1.0199	1.0374	1.0581
Shared Services	1.0193	1.0409	1.0651	1.0202	1.0449	1.0706

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² Ex. SDG&E-39, p. SRW-5.

³ Ex. SDG&E-39-WP, p. 1 of 5.

1 Table 28-3 compares ORA's and SoCalGas' 2017-2019 forecasts of cost
 2 escalation on a yearly percentage basis.

3 **Table 28-3**
 4 **Comparison of ORA's and SoCalGas' Forecasts of**
 5 **2017-2019 Labor and Non-Labor Annual Escalation Rates**

Description	ORA Recommended			SoCalGas Proposed ⁴		
	2017	2018	2019	2017	2018	2019
Labor	2.49%	2.79%	3.08%	2.60%	2.94%	3.14%
Non-Labor Gas	2.20%	1.46%	1.54%	2.04%	1.48%	1.86%
Shared Services	1.93%	2.12%	2.32%	2.23%	2.15%	2.41%

6 Table 28-4 compares ORA's and SoCalGas' 2017-2019 forecasts of cost
 7 escalation on a compound basis.

8 **Table 28-4**
 9 **Comparison of ORA's and SoCalGas' Forecasts of**
 10 **2017-2019 Labor and Non-Labor Compound Escalation Rates**

Description	ORA Recommended			SoCalGas Proposed ⁵		
	2017	2018	2019	2017	2018	2019
Labor	1.0249	1.0535	1.0859	1.0260	1.0562	1.0894
Non-Labor Gas	1.0220	1.0369	1.0529	1.0204	1.0355	1.0548
Shared Services	1.0193	1.0409	1.0651	1.0223	1.0443	1.0695

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⁴ Ex. SCG-40, p. SRW-4.

⁵ Ex. SCG-40-WP, p. 1 of 4.

1 Table 28-5 compares ORA's and SDG&E's forecasts of capital escalation on
 2 a yearly percentage basis. SoCalGas only relies upon the Total Gas Plant
 3 escalation rate shown on the tables below.

4 **Table 28-5**
 5 **Comparison of ORA's and SDG&E's Forecasts of**
 6 **2017-2019 Capital Annual Escalation Rates**

Description	ORA Recommended			SDG&E Proposed ⁶		
	2017	2018	2019	2017	2018	2019
Steam Production Plant	0.48%	2.25%	2.48%	2.60%	2.81%	2.20%
Other Production Plant	4.01%	3.06%	2.67%	3.62%	2.52%	2.49%
Electric Distribution Plant	3.28%	3.07%	3.00%	2.00%	2.41%	2.87%
Total Electric Plant	3.11%	3.00%	2.93%	2.18%	2.46%	2.78%
Total Gas Plant	5.95%	3.39%	2.79%	3.62%	3.23%	2.97%
Combined Cycle Plant	1.58%	2.51%	2.54%	2.92%	2.72%	2.29%
Common Plant	3.76%	3.09%	2.83%	2.48%	2.60%	2.81%

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⁶ Ex. SDG&E-39, p. SRW-5.

1 Table 28-6 compares ORA's and SDG&E forecasts of capital escalation on a
 2 compound basis.

3 **Table 28-6**
 4 **Comparison of ORA's and SDG&E's Forecasts of**
 5 **2014-2016 Capital Compound Escalation Rates**

Description	ORA Recommended			SDG&E Proposed ⁷		
	2017	2018	2019	2017	2018	2019
Steam Production Plant	1.0048	1.0273	1.0528	1.0260	1.0548	1.0781
Other Production Plant	1.0401	1.0720	1.1006	1.0362	1.0624	1.0888
Electric Distribution Plant	1.0328	1.0644	1.0964	1.0200	1.0446	1.0746
Total Electric Plant	1.0311	1.0620	1.0931	1.0218	1.0469	1.0761
Total Gas Plant	1.0595	1.0954	1.1259	1.0362	1.0697	1.1015
Combined Cycle Plant	1.0158	1.0413	1.0677	1.0292	1.0572	1.0814
Common Plant	1.0376	1.0697	1.1000	1.0514	1.0809	1.1120

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 7 **III. SDG&E COST ESCALATION**

8 This section presents ORA's and Sempra's recommended escalation rates for
 9 labor, non-labor, shared services, and capital (plant) for 2017, 2018, and test year
 10 2019.

11 **A. Labor**

12 **1. Overview of SDG&E's Request**

13 SDG&E constructs a labor escalation index as a weighted average of wage
 14 increases for its unionized (represented) work force, supervisory and non-
 15 supervisory work force. The weights applied to each employee category are based
 16 on 2016 labor earnings. The weights for SDG&E are reported in Table 28-7.

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⁷ Ex. SDG&E-39-WP, p. 1 of 5.

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Table 28-7
San Diego Gas & Electric
Labor Escalation Weights

SDG&E Category	Weights	SDG&E 2016 \$	Global Insight Index
Union	29.400 %	\$ 151,971,346.80	CEU442200008
Exec & Mgmt & Supervisor	24.879 %	\$ 128,600,220.84	ECIPWMBFNS
Mgmt & Associate	45.721 %	\$ 236,333,429.26	ECIPWPARNs

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2. ORA's Analysis

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ORA does not oppose SDG&E's weighting scheme. SDG&E's approach has been used in past General Rate Case (GRC) proceedings and has been adopted by the Commission.

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B. Electric Non-Labor

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1. Overview of SDG&E's Request

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SDG&E constructs an Electric O&M index as a weighted average of several Global Insight O&M indexes. The weights are based on 2006 FERC level expenditures. The weights and Global Insight indexes are reported in Table 28-8.

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Table 28-8

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SDG&E Electric Non-Labor Escalation Weights

Description	Global Insight Variable	FERC Accounts	\$ 2016	Weights
Steam Electric Production	JEFOMMS	500-514	\$ 7,317,140	5.69 %
Other Electric Production	JEOOMS	546-554	\$ 20,476,940	15.92 %
Electric Distribution	JEDOMMS	580-598	\$ 51,726,877	40.23 %
Customer Accounts	JECAOMS	901-905	\$ 10,267,307	7.98 %
Customer Service & Information	JECSIOMS	907-910	\$ 6,025,154	4.69 %
Admin & General exc Acct 926 ⁸	JEADGOMMS_Exc 926	920-935-exc 926	\$ 32,774,365	25.49 %
Total			\$ 31,810,071	100.00 %

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2. ORA's Analysis

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ORA does not oppose SDG&E's weighting scheme for the construction of this index. SDG&E has utilized this methodology in past General Rate Cases and it has been adopted by the Commission.

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C. SDG&E Gas Non-Labor

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1. Overview of SDG&E's Request

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SDG&E constructs an O&M index for its gas department in a manner similar to that used for the electric department. The gas O&M non-labor escalation index is constructed by coupling FERC level expenditures with indexes drawn from the Global Insight Power Planner model. The weights and Global Insight indexes associated with each FERC account are reported in Table 28-9.

⁸ SDG&E adjusts the A&G index to account for the impact of health care cost escalation. Health care costs are escalated separately.

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Table 28-9

SDG&E Gas Department Non-Labor Escalation Weights

Description	Global Insight Variable	FERC Accounts	\$ 2006	Weights
Gas Transmission	JGTOMMS	850-867	\$ 3,862,307	12.14 %
Gas Distribution	JGDOMMS	870-894	\$ 11,460,052	36.03 %
Customer Accounts	JGCAOMS	901-905	\$ 3,344,288	10.51 %
Customer Service & Info	JECSIOMS	907-910	\$ 1,408,069	4.43 %
Admin & General exc 926	JEADGOMMS- exc 926	920-925 exc 926	\$ 11,735,354	36.89 %
Total			\$ 31,810,071	100.00 %

2. ORA's Analysis

ORA does not oppose SDG&E's gas department non-labor escalation weighting methodology. This approach has been used in prior General Rate Cases and has been adopted by the Commission.

D. Shared Services

1. Overview of SDG&E's Request

SDG&E employs a methodology similar to that used for the construction of its recommended non-labor electric and gas indexes. The shared services index is constructed as a weighted average of labor and non-labor indexes. The weights and associated Global Insight Power Planner indexes are reported in Table 28-10.

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Table 28-10

SDG&E Shared Services Index Weights

Description	Global Insight Variable	FERC Accounts	\$ 2016	Weights
Labor	---	---	\$ 44,850,367	49.42 %
Steam Electric Production	JEFOMMS	500-514	\$ 0	0.00 %
Electric Distribution	JEDOMMS	580-598	\$ 297,387	0.33 %
Gas Transmission	JETOMMS	850-867	\$ 2,000	0.00 %
Gas Distribution	JEDOMMS	870-894	\$ 1,096	0.00 %
Customer Accounts (Electric)	JECAOMS	901-905	\$ 395,175	0.44 %
Customer Accounts (Gas)	JGCAOMS	901-905	\$ 131,725	0.15 %
Customer Service & Info	JECSIOMS	907-910	\$ 272,582	0.30 %
Customer Service & Info (Gas)	JGCSIOMS	907-910	\$ 99,948	0.11 %
A&G Electric	JEADGOMMS- exc 926	920-935-exc 926	\$ 33,486,604	36.90 %
A&G Gas	JGEADGOMMS- exc 926	920-935-exc 926	\$ 11,208,378	12.35 %
Total			\$ 90,745,263	100.00 %

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2. ORA's Analysis

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ORA does not oppose SDG&E's Shared Services weighting methodology.

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This methodology has been used in prior General Rate Cases and has been

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approved by the Commission.

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E. Capital Escalation

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1. Overview of SDG&E's Request

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SDG&E forecasts capital or plant escalation rates for Steam Production Plant,

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Other Production Plant, Electric Distribution Plant, Total Electric Plant, Total Gas

1 Plant, Combined Cycle Plant, and Common Plant. Forecasted escalation rates for
2 Steam Production Plant, Other Production Plant, Electric Distribution Plant, and
3 Total Gas Plant are taken directly from the Global Insight Power Planner model.
4 Total Electric Plant, Combined Cycle Plant and Common Plant forecasted escalation
5 rates are constructed as weighted averages of other plant escalation rates.

6 **a. Total Electric Plant**

7 SDG&E constructs the Total Electric Plant index as a weighted average of the
8 Electric Distribution Plant index (JUEPD_PCF), Total Steam Production
9 (JUEPPF_PCF), and Other Production Plant (JUEPPO_PCF). The weights are
10 based on 2016 FERC level expenditures in each category.

11 **b. Combined Cycle Plant**

12 The Combined Cycle Plant index is constructed as weighted average Steam
13 Production Plant (JUEPPF_PCF) and Other Production (JUEPPO_PCF). The
14 weights are based on FERC level expenditures at SDG&E's Palomar generating
15 facility.

16 **c. Common Plant**

17 SDG&E's Common Plant index is based on a weighted average of Total Gas
18 Plant (JUG_PCF), Electric Distribution Plant, (JUEPD_PCF), and Electric
19 Transmission Plant, (JUEPT_PCF). As in the case of the other plant indexes the
20 weights are based on 2016 FERC level expenditures.

21 **2. ORA's Analysis**

22 **a. Total Electric Plant**

23 ORA does not oppose SDG&E's proposed Total Electric Plant escalation
24 index methodology. SDG&E has used this methodology in prior GRC's and it has
25 been adopted by the Commission.

26 **b. Combined Cycle Plant**

27 ORA does not oppose SDG&E's proposed Combined Cycle Plant escalation
28 index methodology. SDG&E has used this methodology in past GRC's and it has
29 been adopted by the Commission.

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c. Common Plant

ORA does not oppose SDG&E’s proposed Common Plant escalation index methodology. SDG&E has used this methodology in past GRC’s and it has been adopted by the Commission.

F. Post-Test Year Cost Escalators

1. Overview of SDG&E’s Request

SDG&E develops a post-test year escalation index as a weighted average of indexes that have been discussed previously in this testimony. The weights and indexes comprising the post-test year SDG&E escalation index are reported in Table 28-11.

Table 28-11
SDG&E Post-Test Year Escalation
Index Weights

Category	\$ 2016	Weight	Index
Labor	\$ 238,457,020	59.78 %	Labor
Electric O&M	\$ 128,587,784	32.24 %	JETOTAM SX_SD
Gas O&M	\$ 31,810,071	7.98 %	JGTOTALMSX_SD
Total	\$ 398,854,875	100.00 %	GEOMPI

2. ORA’s Analysis

ORA does not oppose SDG&E’s proposed post-test year escalation methodology, though ORA’s Post-Test Year testimony (Ex. ORA-31) may present different recommendations. While this methodology has been utilized in past GRC’s and in this GRC, ORA considers the approach reasonable, it has not been adopted by the Commission.

1 **IV. SoCalGas COST ESCALATION**

2 **A. Labor**

3 **1. Overview of SCG’s Request**

4 Similar to SDG&E’s approach, SoCalGas constructs a labor escalation index
5 as a weighted average of wage increases for its unionized workforce, supervisory,
6 and non-supervisory workforce. The weights applied to each employee category are
7 based on 2016 labor earnings. The weights for SoCalGas are reported in Table 28-
8 12.

9 **Table 28-12**
10 **SoCal Gas**
11 **Labor Escalation Weights**

SoCalGas Category	Weights	SoCal Gas 2016 \$	Global Insight Index
Union	50.619 %	\$ 400,257,939.15	CEU442200008
Exec & Mgmt & Supervisor	20.179 %	\$ 159,559,342.60	ECIPWMBFNS
Mgmt & Associate	29.202 %	\$ 230,912,886.67	ECIPWPARNs

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13 **2. ORA’s Analysis**

14 ORA does not oppose SoCalGas’ weighting scheme. SoCalGas’ approach
15 has been used in past General Rate Case proceedings and has been adopted by
16 the Commission.

17 **B. Non-Labor**

18 **1. Overview of SCG’s Request**

19 SoCalGas constructs a non-labor escalation index by coupling FERC level
20 expense data with indexes taken from the Global Insight Power Planner model.
21 Table 28-13 reports the weights and Global Insight indexes associated with each
22 FERC account.

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Table 28-13

SoCalGas Non-Labor Escalation Weights

Description	Global Insight Variable	FERC Accounts	\$ 2016	Weights
Underground Storage	JGUSOMMS	814-837	\$ 124,931,560	38.18 %
Gas Transmission	JGTOMMS	850-867	\$ 40,048,523	12.23 %
Gas Distribution	JGDOMMS	870-894	\$ 62,128,816	19.00 %
Gas Customer Accounts	JGCAOMS	901-905	\$ 31,169,612	9.53 %
Gas Customer Service & Info	JGCSIOMS	907-910	\$ 19,156,650	5.86 %
Gas Admin & Genera exc 926	JJGADGOMMS-Exc 926	920-936 exc 926	\$ 49,735,855	15.20 %
Total			\$ 327,151,016	100.00 %

2. ORA's Analysis

ORA does not oppose SoCalGas' non-labor escalation index methodology. This methodology has been used by SoCalGas in prior GRC's and has been adopted by the Commission.

C. Shared Services

1. Overview of SCG's Request

Following SDG&E's approach, SoCalGas constructs a shared services index by coupling labor and non-labor escalation. Table 28-14 reports the index components and weights for SoCalGas' shared services index.

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Table 28-14

SoCal Gas Shared Services Escalation Weights

Description	Global Insight Variable	FERC Accounts	\$ 2016	Weights
Labor	---	----	\$ 48,764,570	46.40 %
Underground Storage	JGUSOMMS	814-837	\$ 29,638,189	28.21 %
Gas Transmission	JGTOMMS	850-867	\$ 975,937	0.93 %
Gas Distribution	JGDOMMS	870-894	\$ 2,537,868	2.42 %
Gas Customer Accounts	JGCAOMS	901-905	\$ 1,703,366	1.62 %
Gas Customer Service & Info	JGCSIOMS	907-910	\$ 1,418,535	1.35 %
Gas Admin & General exc 926	JGEADGOMMS_exc 926	920-935 exc 926	\$ 20,034,147	19.07 %
Total			\$105,072,611	100.00 %

2. ORA’s Analysis

ORA does not oppose SoCalGas’ shared services escalation methodology. SoCalGas has used this methodology in past GRC’s and it has been adopted by the Commission.

D. Post-Test Year Cost Escalators

1. Overview of SCG’s Request

Following SDG&E, SoCalGas also constructs a post-test year escalation index. The index is constructed as a weighted average of labor and non-labor escalation. The weights and indexes comprising the post-test year SoCalGas escalation index are reported in Table 28-15.

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Table 28-15
SoCalGas Post-Test Year
Escalation Weights

Category	\$ 2016	Weight	Index
Labor	\$ 429,504,496	56.76 %	Labor
O&M	\$ 327,151,016	43.24 %	JGTOTALMSX_SD
Total	\$ 756,655,512	100.00 %	GOMPI

2. ORA’s Analysis

ORA does not oppose SoCalGas’ proposed post-test year escalation methodology, though ORA’s Post-Test Year testimony (Ex. ORA-31) may present different recommendations. While this methodology has been utilized in past GRC’s and in this GRC ORA considers the approach reasonable, it has not been adopted by the Commission.

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WITNESS QUALIFICATIONS

2 My name is Thomas M. Renaghan. My business address is 505 Van Ness
3 Avenue, San Francisco, California. I am employed by the Office of Ratepayer
4 Advocates (ORA) as a Public Utilities Regulatory Analyst V in the Energy Cost of
5 Service and Natural Gas Branch.

6 I received a Bachelor of Arts Degree in Economics from California State
7 University, Hayward, and a Ph.D. in Economics from the University of California,
8 Davis.

9 I have been employed with the Commission since January 1984. My
10 experience with the Commission has been in the areas of labor and non-labor
11 escalation, energy demand forecasting, and in the measurement of total factor
12 productivity for electric, gas, and telecommunications firms.

13 This completes my prepared testimony.