

Application of SOUTHERN CALIFORNIA GAS)
COMPANY for authority to update its gas and)
electric revenue requirement and base rates)
effective January 1, 2016 (U 904-G))

Application No. 14-11-____
Exhibit No: (SCG-31-WP)

WORKPAPERS TO
PREPARED DIRECT TESTIMONY
OF SCOTT R. WILDER
ON BEHALF OF SOUTHERN CALIFORNIA GAS COMPANY

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

NOVEMBER 2014



Southern California Gas Company
2016 GRC – APP
Workpapers

Escalation Factors: Utility Cost Indexes, set to 2013=1.0000; for 2016 GRC Application filing												
Data based on Global Insight 4th Quarter 2013 utility cost forecast, released February 2014.												
Shared Services and nonlabor O&M weightings are from "GRC_USS_NSS by FERC 2013 for Esc Weights 3-10-14.xls"												
Includes actual union contract escalations of 3.5% per year in 2009, 2010, and 2011; and current contract escalations (2.75% 2012, 2.75% 2013, 2.5% 2014, 2.5% 2015).												
	Series Name	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
SoCalGas Escalators												
Shared Services	SHSVC_SCG	0.9101	0.9320	0.9574	0.9782	1.0000	1.0209	1.0456	1.0722	1.1000	1.1272	
Operations & Maintenance												
Labor O&M Index	LABOR	0.9073	0.9307	0.9549	0.9765	1.0000	1.0226	1.0478	1.0749	1.1036	1.1322	
Gas Nonlabor O&M Index	JGTOTALMSX_SCG	0.9026	0.9253	0.9617	0.9827	1.0000	1.0169	1.0384	1.0616	1.0854	1.1086	
Post-Test-Year GOMPI		0.9056	0.9288	0.9574	0.9788	1.0000	1.0205	1.0443	1.0700	1.0969	1.1235	
Capital-Related												
Total Gas Plant	JUG@PCF	0.8142	0.8492	0.9295	1.0032	1.0000	1.0138	1.0292	1.0477	1.0697	1.0861	
Components from Global Insight												
Labor O&M												
Util Svc Wkrs (with SCG union escalations for 2009 through 2015)	CEU4422000008 (adjusted)	0.8842	0.9152	0.9472	0.9732	1.0000	1.0250	1.0506	1.0765	1.1047	1.1326	
Mgrs & Adminstrtr	ECPWMBFNS	0.9279	0.9464	0.9623	0.9787	1.0000	1.0193	1.0441	1.0718	1.1010	1.1302	
Profssnl & Techncl	ECPWPARNS	0.9345	0.9478	0.9635	0.9808	1.0000	1.0204	1.0452	1.0739	1.1036	1.1328	
Nonlabor O&M gas												
Underground Storage	JGUSOMMS	0.9047	0.9290	0.9668	0.9816	1.0000	1.0166	1.0379	1.0622	1.0853	1.1072	
Gas Transmission	JGTOMMS	0.8872	0.9155	0.9649	0.9858	1.0000	1.0153	1.0363	1.0573	1.0794	1.1015	
Gas Distribution	JGDOMMS	0.8942	0.9177	0.9605	0.9851	1.0000	1.0177	1.0383	1.0612	1.0852	1.1092	
Customer Accounts	JGCAOMS	0.9077	0.9284	0.9554	0.9787	1.0000	1.0151	1.0326	1.0521	1.0722	1.0917	
Customer Svc & Info	JGCSOMMS	0.9150	0.9327	0.9615	0.9817	1.0000	1.0122	1.0312	1.0502	1.0679	1.0869	
Admin & General except 926	JGADGOMMS_X926	0.9219	0.9395	0.9614	0.9798	1.0000	1.0199	1.0459	1.0743	1.1033	1.1305	
Utility Plant Construction Cost Indexes, Pacific Region												
Total Gas Plant	JUG@PCF	0.8142	0.8492	0.9295	1.0032	1.0000	1.0138	1.0292	1.0477	1.0697	1.0861	

Removing Pensions & Benefits Component from Non-Labor O&M Cost Index			
from Global Insight 2013q4 Cost Forecast (published Feb 2014)			
JGADG926MS = O&M Cost Index, Pensions and Benefits (same for gas and electric)			
JGADGOMMS = A&G Non-Labor O&M cost index, gas utilities (X926 without P&B costs)			
0.228 weight is per Armine Thompson, April 2009, Global Insight Utility Cost Service.			
		JGADG926MS wt. = .228	w/o JGADG926MS
<u>2013=1.0000</u>	<u>JEIGJADG926MS</u>	<u>JGADGOMMS</u>	<u>JGADGOMMS X926</u>
2009	0.8782	0.9120	0.9219
2010	0.9094	0.9326	0.9395
2011	0.9402	0.9565	0.9614
2012	0.9730	0.9783	0.9798
2013	1.0000	1.0000	1.0000
2014	1.0303	1.0223	1.0199
2015	1.0662	1.0505	1.0459
2016	1.1037	1.0810	1.0743
2017	1.1437	1.1125	1.1033
2018	1.1850	1.1429	1.1305

Southern California Gas Company
2016 GRC – APP
Workpapers

SoCalGas O&M Escalation Component Weightings (from actual 2013 O&M expenses)

GOMPI	SoCalGas Non-Labor Weightings for JGTOTALMSX_SCG				Global Insight-based
Weights with Labor	Weighting	\$	FERC Accts	Description	Series Name
0.6317		\$410,311,116		Labor	
				Non-Labor	
	0.0843	\$20,169,109	814-837	Underground Storage	JGUSOMMS
	0.2530	\$60,557,501	850-867	Gas Transmission	JGTOMMS
	0.2436	\$58,265,547	870-894	Gas Distribution	JGDOMMS
	0.1452	\$34,726,445	901-905	Gas Customer Accounts	JGCAOMS
	0.0407	\$9,730,629	907-910	Gas Customer Svc & Info	JGCSIOMS
	0.2332	\$55,778,613	920-935 x926	Gas Admin & General except 926	JGADGOMMS_X926
0.3683	1.0000	\$239,227,844		Non-Labor TOTAL	
SoCalGas Shared Services O&M					
	Weighting	\$	FERC Accts	Description	Global Insight-based Series Name
	0.6145	\$49,260,532		Labor	---
				Non-Labor	
	0.0189	\$1,516,932	814-837	Underground Storage	JGUSOMMS
	0.0299	\$2,399,915	850-867	Gas Transmission	JGTOMMS
	0.0338	\$2,712,830	870-894	Gas Distribution	JGDOMMS
	0.0222	\$1,776,693	901-905	Gas Customer Accounts	JGCAOMS
	0.0320	\$2,561,964	907-910	Gas Customer Svc & Info	JGCSIOMS
	0.2487	\$19,941,019	920-935 x926	Gas Admin & General except 926	JGADGOMMS_X926
	1.0000	\$80,169,885		TOTAL	

Source: file "GRC_USS_NSS by FERC 2013 for Esc Weightings 3-10-14.xls", from GRC & Revenue Requirements Dept.

Southern California Gas Company

2016 GRC – APP

Workpapers

O&M Labor Component Weightings -- based on actual 2013 SoCalGas Labor Earnings					
<u>Job Area</u>	<u>SoCalGas Categories</u>	<u>Weights</u>	<u>SoCalGas 2013 \$</u>	<u>Global Insight Description</u>	<u>Global Insight series</u>
Union	Union (represented)	51.401%	\$378,806,413.49	(Utility Svc Wkrs)	CEU4422000008
Supervisory	Exec & Mgmt Supervisory	19.728%	\$145,386,071.75	(Mgns & Adminstrtrs)	ECIPWMBFNS
NonUnion NonSup	Non-superv. Mgmt and Assoc	28.871%	\$212,772,633.55	(Profssnl & Techncl)	ECIPWPARNS
Source: Compensation & Benefits Dept. (2013 earnings by job function)					

Southern California Gas Company
2016 GRC – APP
Workpapers

DERIVATION OF SOCALGAS POST-TEST YEAR GAS O&M AND CAPITAL-RELATED ESCALATION INDICES							
GOMPI (Gas Operations & Maintenance Price Index)							
RAW GLOBAL INSIGHT O&M DATA*							
Labor	2013	2014	2015	2016	2017	2018	
SCG Adjusted Utility Service Workers**	33.75	34.60	35.46	36.34	37.29	38.23	
ECIPWMBFNS (2005q4=100) -- Managers & Administrators	119.04	121.34	124.28	127.59	131.05	134.53	
ECIPWPARNs (2005q4=100) -- Professional & Technical	119.75	122.20	125.17	128.60	132.15	135.65	
Nonlabor	2013	2014	2015	2016	2017	2018	
JGUSOMMS	1.6890	1.7170	1.7530	1.7940	1.8330	1.8700	
JGTOMMS	1.7640	1.7910	1.8280	1.8650	1.9040	1.9430	
JGDOMMS	1.7490	1.7800	1.8160	1.8560	1.8980	1.9400	
JGCAOMS	1.5930	1.6170	1.6450	1.6760	1.7080	1.7390	
JGCSIOMS	1.6350	1.6550	1.6860	1.7170	1.7460	1.7770	
JGADGOMMS_X926 (2013=1.0000)	1.0000	1.0199	1.0459	1.0743	1.1033	1.1305	
O&M INDEX (BENCHMARK YEAR = 2013)							
Labor	2013	2014	2015	2016	2017	2018	
SCG Adjusted Utility Service Workers**	1.0000	1.0250	1.0506	1.0765	1.1047	1.1326	
ECIPWMBFNS (2005q4=100) -- Managers & Administrators	1.0000	1.0193	1.0441	1.0718	1.1010	1.1302	
ECIPWPARNs (2005q4=100) -- Professional & Technical	1.0000	1.0204	1.0452	1.0739	1.1036	1.1328	
Nonlabor gas	2013	2014	2015	2016	2017	2018	
JGUSOMMS	1.0000	1.0166	1.0379	1.0622	1.0853	1.1072	
JGTOMMS	1.0000	1.0153	1.0363	1.0573	1.0794	1.1015	
JGDOMMS	1.0000	1.0177	1.0383	1.0612	1.0852	1.1092	
JGCAOMS	1.0000	1.0151	1.0326	1.0521	1.0722	1.0917	
JGCSIOMS	1.0000	1.0122	1.0312	1.0502	1.0679	1.0869	
JGADGOMMS_X926	1.0000	1.0199	1.0459	1.0743	1.1033	1.1305	
LABOR WEIGHTS	2013	2014	2015	2016	2017	2018	
SCG Adjusted Utility Service Workers**	51.401%	51.401%	51.401%	51.401%	51.401%	51.401%	
ECIPWMBFNS (2005q4=100) -- Managers & Administrators	19.728%	19.728%	19.728%	19.728%	19.728%	19.728%	
ECIPWPARNs (2005q4=100) -- Professional & Technical	28.871%	28.871%	28.871%	28.871%	28.871%	28.871%	
NONLABOR WEIGHTS	2013	2014	2015	2016	2017	2018	
JGUSOMMS	8.43%	8.43%	8.43%	8.43%	8.43%	8.43%	
JGTOMMS	25.30%	25.30%	25.30%	25.30%	25.30%	25.30%	
JGDOMMS	24.36%	24.36%	24.36%	24.36%	24.36%	24.36%	
JGCAOMS	14.52%	14.52%	14.52%	14.52%	14.52%	14.52%	
JGCSIOMS	4.07%	4.07%	4.07%	4.07%	4.07%	4.07%	
JGADGOMMS_X926	23.32%	23.32%	23.32%	23.32%	23.32%	23.32%	
WEIGHTED LABOR INDICES	2013	2014	2015	2016	2017	2018	
SCG Adjusted Utility Service Workers**	0.5140	0.5269	0.5400	0.5534	0.5678	0.5822	
ECIPWMBFNS (2005q4=100) -- Managers & Administrators	0.1973	0.2011	0.2060	0.2115	0.2172	0.2230	
ECIPWPARNs (2005q4=100) -- Professional & Technical	0.2887	0.2946	0.3018	0.3100	0.3186	0.3270	
WEIGHTED NONLABOR INDICES	2013	2014	2015	2016	2017	2018	
JGUSOMMS	0.0843	0.0857	0.0875	0.0895	0.0915	0.0933	
JGTOMMS	0.2530	0.2569	0.2622	0.2675	0.2731	0.2787	
JGDOMMS	0.2436	0.2479	0.2529	0.2585	0.2644	0.2702	
JGCAOMS	0.1452	0.1474	0.1499	0.1528	0.1557	0.1585	
JGCSIOMS	0.0407	0.0412	0.0420	0.0427	0.0435	0.0442	
JGADGOMMS_X926	0.2332	0.2378	0.2439	0.2505	0.2573	0.2636	
WEIGHTED AVERAGE LABOR AND NONLABOR INDICES	2013	2014	2015	2016	2017	2018	
Labor O&M Index	1.0000	1.0226	1.0478	1.0749	1.1036	1.1322	
Gas Nonlabor O&M Index	1.0000	1.0169	1.0384	1.0616	1.0854	1.1086	
Labor Index Weight	63.17%	63.17%	63.17%	63.17%	63.17%	63.17%	
Nonlabor Index Weight	36.83%	36.83%	36.83%	36.83%	36.83%	36.83%	
WEIGHTED AVERAGE POST-TEST YEAR GAS O&M ESCALATION INDEX	1.0000	1.0205	1.0443	1.0700	1.0969	1.1235	
ANNUAL PERCENTAGE CHANGE FOR 2017 AND 2018					2.52%	2.42%	
CAPITAL-RELATED INDEX*							
Utility Plant Construction Cost Indexes, Pacific Region (1973=100) (Raw data from Global Insight)							
JUG@PCF	2013	2014	2015	2016	2017	2018	
JUG@PCF	777.80	788.50	800.50	814.90	832.00	844.80	
Utility Plant Construction Cost Indexes, Pacific Region							
JUG@PCF	2013	2014	2015	2016	2017	2018	
JUG@PCF	1.0000	1.0138	1.0292	1.0477	1.0697	1.0861	
ANNUAL PERCENTAGE CHANGE FOR 2017 AND 2018					2.10%	1.54%	

2017 Calculation Example
$37.29 / 33.75 = 1.1047$
$1.8330 / 1.6890 = 1.0853$
$1.1047 * 51.41\% = 0.5678$
$1.1010 * 19.728\% = 0.2172$
$1.1036 * 28.871\% = 0.3186$
$1.0853 * 8.43\% = 0.0915$
$1.0794 * 25.30\% = 0.2731$
$1.0852 * 24.36\% = 0.2644$
$1.0722 * 14.52\% = 0.1557$
$1.0679 * 4.07\% = 0.0435$
$1.1033 * 23.32\% = 0.2573$
$0.5678 + 0.2172 + 0.3186 = 1.1036$
$0.0915 + 0.2731 + 0.2644 + 0.1557 + 0.0435 + 0.2573 = 1.0854$
$(63.17\% * 1.1036) + (36.83\% * 1.0854) = 1.0969$
$(1.0969 / 1.0700) - 1 = 2.52\%$
$(832.0 / 777.8) = 1.0697$
$(1.0697 / 1.0477) - 1 = 2.10\%$

* Data based on Global Insight 4th Quarter 2013 utility cost forecast, released February 2014.
** SCG: 2.75% -- 2012, 2.75% -- 2013, 2.5% -- 2014; 2.5% -- 2015; SEU: 3.5%/yr in 2009-2011)