Company:Southern California Gas Company (U 904 G)Proceeding:2019 General Rate CaseApplication:A.17-10-008Exhibit:SCG-19-R

REVISED

SOCALGAS

DIRECT TESTIMONY OF MICHAEL H. BALDWIN

(CUSTOMER SERVICES - OFFICE OPERATIONS)

December 2017

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA



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APPENDICES

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SUMMARY

Test Year (TY) 2019 Summary of Total O&M Costs (Thousands of 2016 Dollars)

CS – OFFICE OPERATIONS	2016 Adjusted -	TY 2019	Change
	Recorded	Estimated	_
Total Non-Shared	87,019	84,297	-2,722
Total Shared Services (Incurred)	5,403	5,492	89
Total O&M	92,422	89,789	-2,633

TY 2019 Summary of Total IT Capital Costs (Thousands of 2016 Dollars)

CS – OFFICE OPERATIONS			
	Estimated	Estimated	Estimated
Shown in Thousands of 2016 Dollars	2017	2018	2019
IT Capital Projects, Annual Estimated Total	13,190	12,412	23,663

Summary of Requests

For TY 2019, Southern California Gas Company (SoCalGas) requests \$89.789 million (a decrease of \$2.6 million below 2016 adjusted-recorded costs) to support the activities within Customer Services - Office Operations (CSOO) to deliver safe, efficient, reliable and effective service through the Customer Contact Centers (CCC), Branch Offices and Authorized Payment Locations (APL), Billing & Payments, Credit and Collections and other related supporting functions. Costs reflect efforts to continuously improve operations while developing or enhancing SoCalGas' capabilities to be responsive to the following:

- A diverse customer base with evolving expectations regarding their available options to contact SoCalGas;
- Customer preference as to how they can pay and receive their bills;
- An increased volume of safety-related customer calls and orders;
- Heightened focus on protecting customer data as well as compliance with data privacy mandates and standards; and
- Increased responsiveness to customer feedback and improved service levels.

This focus is reflected in a TY 2019 forecast, which is \$2.6 million (almost 3%) lower than CSOO base year (BY) 2016 adjusted recorded expenditures.

Significant changes between BY 2016 and TY 2019 are as follows:

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- Significant cost reductions anticipated due to Fueling Our Future (FOF) initiatives across applicable CSOO areas;
- Decreased CCC Operations costs due to increase in self-service, decreased average call handle time due to more efficient call routing, while increasing level of service;
- Incremental CCC Support labor and non-labor costs to support an increased variety of customer contact channel preferences;
- Decreased Billing Services labor costs due to completed Advance Meter Project;
- Net reduction of Remittance Processing paper, printing and postage costs from increased adoption of paperless billing; and
- Incremental labor and non-labor costs to support the Customer Data Privacy program, increased support for mobile applications, and increased data analytics capabilities.

My testimony also includes a request for funding an uncollectable rate based on a fiveyear average and business justification for IT Capital projects that deliver an improved customer experience, replace obsolete technology, deliver operational efficiency and comply with regulatory mandates.

REVISED SOCALGAS DIRECT TESTIMONY OF MICHAEL BALDWIN (CUSTOMER SERVICES - OFFICE OPERATIONS)

I. INTRODUCTION

A. Summary of Costs and Activities

I sponsor the TY 2019 non-shared and shared services forecasts for Operations and Maintenance (O&M) costs and business justification for capital projects for the forecast years 2017, 2018, and 2019, associated with the CSOO area for SoCalGas. The purpose of my testimony is to demonstrate that the following SoCalGas CSOO O&M expenses, capital projects and Uncollectable Rate forecasts are reasonable and should be approved by the California Public Utilities Commission (CPUC or Commission). Table MB-1 summarizes my sponsored O&M costs and Table MB-2 summarizes the IT Capital project costs for which I sponsor the business justification.

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TABLE MB-1Test Year 2019 Summary of Total O&M Costs

CS - OFFICE OPERATIONS			
Shown in Thousands of 2016 Dollars	2016 Adjusted-	TY 2019	Change
	Recorded	Estimated	
Total Non-Shared	87,019	84,297	-2,722
Total Shared Services (Incurred)	5,403	5,492	89
Total O&M	92,422	89,789	-2,633

TABLE MB-2 Test Year 2019 Summary of Total IT Capital Costs (Thousands of 2016 dollars)

CS – OFFICE OPERATIONS			
Shown in Thousands of 2016 Dollars	Estimated	Estimated	Estimated
	2017	2018	2019
IT Capital Projects, Annual Estimated Total	13,190	12,412	23,663

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CSOO provides revenue cycle services to meet the needs of SoCalGas' diverse customer base served through 5.8 million active meters. CSOO also provides shared support to San Diego

Gas & Electric Company (SDG&E) for some bill delivery, payment processing and Credit &

Collections functions.¹ The Scope of CSOO activities includes the following:

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Customer Contact Center Operations & Support;

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¹ Specific shared services are discussed in Shared Costs - Section IV.

1	•	Branch Offices and Authorized Payment Locations;					
2	•	Billing Services;					
3	•	Measurement Data Operations;					
4	•	Credit and Collections;					
5	•	Remittance Processing (Bill Printing);					
6	•	Postage;					
7	•	Customer Services Office Operations Technology & Support;					
8	•	Uncollectable Rate; and					
9	•	Business Justification for IT Capital Projects that support Customer Services -					
10		Office Operations areas.					
11	В.	Summary of Safety and Risk-Related Costs					
12	Certai	n of the costs supported in my testimony are driven by activities described in					
13	SoCalGas and	SDG&E's November 30, 2016 Risk Assessment Mitigation Phase (RAMP)					
14	Report. ² The	RAMP Report presented an assessment of the key safety risks of SoCalGas and					
15	SDG&E and p	proposed plans for mitigating those risks. As discussed in the Risk Management					
16	testimony chapters of Diana Day and Jamie York (Ex. SCG-02/SDG&E-02, Chapters 1 and 3,						
17	respectively), the costs of risk-mitigation projects and programs were translated from that RAMP						
18	Report into th	e individual witness areas.					
19	Table	MB-3 provides a summary of the O&M RAMP-related costs for CSOO that are					
20	described in my testimony:						

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² I.16-10-015/I.16-10-016 Risk Assessment and Mitigation Phase Report of San Diego Gas & Electric Company and Southern California Gas Company, November 30, 2016. Please also refer to Ex. SCG-02/SDG&E-02, Chapter 1 (Diana Day) for more details regarding the utilities' RAMP Report.

CUSTOMER SERVICE - OFFICE OPERATIONS (In 2016 \$)						
RAMP Risk Chapter	2016 Embedded Base Costs (000s)	TY 2019 Estimated Incremental (000s)	Total (000s)			
SCG-2 Employee, Contractor, Customer and Public Safety	1,057	1,474	2,531			
Total O&M	1,057	1,474	2,531			

TABLE MB-3

Summary of RAMP O&M Overlay

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C. Summary of Cost Efficiencies Related to Fueling our Future (FOF)

As described in the joint testimony of Hal Snyder and Randall Clark (Exhibits SCG-

03/SDG&E-03), the utilities kicked off the FOF initiative in May 2016, to identify and

implement efficient operational improvements. In each applicable area of my testimony, I will

describe how SoCalGas expects costs to be reduced by implementing these initiatives. Table

MB-4 provides a summary of the FOF cost efficiencies described in my testimony.

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TABLE MB-4Summary of FOF Benefits

FOF-Ongoing/ <benefits></benefits>	Estimated 2017	Estimated 2018	Estimated 2019
	(000s)	(000s)	(000s)
2200-0354.000, MAJOR MARKET	-17	-36	-36
CREDIT and COLLECTIONS			
200000.000, CCC - Operations	-1,436	-1,156	-3,350
200001.000, CCC - Support	0	-77	-106
200003.000, Billing Services	-247	-684	-684
200004.000, Credit and Collections	0	-158	-158
200005.000, Remittance Processing	-197	-756	-949
200005.001, Remittance Processing	-756	-2,248	-4,282
Postage			
Total	-2,653	-5,115	-9,565

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D. Summary of Aliso-Related Costs

In compliance with Decision (D.) 16-06-054,³ the testimony of witness Andrew Steinberg (Ex. SCG-12) describes the process undertaken so the TY 2019 forecasts do not include the additional costs from the Aliso Canyon Storage Facility gas leak incident (Aliso Incident), and

³ D.16-06-054, mimeo, at 332 (Ordering Paragraph 12) and 324 (Conclusion of Law 75).

demonstrates that the itemized recorded costs are removed from the historical information used
 by the impacted General Rate Case (GRC) witnesses.

As a result of removing historical costs related to the Aliso Incident from CSOO adjusted recorded data, and in tandem with the forecasting method(s) employed and described herein, additional costs of the Aliso Incident response are not included as a component of my Test Year 2019 funding request. Historical CSOO costs that are related to the Aliso Incident are removed as adjustments in my workpapers (Ex. SCG-19-WP-R). Several management and represented employees were offered temporary management assignments from CSOO and were released from their regular staff responsibilities, and loaned to support activities related with the Aliso Incident. During this period, CSOO projects were either deferred when appropriate or other team members of the respective group took on additional assignments as needed. Table MB-5 provides a summary of the Aliso Incident-related costs excluded from my testimony.

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TABLE MB-5
Summary of Excluded Aliso-Related Costs

CS - OFFICE OPERATIONS (In 2016 \$)			
Workpaper	2015	2016	Total (000s)
	Adjustment	Adjustment	
	(000s)	(000s)	
200000.000, CCC - Operations	-52	-2,017	-2,069
200001.000, CCC - Support	-72	-2,078	-2,150
200002.000, Branch Offices	0	-97	-97
200003.000, Billing Services	2	-110	-108
200004.000, Credit and Collections	0	-37	-37
200005.000, Remittance Processing	0	-22	-22
200006.000, Customer Service Other	-7	-1,702	-1,709
Office Ops and Technology			
Total Non-Shared	-128	-6,063	-6,192
2200-0355.000, PAYMENT	0	-34	-34
PROCESSING			
2200-2247.000, MANAGER OF	-1	-68	-69
REMITTANCE PROCESSING			
Total Shared Services	-1	-102	-102
Total O&M	-129	-6,165	-6,294

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E. Summary of Costs Related to Advanced Metering Infrastructure (AMI)

By TY 2019, SoCalGas' AMI deployment will be completed and therefore the costs

associated with the deployment and post-deployment phases, including the related O&M

benefits, will no longer be recorded to the AMI Balancing Account. In this GRC, AMI operating
impacts will be integrated into base business operations for the first time. Accordingly, I have
incorporated forecasts and explanations for the associated on-going benefits and any incremental
costs for CSOO into my testimony. In addition, as discussed in the AMI testimony of Rene
Garcia (Ex. SCG-17), SoCalGas is proposing an on-going maintenance and operations team
required to monitor, operate, maintain, and optimize the AMI system (Advanced Meter
Operations).

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 TABLE MB-6

 Summary of Benefits and Costs Related to Advanced Metering Infrastructure

Advanced Metering Infrastructure	TY2019 Estimated (000's)		
	Benefits Costs		
200000.000, CCC - Operations	-176		
200001.000, CCC - Support		1	
200003.000, Billing Services	-3,141 ⁴	142	
200005.001, Remittance Processing Postage	-239	612	
200007.000, Measurement Data Ops (MDO)	-384		
Total	-3,940 755		

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F. Organization of Testimony

My cost forecasts support the Company's goal of providing safe, reliable and efficient gas service to customers, as well as complying with all federal, state and local regulations. The CSOO cost forecasts also support SoCalGas' focus on continuous improvement from not only a safety perspective, but from both cost efficiency and customer experience perspectives as well.

All requested O&M and capital expenses are described in detail in the remaining sections of my testimony, which is organized as depicted in Figure MB-1.

⁴ Benefits in Billing Services related to AMI were achieved from 2013-2016, and therefore are not explicitly listed in this filing. Instead those benefits are embedded in the base year recorded expenses, which are lower than they would have been without AMI benefits.



II. RISK ASSESSMENT MITIGATION PHASE AND SAFETY CULTURE

A. RAMP

As illustrated in Table MB-7, part of my request for funds is linked to mitigating top safety risks that have been identified in the RAMP Report. These risks are further described in the table below:

TABLE MB-7Risk Assessment Mitigation Activities

RAMP Risk	Description
Employee, Contractor,	The Employee, Contractor, Customer, and Public Safety risks cover
and Public Safety	the risk of conditions and practice which may result in severe harm
	to employee, contractor, customer, and /or public safety such as
	driving, customer premises, and appliance conditions.

In developing my request, priority was given to this key safety risk to determine which currently established risk control measures were important to continue and what incremental

1 efforts were needed to further mitigate this risk. Identifying projects and programs that help to 2 mitigate these risks manifest themselves in my testimony as adjustments to my forecasted costs. 3 This adjustment process was used to identify both RAMP mitigation costs embedded as part of 4 traditional and historic activities, as well as forecasted RAMP-incremental costs, that are also 5 associated with mitigation strategies and corresponding to historic or new activities. These can 6 be found in my workpapers as described below. The general treatment of RAMP forecasting is 7 described in the testimony of RAMP to GRC Integration witness Jamie York (Ex. SCG-8 02/SDG&E-02, Chapter 3).

For this risk, an embedded BY 2016 cost-to-mitigate and any incremental costs expected by the TY 2019 are shown in Table MB-8 below. The table also provides the location in my workpapers where the specific adjustments representing those incremental costs can be found. Furthermore, the details for the individual mitigation efforts are described in the impacted testimony area below.

TABLE MB-8 RAMP Summary of Costs

CS - OFFICE OPERATIONS (In 2016 \$)			
SCG-2 Employee, Contractor, Customer and	2016	TY 2019	Total
Public Safety	Embedded	Estimated	(000s)
	Base Costs	Incremental	
	(000s)	(000s)	
200000.000, CCC - Operations	1,057	1,474	2,531
Total	1,057	1,474	2,531

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As the table demonstrates, the RAMP risk mitigation efforts are associated with specific programs or projects contained within a single workgroup. For each of these mitigation efforts an evaluation was made to determine the portion that was already being performed in our historical activities. 2016 RAMP-embedded costs of \$1,057,000 including CCC training costs for handling emergency orders, leak order call handling, quality assurance (QA) and a dedicated safety liaison ensures that the Customer Contact Center staff members remain current on all safety-related policies and procedures through extensive training and review. The CCC is generally the first point of company contact for emergencies; as such it provides a critical support role in the safety of the SoCalGas system and the public's well-being. Gas leak calls are given top priority in the Customer Contact Representative (CSR) call queue and CSRs are trained to discern the different types of emergencies and triage calls to ensure appropriate field

personnel are sent in response to the situation. The CCC also helps to ensure safety during nonemergency situations by issuing customer requested appliance inspection and maintenance
orders. Customers are directed to call the CCC for all emergencies and emergency calls receive
top priority in the CSR call queue. CSRs are trained to respond to multiple types of emergencies
that normally fall within the following main categories:

- General Leaks at appliances, at gas meters, inside structures-source unknown, ignited leaks, among others;
- Outside Leaks- damaged gas lines or meter, dying vegetation, among others;
- Carbon Monoxide (CO) customer experiencing symptoms or not, CO safety checks, CO Alarm/Detectors activated or not, among others;
- Miscellaneous Leak-Related issues Odor Fade, appliance recalls, among others; and
- Other Urgent Situations water heater not cycling off (water steaming), bomb threats, among others.

Training is an integral part of how SoCalGas mitigates the Employee, Contractor, Customer, and Public Safety risk throughout the CSOO workgroups. New hires, transfers, or newly assigned employees must complete and pass initial mandatory safety training relevant to their specific job duties. For instance, bill print and insertion operators are trained in the safe operation of the equipment in order to avoid injury.

Safety and environmental meetings are another important way that SoCalGas mitigates Employee, Contractor, Customer and Public Safety risk and, therefore, are scheduled on a regular basis to ensure safety is at the top of their minds.

Ergonomic training is also fundamental to work practices at SoCalGas and these costs are embedded in the entire CSOO workgroup. Job observations and desk rides⁵ are conducted by management, non-management and safety committee personnel focusing on principles that recognize at-risk behaviors as a frequent cause of both minor and serious injuries. The purpose of the job observation and desk ride process is to reduce the occurrence of at-risk behaviors by modifying an individual's actions through observation, feedback, and positive interventions

⁵ A desk ride is when a trained safety observer sits at the desk along with the employee to observe their actions and recommends changes as needed.

aimed at developing safe work habits. Employees are also provided feedback and coaching so that their work conforms to policy and procedure.

TY 2019 RAMP incremental costs of \$1,449,000 are for a program to update customer contact information when handling all types of live calls, and for increased anticipated CSR-handled emergency calls in TY 2019. On all live calls, CSRs will collect/verify customer email addresses and mobile phone numbers. Gathering this additional information will better enable SoCalGas to communicate with customers in the event of a natural disaster or other emergency incidents. Having better contact information also facilitates other safety-related activities such as leakage surveys and pipeline inspections. SoCalGas considered a direct mail campaign to solicit this information from customers, but determined that a more effective method would be to gather this information while already on the phone with the customer. TY 2019 incremental costs of \$25,000 are attributable to an increase in the number of emergency calls expected due to meter growth. This request reflects the costs to sustain safety practices already in place as well as increase customer safety by supporting the scheduling of additional field safety inspections.

B. Safety Culture

SoCalGas' longstanding commitment to safety focuses on three primary areas – employee safety, customer safety and public safety. This safety focus is embedded in what we do and is the foundation for who we are – from initial employee training, to the installation as well as operation and maintenance of our utility infrastructure, and to our commitment to provide safe and reliable service to our customers.

SoCalGas regularly assesses its safety culture and encourages two-way communication between employees and management as a means of identifying and managing safety risks. As discussed above, safety is a core value at SoCalGas, so we provide all employees with the training necessary to safely perform their job responsibilities.

All major areas within CSOO maintain robust Safety Committees comprised of both management and non-management personnel who meet monthly to discuss and resolve safety issues in their given areas. Once a year, these Safety Committees all get together at a company-wide Safety Congress event to share and learn best practices.

As previously stated, the CCC is generally the first point of company contact for emergencies; as such it provides a critical support role in the safety of the SoCalGas system and the public's well-being. Gas leak calls are given top priority in the CSR call queue and CSRs are

trained to discern the different types of emergencies and manage calls to ensure appropriate field
 personnel are sent in response to the situation. The CCC also helps to ensure safety during non emergency situations by issuing customer requested appliance inspection and maintenance
 orders.

III. NON-SHARED COSTS

A. Introduction

SoCalGas CSOO non-shared O&M costs represent the costs of labor and non-labor activities required to deliver services exclusively benefitting SoCalGas and its customers and do not need to be allocated out to other business units. A summary of non-shared O&M costs can be found in Table MB-9. This section will describe the costs and cost drivers for each nonshared activity in CSOO.

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TABLE MB-9
Non-Shared O&M Summary of Costs
(Thousands of 2016 Dollars)

CS - OFFICE OPERATIONS (In 2016 \$)			
	2016	TY 2019	Change (000s)
	Adjusted-	Estimated	
	Recorded	(000s)	
A. CS - Office Operations	(000s)		
1. CCC - Operations	30,143	29,872	-271
2. CCC - Support	7,782	9,024	1,242
3. Branch Offices	11,592	12,012	420
4. Billing Services	6,968	6,265	-703
5. Credit & Collections	4,221	4,100	-121
6. Credit and Collections Postage	995	995	0
7. Remittance Processing	4,928	3,994	-934
8. Remittance Processing Postage	17,011	13,812	-3,199
9. CS - Other Ops	2,065	3,180	1,115
10. Measurement Data Operations (MDO)	1,314	1,043	-271
Total	87,019	84,297	-2,722

B. Customer Contact Center Operations

TABLE MB-10 TY 2019 Summary of CCC-Operations Costs (Thousands of 2016 Dollars)

CS - OFFICE OPERATIONS			
Shown in Thousands of 2016 Dollars			
A. Customer Service Office Operations	2016	TY 2019	Change
	Adjusted-	Estimated	
	Recorded		
1. CCC – Operations	30,143	29,872	-271

1. Description of Costs and Underlying Activities

SoCalGas' handles over 11 million annual contacts for residential, commercial and industrial customers through CSRs as well as automated self-service. CSRs and automated systems are available to handle customer interactions 24 hours per day, 365 days per year. SoCalGas offers multi-lingual communications through its CCCs as well as language line translation services through a third-party provider to support the needs of a diverse customer base.

The CCC handles a variety of customer service needs with the largest volume of interactions consisting of billing and payment inquiries as well as customer-requested service orders. As described in the RAMP section of my testimony, the CCC is generally the first point of company contact for emergencies; as such it provides a critical support role in the safety of the SoCalGas system and the public's well-being.

SoCalGas has two CCC locations: San Dimas and Redlands. The San Dimas and Redlands CCC facilities accommodate approximately 265 and 195 CSRs respectively. The CCCs are complex operations, utilizing communications hardware and software technology to ensure customer accessibility, and to assist SoCalGas in forecasting call volume, optimizing staffing levels and conducting data analysis on customer interaction behaviors and experiences.

- SoCalGas CCC Operations expenses cover the cost of:
- Answering customer telephone calls;
- Responding to incoming customer e-mails; and
- Responding to other customer account related inquiries.

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Customers are directed to call the CCC for all emergencies, and emergency calls receive top priority in the CSR call queue. The CCC is prepared to discern and triage the different types of emergencies in order to communicate appropriately with customers and field order dispatch to ensure that appropriate field personnel are dispatched in response to each situation. CSRs are trained to respond to multiple types of emergencies that normally fall within the following main categories:

- General Leaks at appliances, at gas meters, inside structures-source unknown, ignited leaks, among others;
 - Outside Leaks- damaged gas lines or meter, dying vegetation, among others;
- Carbon Monoxide (CO) customer experiencing symptoms or not, CO safety checks, CO Alarm/Detectors activated or not, among others;
- Miscellaneous Leak-Related issues Odor Fade, appliance recalls, among others; and
- Other Urgent Situations water heater not cycling off (water steaming), bomb threats, among others.

The San Dimas and Redlands contact centers act as one "virtual" contact center and serve as back-up sites to one another in the case of an emergency. Calls are routed to the first available CSR at either site. SoCalGas CSRs provide telephone service in six languages: English, Spanish, Cantonese, Korean, Mandarin and Vietnamese. SoCalGas provides service in other languages through a third-party language line. SoCalGas also provides services for the hearingimpaired.

The CCC supports the diverse and evolving interaction preferences of SoCalGas customers by expanding and enhancing newer and technologically advanced interaction channels while also continuing to serve customers who wish to interact via traditional CSR live person telephone calls. For example, customers increasingly contact SoCalGas via social media for specific customer service related inquiries. The CCC works in collaboration with the Customer Engagement and Insights department to respond to service-related communications through social media channels.

CCC Operations costs consist primarily of labor and reflect the number of Full Time Equivalents (FTEs) required for the customer contact activities described above. FTE needs are dictated by the number of customer contacts (primarily calls and emails) requiring CSR

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assistance as well as length of call or average handle time (AHT), level of service (LOS), and CSR utilization factors (Agent Occupancy).⁶ SoCalGas makes use of workforce planning software that leverages the above inputs to calculate the number of FTEs required to support the projected level of work. Finally, a "shrinkage" factor is applied to the FTE requirements to account for paid time that is not spent handling customer contacts (e.g., vacation, breaks, lunch, holidays, sick time, and training).

The calculations for estimated expenses are included in my workpapers (Ex. SCG-19-WP-R 200000.000).

2. **Forecast Method**

A base year forecasting methodology was applied to project CCC Operations O&M costs. Base year 2016 customer contact volumes reflect customer adoption of self-service options resulting from SoCalGas' capital investments for Interactive Voice Response (IVR). Adjustments to base year call volume have been made to account for incremental calls due to meter growth, and call reductions resulting from both adoption of self-service, and Advanced Meter. See Table MB-11 below to see how customer interactions have changed over time. Other factors that impact CCC Operations costs were forecasted using 2016 base year and adjusted for specific changes as described in the Cost Drivers section of my testimony.

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TABLE MB-11 **Changes in CCC Contacts and Transactions**

	CSR	% of		% of		% of	Web & Mobile	% of	Total
Year	Calls	Total	IVR Calls	Total	Email	Total	Self Service	Total	Contacts
2012	6,245,767	67.1%	1,973,793	21.2%	157,714	1.7%	929,361	10.0%	9,306,635
2013	6,312,561	62.0%	2,693,197	26.5%	156,070	1.5%	1,012,625	10.0%	10,174,453
2014	5,807,113	57.0%	3,266,048	32.1%	132,522	1.3%	983,137	9.6%	10,188,820
2015	5,635,135	54.0%	3,657,992	35.0%	129,526	1.2%	1,021,759	9.8%	10,444,412
2016	5,294,765	47.6%	3,856,089	34.7%	163,733	1.5%	1,809,330*	16.3%	11,123,917
2017F	5,191,111	46.2%	3,903,187	34.8%	147,913	1.3%	1,986,237	17.7%	11,228,448
2018F	5,144,496	45.1%	3,955,847	34.6%	144,569	1.3%	2,163,144	19.0%	11,408,056
2019F	4,908,129	43.1%	4,011,888	35.1%	141,301	1.2%	2,340,052	20.6%	11,401,370
2017 to 2019									
Growth	(282,982)		108,701		(6,612)		353,815		172,922

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*Model of self-service transactions updated in 2016 to include additional self-serve functionality

previously not captured; forecast numbers arrived at using slope of trend line of 2012-2016 actuals.

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⁶ Agent occupancy – The percentage of time CSRs handle calls versus waiting for calls to arrive.

3. Cost Drivers

The change in SoCalGas CCC Operations' TY 2019 estimated expenses compared to BY 2016 adjusted-recorded expenses are primarily based on reduced call volume, increased call handle time and increased level of service (LOS). Table MB-10 above shows the change from BY 2016 adjusted-recorded expenses to TY 2019 estimated expenses. Table MB-12 below summarizes the changes in CCC Operations expenses. SoCalGas proposes in TY 2019 a decrease in total expenses of \$271,000 in addition to a decrease of 3.7 FTEs from BY 2016 adjusted-recorded costs. Each cost driver is described below.

TABLE MB-12 TY 2019 Incremental Changes to CCC Operations (Thousands of 2016 Dollars)

	2016/2019 Change \$(000)	Labor	Non- Labor	FTEs
CCC Operations	-271	-269	-2	-3.6
Increase in CSR call volume due to meter growth	579	575	4	8.0
Increase in CSR emergency call volume due to meter growth (RAMP)	25	25		
FOF Reductions in CCC Operations	-4,565	-4,532	-33	-62.1
Increase in AHT due to implementation of projects from other departments	1,215	1,206	9	16.5
Increase in AHT due to RAMP	1,449	1,438	11	19.7
Increase in CSR LOS to 60%	1,126	1,118	8	15.3
Decrease in costs due to Advanced Meter	-160	-159	-1	-2.2
Reductions in CCC Operations Staff/Adjustments for full year staffing	-2	-1	-1	0.2
Increase in Administrative Clerk position	62	61	1	1.0

a. Increase in CSR Call Volume due to Meter growth

SoCalGas is requesting an incremental \$575,000 for 8.0 FTEs and an associated \$4,000 in non-labor for meter growth to support an increase of 110,871 CSR answered calls from 2016-2019. A projection of 0.93 CSR handled calls per meter was used to project call volume growth. Forecasted meter growth is covered in Witness Rose-Marie Payan's testimony (Ex. SCG-39).

b. Increase in Emergency Call Volume (RAMP)

SoCalGas is requesting an incremental \$25,000 for a projected increase in emergency call volume associated with RAMP due to meter growth.

c. FOF Reductions in CCC Operations

SoCalGas is forecasting a reduction of \$4,532,000 for 62.1 less FTEs as well as \$33,000 in associated non-labor for FOF reductions in the CCC Operations through the following:

CSR answered call volumes - An increase in customer preference and adoption of self-service, resulting from expanded options and enhanced usability contributes to reduced and avoided incremental CSR call volume. This is forecasted to reduce \$2,546,000, which includes 34.6 FTEs and \$18,000 in associated non-labor from adjusted recorded costs. Previous investments in self-service technology as well as continued investment in the IVR (see capital project 19050 - IVR Usability Enhancement below), web (*see* Customer Experience Project 84285 in Andrew Cheung's testimony (Ex. SCG-20)) and mobile capital projects (*see* PACER Mobile Platform Project 19108 in Gwen Marelli's testimony (Ex. SCG-18)) are forecasted to sustain the self-service levels realized to date and reduce incremental CSR answered calls.

• AHT - As a continuous improvement activity, SoCalGas has completed Lean Six Sigma (LSS)⁷ projects to increase the call handling efficiency for several high-volume call types. The results of these efforts have led to reductions in excess handle time on transactions as indicated in Table MB-13. Table MB-13 is included for illustrative purposes only to show that the CCC is actively engaged in the Lean Six Sigma process to improve efficiency. The 25 seconds of AHT savings are solely for these two types of calls, and are embedded in the "Various CCC FOF Ideas" in Table MB-14 below and account for an overall reduction of 3.4 seconds. These improvements were completed in July 2016 and partially

⁷ LSS, a business management strategy, comes from two process improvement methodologies, called "Lean" and "Six Sigma." Lean methodology, created by Toyota, identifies activities that directly impact the customer and how to conduct those activities with efficiency. The Six Sigma methodology, created by Motorola, improves customer quality by reducing any errors that may occur during the process. Lean and Six Sigma methodologies focus on delivering value added products and services to the customer in an efficient and safe manner without sacrificing quality.

reflected in the AHT levels achieved in BY 2016. The remainder of the savings
will be achieved in 2017. Ongoing continuous improvement activities that enable
CSRs to handle calls more efficiently will offset a portion of the overall projected
increase in AHT. SoCalGas is forecasting a reduction of \$1,621,000 and 22.2
FTEs as well as \$12,000 for associated non-labor from BY 2016 adjustedrecorded costs, resulting from a 17 second reduction in AHT by implementing
other FOF ideas and continuous improvement projects.

TABLE MB-13Lean Six Sigma Impacts on AHT During BY 2016

Call Type	Annual Volume	AHT Change	Reduction in Hours (no shrinkage)	Reduction in Hours (with shrinkage)	Full Year Value
Start/Move	1,011,817	-14	-3,935	-6,855	-239,930
Gas Off for					
Non-Pay	327,811	-11	-1,002	-1,745	-61,076
Total					-301,005

SoCalGas is forecasting a reduction of \$386,000 including 5.3 FTEs and \$3,000 in associated non-labor from BY 2016 adjusted-recorded costs as a result of implementing other miscellaneous FOF ideas. *See* FOF details in (Ex. SCG-19-WP-R 200000.000).

d. Other Changes Impacting AHT

SoCalGas is requesting an incremental \$1,206,000 for 16.5 FTEs and \$9,000 in associated non-labor to support a projected increase in AHT of 12 seconds resulting from implementation of projects from other departments. As described above, this increase will be partially offset by FOF and other initiatives to reduce AHT. A number of variables impact the projected increases in AHT as further described below:

• Support of other departments FOF proposal to enable CSRs the capability to enroll customers into My Account while handling all types of live calls. During the process of enrolling customers in My Account, CSRs will also have the ability to activate the paperless billing option with the consent of the customer. These improvements to customer experience, reflect an anticipated additional AHT of 10 seconds with a cost of \$1,001,000 for 13.6 FTEs and \$7,000 in associated non-

labor. Best practice shows that the greatest opportunity to increase customer self-service and paperless adoption is when you have the customer on the phone.⁸
This may be best viewed as an investment in time spent to support the proposed increase in paperless billing and the associated cost reductions in postage and paper expense. This 10 second AHT increase is necessary in order to achieve the \$4.282 million paperless bill adoption savings reflected in my Remittance Processing Postage forecast. (*See* Ex. SCG-19-WP-R 200005.001).

Support of FOF Smart Phone – Call Ahead proposal for CSRs to solicit a customer's preferred "reached at" telephone number on all entered fielded orders, anticipated to increase overall AHT by 2 seconds at a cost of \$214,000 for 2.9 FTEs and \$2,000 in associated non-labor. This is necessary to achieve efficiencies for the FOF idea for the Customer Services Field PACER Mobile Platform Project, described in the testimony of Ms. Marelli (Ex. SCG-18).

e. RAMP - (Support of RAMP Risk – Employee, Contractor, Customer, and Public Safety RAMP Ch. 2 p. 22).

SoCalGas is requesting an incremental \$1,438,000 for 19.7 FTEs as well as \$11,000 in associated non-labor to provide additional time for the CSR to collect/verify email addresses and mobile phone numbers from customers when handling all types of live calls, which has an anticipated increase in overall AHT of 15 seconds. Gathering this additional information will better enable SoCalGas to communicate with customers in the event of a natural disaster or other emergency incidents as well as improve facility access processes supporting leakage surveys and inspection of above ground pipelines.

See Table MB-14 for overall impacts on AHT from the activities described above.

⁸ Chartwell: Paperless Billing: Utility Leaders and how they got there – July 6, 2015 p.13

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	Effective			
	Date	2017	2018	2019
2016 AHT	12/31/2016	261.0	261.0	261.0
FOF				
Various CCC FOF Ideas	1/1/2017	-10.0	-11.6	-16.8
Paperless Billing – My Account Sign Ups				
Enrolling customers in My Account and				
Paperless Billing signup on all transactional				
calls.	10/1/2017	2.6	10.3	10.3
RAMP				
Requesting/verifying cell phone and email				
address on all calls.	7/1/2017	7.5	14.9	14.9
Smart Phone - Call Ahead				
Solicit reached at number on all entered				
premises calls	1/1/2019			2.2
Projected Annual AHT Rounded		261	275	272
Change in AHT from 2016 to 2019		0.0	13.6	10.6

TABLE MB-14Proposed Changes to AHT (Net)

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f. Increase CSR LOS

SoCalGas is requesting an incremental \$1,118,000 for 15.3 FTEs as well as \$8,000 in associated non-labor expenses to increase the CSR LOS, (the percentage of calls answered within 60 seconds) to 60%. An increase in CSR LOS reduces the time customers wait "in queue" to speak with a CSR. As demonstrated in Table MB-15, a five-year average of CSR LOS from 2012-2016 is 59.04%. A target of 60% CSR LOS provides a good balance between cost and responsiveness and is consistent with recent historical CSR LOS levels (2012-2016). Accordingly, SoCalGas' request for CCC expenses includes costs to achieve a 60% CSR LOS. It should be noted that for emergency calls, SoCalGas has experienced a LOS of 90% in 2015, and 90% in 2016, of calls answered in less than 20 seconds.

Year	Overall LOS	CSR LOS
	(a)	(b)
2012	76.10%	68.80%
2013	71.10%	59.40%
2014	75.10%	61.80%
2015	70.00%	51.70%
2016	72.20%	53.50%
5 Year Average	72.90%	59.04%
11/2016-7/2017 ⁹	73.4%	54.8%

TABLE MB-15LOS Percentages 2012-2016

g. Decrease in costs due to Advanced Meter

SoCalGas is forecasting a labor reduction of \$159,000 for 2.2 FTEs and a reduction of \$1,000 in associated non-labor from BY 2016 adjusted-recorded costs to reflect reduced TY 2019 CSR answered call volumes due to a reduction in billing calls because of verified reads from the Advanced Meter implementation.

h. Net Reductions in CCC Operations Staff

SoCalGas is forecasting a reduction of \$1,000 and an associated non-labor reduction of \$1,000 from BY 2016 adjusted-recorded costs to reflect a reduction in CCC Operations management positions offset by full year labor costs of positions that incurred partial recorded expenses in base year 2016 encompassing such issues as pregnancy leave and disabilities. *See* Table MB-12.

i. Increase in Administrative Associate Support in CCC Operations

SoCalGas is requesting \$61,000 for 1 FTE and \$1,000 associated non-labor for an Administrative Associate-4 position to support the San Dimas Operations Site Manager. This position will be filled in 2018, and in addition to regular clerical duties will:

- Generate weekly CCC On-Call documents;
- Manage conference room scheduling, access to facility, and solutions to basic facility related problems;

⁹ LOS since branch office closings on November 1, 2016. This metric is included to comply with the Branch Office Optimization Decision (D.) 16-06-046.

1	Process/approve employee requ	uests for time off and	schedule change	s that cannot	
2	be automated in the Workforce	Management (WFM	I) application;		
3	Conduct weekly Lead Weeken	d Callout to schedule	staffing needed t	o cover	
4	behind vacation;				
5	Organize and administer the an	nual selection of Lea	ad Off-Board ¹⁰ du	ties along	
6	with quarterly updates and coo	rdinating training of	these duties for ne	ew Leads;	
7	and				
8	Follow up on monthly Custome	er Complaint Trackir	ng report to ensure	e timely	
9	responses to customer complai	nts or concerns.			
0	This will move administrative work from	om the LOS Adminis	strators to a clerica	al position	
1	and enable the LOS Administrators to focus o	n managing CSR stat	ffing in an effort t	o improve	
2	level of service.				
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2 3 4	C. Customer Contact Center Su	pport LE MB-16			
2 3 4 5 6	C. Customer Contact Center Su TAB TY 2019 Summary (Thousands	pport LE MB-16 y of CCC-Support C s of 2016 Dollars)	Costs		
2 3 4 5 6	C. Customer Contact Center Su TAB TY 2019 Summary (Thousands CS - OFFICE OPERATIONS	pport LE MB-16 y of CCC-Support C s of 2016 Dollars)	Costs		
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2 3 4 5 6 7 8	C. Customer Contact Center Su TAB TY 2019 Summary (Thousands CS - OFFICE OPERATIONS Shown in Thousands of 2016 Dollars A. Customer Service Office Operations 2. CCC – Support 1. Description of Costs a	pport LE MB-16 y of CCC-Support C s of 2016 Dollars) 2016 Adjusted- Recorded 7,782 nd Underlying Activ	Costs TY 2019 Estimated 9,024 vities	Change 1,242	
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2 3 4 5 6 7 8 9 0 1 2	C. Customer Contact Center Su TAB TY 2019 Summary (Thousands CS - OFFICE OPERATIONS Shown in Thousands of 2016 Dollars A. Customer Service Office Operations 2. CCC – Support 1. Description of Costs a CCC Support provides the necessary s productive. It includes the following major fu • Forecasting call volumes, and p forecast levels of customer com	apport LE MB-16 y of CCC-Support Cost s of 2016 Dollars) 2016 Adjusted- Recorded 7,782 nd Underlying Activervices to keep CCC unctions: planning and schedul itact;	Costs TY 2019 Estimated 9,024 vities operations efficie ing CSRs to supp	Change 1,242 ent and ort the	
2 3 4 5 6 7 8 9 0 1 2 3	C. Customer Contact Center Su TAB TY 2019 Summary (Thousands CS - OFFICE OPERATIONS Shown in Thousands of 2016 Dollars A. Customer Service Office Operations 2. CCC – Support 1. Description of Costs a CCC Support provides the necessary s productive. It includes the following major fu • Forecasting call volumes, and p forecast levels of customer con • Developing training materials a	Image: propert LE MB-16 y of CCC-Support Cost s of 2016 Dollars) 2016 Adjusted- Recorded 7,782 nd Underlying Active ervices to keep CCC unctions: planning and schedul itact; and conducting traini	TY 2019 Estimated 9,024 vities operations efficie ing CSRs to supp ng for CSRs and o	Change 1,242 ent and ort the other support	
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¹⁰ Lead Off-Board duties are work assignments not directly associated with the taking of customer phone calls such as silent monitors, side by side CSR work observations, and coaching.

1	• Interpreting policy, and developing and updating CCC procedures and CSR
2	reference material;
3	• Following up on all CPUC telephone referrals and informal/formal CPUC
4	complaints;
5	• Answering written customer correspondence regarding customer account activity;
6	• Conducting data and trend analysis and managing continuous improvement
7	initiatives;
8	• Developing a CCC technology strategy and collaborating with Information
9	Technology (IT) to ensure the technology supports operations objectives; and
10	• Monitoring customer experience for CSR and IVR customer contact channels to
11	identify improvement opportunities and ensure channel consistency. ¹¹
12	SoCalGas CCC Support TY 2019 estimated expenses are based on the BY 2016 adjusted-
13	recorded expenses. The changes in costs for CCC Support reflect evolving customer interaction
14	preferences and the resulting requirements to manage the increased complexity of customer
15	interactions with SoCalGas. They also reflect incremental activities to better understand how
16	customers interact with the CCC (and the experience they receive) in order to improve service
17	quality as well as drive incremental efficiency. The calculations for estimated expenses are
18	included in my workpapers (Ex. SCG-19-WP-R, 200001.000).
19	2. Forecast Method
20	A base year forecasting methodology was applied to project CCC Support O&M costs.
21	Base year is appropriate because 2016 represents the most recent recorded labor and non-labor
22	costs. Adjustments for full year staffing and investments to support operational efficiency were
23	added to the base year to represent forecasted expenses in the test year.
24	3. Cost Drivers
25	The change from BY 2016 adjusted-recorded expenses to TY 2019 estimated expenses
26	and the major impacts on the CCC Support TY 2019 expenses are identified in Table MB-17.
27	SoCalGas proposes a TY 2019 increase of \$1,242,000 and 10.2 FTEs over BY 2016 adjusted-
28	recorded costs.

¹¹ Ensure channel consistency refers to ensuring that the same options (*e.g.*, appointment dates and times; payment arrangement dates) are identical whether the customer chooses the IVR, web or CSR option.

	2016/2019 Change \$(000)	Labor	Non- Labor	FTEs
CCC Support	1,242	982	260	10.2
Increase Quality Assurance support	103	102	1	1.0
Expand the Training and Development team	193	191	2	2.0
Expansion of the Special Investigation team	167	165	2	2.0
Adjustments for Full Year Staffing for CCC Support	631	628	3	6.7
FOF - Process Efficiency Reductions to Increase Productivity in the Customer Correspondence Group	-106	-104	-2	-1.5
Increase in CCC System Maintenance Fees	274		274	
Decrease in Telecommunication Costs	-21		-21	
IVR Confirmation Email Fee	1		1	

TABLE MB-17 TY 2019 Incremental Changes to CCC Support (Thousands of 2016 Dollars)

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a. Increase Quality Assurance Support

SoCalGas is requesting an incremental \$102,000 for 1 FTE as well as \$1,000 for associated non-labor for a CCC Advisor position to support and manage the new Speech Analytics and Desktop Tagging technology that was implemented in 2017. These new technologies are used by the Quality and Process Improvement team to quickly identify areas to focus on improving processes and procedures, CSR performance and customer experience. This position is necessary to meet our aggressive FOF, AHT and call volume reduction goals that were previously discussed in section III.B, CCC Operations, above.

b. Expand the Training and Development Team

SoCalGas is requesting an incremental \$191,000 for 2 FTEs as well as \$2,000 for associated non-labor to add a Training Specialist and a Performance Advisor to the Training and Development Team.

A CCC Training Specialist position is needed for Billing and Special Investigation Clerk training. Currently there are no available instructors to train new CSRs on Billing and Special Investigations policies and procedures. The lack of training instructors impacts the ability to staff the Customer Billing

Analyst and Special Investigation Representative positions. Both positions require an understanding of the complex billing issues. 3 An additional CCC Performance Advisor will provide Coach the Coach training¹² and guidance for Management and Lead CSR personnel. There are currently two 4 5 CCC Performance Advisors who work with the twenty-nine CCC Supervisors and 6 eight trainers to create end-to-end processes for all supervisor coaching activities 7 in the CCC. They monitor trends in our Performance Management System to 8 gauge areas for improvement for the entire CCC, as well as individual team 9 improvements. They also communicate gaps in training or policies/procedures if 10 a trend is noticed. In addition, they facilitate, organize, coordinate and create 11 consistency for supervisor performance management processes and best practices, 12 as well as perform coaching observations between supervisors and employees. Lead CSRs are starting to perform Silent Monitors and Side-by-Sides¹³ with 13 14 CSRs. The new Performance Advisor will train and support the lead CSRs with the CCC coaching process. 15

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Expansion of the Special Investigation Team c.

SoCalGas is requesting an incremental \$165,000 for 2 FTEs as well as \$2,000 in associated non-labor to expand the number of the Special Investigations Clerks in order to comprehensively handle customer issues, complaints and escalations. The Special Investigations team is responsible for investigating informal complaints in addition to formal complaints filed by customers through the Commission, resolving escalated billing questions and handling all letters, emails, telephone communications and social media inquiries that are escalated through company officers or the CPUC. The team also handles issues that require further attention when

¹² Coach the Coach training – Similar to a Train the Trainer model, the Performance Advisors have been fully trained on the coaching process and are experienced coaches. They train new supervisors and Lead CSRs on the CCC coaching process and how to be effective coaches. The Performance Advisors also follow up with the supervisors/CSR leads, audit their coaching sessions and provide feedback.

¹³ Silent Monitors and Side-by-Sides are methods used by supervisors and lead CSRs to identify any performance or quality issues. Silent Monitors allow the supervisor/lead CSR to listen to the customer call in real time and evaluate how the CSR analyzes the situation and handles the call. During a Side-by-Side, the supervisor/lead CSR sits next to the CSR to observe how effectively the CSR navigates through the various CIS screens, Bill Analyzer, Online Help, among others, in addition to evaluating how the CSR analyzes the situation and handles the call. They also provide immediate feedback to the CSR.

1	standard contact center escalation paths do not resolve a customer concern. In BY 2016, the
2	Special Investigations team handled three formal CPUC complaints, ¹⁴ 1,019 informal CPUC
3	complaints, ¹⁵ 1,062 CPUC telephone complaints ¹⁶ and 980 executive complaints. ¹⁷
4	If this request is approved, SoCalGas will be able to provide greater coverage and quicker
5	response to complaints. Responsibilities will include:
6	• Investigate and respond to all customer account related inquiries, including
7	escalated issues and 24 hours per day seven days per week (24/7) monitoring for
8	urgent customer issues (we currently do not monitor overnight); and
9	• Expand coverage for executive level complaints beyond normal business hours to
10	include off-hours and holidays.
11	The expansion of the Special Investigations team will also improve both customer and
12	employee satisfaction while achieving the following results:
13	• Increased identification and visibility of systemic (recurring) customer issues
14	resulting in improved customer facing processes; and
15	• Greater coverage for highly visible issues through multiple channels beyond
16	normal business hours (to include off-hours and holidays) for customers who may
17	have special needs or circumstances.
18	d. Adjustments for Full Year Staffing for CCC Support
19	SoCalGas is requesting an incremental \$628,000 for 6.7 FTEs as well as \$3,000 in
20	associated non-labor for the full year staffing costs of CCC Support Management Positions
21	described below.
22	• The CCC IVR Technology Manager position that was only partially included in
23	the adjusted-recorded expenses in BY 2016 due to partial year position vacancy.
	¹⁴ Formal CPUC complaints are customer complaints that are litigated before a CPUC Administrative Law Judge.
	¹⁵ Informal CPUC complaints are handled between SoCalGas and the customer with facilitation by the CPUC Consumer Affairs branch.
	¹⁶ CPUC telephone complaints are CPUC Consumer Affairs mediated telephone calls between customers and SoCalGas.
	¹⁷ Executive Complaints are phone calls, letters and emails directed toward SoCalGas company

1	BY 2016 numbers reflect only one month for this position. In prior years, the
2	Technology Manager also managed the Specialty Groups teams. When this
3	position was vacated, the responsibilities of the Technology Manager position
4	were adjusted to focus on implementing the CCC's new software, including
5	Performance Management upgrades, Speech Analytics, Desktop Tagging,
6	Workforce Management and Online Help. In addition, this position provides
7	oversight of IVR operations and production support activities.
8	Specific responsibilities include:
9	• Develop and maintain ongoing IVR strategy and serve as the central point
10	of contact for IVR business processes and functionality;
11	• Oversee and coordinate business support for production problem
12	identification and resolution;
13	• Assess internal and external process/policy changes for impact to the IVR;
14	• Define and document business requirements;
15	• Oversee functional and user acceptance testing; and
16	• Interpret analytics and reporting on IVR key performance indicators to
17	identify opportunities for improvement.
18	• A CCC Performance Advisor position that was created in BY 2016 only had 2.5
19	months of recorded expenses in BY 2016.
20	• Four Training Specialists that were temporarily assigned to work on the Aliso
21	Incident in 2016 were not immediately filled. BY 2016 expenses only reflect five
22	months of labor for these positions, however, these employees have since returned
23	to their normal responsibilities due to business need.
24	• The CCC Operations Support and Specialty Group Manager position was vacated
25	on December 1, 2016 due to a retirement, so BY 2016 only reflects 11 months of
26	that position.
27	• The CCC LOS Administrator position reflects only 8.5 months for this position in
28	BY 2016. This position is responsible for:
29	• Real time CSR adherence, reviews actual daily call volume and AHT
30	performance to determine if reforecasts/staffing adjustments are needed;

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1	• Monitoring and approving off board time, requests for time off, supervisor
2	coaching sessions, team huddles, training, and other activities;
3	• Central contact for employees, management, facilities, dispatch, facility
4	access, among others; and
5	• Technical problems – Resolve, Report, and Escalate.
6 7	e. Process Efficiency Reductions Due to FOF Ideas to Increase Productivity in the Customer Correspondence Group
8	SoCalGas is projecting a reduction of \$104,000 for 1.5 FTEs as well as \$2,000 in
9	associated non-labor due to increased productivity for the Customer Correspondence group by
10	using formal Lean Six Sigma methods to optimize business processes.
11	f. Incremental Software Maintenance and Hosting Fees
12	SoCalGas is requesting an incremental \$274,000 for additional software license
13	maintenance and hosting fees for new technologies.
14	• Desktop Tagging - \$25,000 annual maintenance fee. This new software allows
15	specific information on the CSR's desktop to be tagged during a customer call
16	and used as metadata in the call recording system. It provides the ability to filter
17	customer calls by the tags. For example, the CCC has created a tag for the
18	customer Bill Account ID. If the Bill Account ID appears on the authentication
19	screen, desktop tagging will create a tag for it and recording users can search for a
20	call based on the customer Bill Account ID. In the past, users only had the option
21	to locate customer calls based on the telephone number listed on the customer
22	account. Since customers do not always call from the phone number recorded in
23	our Customer Information System (CIS), making calls extremely difficult to find.
24	This software improves customer service by providing the CCC with the
25	capability to identify previous customer communication(s) by Bill Account ID.
26	The ability to pull correct recorded calls allows the CCC to better address
27	customer inquiries appropriately, avoiding additional talk time and
28	miscommunication.
29	• Interactions Analytics - \$51,000 annual maintenance fee. This speech analytics
30	software replaces our old speech analytics software that was retired in BY 2016.
31	Interaction Analytics software analyzes 100% of our customer calls. Call

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1	categories were created using unique phrases from each major call type. This
2	allows supervisors and the QA Team to quickly find the correct calls to use in
3	Quality Observations (QO) and call trend analysis projects. In the past, calls were
4	located based on the customer's IVR exit point (the point where the customer
5	chooses an IVR option). These exit points did not always align with the
6	customer's call goal (or call type.) It could also take 10 minutes to find the
7	correct call to QO. Call categories are also set up for Customer Dissatisfaction,
8	Repeat Calls and Supervisor transfers. Analyzing these calls will help improve
9	customer experience, determine the root causes of repeat and escalated calls, and
10	help to improve our processes and procedures.
11	• WFM - \$31,000 annual maintenance fee. This new software replaces our over
12	20-year-old Aspect eWFM system, which is obsolete.
13	• The CCC is sponsoring one-third \$167,000 of Advanced Meter's ongoing project
14	transition specific to Bill Analyzer/EP Tools (Aclara's software hosting and
15	maintenance fee) in 2019. A second one third is sponsored in Mr. Cheung's
16	testimony (Ex. SCG-20) and the final one third is sponsored outside the GRC
17	process in the Energy Efficiency proceeding.
18	g. Decrease in Telecommunications Costs
19	SoCalGas is projecting a reduction of \$21,000 in telecommunication carrier costs. These
20	costs are the fees paid to the telephone carrier for inbound and outbound customer calls. A
21	\$19,000 reduction is the net impact of a decrease in call volume offset by an increase in call
22	handle time and a \$3,000 reduction in billing calls due to the implementation of Advanced
23	Meter. SoCalGas is also requesting a \$1,000 increase for an increase in emergency calls costs
24	anticipated as part of RAMP activities.
25	h. IVR Confirmation Email Fee
26	SoCalGas is requesting \$1,000 to send out confirmation emails to My Account customers
27	who complete self-service orders through the IVR. These emails will provide customers with the

assurance that their transaction was completed even though they never spoke to a CSR.

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D. Branch Offices and Authorized Payment Locations

TABLE MB-18 TY 2019 Summary of Branch Office and Authorized Payment Location Costs (Thousands of 2016 Dollars)

CS – OFFICE OPERATIONS			
Shown in Thousands of 2016 Dollars			
A. Customer Service Office Operations	2016 Adjusted-	TY 2019	Change
	Recorded	Estimated	
3. Branch Offices	11,592	12,012	420

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1. Description of Costs and Underlying Activities

SoCalGas currently operates 44 branch offices throughout its service territory, which provide customers the options of paying their bills in-person, inquiring about accounts and completing other customer service transactions. Approximately 98% of all branch office transactions are related to bill payments. Branch offices are open from 9:00 a.m. to 5:00 p.m., Monday through Friday, and employ approximately 94 full-time and 74 part-time employees.

SoCalGas also provides customer services through a network of APLs. These APLs provide similar payment services for SoCalGas customers and offer convenient locations and extended hours with no transaction fee to the customer. SoCalGas has enhanced access to APLs by expanding the APL network to over 380 locations, including more than 100 Walmart store locations in the SoCalGas service territory. The calculations for estimated expenses are included in my workpapers (Ex. SCG-19-WP-R, 200003.000).

2. Forecast Method

A base year forecasting methodology was applied to project Branch Offices O&M costs. This method is appropriate because the base year reflects estimated costs to sustain branch office operations at current service levels. Although branch office transaction volumes are declining at some locations, branch offices are staffed at optimal levels to provide service during current operating hours, and labor costs are not projected to decline. The majority of non-labor expenses are also fixed and not sensitive to transaction volume reductions. Branch office payment volumes continue to decline at about 5% annually.

3. Cost Drivers

Although SoCalGas' TY 2019 forecasted costs for Branch Offices was reduced by \$334,000 due to branch office closures, the overall forecast is higher than the BY 2016 adjusted-

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1 recorded expense level as illustrated by Table MB-18. The increase is due to a \$657,000 2 increase proposed for Americans with Disabilities Act (ADA) compliance activities and the 3 addition of a SoCalGas ADA Coordinator position. SoCalGas is also requesting an incremental 4 \$97,000 for 1.3 FTEs to account for positions that incurred partial recorded expenses in BY 5 2016. These resources have resumed their normal responsibilities after temporary reassignment 6 in 2016 to the Aliso Canyon incident. See details in Table MB-19 below.

TABLE MB-19 **Incremental Changes to Branch Offices**

	2016/2019 Change \$(000)	Labor	Non- Labor	FTEs
Branch Office	420	333	87	-3.4
Reduction due to branch closures	-334	-291	-43	-5.7
ADA branch compliance items	377	377		
ADA Coordinator and NL task	280	150	130	1.0
Full Year Staffing	97	97		1.3

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Reduction Due to Branch Closures a.

As a result of the branch office closures on November 1, 2016, SoCalGas is forecasting a decrease of \$291,000 in labor and an associated reduction of \$43,000 in non-labor from BY 2016 operating costs. These costs will continue to be reported monthly and booked to the Core Fixed Cost Account (CFCA). Details of SoCalGas' proposal to modify the CFCA to discontinue recording net savings to the CFCA effective with the TY 2019 GRC decision are discussed by Rae Marie Yu (Ex. SCG-42)

ADA Compliance Enhancements b.

To further improve the accessibility for our disabled customers, SoCalGas proposes to add \$377,000 for costs to identify and correct remaining or emergent accessibility issues (e.g., door pressures, costs to survey a large chain of stores that had previously self-certified, and others) and for the design and printing of bold and large font brochures distributed in the branches. In addition, SoCalGas proposes a \$150,000 increase in labor and \$130,000 increase in non-labor above the BY 2016 to ensure ADA compliance and improve accessibility for our customers. This increase will cover the costs associated with adding a SoCalGas ADA

Coordinator position, and for costs associated with understanding and maintaining current information regarding state and federal laws and regulations. The ADA Coordinator will also determine and institute best practices by attending ADA conferences and various customer focused outreach events, developing training and materials, and participating in Americans with disabilities organizational events. The ADA Coordinator position will support ADA compliance-related activities throughout SoCalGas as ADA standards and regulations continue to change, particularly in regards to publicly accessible facilities.

c. Adjustments for Full Year Staffing in Branch Offices and APLs

SoCalGas is requesting an incremental \$97,000 for 1.3 FTEs to account for positions that incurred partial year recorded expenses in BY 2016. The positions were temporarily assigned in 2016 to the Aliso Canyon incident and these resources are necessary to perform the forecasted activities in the Branch Offices.

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4. The Branch Office Optimization Process

D. 16-06-046 authorized SoCalGas to close three branch offices immediately and to close the Palm Springs branch office when an acceptable automated ID validation solution has been implemented.¹⁸ While we continue to test various options, a viable solution has yet to be determined.

On November 1, 2016, SoCalGas closed the Bellflower, Monrovia and Santa Monica branch offices. Net savings resulting from these closures are reported monthly and booked to the CFCA.

The decision states, "Southern California Gas Company (SoCalGas) shall include, in its next General Rate Case application, its proposal for meeting its customer service obligations consistent with Public Utilities Code Section 451, including identification of its performance standards and actual performance metrics for the Customer Contact Center.¹⁹ SoCalGas shall also include a report on the number and types of complaints received regarding all customer service channels."²⁰

SoCalGas is committed to continue to offer the available services of the 24/7 Customer

- Contact Centers and additional payment options such as online bill payment, direct debit,
 - ¹⁸ D.16-06-046 at 57, Order Paragraphs (OP) 1 and 2.

¹⁹ See Table MB-15 above for CCC LOS before and after the branch closings.

²⁰ D.16-06-046 at 59, OP 10.

authorized payment locations and traditional mail payments. For Customer Contact Center
 performance standards for the IVR and LOS see Table MB-15 in section III.B.2. My Account
 continues to grow at an annual rate of approximately 3% with few complaints. In addition, as
 demonstrated in Table MB-20 below, there has been no discernable increase in complaints
 related to the branch closings.

TABLE MB-20Total Complaints Received21

Year	CCC	Branch Office	My Account
2014	1467	186	88
2015	1429	186	69
2016	1448	154	79
2017			
through			
8/28	709	128	55

SoCalGas continues to monitor the changing payment habits from unique customers who formerly transacted at its closed branches. Year to date, 30% of the customers paid at a different branch office, 28% of the customers paid at an APL, 22% of the customers paid by mail and the remaining 20% of the customers switched to various electronic means.

E.

Billing Services

TABLE MB-21 TY 2019 Incremental Changes to Billing Services (Thousands of 2016 Dollars)

CS - OFFICE OPERATIONS			
Shown in Thousands of 2016 Dollars			
A. Customer Service Office Operations	2016 Adjusted-	TY 2019	Change
	Recorded	Estimated	
4. Billing Services	6,968	6,265	-703

²¹ SoCalGas utilizes a Customer Comment Tracking System. All customer comments whether they are positive or negative are logged by the CCC and assigned to the appropriate department for follow-up and resolution.

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1. Description of Costs and Underlying Activities

Billing Services is responsible for calculating bills and maintaining accurate customer account information. Billing Services at SoCalGas consists of two distinct organizations: (1) billing for residential and small commercial and industrial customers (Mass Market Billing); and (2) billing for large commercial and industrial customers (Major Market Billing).

Mass Market Billing activities primarily consist of processing billing exceptions and maintaining accurate customer account records. Each bill is subjected to an electronic test, before it is mailed, where the billing system validates the accuracy of the bill by comparing current usage to historic usage. The vast majority of customer bills pass the accuracy validation test and are issued automatically. Bills that fail accuracy validation tests require further manual review and adjustment by the Mass Market Billing group. These are classified as billing exceptions. Similar to the bill validation process, completed field service orders are also subjected to an electronic test to ensure the accuracy of customer account data. Service orders that fail these validations cannot be routinely processed and must be manually resolved by the Mass Market Billing group. In BY 2016, 98.21% of billing statements and service orders passed the automated accuracy validations. The Mass Market Billing group has implemented several technology and process improvements in addition to AMI, which have both contributed to an increase in the number of automated (no manual intervention required) exceptions processed. These improvements directly contributed to a reduction in Mass Market Billing O&M costs in the base year.

Major Market Billing provides services to non-core Commercial & Industrial (C&I) customers, wholesale customers, California producers, core transport agents, marketers and customers with special negotiated arrangements or complex metering configurations. It also generates billings for the Natural Gas Vehicle (NGV) rate, for monthly gas balancing, storage, and backbone transportation service, as well as processes the enrollment and termination of customers on the core aggregation transportation (CAT) program. Billing large accounts requires the gathering and validation of billing input data, and the processing of complex bill calculations, in compliance with authorized tariffs. For special negotiated contract arrangements, the billing process requires extensive manual intervention and manipulation due to the uniqueness of the individual contracts. The calculations for estimated expenses are included in my workpapers (Ex. SCG-19-WP-R, 200003.000).

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2. Forecast Method

A base year forecasting methodology was applied to project Billing Services O&M costs. This method was utilized because the base year represents the most recent recorded labor and non-labor costs. In addition, significant cost reductions due to the FOF initiatives are included. For labor costs, adjustments were made to the forecast years to maintain full year staffing levels.

3. Cost Drivers

Table MB-21 above shows the change from 2016 adjusted-recorded expenses to TY 2019 estimated expenses. The major impacts on the Billing Services TY 2019 expenses are described below in Table MB-22. SoCalGas forecasts a TY 2019 decrease of \$703,000 from 2016 recorded-adjusted costs.

TY 2019 Incremental Changes to Billing Services (Thousands of 2016 Dollars)

TABLE MB-22

	2016/2019 Change \$(000)	Labor	Non- Labor	FTEs
4. Billing Services	-703	-416	-287	-4.7
Meter Growth	25	25		0.3
FOF Reductions	-684	-614	-70	-6.1
2 PSI Expansion	-51	-51		-0.2
Contract Labor	-217		-217	
Large Font Bill	133	133		0.3
Adjustments for Full Year Staffing	91	91		1.0

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a. Meter Growth

SoCalGas is requesting an incremental \$25,000 for 0.3 FTEs due to a forecasted increase in the number of billing exceptions due to meter growth.

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b. FOF Reductions

SoCalGas is forecasting a decrease of \$684,000, totaling 6.1 FTEs for process improvements identified through our FOF initiatives. The calculations for estimated benefits are included in my workpapers (Ex. SCG-19-WP-R, 200003.000).

c. 2 Pounds Square Inch (PSI) Program Expansion

SoCalGas is forecasting a decrease of \$51,000 as a result of the capital project to expand and standardize the 2 PSI program, which will simplify transactions and reduce exceptions.

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(This program addresses pressure requirements for new end-uses such as tank-less water heaters. *See* capital project # 84324 - Residential 2 PSI Service in section VI.D.2 for a full description).

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d. Contract Labor

SoCalGas is forecasting a decrease of \$217,000 in non-labor expense to remove temporary costs associated with contract labor from March 2016 through December 2016 to address a billing backlog.

e. Large Font Bills

SoCalGas is requesting an incremental \$133,000 to support the automation of the issuance of large font bills and additional support for data keeping. Currently, the process is cumbersome. When a customer requests a large font bill, a billing clerk must make a manual entry into a calendar and when the customer bill is created, the clerk must send a copy of the bill to our third-party vendor who translates the bill into a large font bill.

f. Adjustments for Full Year Staffing in Billing

SoCalGas is requesting an incremental \$91,000 for 1 FTE to account for multiple positions that incurred partial recorded expenses in BY 2016 to reinstate costs who have resumed their normal responsibilities after temporary reassignment in 2016 to the Aliso Canyon incident. These resources are necessary to perform the forecasted activities in Billing Services.

F. Measurement Data Operations (MDO)

TABLE MB-23 TY 2019 Summary of MDO Costs (Thousands of 2016 Dollars)

CS - OFFICE OPERATIONS			
Shown in Thousands of 2016 Dollars			
A. Customer Service Office	2016 Adjusted-	TY2019	Change
Operations	Recorded	Estimated	
5. Measurement Data Operations (MDO)	1,314	1,043	-271

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1. Description of Costs and Underlying Activities

MDO monitors and maintains accurate and timely usage measurement reporting to support SoCalGas and SDG&E²² Major Markets Billing functions for almost 1,300 large gas

²² SoCalGas directly bills SDG&E for any costs to perform MDO services on behalf of SDG&E, so this is not a shared service cost center.

volume meters. These meters are equipped with communication devices that enable meter usage data to be collected and transmitted electronically. MDO also receives and processes measurement and gas quality data from other electronic devices such as storage field meters, producer meters, supplier meters and company facility meters. In addition, MDO is responsible for the processing of the monthly British Thermal Unit (BTU) averages used to bill core customers in the CIS. The calculations for estimated expenses are included in my workpapers (Ex. SCG-19-WP-R, 200007.000).

2. Forecast Method

A base year forecasting methodology was applied to project MDO O&M costs. This method was utilized because the base year represents the most recent recorded labor and nonlabor costs. For labor costs, adjustments were made to the forecast years to maintain full year staffing levels. For non-labor costs, adjustments were made to the forecast years to reduce telecommunication costs associated with MDO measurement equipment utilizing Advanced Meter technology.

3. Cost Drivers

Table MB-23 above shows the change from 2016 adjusted-recorded expenses to TY 2019estimated expenses. Table MB-24 details the major impacts on the MDO TY 2019 expenses.SoCalGas proposes a TY 2019 increase of \$113,000 for 1.6 FTEs in labor costs and a reductionof \$384,000 in non-labor from BY 2016 adjusted-recorded costs.

TABLE MB-24 TY 2019 Incremental Changes to MDO (Thousands of 2016 Dollars)

	2016/2019 Change \$(000)	Labor	Non-Labor	FTEs
Measurement Data Operations	-272	113	-384	1.6
Adjustments for full year staffing in MDO	113	113	0	1.6
Reduction in telecommunication costs - MDO measurement equipment utilizing Advanced Meter				
technology	-384	0	-384	0.0

a. Adjustments for Full Year Staffing in MDO

SoCalGas is requesting an incremental \$113,000 to account for positions that incurred partial year recorded expenses in BY 2016. These incremental forecasted expenses reflect an offset of (\$21,000) due to removing overtime that occurred in the base year that was used to support these partially open positions. These positions support the MDO process with the collection and processing of gas measurement and gas quality data to facilitate non-core customer billing, storage field operations and accounting activities.

b. Reduction in Telecommunication Costs - MDO Measurement Equipment Utilizing Advanced Meter Technology

SoCalGas is forecasting a decrease of \$384,000 to account for the use of Advance Meter technology in the MDO area. The MDO group incurred approximately \$483,000 in telecommunication costs in the base year specifically attributable to telecommunications expenses. With the adoption of Advance Meter technology, the MDO group anticipates that it can achieve a reduction in its telecommunication costs of approximately \$384,000 by the test year. The remaining telecommunication costs will be used to support a small number of measurement devices that cannot be converted due to technology issues.

G. Credit and Collections

TABLE MB-25 TY 2019 Summary of Credit and Collections Costs (Thousands of 2016 Dollars)

CS - OFFICE OPERATIONS			
Shown in Thousands of 2016 Dollars			
A. Customer Service Office Operations	2016 Adjusted- Recorded	TY2019 Estimated	Change
6. Credit and Collections – Office Operations	4,221	4,100	-121

1. Description of Costs and Underlying Activities

Credit and Collections establishes and implements policies and procedures to ensure authorized collections-related tariff rules are followed and collections activity is effectively performed. Credit and Collections activities include accounts receivable management reporting and analysis, credit process review and improvement, management of outside collection

1 agencies, skip tracing (research to locate a customer after a service termination and the final bill 2 reaches delinquent status), final bill collection, credit investigations (e.g., customers with 3 previous bad debt attempts to sign for new service), ID validations and bankruptcy processing. 4 Regular analysis and reporting of key credit metrics drive credit risk guidelines (e.g. account 5 securitization, bill extension and payment arrangement terms) as well as individual customer 6 credit decisions. These activities are critical in assessing credit risk exposure and managing bad 7 debt expense. Credit and Collections also plays an important role in protecting consumers from identity theft by administering, implementing and supporting provisions of The Fair and Accurate Credit Transactions Act, ID validation, and ID theft processes.

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2. Forecast Method

A base year forecasting methodology was applied to project Credit and Collections O&M costs. BY 2016 represents the most recent recorded labor and non-labor costs. The non-labor expenses primarily consist of collection agency fees and credit reporting agency fees. Base year recorded expenses were adjusted for full year staffing and to reflect operational efficiencies to represent forecasted expenses in the test year.

3. Cost Drivers

Table MB-25 above shows the overall change from BY 2016 adjusted-recorded expenses to TY 2019 estimated. Table MB-26 shows the incremental changes between the BY 2016 adjusted-recorded expenses and the TY 2019 forecast. The calculations for estimated expenses are included in my workpapers (Ex. SCG-19-WP-R, 200004.000).

TABLE MB-26 TY 2019 Incremental Changes to Credit and Collections (Thousands of 2019 Dollars)

	2016/2019 Change \$(000)	Labor	Non- Labor	FTEs
Credit and Collections	-121	-121	0	-1.6
Adjustment to reinstate costs and associated FTE's from				
2016 Aliso Canyon incident.	37	37	0	0.4
FOF Efficiencies	-158	-158		-2.0

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a. Adjustments for Full Year Staffing in Credit and Collections

SoCalGas is requesting an incremental \$37,000 for 0.4 FTEs to reinstate costs and

associated FTEs resources who have resumed their normal responsibilities after temporarily

being reassigned in 2016 to the Aliso Canyon incident. These resources are necessary to perform
 the forecasted activities in Credit and Collections.

b.

. Efficiencies Derived from FOF Initiative

SoCalGas is forecasting a decrease of \$158,000 for 2 FTEs due to anticipated efficiencies from the FOF initiative that includes the implementation of a workforce management tool.

H. Credit and Collections Postage

TABLE MB-27TY 2019 Summary of Credit and Collections Postage Costs(Thousands of 2016 Dollars)

CS - OFFICE OPERATIONS			
Shown in Thousands of 2016 Dollars			
A. Customer Service Office Operations	2016	TY2019	Change
	Adjusted-	Estimated	
	Adjusted- Recorded	Estimated	

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1. Description of Costs and Underlying Activities

Credit and Collections postage expenses include the cost of mailing collection notices.

2. Forecast Method

A base year forecasting methodology was applied to project Credit and Collections Postage O&M costs. This method is most appropriate because the base year recorded postage is an accurate representation of current postage expense and activity.

3. Cost Drivers

The number of Credit and Collection notices is the sole cost driver. SoCalGas proposes no change to TY 2019 from BY 2016 adjusted-recorded costs as we anticipate no changes in the volume of notices mailed. The calculations for estimated expenses are included in my workpapers (Ex. SCG-19-WP-R, 200004.001).

I. Remittance Processing

TABLE MB-28 TY 2019 Summary of Remittance Processing Costs (Thousands of 2016 Dollars)

CS - OFFICE OPERATIONS			
Shown in Thousands of 2016 Dollars			
A. Customer Service Office Operations	2016 Adjusted-	TY 2019	Change
	Recorded	Estimated	
8. Remittance Processing	4,928	3,994	-934

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1. Description of Costs and Underlying Activities

Remittance Processing provides printing and inserting services for customer bills, notices, letters and other customer correspondence as well as management support for payment processing activities. Expenses include the labor costs associated with these activities as well as non-labor costs for paper stock, bill forms, envelopes, stationery items, printer and inserter machine maintenance and associated consumable supplies. SoCalGas provides electronic bill presentment and payment services (EBPP) through the SoCalGas My Account website where customers can access their current and historical billing statements. As of the end of BY 2016, approximately 37% of total active meters received their SoCalGas bills only electronically through My Account. SoCalGas also provides electronic bill delivery through multiple bill consolidation networks (consolidators) that allow customers to receive SoCalGas electronic bills at the website of their financial institution. As of the end of BY 2016, approximately 4% of total active meters received their SoCalGas a fee for each electronic bill delivered and the consolidator vendors charge SoCalGas are included in this area. The calculations for estimated expenses are included in my workpapers (Ex. SCG-19-WP-R, 200005.000).

2. Forecast Method

A base year forecasting methodology was applied to project Remittance Processing O&M costs. These costs are driven by the volumes of bills, notices and payments, which are impacted by customer growth as well as customers' choice of billing and payment channels. For these reasons, the base year 2016 is used as basis to forecast TY 2019, plus adjustments for cost increases and anticipated savings in these activities.

3. **Cost Drivers**

Table MB-28 above shows the change from 2016 adjusted-recorded expenses to TY 2019 estimated expenses. Table MB-29 details the major impacts on the Remittance Processing forecasted in TY 2019. SoCalGas forecasts a TY 2019 reduction of \$934,000 in expenses from 2016 adjusted-recorded costs.

TABLE MB-29 **TY 2019 Incremental Changes to Remittance Processing** (Thousands of 2016 Dollars)

			Non-	
	Total	Labor	Labor	FTEs
Remittance Processing	-934	102	-1,036	1.2
Savings from paperless adoption	-138		-138	
Fueling Our Future initiatives	-949		-949	
Increased vendor fees for e-bills delivered	49		49	
Adjustments for full year staffing	102	102		1.2
Large font bill print vendor fees	2		2	

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a. **Savings from Paperless Adoption**

SoCalGas is projecting a reduction of \$138,000 in non-labor due to savings from bills, envelopes, and toner required to produce paper bills. Bill forms, envelopes and printing expenses are reduced due to the forecasted increase in electronic bills and the corresponding reduction in the cost of printing paper bills.

b. **FOF Initiatives**

SoCalGas is projecting a \$413,000 reduction due to various FOF initiatives that we believe will increase paperless billing significantly. SoCalGas is also forecasting a reduction of \$536,000 associated with Supply Management FOF initiatives expected to reduce non-labor contract costs. The specific details regarding reduction in Supply Management costs can be found in the testimony of witness Denita Willoughby (Ex. SCG-22).

Increased Vendor Fees for e-Bills Delivered c.

SoCalGas is requesting an incremental \$49,000 for increased vendor fees for consolidator e-bills delivery and online bill presentment. The requested increase is based on the assumed growth rate of active meters that receive consolidator bills. The detailed calculations for estimated expenses are included in my workpapers (Ex. SCG-19-WP-R, 200005.001).

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d. Adjustments for Full Year Staffing

SoCalGas is requesting an incremental \$80,000 for the Electronic Billing and Payment Manager position that was vacant until filled in September 2016, and \$22,000 for a Project Specialist who has returned to normal operations after temporary deployment to the Aliso Canyon incident.

e. Large Font Bill Print Vendor Fees

SoCalGas is requesting an incremental \$2,000 for increased vendor fees related to producing large font bills for customers that elect this option.

J. Remittance Processing Postage

TABLE MB-30 TY 2019 Summary of Remittance Processing Postage Costs (Thousands of 2016 Dollars)

CS - OFFICE OPERATIONS			
Shown in Thousands of 2016 Dollars			
A. Customer Service Office Operations	2016 Adjusted-	TY 2019	Change
	Recorded	Estimated	

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1. Description of Costs and Underlying Activities

Remittance Processing Postage expenses include the cost of mailing customer bills, notices, letters and other customer correspondence. The calculations for estimated expenses are included in my workpapers (Ex. SCG-19-WP-R, 200005.001).

2. Forecast Method

A base year plus adjustments forecasting methodology was applied to project Remittance Processing Postage O&M costs. Postage for bill delivery includes postage for paper bills and notices mailed through the United States Postal Service (USPS). The postage expense depends on current postage rates, which are determined by the USPS, and the volume of paper bills and notices, which are impacted by customer growth as well as electronic bill adoption levels. For these reasons, a base year is used as the basis to forecast TY 2019. Adjustments are forecasted (as detailed below) for postage rate increases for paper bills and notices mailed through USPS, and savings from paperless billing (My Account) and electronic bill delivery to customers' home banking websites through the use of consolidators.

Cost Drivers

3.

Table MB-30 shows the change from BY 2016 adjusted-recorded expenses to TY 2019 estimated expenses, while the major impacts on the Remittance Processing Postage TY 2019 expenses are identified in Table MB-31. SoCalGas forecasts a TY 2019 reduction of \$3.2 million in Non-Standard Escalation²³ non-labor from 2016 adjusted-recorded costs.

TABLE MB-31 TY 2019 Incremental Changes to Remittance Processing Postage (Thousands of 2016 Dollars)

		NSE Non-
	Total	Labor
Remittance Processing Postage Total	-3,199	-3,199
Increase in postage due to meter growth	670	670
USPS Postage Rate Decrease	-91	-91
FOF reduction in postage	-4,282	-4,282
Postage for Home Energy Guide	504	504

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a. Increase in Postage Due to Meter Growth

SoCalGas is requesting an incremental \$670,000 due to an anticipated increase in paper bills resulting from forecasted meter growth from 2016–2019. The projected rate of paper bills per meter in TY 2019 is 7.6. Forecasted meter growth is covered in the testimony of witness Ms. Payan (Ex. SCG-39).

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b. USPS Postage Rate Decrease

SoCalGas is requesting a reduction of \$91,000 in postage expense for mailing of paper bills, due to a postage rate decrease effective in January 22, 2016.

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c. FOF Reduction in Postage

SoCalGas is requesting a \$4,282,000 reduction in postage due to various Fueling Our Future initiatives designed to increase customer paperless adoption.

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d. Postage for Home Energy Guide

SoCalGas is requesting an increase of \$504,000 for the mailing of the Home Energy

Guide. This is a guide that is provided to all new customers detailing numerous safety tips for

²³ Postage is categorized as a Non-Standard Escalation item meaning that cost changes from 2016-2019 are not automatically escalated due to inflation. Instead, the actual anticipated postal rates have been factored into the forecast calculations.

the use of natural gas. This cost currently resides in the Advanced Meter budget through 2018,
 but in 2019, will be paid for by the Remittance Processing Postage account. The detailed
 calculation can be found in my workpapers (Ex. SCG-19-WP-R, 200005.001 Supplemental
 Workpaper 2).

K. Customer Service Other Office Operations and Technology

TABLE MB-32 TY 2019 Summary of Customer Service Other Office Ops And Technology Costs (Thousands of 2016 Dollars)

CS - OFFICE OPERATIONS			
Shown in Thousands of 2016 Dollars			
A. Customer Service Office	2016	TY2019	Change
Operations	Adjusted-	Estimated	
	Recorded		
10. Customer Service Other Office	2,065	3,180	1,115
Ops and Technology			

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1. Description of Costs and Underlying Activities

Customer Service Other Office Ops and Technology is comprised of the following groups:

Customer Operations Technology

Customer Operations Technology serves as a business liaison with IT to support

customer related systems and data. The group provides business systems support including:

- Business requirements definition, analysis and prioritization;
- Quality assurance, user acceptance and regression testing of applications;
- Responding to and coordinating with IT on system issues;
- Compiling and publishing system change release notes;
- Administering user access and privileges to customer applications; and
- Facilitating internal requests for data from customer systems.

Customer Service Technology Project Management

Customer Service Technology Project Management helps ensure that customer related IT projects deliver the intended business value in alignment with the priorities of the Customer Services and Customer Solutions organizations. The group develops and manages the

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1	governance and standards for customer service technology projects, and monitors and reports on
2	project status. Specifically, the group facilitates and supports the following activities:
3	• Project identification, prioritization and approval;
4	• Business case development;
5	• Significant risk and issue tracking;
6	• Cross project dependency identification and management;
7	• Schedule and budget tracking;
8	• Change control;
9	• Project close-out and transition to ongoing business support; and
10	• Consolidated project status reporting.
11	Vice President of Customer Services
12	The Vice President of Customer Services provides oversight and leadership for all
13	Customer Services' activities.
14	2. Forecast Method
15	A base year forecasting methodology was applied to project Customer Services Other
16	Office Ops and Technology O&M costs. The base year method is appropriate because it reflects
17	the growing level of support required as the number of technology projects increase. It also
18	reflects the increased support required as the number and complexity of customer technology
19	applications has grown. These costs are not reflected in historical averages, but are planned to
20	continue in the forecast years.
21	3. Cost Drivers
22	Table MB-32 above shows the change from 2016 adjusted-recorded expenses to TY 2019
23	estimated expenses. The major impacts on the Customer Service Other Office Ops and
24	Technology TY 2019 expenses are identified in Table MB-33.
25	

	Total	Labor	Non-Labor	FTEs
CS Other Office Ops and Technology	1,115	1,064	51	10.8
Customer Data Privacy Program	165	90	75	1.0
Energy Data Program Administrator	100	100	0	1.0
Increase support for mobile customer				
applications	140	140	0	1.5
Increase data analytics support	333	333	0	3.0
Customer Operations Technology	366	366	0	3.8
Summer Intern Program	35	35		0.5
Discontinue Market Research and CES				
Quarterly Survey	-24		-24	

TABLE MB-33 TY 2019 Incremental Changes to Customer Service Other Office Ops and Technology (Thousands of 2016 Dollars)

a. Customer Data Privacy Program for SoCalGas

SoCalGas is requesting an incremental \$90,000 and 1 FTE for a resource to assist with administrating a Customer Data Privacy Program. This program will help SoCalGas continue to handle customer information in accordance with company privacy policies and comply with CPUC D.12-08-045, mandating privacy rules for energy usage data for natural gas corporations.

SoCalGas privacy policies require customer information to be safeguarded and classified as confidential.²⁴ Regulatory mandates and laws also govern the protection of customer data. SoCalGas has designated the Vice President of Customer Services as the company's Customer Data Privacy Officer, accountable for customer privacy across the organization, to set policy, and provide resources for achieving enterprise privacy goals and objectives. The Customer Operations Director is also responsible for overseeing the implementation of procedures consistent with privacy policies. Increased employee data protection awareness, more robust compliance programs and a heightened employee awareness of methods to protect customer data all foster improved protection of customer privacy and enable compliance with privacy laws and regulations. In addition, SoCalGas will continue to educate third parties who request data on how to protect any customer data provided by SoCalGas.

²⁴ Per company policy, confidential information is any information that if disclosed or corrupted in an unauthorized manner could cause great harm to an individual or the company. It requires reasonable control because unauthorized access or improper security measures could cause a violation of applicable law or could harm the company's reputation, credibility, competitive advantage, revenue generating potential or employee morale.

1	Third parties, including researchers, state and local governments and agencies, are
2	increasingly requesting access to customer data to develop innovative ways to advance new
3	energy practices. Those requesting customer data do not always understand the risk associated
4	with mishandling customer energy usage data. To help address this need, the CPUC extended
5	the privacy rules for energy usage data applicable to electric corporations to natural gas
6	corporations, as well as to community choice aggregators and energy service providers. ²⁵
7	Balancing the needs of third parties with the privacy rules for energy usage data can be a
8	challenge. The Customer Data Privacy Program applies a structured approach to assessing third
9	party requests and applies the appropriate procedures to help ensure customer data privacy.
10	The Customer Data Privacy Program team oversees the Privacy Rules set forth in
11	SoCalGas Tariff Rule 42. ²⁶
12	An additional business system analyst is needed to help administer the day-to-day
13	activities of the Customer Data Privacy Program including but not limited to:
14	• Data governance using Generally Accepted Privacy Principles as a framework;
15	• Outreach and training for employees, vendors and other third parties on ways to
16	protect customer data that comply with federal and state laws;
17	• Managing a privacy impact assessment process that is required for capital
18	technology projects to ensure data privacy and data security controls are fully
19	incorporated into technology implementations;
20	• Overseeing the development of an annual privacy report to be filed with the
21	Commission;
22	• Administering an independent privacy audit of customer energy usage data each
23	application year of the Company's GRC cycle beginning in 2014, in compliance
24	with CPUC D.12-08-045 ²⁷ ;
25	• Assessing regulatory, state and federal rule/law changes to explain privacy
26	impacts to customers; and
	²⁵ D.12-08-045 at 49, OP 11; D.11-07-056.

²⁵ D.12-08-045 at 49, OP 11; D.11-07-056.
²⁶ See Tariff Rule 42, ordered D.12-08-045 at 3.
²⁷ D.12-08-045 at 48, OP5.

• Overseeing an online customer usage data request and sharing process as ordered in the Phase III Decision for the Energy Data Center (D.14-05-016) that allows for an efficient way for third parties to use customer energy usage data to drive energy policies while protecting customer information.²⁸

SoCalGas is further requesting \$75,000 in non-labor for costs associated with a customer energy usage information data privacy audit. In compliance with D.12-08-045, SoCalGas has contracted with a third party to perform an independent privacy audit of SoCalGas' data privacy and security practices.²⁹ The first audit was completed in 2014, and a second audit was completed in July 2017. The results of the 2017 audit are included in the testimony of witness Jamie York (Ex. SCG-45) as part of SoCalGas' TY 2019 GRC application. SoCalGas plans to conduct independent privacy audits every three years. The \$75,000 amount requested represents one third of the total expected cost of SoCalGas' planned 2020 audit of \$225,000 to be recovered over the TY 2019 GRC cycle.³⁰

All O&M costs for the Energy Data Privacy Program since inception have been recorded in the Energy Data Request Memorandum Account (EDRMA) and are detailed in Table MB-34 below. The costs recorded by SoCalGas are in compliance with D.12-08-045, are reasonable and should be approved by the Commission.

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 TABLE MB-34

 Energy Data Request Memorandum Account (EDRMA)

Year	Expenses	Interest	Account Balance
2014	62,201	8	\$62,209
2015	100,708	(11)	\$162,906
2016	646,091	2,451	\$811,448
Jan-Jun 2017	292,645	4,062	\$1,108,155

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³⁰ If the four year GRC cycle is adopted, as proposed in the testimony of Jawaad Malik (Ex. SCG-44), then this calculation will need to be revised to reflect that.

²⁸ D.14-05-016

²⁹ D.12-08-045 at 48 OP 5. "Southern California Gas Company must submit annual privacy reports to the Director of Energy Division and conduct independent audits of privacy policies commencing with March 2014. Subsequent privacy audits will be due in March of the year in which the company's General Rate Case is being considered."

At the end of 2018, the Energy Data Request Memorandum Account (EDRMA) will be closed. O&M costs incurred will be part of the Customer Service Other Office Ops and Technology budget beginning in GRC TY 2019.

Disposition of the EDRMA is discussed in the testimony of Ms. Yu (Ex. SCG-42).

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b. Energy Data Program Administrator

SoCalGas is requesting \$100,000 and 1 FTE for an Energy Data Request Program Administrator to administer all third-party requests for data by assessing the requests and either fulfilling or denying the request as ordered in D.14-05-016. Also, in 2017, one Customer Privacy Business Systems Analyst will be added to further advance the Customer Data Privacy Program at SoCalGas. The Customer Privacy Business Systems Analyst will assist the existing Customer Data Privacy Program Manager with on-going monitoring and outreach for the Customer Privacy Compliance Program. This includes establishing champions in each department that are knowledgeable of Customer Privacy policies, rules and laws. It also includes managing content on the Customer Privacy website, which needs to be reviewed regularly for relevancy, and updated to ensure compliance with any changes in regulations and tips/tools to help employees keep customer information confidential. The Customer Privacy Business System Analyst will also help educate employees by assisting with Privacy Impact Assessments for projects and supporting the development of the annual privacy report.

c. Increased Support for Mobile Customer Applications

SoCalGas is requesting an incremental \$140,000 for 1.5 FTEs to provide business systems analyst support for mobile applications. The significant growth in the volume of personal device types, sizes, manufacturers and models that customers use to access SoCalGas customer-facing applications (such as My Account) has increased the level of support required to ensure that these applications function properly when accessed from these various device types. The increase in the amount of mobile functionality that SoCalGas continues to make available to customers also requires an increase in support. Additional resources are required to perform quality assurance and user acceptance testing for mobile devices, as well as to assist with identifying and prioritizing application defects and enhancements and resolving production system issues. Expanded functionality to cover small commercial, large industrial, large commercial, and low income customers also adds to the volume and complexity of business support for the My Account applications.

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d. **Increased Data Analytics Support**

SoCalGas is requesting an incremental \$333,000 for 3 FTEs to provide increased data analytics support. As described in the capital section VI.E.9 of this testimony, the Integrated Customer Data & Analytics (ICDA) project (#81470) will integrate customer information and operational transactions information to an updated data architecture platform with greater data mining and analytic capabilities. Specifically, ICDA will integrate customer usage data with SoCalGas customer information and third-party customer databases. This integrated data repository will require additional business system analyst resources in 2017 to maintain the Integrated Customer Data Analytics system implemented in the prior project phases. On-going support is required to maintain new and changing data, including updating the descriptions, training and communicating the changes to the organization.

Increased Customer Operations Technology Support e.

SoCalGas is requesting an incremental total of \$366,000 for 3.8 FTEs as additional resources required to provide increased maintenance and support for newly implemented Advanced Meter technologies (1 FTE) and billing integrated technology functions. BY 2016 numbers reflect a full-year of vacancies (2.7 FTEs) due to the inability to find qualified applicants. During this time, some of these responsibilities were covered by the group's supervisors.

f. **Summer Intern Program**

SoCalGas is requesting an incremental \$35,000 for 0.5 FTEs to cover the cost of five interns for a two-month summer internship program. This program leverages college students to work on projects in a variety of departments within CSOO. SoCalGas benefits from lower-cost labor to complete important company work. The program is also a recruiting mechanism for entry-level positions within Customer Services and provides an opportunity for college students and SoCalGas to evaluate fit and mutual interest for future employment.

IV. **SHARED COSTS**

A. Introduction

This section presents SoCalGas' estimated TY 2019 expenses for CSOO shared services that are required for both SoCalGas and SDG&E. The CSOO shared service expenses include both labor and non-labor costs on a total incurred basis, as well as the shared service allocation percentages to support certain aspects of both SoCalGas and SDG&E CSOO functions. Those

percentages are presented in my CSOO shared services workpapers, along with a description

2 explaining the activities being allocated. *See* Ex. SCG-19-WP-R Shared Services Workpapers.

3 The dollar amounts allocated to affiliates are presented in the Shared Services Policy and

4 Procedures testimony sponsored by witness James Vanderhye (Ex. SCG-34). Table MB-35

below summarizes the shared services for CSOO.

TABLE MB-35 Utility-Shared O&M Summary of Costs (Thousands of 2016 Dollars)

CS - OFFICE OPERATIONS			
Shown in Thousands of 2016 Dollars			
A. Customer Service Office Operations	2016	TY 2019	Change
	Adjusted-	Estimated	
	Recorded		
1. Major Market Credit & Collections 2200-0354	1,608	1,604	-4
2. Payment Processing 2200-0355	3,486	3,511	25
3. Manager of Remittance Processing 2200-2247	309	377	68
Total	5,403	5,492	89

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B. Major Market Credit and Collections 2200-0354

TABLE MB-36 TY 2019 Summary of Major Market Credit and Collections 2200-0354 Costs (Thousands of 2016 Dollars)

CS - OFFICE OPERATIONS			
Shown in Thousands of 2016 Dollars			
A. Customer Service Office Operations	2016 Adjusted-	TY 2019	Change
	Recorded	Estimated	
1. Major Market Credit and Collections	1,608	1,604	-4
2200-0354			
Adjustments for full year staffing			32
FOF Reductions			-36

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1. Description of Costs and Underlying Activities

Major Market Credit and Collections is a shared service utilized by several departments at both SoCalGas and SDG&E including: SoCalGas Gas Acquisition; SDG&E Electric & Fuel

1	Procurement (E&FP); Contracted Marketer program; CAT program; Capacity Products;
2	California Producers; Renewable Energy & Long-Term Power Contracts; Interconnection
3	Agreements; and Large Commercial & Industrial Customers.
4	The group is responsible for the following activities:
5	• Establishing credit;
6	• Mitigating credit risk;
7	• Maintaining collateral;
8	• Negotiating contract credit terms;
9	• Monitoring accounts receivable; and
10	• Performing collections activity.
11	Collections activity includes working with Account Representatives on delinquent
12	accounts for the non-core market, contacting customers on delinquencies, making payment
13	arrangements when necessary, and making arrangements with the field personnel to terminate
14	service when appropriate. In addition, the group is typically involved in the review of contracts
15	and tariffs that require credit provisions as well as the review of the Utilities' use of various
16	credit instruments such as Parental Guarantees, Letters of Credit, Surety Bonds and other credit
17	mitigation agreements.
18	The calculations for estimated expenses are included in my workpapers (Ex. SCG-19-
19	WP-R, 2200-0354).
20	2. Forecast Method
21	A base year forecasting methodology was applied to project Major Market Credit and
22	Collections O&M costs. This method was utilized as the base year represents the most recent
23	recorded labor and non-labor costs. For labor costs, adjustments were made to the forecast years
24	to restore full year staffing levels.

3. Cost Drivers

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Table MB-36 above shows the expenses from 2016 adjusted-recorded to TY 2019 estimated expenses are essentially unchanged.

a. Adjustments for Full Year Staffing for Major Market Credit and Collections

SoCalGas is requesting an incremental \$32,000 to account for positions that incurred partial recorded expenses in BY 2016. During this time, many of the responsibilities related to these positions were covered by the group's supervisors as well as other staff members.

b. FOF Efficiencies

SoCalGas is forecasting a decrease of \$36,000 for process improvements identified

through our FOF initiatives. The calculations for estimated benefits are included in my

workpapers (Ex. SCG-19-WP-R, 2200-0354).

C. Payment Processing and Manager of Remittance Processing 2200-0355 & 2200-2247

TABLE MB-37 TY 2019 Summary of Payment Processing 2200-0355 and Manager of Remittance Processing 2200-2247 Costs (Thousands of 2016 Dollars)

CS - OFFICE OPERATIONS			
Shown in Thousands of 2016 Dollars			
A. Customer Service Office Operations	2016	TY 2019	Change
	Adjusted-	Estimated	
	Recorded		
2. Payment Processing 2200-0355	3,486	3,511	25
3. Manager of Remittance Processing	309	377	68
2200-2247			

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1. Description of Costs and Underlying Activities

Payment Processing (2200-0355) expenses cover the cost of processing payments mailed to SoCalGas and SDG&E through the USPS as well as electronic payments received through home banking, electronic data interchange, wire transfers and electronic pay programs, including direct debit, pay-by-phone, and My Account.

Additional functions performed by Payment Processing include handling returned checks, investigating payments received without associated account information, processing of all miscellaneous non-gas revenues (*e.g.*, oil lease revenues), and responding to payment inquiries from banking institutions and authorized payment locations. For the Manager of Remittance Processing (2200-2247), the primary responsibilities include the management of the strategy and policy for the overall customer bill presentment and payment processing channels for both SoCalGas and SDG&E. For customer billing, this includes bill printing and inserting as well as all electronic bill presentment channels. For payment processing, this includes mail, walk-in including branch offices and authorized payment locations, as well as all customer self-service electronic payment channels.

The calculations for estimated expenses are included in my workpapers (Ex. SCG-19-WP-R, 2200-0355 and 2200-2247).

2. Forecast Method

a. Forecast Method (Payment Processing 2200-0355)

A base year forecasting methodology was applied to estimate Payment Processing O&M costs. BY 2016 cost levels were below historical averages and more representative of the forecasted level of activity. For labor costs, adjustments were made to the forecast years to restore full year staffing levels.

b. Forecast Method (Manager of Remittance Processing 2200-2247)

A base year forecasting methodology was applied to project Manager of Remittance Processing O&M costs. BY 2016 cost levels were similar to historical averages and a good representation for the forecast because they are in-line with the workgroup's TY 2019 estimated activity levels. For labor costs, adjustments were made to the forecast years to restore full year staffing levels.

3. Cost Drivers

SoCalGas TY 2019 forecasted costs for the Payment Processing and Manager of Remittance Processing shared services O&M are essentially unchanged except for adjustments from the BY 2016 adjusted-recorded expense level as illustrated by Table MB-37 above.

a. Adjustments for Full Year Staffing for Payment Processing (2200-0355) and Manager of Remittance Processing (2200-2247)

SoCalGas is requesting an incremental \$25,000 to account for a position that incurred partial year recorded expenses in BY 2016. SoCalGas is requesting an incremental \$25,000 for 0.4 FTEs to restore costs and associated FTE resources who have resumed normal operations in support of Payment Processing after temporary deployment to Aliso Canyon incident activities.

SoCalGas is also requesting an incremental \$68,000 to account for a position that incurred partial year recorded expenses in BY 2016. SoCalGas is requesting an incremental \$68,000 for 0.6 FTEs to restore costs and associated FTE resources necessary for return to normal operation as Manager of Remittance Processing overseeing projects after temporary deployment to assist with the Aliso Canyon incident.

V. UNCOLLECTIBLE RATE

SoCalGas is requesting to increase the authorized uncollectible expense rate from the current authorized rate of 0.298% to 0.316%. SoCalGas' proposed rate is based on a five-year average of actual write-offs for the period of 2012 through BY 2016. SoCalGas is requesting the five-year average uncollectible rate to reflect collection practices adopted in recent years while also incorporating cyclical economic factors, unpredictable and random weather conditions, and natural gas price conditions.³¹

SoCalGas believes that the use of a five-year period is most appropriate because a shorter period (*i.e.*, three-year average) fails to reflect the full range of the potential impacts of economic and cyclical variables, whereas a longer period does not fully reflect the impact of current collection practices experienced by SoCalGas. The volatility or cyclical nature of the uncollectible rate depends on macroeconomic, microeconomic, and regional economic factors that are difficult to quantify and on the variability of seasonal energy bills (colder winters mean higher natural gas bills for heating). However, the precise incremental impact to the uncollectible rate due to each of the independent variables (and in some cases collinear variables) is difficult to quantify and correlate. Nevertheless, a larger energy bill means that a greater proportion of customers will have difficulty paying and therefore increases the likelihood of an uncollectible expense. The five-year average of the uncollectible rate implicitly includes the unpredictability of such economic related factors, energy bill related variability and credit practice changes whether mandated or voluntarily instituted.

³¹ SB 598 (Hueso): Disconnection Prohibition will become law on January 1, 2018, and may have an impact on SoCalGas. This bill would prohibit the utilities from disconnecting for lack of payment any CARE customers that also qualify for medical baseline treatment under specified conditions. SoCalGas is monitoring SB 598 developments and may take appropriate steps in this proceeding such as requesting a memorandum account to track associated revenue requirement impacts to reflect any impacts from SB 598, such as increased costs as well as bad debt write-offs, as soon as they are known

SoCalGas Operational Uncollectible Data 2007 – 2016				
Year	Recorded Uncollectible Expense	Sales Revenue	Uncollectible Rate	
	(a)	(b)	(a) / (b)	
2007	\$9,827,895	\$3,880,230,669	0.253%	
2008	\$14,615,146	\$4,325,636,960	0.338%	
2009	\$12,855,059	\$3,443,047,146	0.373%	
2010	\$9,418,528	\$3,277,810,531	0.287%	
2011	\$9,899,908	\$3,313,858,762	0.299%	
2012	\$9,967,611	\$3,074,494,564	0.324%	
2013	\$8,204,155	\$3,033,684,781	0.270%	
2014	\$9,870,998	\$3,237,327,756	0.305%	
2015	\$11,071,552	\$2,999,535,710	0.369%	
2016	\$9,637,602	\$3,064,338,794	0.315%	

TABLE MB-38Uncollectible Rates

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10-year avg. (2007-2016)		0.313%
5-year avg. (2012-2016)	Proposed	0.316%
3-year avg. (2014-2016)		0.329%

VI. CAPITAL

A. Introduction

SoCalGas CSOO testimony sponsors several capital projects that are important to achieve the objective of providing safe, efficient, effective and reliable service. This section identifies these capital projects and provides a description and business rationale for each project. For the CSOO sponsored capital projects, estimated capital expense requests are included in the testimony of witness Christopher Olmsted (Ex. SCG-26). Table MB-39 summarizes the total capital forecasts for 2017, 2018 and 2019, and Table MB-40 below provides the project details.

TABLE MB-39Capital Expenditures Summary of Costs
(Thousands of 2016 Dollars)

CS – OFFICE OPERATIONS			
Shown in Thousands of 2016 Dollars	Estimated	Estimated	Estimated
	2017	2018	2019
IT Capital Projects, Annual Estimated Total	\$13,190	\$12,412	\$23,663

TABLE MB-40Total Capital Forecasts(Thousands of 2016 Dollars)

Project #	Project Description	Capital Cost Drivers	2017	2018	2019
	My Account for SCBS Billed				
84280	Customers	Mandated	1,344	0	0
84207	SEU CCC Genesys Refresh	Mandated	369	0	0
	Sub-Total Mandated		1,713	0	0
19043	SEU Call Recording Refresh	Technical Obsolescence	2,513	0	0
19045	ACT/CCM Refresh Project	Technical Obsolescence	0	307	102
	Sub-Total Technical Obsolescence		2,513	307	102
19044	Optimization Phase 4	Business Optimization	566	1,027	1,811
84324	Residential 2 PSI Services	Business Optimization	792		
19107	FOF - CIS Pre-Bill AMI Enhancement	Business Optimization	658	467	0
19112	FOF - Paperless Initiatives	Business Optimization	2,500	887	0
19113	FOF - Performance Management for office staff (WFM)	Business Optimization	1,042	139	0
84322	CIS Segregation of Duties (SoD) Project	Business Optimization	376	255	0
	Sub-Total Business Optimization		5,934	2,775	1,811
19046	Billing Projection Engine (Internal BTA Alert)	Improving Cust Experience	0	935	0
19047	Credit and Collections Optimization Phase			430	430
19050	IVR Usability Enhancements	Improving Cust Experience	0	377	0
19051	Major Markets Systems Enhancements	Improving Cust Experience	0	4,323	8,646
19059	CTAs Customer Data Exchange - EDI Option	Improving Cust Experience	0	269	331
84254	SEU CCC Workforce Mgmt. Solution	Improving Cust Experience	965	0	0
19127	MCS Next Generation	Improving Cust Experience	0	0	3,057

19128	CIS Front-end Replacement	Improving Cust Experience	0	2,462	9,286
	Integrated Customer Data &				
81470	Analytics Phase 1 & 2 (ICDA)	Improving Cust Experience	520	0	0
19110	FOF - ICDA Phase 3	Improving Cust Experience	1,545	534	0
	Sub-Total Improving				
	Customer Experience		3,030	9,330	21,750
			13,190	12,412	23,663

CSOO capital expenditures are driven by four factors:

- Mandated
- Technical Obsolescence
- Business Optimization
- Improving Customer Experience
- B. Mandated

TABLE MB-41 Summary of Mandated Driven Projects (Thousands of 2016 dollars)

Project				
#	Project Description	2017	2018	2019
84280	My Account for SCBS Billed Customers	1,344	0	0
84207	SEU CCC Genesys Refresh	369	0	0
		1,713	0	0

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. My Account for Specialized Customer Billing System Customers (SCBS)

The forecast for My Account for the SCBS Customers for 2017, 2018 and 2019 are \$1,344,000, \$0, and \$0, respectively.

The purpose of the My Account SCBS Billed Customers project (Business My Account) is to enable Commercial and Industrial-tariffed business customers, whose accounts are billed in the SCBS system, access to the My Account e-services capabilities. Communications, interactions and transactions with these very large business accounts are currently limited to the traditional, "legacy" channels of phone, e-mail, direct mail and fax. These accounts are underserved with outdated customer solutions and do not have a one-stop, secure electronic portal for their billing, payment and energy usage presentment needs. The project will extend current My Account portal access and selected functionality to approximately 700 core business

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accounts and 1,200 non-core business accounts that are billed through SCBS. By further
 leveraging existing project infrastructure, these customers will be able to utilize the new
 Business My Account. Key self-service functionality that would be extended to these customers
 includes:

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Access to certain EBPP (electronic bill presentment and payment) functionality;

2. A new secured document repository system (Message Center) by which to receive documents with sensitive information; and

3. Online presentment of hourly and daily gas usage data.

The specific details regarding the My Account SCBS Customers (Business My Account) costs are found in Mr. Olmsted's capital workpapers (Ex. SCG-26-CWP, WP 00754B – 84280 My Account for SCBS Billed Customers).

SEU CCC GENESYS Refresh

The forecast for SEU CCC GENESYS Refresh for 2017, 2018 and 2019 are \$369,000, \$0, and \$0, respectively.

The objective of project SEU CCC GENESYS Refresh is to comply with internal requirements that require Disaster Recovery to be housed at a separate location for a Tier 1 application. SoCalGas and SDG&E CCC use GENESYS for their Computer Telephony Integration (CTI). The current production system and Disaster Recovery (DR) system are both housed in the Rancho Bernardo Data Center (RB).

The goal is to upgrade all components of the GENESYS production framework in RB to version 8.x and implement DR fail over between RB and the new GENESYS framework in Monterey Park (MPK). The upgrade is needed to address issues for SDG&E and SoCalGas that impact the Call Centers' ability to service our customers as required. The upgrade will improve system stability, redundancy & optimize configuration by upgrading hardware and leveraging Virtual Servers. The upgrade will include the following elements:

- Critical components enable customers to reach both utilities in the event of an outage;
- Rebuild of an upgraded production system in RB that can failover to the system in MPK;

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Implementation of DR failover capabilities between RB and MPK;

- Conversion of the IVR applications from version 7.6 to 8.x. This new version will utilize native GENESYS capabilities, avoiding the current use of an interpreter application; and
 - Upgrade GENESYS Agent Desktop (GAD) to GENESYS WorkSpace and the implementation of additional GENESYS components.

The specific details regarding the SEU CCC Genesys Refresh cost are found in Mr. Olmsted's capital workpapers (Ex. SCG-26-CWP, WP 00754D – 84207 SEU CCC Genesys

Refresh).

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C. Technical Obsolescence

TABLE MB-42Summary of Technical Obsolescence Driven Projects
(Thousands of 2016 dollars)

Project				
#	Project Description	2017	2018	2019
19043	SEU Call Recording Refresh	2,513	0	0
19045	ACT/CCM Refresh Project	0	307	102
		2,513	307	102

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1. SEU Call Recording Refresh

The forecast for SEU Call Recording Refresh for 2017, 2018 and 2019 are \$2,513,000, \$0, and \$0, respectively.

The purpose of this project is to refresh the current shared enterprise call recording system. Extending the life of the system will benefit the CCC's, Gas Control, Gas Scheduling, Electric & Fuel Procurement, SoCalGas Dispatch offices and Grid Control, and enable the companies to meet regulatory requirements. The Credit and Collections group in Monterey Park has also requested their phone extensions be recorded using this system. The current shared call recording system for SoCalGas and SDG&E has reached the manufacturer's end of life date. The proposed project will refresh all of the components of the Call Centers' recording systems. Upgrading the system will ensure that the call recording system is supportable by the manufacturer.

The specific details regarding the SEU Call Recording Refresh cost are found in Mr. Olmsted's capital workpapers (Ex. SCG-26-CWP, WP 00752A – 19043 SEU Call Recording Refresh).

2.

Aggregated Customer Tool (ACT)/Corporate Credit Manager (CCM) Refresh Project

The forecast for the ACT/CCM Refresh Project for 2017, 2018, and 2019 are \$0, \$307,000, and \$102,000 respectively.

The purpose of this project is to replace our CCM vendor application and refresh our ACT in-house application, which is shared by both SoCalGas and SDG&E. ACT collects large business customer information from various internal systems that feed CCM relevant data. CCM software stores this credit and collection information (credit exposure) for various utility programs at a consolidated customer level. This information assists in establishing credit for large business customers for various programs (*e.g.*, gas acquisition and trading, electric and fuel procurement, contracted marketers, and core aggregation transportation marketers). Our ACT and CCM applications were placed in service in 2003, and are at their end of life. Without a refresh, there is a high risk of system failure.

The specific details regarding the ACT/CCM Refresh Project cost are found in Mr. Olmsted's capital workpapers (Ex. SCG-26-CWP, WP 00774C – 19045 ACT/CCM Refresh Project).

D. Business Optimization

TABLE MB-43 Business Optimization Driven Projects (Thousands of 2016 dollars)

Project #	Project Description	2017	2018	2019
19044	Credit and Collections Optimization Phase 4	566	1,027	1,811
84324	Residential 2 PSI Service	792	0	0
19107	FOF - CIS Pre-Bill AMI Enhancement	658	467	0
19112	FOF - Paperless Initiatives	2,500	887	0
19113	FOF - Performance Management for Office Staff	1,042	139	0
84322	CIS Segregation of Duties (SoD) Project	376	255	0
		5,934	2,775	1,811

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1. Credit and Collection Optimization Phase 4

The forecast for Credit and Collection Optimization for 2017, 2018, and 2019 are \$566,000, \$1,027,000 and \$1,811,000, respectively.

1	The o	bjective of this project is to improve the Collect and Close Order process, increase
2	operational e	fficiencies and reduce bad debt, which benefits all rate payers. Credit and
3	Collections n	nodules with the following functionalities will be implemented:
4	1.	Implement customer segmentation to determine "Unwilling to Pay," "Late
5		Payers," and "Unable to Pay" customers. Provide ability to optimize priority of
6		orders;
7	2.	Use external module to prioritize, collect or close orders address "Unwilling to
8		Pay" as the highest priority; and
9	3.	Implement External Collection Timeline, which will reduce timeline and provide
10		flexibility. This improves existing processes and introduces new customer
11		behavior-based methodologies to enhance collections success. The process uses
12		targeted approaches to determine which customers have the highest propensity to
13		pay and the best strategies/timing on when to deliver notices, phone calls and field
14		collectors for optimal collection.
15	The n	ew modules will enable multiple and targeted collections strategies through:
16	•	Implementation of a third-party collection behavioral scoring solution to
17		optimize/prioritize field routing strategy of collect or close notices/orders based
18		on multiple customer behavior variables, not just dollar amount;
19	•	Introduction of a separate Collections application (similar to SDG&E) vs. the
20		current SoCalGas' process of using CIS for Collections;
21	•	Better utilization of customer's propensity to pay behavior to modify/improve on
22		single-thread collections strategies used today and alleviate growing population of
23		time consuming manual exception collections handling;
24	•	Optimization of minimum collection amount; and
25	•	Implementation of CIS logic to accommodate these multi-targeted collections
26		strategies.
27	The s	pecific details regarding the Credit and Collection Optimization Project cost are
28	found in Mr.	Olmsted's capital workpapers (Ex. SCG-26-CWP, WP 00774B – 19044 Credit and
29	Collections C	Deptimization Phase 4).
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Residential 2 Pounds per Square Inch (PSI) Services

The forecast for Residential 2 PSI Services for 2017, 2018, and 2019 are \$792,000, \$0 and \$0, respectively.

This project allows SoCalGas to expand 2 PSI Service to single family residential home builders and to offer it to multi-family residential builders as a standard offering.

It allows the builders to cost effectively comply with Title 24 requirements for Zero Net Energy (ZNE). 2 PSI allows builders to use smaller meters and reduced pipe sizing that is easier to handle and install, resulting in construction material and labor cost savings. This move also addresses pressure requirements for new end-use appliances such as tank-less water heaters.

SoCalGas has not actively marketed this service offering because 2 PSI accounts currently use a work around in CIS that results in higher billing and support costs. 2 PSI accounts are marked as special ledger accounts in CIS and are currently processed by the Special Ledger Billing Team. With the current CIS system work around, the volume of 2 PSI accounts is taxing the Special Ledger Billing Team. Expanded use of 2 PSI in residential accounts will certainly overload their processing capacity. The requested one-time CIS changes must be introduced to allow 2 PSI accounts to be billed, processed and adjusted like normal service pressure accounts.

The specific details regarding the Residential 2 PSI Services Project costs can be found in Mr. Olmsted's capital workpapers (Ex. SCG-26-CWP, WP 00774G – 84324 Residential 2 PSI Service).

3. FOF – CIS Pre-Bill AM Enhancement

The forecast for FOF – CIS Pre-Bill AM Enhancement for 2017, 2018, and 2019 are \$658,000, \$467,000 and \$0, respectively.

By early 2017, Advanced Meter will have installed a Meter Transmission Unit (MTU) on most of the meters in the service territory, therefore the existing CIS pre-bill logic needs to be revisited and updated to electronic meter reads. This project intends to update business rules to identify unexpected zero consumption on an active account to leverage the electronic meter reads captured by the Advanced Meter, which is more timely (daily instead of monthly), and more granular. Assumed efficiencies are to reduce false positives (50% reduction in the back office and the field), prevent customer bills from being delayed by identifying events early, and acting quickly on incidents.

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1	The specific details regarding the FOF – CIS Pre-Bill AM Enhancement Project cost are
1 2	found in Mr. Olmsted's capital worknapers (Ex. SCG 26 CWP, WP 00784A 19107 FOF CIS
2	Dro Dill AMI Enhancement)
5	
4	4. FOF Paperless Initiatives
5	The forecast for FOF Paperless Initiatives for 2017, 2018 and 2019 are \$2,500,000,
6	\$887,000 and \$0, respectively.
7	The Paperless Initiatives project consists of three sub-initiatives that are required to
8	achieve the \$4.282 million in postage savings described in Table MB-43 above by:
9	• Enabling CSRs to enroll customers into My Account during all calls to the call
10	center. If the customer enrolls in My Account during the call, the customer then
11	has option to opt into paperless billing. Customers will receive an email to fully
12	activate in My Account, if they do nothing they will continue to receive their bill-
13	ready notification by email. If the customer's email hard bounces (is not
14	deliverable for various reasons) and is recorded as an "undeliverable" email, the
15	customer will be reinstated to receive their paper bill.
16	• Reduce paper, printing and postage expense by sending late payment notices by
17	email to customers who have already requested that they receive their bills
18	electronically. If the customer's email is returned as "undeliverable, the late
19	payment notice will be sent via U.S Mail.
20	• Reduce paper, printing and postage expense by sending the welcome letter and
21	Home Energy Guide by email when customers request new gas service. If the
22	email address hard bounces and is recorded as an "undeliverable" email, the
23	Welcome and Home Energy Guide will be sent via U.S Mail.
24	The Paperless Initiatives will allow SoCalGas to notify customers of their bills and late
25	notices sooner than traditional mail. SoCalGas will continue to deliver paper bills for those
26	customers that choose to continue to receive them by U.S. Mail.
27	The specific details regarding the FOF Paperless Initiatives Project cost are found in Mr.
28	Olmsted's capital workpapers (Ex. SCG-26-CWP. WP 00784E – 19112 FOF – Paperless
29	Initiatives).

5. FOF – Performance Management for Office Staff

The forecast for FOF – Performance Management for office staff for 2017, 2018, and 2019 are \$1,042,000, \$139,000 and \$0, respectively.

The objective of this project is to extend Work Force Performance technologies currently used by the CCC to the Billing and Credit and Collections areas in an effort to tighten up workload forecasts and staffing plans. These implementations will act as a springboard to further integrate technology/people/processes to increase efficiencies residing in the CIS work queues resulting in a reduction of delayed customer bills.

The specific details regarding the FOF – Performance Management for office staff cost are found in Mr. Olmsted's capital workpapers, (Ex. SCG-26-CWP, WP 00784F – 19113 FOF – Performance Management for office staff).

6.

CIS Segregation of Duties (SoD) Project

The forecast for CIS SoD Project for 2017, 2018 and 2019 are \$376,000, \$255,000 and \$0, respectively.

The purpose of the CIS SoD project is to implement the automation of SoD rules in the Customer Information System and corresponding process changes to enforce SoD rules in access management, access review and CIS access design. SoD is the process of designing and assigning user access that is aligned with job responsibilities while ensuring that no single individual can perform two or more conflicting tasks.

The specific details regarding the CIS SoD Project cost can be found in Mr. Olmsted's capital workpapers (Ex. SCG-26-CWP, WP 00774E – 84322 CIS SoD Project).
E. Improving Customer Experience

TABLE MB-44Improving Customer Experience Driven Projects
(Thousands of 2016 dollars)

Project				
#	Project Description	2017	2018	2019
19046	Billing Projection Engine (Internal BTA Alert)	0	935	0
19047	Collections Optimization Phase 5	0	430	430
19050	IVR Usability Enhancements	0	377	0
19051	Major Markets Systems Enhancements	0	4,323	8,646
19059	CTAs Customer Data Exchange - EDI Option	0	269	331
84254	SEU CCC Workforce Mgmt. Opt Solution	965	0	0
19127	MCS Next Generation	0	0	3,057
19128	CIS Front-end Replacement	0	2,462	9,286
81470	ICDA Phase 1 and 2	520	0	0
19110	FOF - (ICDA) Phase 3	1,545	534	0
		3,030	9,330	21,750

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1. Billing Projection Engine (Internal BTA)

The forecast for Billing Projection Engine - Internal Bill Tracker Alert (BTA) for 2017, 2018, and 2019 are \$0, \$935,000, and \$0, respectively.

The purpose of this project is to bring in-house all aspects of the IT infrastructure and software required to deliver proactive energy usage and bill projection-related email and text/SMS notifications to SoCalGas customers. These types of alerts are currently being advocated for as part of draft Assembly Bill legislation in California (AB 726) with the objective of ensuring that energy utilities "shall provide energy usage or energy billing information to a residential customer with a smart meter that promotes the customer's ability to make informed energy usage decisions and to minimize the risk of the customer being unpleasantly surprised after the fact by the size of the customer's energy bill during a billing period."³²

³² AB 726, as amended, Holden. Energy; Date Published: 09/09/2017 04:00 AM; <u>https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201720180AB726</u>.

Note, depending on the final outcome of AB 726, in the event it becomes law, SoCalGas may need to increase its future bill alerts funding requests to meet additional requirements mandated by this bill.

1	Beginning in 2013, SoCalGas began piloting and gradually enhancing a bill alert entitled			
2	"Your Weekly Bill Tracker Update" ["Bill Tracker Alert" or "BTA"]. BTAs offer several key			
3	features to help customers maintain a high level of energy usage awareness and engagement with			
4	their SoCalGas bill. BTAs include the following information and are sent via email and/or text			
5	message on a weekly basis:			
6	• Bill-to-Date (\$)			
7	• Projected Next Bill (\$)			
8	• Last year, Same Month Bill Amount (\$) (Seasonal comparison)			
9	• Days Remaining in the Current Billing Cycle (#)			
10	• Last Month's Bill Amount (\$)			
11	• Days Elapsed in the Current Billing Cycle (#)			
12	• Choice of weekly email and/or text message			
13	Through June 30, 2017, there were 439,599 SoCalGas customers actively enrolled in			
14	BTAs. Customer acceptance of the BTAs has been high as evidenced by their relatively high			
15	retention rate ³³ and solid customer satisfaction scores resulting from BTA customer satisfaction			
16	surveys conducted by SoCalGas.			
17	SoCalGas and external stakeholders both desire to grow and expand this key customer			
18	bill management service offering. However, SoCalGas' current vendor-supported IT platform			
19	facilitating these alerts has a volume capacity limitation of 600,000 customer enrollments, as			
20	well as other limitations which make it difficult and costly to expand the number and types of			
21	bill alert offerings. The expansion of the current BTA offering to accommodate a much greater			
22	portion of our customer base is beneficial as the BTA has proven to have a direct, positive			
23	customer experience impact. In the J.D. Power 2015 Gas Utility Residential Customer			
24	Satisfaction Study, SoCalGas' Customer Satisfaction score on the Billing and Payment index			
25	rose five points, which was attributed to eight percent of the My Account-enrolled survey			
26	respondents being enrolled in Bill Tracker Alerts. The BTA has also been noted by customers			
27	who participated in billing-related focus groups conducted by SoCalGas as being highly valued			
28	to help them avoid surprises in their winter bills.			

³³ About 7% of SoCalGas customers enrolled in Bill Tracker Alerts (BTA) have unsubscribed, or "opted out" of receiving them, since the alerts were initially rolled out in 2013.

The goal of this project is thus to develop a Billing Projection Engine that could be used for BTA alert calculations, new energy and bill alert offerings, and other future strategic initiatives. Currently, the key billing-related information included in BTAs is provided and calculated by a third-party vendor. Specifically, SoCalGas manages the alert subscription and delivery while the third-party software vendor generates the actual billing-related calculations (Bill-to-Date and Projected Next Bill). Through this Project, SoCalGas will develop an internal Billing Projection Engine that calculates each customer's Bill-to-Date and Projected Next Bill at certain points in a given account's bill cycle and delivers an alert to the customer.

By building its own billing projection engine in-house, SoCalGas can further expand the current BTA offering to additional customers, as well as develop new email, text and potential web/mobile-based energy usage and billing notifications in the future. An internal billing projection engine will provide more flexibility to enable future functional enhancements (*e.g.*, tailored BTAs targeted to different customer segments, such as Level Pay Plan, etc.). It will also eliminate some of the current BTA customer eligibility limitations, such as being able to offer BTAs to customers with more complex rate structures. And lastly, it will potentially enhance the reliability and accuracy of the project bill calculation estimates included in SoCalGas' billing alerts, eliminating the need to rely on manual auditing and testing of third party-provided billing calculations.

The specific details regarding the Billing Projection Engine (Internal BTA Alert) Project cost are found in Mr. Olmsted's capital workpapers (Ex. SCG-26-CWP, WP 00774D – 19046 Billing Projection Engine (Internal BTA Alert)).

2. Collections Optimization Phase 5 (Miscellaneous Collections Initiatives)

The forecast for Collections Optimization Phase 5 for 2017, 2018, and 2019 are \$0, \$430,000 and \$430,000, respectively.

This is a continuation of the Collections Optimization Phase 4 project. The objective of this project is to implement additional Credit and Collections optimization and efficiency improvements focusing on key collections processes to improve collections and reduce write-offs.

The following improvements would occur from implementation:

	u.					
1	•	Optimize field collect or close notice/order prioritization and routing, based on				
2	behavior scoring, resulting in more efficient field collections and help promote					
3	better customer payment practices;					
4	• Print 41.6 Notice (Disconnect Notice) at base/district. This avoids manually					
5	delivering orders from the regions to bases (courier/time savings). Forms are					
6	currently printing on obsolete printers; and					
7	•	The redesign of collection, active/closed bill notices (to increase notice				
8		effectiveness) to improve upon the current 75% of customers who receive a late				
9		notice, but don't pay and subsequently require a fielded order to be worked by a				
10		collector to collect or close the account.				
11	The sp	becific details regarding the Collections Optimization Phase 5 Project cost are found				
12	in Mr. Olmste	ed's capital workpapers (Ex. SCG-26-CWP, WP 00774F – 19047 Collections				
13	Optimization	Phase 5 (Misc. Collections Initiatives)).				
14		3. IVR Usability Enhancements				
15	The fo	precast for IVR Usability Enhancements for 2017, 2018, and 2019 are \$0, \$377,000				
16	and \$0, respectively.					
17	This project is intended to streamline the IVR customer-facing interface to improve the					
18	customer exp	erience by:				
19	(1)	Removing steps from the IVR so customers can more quickly get to their desired				
20		tasks; and				
21	(2)	Leverage the new GENESYS functionality to allow customers to speak to their				
22		choice of representatives (e.g., customer can request through IVR a safety check				
23		of a specific gas appliance (safety check pilot on stove)).				
24	Implementation of the IVR Usability Enhancements has the following benefit					
25	assumptions:					
26	1)	Improve the self-service rate;				
27	2)	Improved customer experience;				
28	3)	Reduce perceived complexity of the IVR;				
29	4)	Reduce the IVR handle time; and				
30	5)	Improved "easy to understand instructions," "amount of time it took to complete				
31		transaction" and "easy to use."				
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The specific details regarding the IVR Usability Enhancements Project cost are found in Mr. Olmsted's capital workpapers (Ex. SCG-26-CWP, WP 00774J – 19050 IVR Usability Enhancements).

4.

Major Markets Systems Enhancements

The forecast for Major Markets Systems Enhancement for 2017, 2018, and 2019 are \$0, \$4,323,000 and \$8,646,000, respectively.

The objective of this project is to refresh the technologies and systems supporting the billing of non-core customers and balancing rules for gas suppliers. The current technologies including Java, Web Logic and JReport Server are out-of-support. Maintaining the current system has become more difficult as it is more costly to respond to business needs and regulatory mandates for non-core customers and system balancing rules for gas suppliers. Timeliness of non-core customer bills and notification of imbalances for gas suppliers will be impacted without support of additional technologies.

 Major Market Billing (non-core accounts) charges calculation logic is composed of many complex formulas and business rules for billing calculations. These formulas and rules are currently embedded within a large Excel-style spreadsheet. This has become increasingly difficult to maintain, manage, test, and audit;

- The current Excel bill engine is cumbersome and inflexible. A new bill engine is needed to sustain the integrity, maintainability, accuracy, auditability, and provide agility/flexibility to quickly respond to future business and regulatory needs;
- The reporting systems used by CAT, Customer Contracts System (CCS) and SCBS applications need to be upgraded; and

• The future system will optimize the billing functions supporting Major Market Billing to streamline and automate processes in the SCBS. This will ensure continued accurate and timely billing of SoCalGas' Major Markets customers, which accounts for 2/3 of the system throughput and over \$500 million in annual revenue.

The project scope identifies Major Market Modernization to include:

- Ability to update rules related to the charges without changing the code;
- Add auditability within SCBS to track customer bill updates;
- Refactor system integration and batch processing for billing engine replacement;

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- Develop a work queue process to enhance quality control, work flow and ensure timely processing of bills;
 - Expand delivery options of customer bills based on customer preference; and
- Improve workflow related to exceptions/data coming from CCS and CIS.

The specific details regarding the Major Markets Systems Enhancement Project costs are found in Mr. Olmsted's capital workpapers (Ex. SCG-26-CWP, WP 00774K – 19051 Major Markets Systems Enhancements).

5.

CTAs Customer Data Exchange – Electronic Data Interchange Option

The forecast for Core Transportation Aggregators (CTA) Customer Data Exchange (Electronic Data Interchange) Option for 2017, 2018, and 2019 are \$0, \$269,000 and \$331,000, respectively.

This project is to standardize the data exchange using EDI protocols between the utility and CTAs to improve data integrity, timeliness and improve efficiency for the utility and CTAs. It also reduces the risk of data compromise and data errors involved in the current manual process.

The specific details regarding the CTAs Customer Data Exchange – EDI Option Project cost are found in Mr. Olmsted's capital workpapers (Ex. SCG-26-CWP, WP 00774Q – 19059 CTAs Customer Data Exchange – EDI Option).

6. SEU CCC Workforce Management Optimization Solution

The forecast for SEU CCC Workforce Management (WFM) Optimization Solution for 2017, 2018, and 2019 are \$965,000, \$0 and \$0, respectively.

The WFM system is critical to business for forecasting accurate staffing levels in the CCC, achieving financial goals, and maintaining Level of Service targets. The current WFM system is at end of life and no longer supported by the vendor. Current Coaching, Performance Management (PM) and Call Recording systems are not integrated with the WFM system, creating a disconnect between employee staffing and performance. Each of the utilities uses the PM model, which allows them to track accurate performance metrics based on each company's individual goals.

1	The objective of this project is to deploy a unified WFM, PM and Coaching system on a				
2	single Workforce Optimization (WFO) platform with enhanced staff forecasting capabilities that				
3	include:				
4	• Replace Aspect with a new WFM system and integrate with MyTime to enable				
5	CSR's to manage their time in the new WFM system;				
6	• Upgrade Quality Monitoring and Quality Optimization (QM/QO) with tagging				
7	capabilities and additional KPI's;				
8	• Upgrade Merced to current version, decouple SoCalGas from SDG&E and update				
9	User Interface and Reports;				
10	• Integrate PM with WFM, Call Playback, IA and data import from Allconnect and				
11	Lead Consultants-Business Object data;				
12	• Support an enhanced coaching culture by providing management staff the tools to				
13	identify relevant calls to coach;				
14	• To more easily identify employees that provide great customer service, thereby				
15	improving employee engagement; and				
16	• Provide a mechanism to respond quickly to unsatisfactory customer interactions				
17	by enabling the ability to retrieve targeted previous call history.				
18	The specific details regarding the SEU CCC Workforce Management Optimization				
19	Solution Project cost are found in Mr. Olmsted's capital workpapers (Ex. SCG-26-CWP, WP				
20	00774S – 84254 SEU CCC Workforce Mgmt. Opt Solution).				
21	7. Measurement Control System (MCS) Next Generation				
22	The forecast for MCS Next Generation for 2017, 2018, and 2019 are \$0, \$0, and				
23	\$3,057,000, respectively.				
24	The MCS Next Generation project is intended to redesign the client application to be				
25	browser-based, to make software changes to the application and to replace dated dial-up				
26	telecommunication equipment. It is becoming more and more critical to re-design the MCS front				
27	end application to leverage current technology standards. Meter usage information from non-				
28	core customers is collected from dial up modem communication. Such dated infrastructure has				
29	become obsolete and it is becoming impossible to find replacement hardware to support such				
30	communication architecture.				

1	The objective of this project is to achieve operational excellence for our business by the			
2	following:			
3	• Leveraging technology and system re-engineering to increase efficiency and			
4	reduce costs;			
5	• Supporting the execution of major projects/initiatives; and			
6	• Creating opportunities to improve employee and/or customer safety (such as			
7	Pipeline Integrity).			
8	The specific details regarding the MCS Next Generation Project cost are found in Mr.			
9	Olmsted's capital workpapers (Ex. SCG-26-CWP, WP 00774Z – 19127 MCS Next Generation).			
10	8. CIS Front-end Replacement			
11	The forecast for CIS Front-end Replacement for 2017, 2018, and 2019 are \$0, \$2,462,000			
12	and \$9,286,000, respectively.			
13	SoCalGas' Customer Information System has been in use for 21 years and has used the			
14	same user interface during that extended time period. The software technology used for the			
15	current graphical user interface (GUI) is approaching obsolescence and, as a result, is becoming			
16	increasingly difficult to maintain and enhance. Alternative technologies have been evaluated to			
17	replace existing software, which will result in reduced operating costs and enable a more			
18	efficient turnaround time for requested system enhancements.			
19	The scope of this project will be to replace the current Smalltalk architecture with a			
20	browser based user interface utilizing Java, .Net or a similar technology with the following			
21	benefits:			
22	• Increased agility with business enhancements to the application offers quicker			
23	"time to market." With a readily available workforce on the market and more			
24	current application development tools, software enhancements will be easier to			
25	develop, maintain, test, and implement;			
26	• Positions the CIS system for future expansion into the multiple devices and			
27	platforms, including mobile platforms such as Android, iOS, among others, and			
28	eventual use by a mobile workforce (field technicians, support staff).			
29	• Ongoing application testing throughout the lifecycle can be simplified resulting in			
30	increased system reliability and lower associated costs. Automated testing tools			

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1		currently in use at Sempra companies can be leveraged to improve ongoing		
2		testing efforts; and		
3	• Complex software distribution management process currently in place to support			
4		the fat client architecture will be simplified. Currently a software image is		
5		individually distributed to over 2,500 workstations each time a software		
6		enhancement is required. A new, thin client architecture allows a single image to		
7		be posted to a small number of dedicated servers and can be done swiftly, with		
8		increased reliability, and lower associated costs.		
9	The s	pecific details regarding the CIS Front-end Replacement Project cost can be found		
10	in Mr. Olmst	ed's capital workpapers (Ex. SCG-26-CWP, WP 00774Y – 19128 CIS Front-end		
11	Replacement).		
12		9. ICDA Phase 1 and 2		
13	The f	orecast for ICDA for 2017, 2018, and 2019 are \$520,000, \$0 and \$0, respectively.		
14	The goal of this project is to enable SoCalGas to use customer data to make smarter,			
15	faster, and better-informed decisions. ICDA will allow us to develop our capabilities, transform			
16	our operation	s and target business outcomes across five major customer service business areas:		
17	1)	Billing and Collections;		
18	2)	Customer Usage;		
19	3)	Customer Analytics (Programs);		
20	4)	Consumption Forecasting; and		
21	5)	Customer Service Orders (CSO).		
22	ICDA	is a strategic priority and enabler of multiple projects within the Customer Services		
23	and Custome	r Solutions organizations. ICDA's goal is to develop data analytics capabilities		
24	(people, technology and process) that enable the future vision of SoCalGas' customer analytics.			
25	The technology solution accommodates platforms, tools and various sources of customer data,			
26	increased data volume generated from Advanced Meter interval data, customer self-service			
27	transactional data and external third-party data. Data Analysts, Data Scientists and Data subject-			
28	matter-experts (people) will use data to analyze customer behavioral patterns, trends, and			
29	preferences d	luring the customer evolution process (starting service, requesting service orders,		
30	program participation, remittance processing, transferring services, among others). Integrated			
31	data will be leveraged for:			

1	1) Operational and monitoring purposes in the form of self-service reports and				
2	dashboards;				
3	2) Exploratory and discovery purposes to gain insights from the data, identify				
4	patterns and develop models for future operationalization; and				
5	3) Operationalization (actionable) implementation of models with transactional				
6	systems.				
7	The project will continue to develop and enforce its Data Governance and Data Analytics				
8	lifecycle frameworks (processes) to develop data analytics capabilities at SoCalGas.				
9	The specific details regarding the ICDA Project cost can be found in Mr. Olmsted's				
10	capital workpapers (Ex. SCG-26-CWP, WP 00784H – 81470 Integrated Customer Data &				
11	Analytics).				
12	10. FOF – Integrated Customer Data & Analytics (ICDA) Phase 3				
13	The forecast for FOF – ICDA Phase 3 for 2017, 2018, and 2019 are \$1,545,000,				
14	\$534,000 and \$0, respectively.				
15	The objective of this project is to continue the enhancement of the ICDA with three key				
16	data analytics themes:				
17	1. Customer Consumption Profiles – identify customer consumption patterns to be				
18	applied throughout multiple use cases;				
19	i. Leaking water heater				
20	ii. BBQ left on				
21	iii. Yard line leak				
22	2. Collections Bad Debt Drivers - determine factors having most influence on bad				
23	debt;				
24	i. Enables targeted strategies to reduce bad debt (reduced bad debt which				
25	benefits all rate payers).				
26	3. Propensity model for Self Service indicates the likelihood of a particular customer				
27	to respond to a targeted marketing strategy (e.g., Marketing paperless communication to area				
28	identified through propensity model).				
29	Having these analytical data attributes will enable data analysts to drill down into				
30	problem areas, identify root causes, initiate actions to mitigate problems, and measure the results				
31	of the action.				

The specific details regarding the FOF – ICDA Phase 3 Project costs can be found in Mr. Olmsted's capital workpapers (Ex. SCG-26-CWP, WP 007784C – 19110 FOF – ICDA Phase 3).

VII. CONCLUSION

Customer Services - Office Operations (CSOO) O&M and Capital project justifications were carefully developed and reviewed, and represent a projection of the level of funding necessary to support SoCalGas' customer service and safety focus for the GRC term. Certain requested increases in costs are necessary to achieve the forecasted efficiency reductions.

In summary, these forecasts reflect sound judgment to continuously support and enhance the safe and efficient operation of the SoCalGas CSOO business unit at a reasonable cost. The Commission should adopt the forecasted expenditures discussed in this testimony because they are prudent and reasonable.

This concludes my prepared direct testimony.

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VIII. WITNESS QUALIFICATIONS

My name is Michael H. Baldwin. My business address is 1801 South Atlantic Boulevard, Monterey Park, California, 91754. I was appointed to my current position of Manager of Remittance Processing and Bill Delivery in December of 2007. My primary responsibilities include the management of the strategy and policy for the overall customer bill presentment and payment processing channels for both SoCalGas and SDG&E. For customer billing, this includes bill printing and inserting as well as all electronic bill presentment channels. For payment processing, this includes mail, walk-in including branch offices and authorized payment locations, as well as all customer self-service electronic payment channels, including My Account. Prior to this position, I have held various managerial and supervisory positions in the Payment Processing and Bill Print areas of the Company as well as Mass Markets Customer Billing Manager. I also managed the California Alternate Rates for Energy program from 1995-2002. I began my career at the Southern California Gas Company as a meter reader in 1972. I have a Bachelor's of Science Degree in Business Management from Pepperdine University in Malibu, California – 1981.

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I have previously submitted testimony before the CPUC.

APPENDIX A Glossary of Terms

ACT:	Aggregated Customer Tool			
ADA:	Americans with Disabilities Act			
AHT:	Average Handle Time			
AMI:	Advanced Metering Infrastructure			
APL:	Authorized Payment Location			
BTA:	Bill Tracker Alert			
BY:	Base Year			
CARE:	California Alternate Rates for Energy			
CAT:	Core Aggregation Transportation			
C&I:	Commercial & Industrial			
CCC:	Customer Contact Center			
CCS:	Customer Contract System			
CIPP:	Certified Information Privacy Professional			
CIS:	Customer Information System			
CFCA:	Core Fixed Cost Account			
CO:	Carbon Monoxide			
COT:	Customer Operations Technology			
CPUC:	California Public Utilities Commission			
CSO:	Customer Service Order			
CSOO:	Customer Services - Office Operations			
CSF:	Customer Service - Field			
CSR:	Customer Service Representative			
EBPP:	Electronic Bill Presentment & Payment			
EDI:	Electronic Data Interchange			
EDRMA:	Energy Data Request Memorandum Account			
FACTA:	Fair and Accurate Credit Transactions Act			
FTEs:	Full Time Equivalents			
FOF:	Fueling Our Future			
GRC:	General Rate Case			
GUI:	Graphical User Interface			
HBI:	High Bill Investigations			
ICDA:	Integrated Customer Data & Analytics			
IT:	Information Technology			
IVR:	Interactive Voice Response			
LOS:	Level of Service			
LSS:	Lean Six Sigma			
MCS:	Measurement Control System			
MMCC:	Major Market Credit and Collections			
MDO:	Measurement Data Operations			
MTU:	Meter Transmission Unit			
NGV:	Natural Gas Vehicle			
O&M:	Operations and Maintenance			

OBD:	Outbound Dialer			
ORA:	Office of Ratepayer Advocates			
PSI:	Pounds per Square Inch			
RAMP:	Risk Assessment Mitigation Phase			
QA:	Quality Assurance			
QO:	Quality Observation			
SCBS:	Specialized Customer Billing System			
SDG&E:	San Diego Gas & Electric Company			
Sempra:	Sempra Energy			
SoCalGas:	Southern California Gas Company			
SoD:	Segregation of Duties			
TY:	Test Year			
VP:	Vice President			
WFM:	Work Force Management			
WFO:	Work Force Optimization			

SCG 2019 GRC Testimony Revision Log – December 2017

Exhibit	Witness	Page	Line or Table	Revision Detail
	Michael H.	0 -		
SCG-19	Baldwin	MHB-4	7	Changed "SCG-19-WP" to "SCG-19-WP-R"
	Michael H.			
SCG-19	Baldwin	MHB-13	8	Changed "SCG-19-WP" to "SCG-19-WP-R"
	Michael H.			
SCG-19	Baldwin	MHB-16	14	Changed "SCG-19-WP" to "SCG-19-WP-R"
	Michael H.			
SCG-19	Baldwin	MHB-17	7	Changed "SCG-19-WP" to "SCG-19-WP-R"
	Michael H.			
SCG-19	Baldwin	MHB-21	18	Changed "SCG-19-WP" to "SCG-19-WP-R"
	Michael H.			
SCG-19	Baldwin	MHB-28	17	Changed "SCG-19-WP" to "SCG-19-WP-R"
	Michael H.			
SCG-19	Baldwin	MHB-32	31	Changed "SCG-19-WP" to "SCG-19-WP-R"
	Michael H.			
SCG-19	Baldwin	MHB-33	21	Changed "SCG-19-WP" to "SCG-19-WP-R"
	Michael H.			
SCG-19	Baldwin	MHB-35	7	Changed "SCG-19-WP" to "SCG-19-WP-R"
	Michael H.			
SCG-19	Baldwin	MHB-37	20	Changed "SCG-19-WP" to "SCG-19-WP-R"
666.46	Michael H.		24	
SCG-19	Baldwin	MHB-38	21	Changed "SCG-19-WP" to "SCG-19-WP-K"
566 10	IVIIChael H.		21	
SCG-19	Baldwin	IVIHB-39	21	Changed SCG-19-WP to SCG-19-WP-R
SCC 10	Nichael H.		25	Changed "SCC 10 MP" to "SCC 10 MP P"
300-19			25	Changed SCG-19-WP to SCG-19-WP-K
SCG-19	Baldwin	МНВ_/11	17	Changed "SCG-19-WP" to "SCG-19-WP-P"
300-13	Michael H	WITD-41	1/	
SCG-19	Baldwin	MHR-43	3	Changed "SCG-19-WP" to "SCG-19-WP-R"
300 13	Michael H		5	
SCG-19	Baldwin	MHB-50	2	Changed "SCG-19" to "SCG-19-WP-R"
000 15	Michael H.			
SCG-19	Baldwin	MHB-51	19	Changed "SCG-19-WP" to "SCG-19-WP-R"
	Michael H.			0
SCG-19	Baldwin	MHB-52	9	Changed "SCG-19-WP" to "SCG-19-WP-R"
	Michael H.			
SCG-19	Baldwin	MHB-53	8	Changed "SCG-19-WP" to "SCG-19-WP-R"