

Application of SAN DIEGO GAS & ELECTRIC)
COMPANY for authority to update its gas and)
electric revenue requirement and base rates)
effective January 1, 2019 (U 902-M))

Application No. 17-10-____

Exhibit No.: (SDG&E-23-WP)

WORKPAPERS TO
PREPARED DIRECT TESTIMONY
OF NANCY C. CLANCY
ON BEHALF OF SAN DIEGO GAS & ELECTRIC COMPANY

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

OCTOBER 2017



**2019 General Rate Case - APP
INDEX OF WORKPAPERS**

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Overall Summary For Exhibit No. SDG&E-23-WP

Area:	ENVIRONMENTAL
Witness:	Nancy C. Clancy

Description	In 2016 \$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2016	2017	2018	2019
Non-Shared Services	5,825	5,442	4,903	4,851
Shared Services	2,512	1,918	2,017	2,107
Total	8,337	7,360	6,920	6,958

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ENVIRONMENTAL
Witness: Nancy C. Clancy

Summary of Non-Shared Services Workpapers:

Description	In 2016 \$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2016	2017	2018	2019
A. Environmental Services	5,021	4,607	4,068	4,016
B. New Environmental Reg Balancing Acct (NERBA)	287	303	303	303
C. New Environmental Reg Balancing Acct (NERBA)	517	532	532	532
Total	5,825	5,442	4,903	4,851

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ENVIRONMENTAL
Witness: Nancy C. Clancy
Category: A. Environmental Services
Workpaper: 1EV000.000

Summary for Category: A. Environmental Services

	In 2016\$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2016	2017	2018	2019
Labor	2,573	2,511	2,475	2,475
Non-Labor	2,448	2,096	1,593	1,541
NSE	0	0	0	0
Total	5,021	4,607	4,068	4,016
FTE	28.1	27.4	27.6	27.5

Workpapers belonging to this Category:

1EV000.000 ENVIRONMENTAL SDGE NSS Cost Center

Labor	2,573	2,511	2,475	2,475
Non-Labor	2,448	2,096	1,593	1,541
NSE	0	0	0	0
Total	5,021	4,607	4,068	4,016
FTE	28.1	27.4	27.6	27.5

Note: Totals may include rounding differences.

Beginning of Workpaper
1EV000.000 - ENVIRONMENTAL SDGE NSS Cost Center

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: A. Environmental Services
 Category-Sub: 1. Environmental Services
 Workpaper: 1EV000.000 - ENVIRONMENTAL SDGE NSS Cost Center

Activity Description:

The Environmental Programs group includes subject matter experts in air and water quality, biological resources, cultural resources, land planning, field operations, hazardous materials and waste management. The group supports ongoing environmental compliance, including obtaining environmental permits and approvals, developing environmental plans and conducting specialized environmental training. The group also screens proposed facility, field and real property projects and transactions that have the potential for environmental impacts. This environmental screening involves a thorough review and analysis of potential environmental impacts, permits and compliance requirements for all environmental disciplines, as appropriate for the project scope. The group also assumes the responsibility for the development and management of environmental training and compliance procedures.

Forecast Explanations:

Labor - Base YR Rec

A base year forecast methodology plus incremental upward pressures or minus incremental downward pressures was used to determine cost requirements for the forecast years. This method is most appropriate because it identifies specific environmental regulatory changes and their related costs impacting the company during the GRC period. The specific cost drivers are best applied to a conservative base year level and would not be captured in a traditional averaging or trending forecast methodology.

Non-Labor - Base YR Rec

A base year forecast methodology plus incremental upward pressures or minus incremental downward pressures was used to determine cost requirements for the forecast years. This method is most appropriate because it identifies specific environmental regulatory changes and their related costs impacting the company during the GRC period. The specific cost drivers are best applied to a conservative base year level and would not be captured in a traditional averaging or trending forecast methodology.

NSE - Base YR Rec

The were no NSE adjustments for this workpaper group.

Summary of Results:

		In 2016\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2012	2013	2014	2015	2016	2017	2018	2019	
Labor		3,069	3,060	3,013	2,852	2,573	2,511	2,475	2,475	
Non-Labor		2,372	2,309	2,592	2,488	2,448	2,095	1,592	1,540	
NSE		0	0	0	0	0	0	0	0	
Total		5,442	5,369	5,605	5,340	5,021	4,606	4,067	4,015	
FTE		34.1	33.7	33.2	31.4	28.1	27.4	27.6	27.5	

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ENVIRONMENTAL
Witness: Nancy C. Clancy
Category: A. Environmental Services
Category-Sub: 1. Environmental Services
Workpaper: 1EV000.000 - ENVIRONMENTAL SDGE NSS Cost Center

Summary of Adjustments to Forecast:

In 2016 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2017	2018	2019	2017	2018	2019	2017	2018	2019
Labor	Base YR Rec	2,573	2,573	2,573	-62	-98	-98	2,511	2,475	2,475
Non-Labor	Base YR Rec	2,448	2,448	2,448	-352	-855	-907	2,096	1,593	1,541
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
Total		5,021	5,021	5,021	-414	-953	-1,005	4,607	4,068	4,016
FTE	Base YR Rec	28.1	28.1	28.1	-0.7	-0.5	-0.6	27.4	27.6	27.5

Forecast Adjustment Details:

Year	Adj Group	Labor	NLbr	NSE	Total	FTE	Adj Type	RefID	
2017	Other	0	27	0	27	0.0	1-Sided Adj	CSTRIEBE20161129132231880	
Explanation:		Consulting Fees within the Environmental Programs.							
2017	Other	0	12	0	12	0.0	1-Sided Adj	CSTRIEBE20161129132311887	
Explanation:		Adjustment for increased costs for the natural gas discharge permit costs that were not incurred in the base year within the Environmental Programs section.							
2017	Other	0	-60	0	-60	0.0	1-Sided Adj	CSTRIEBE20161129132348393	
Explanation:		Adjustment to reduce non recurring costs that were incurred in the base year for Greenhouse Gas software development.							
2017	Other	0	14	0	14	0.0	1-Sided Adj	CSTRIEBE20161129132446667	
Explanation:		Computer and telecom expenses for new personnel to be added within the Environmental Programs department.							
2017	Other	0	3	0	3	0.0	1-Sided Adj	CSTRIEBE20161129132520410	
Explanation:		Membership and dues expense not incurred within the base year within the Environmental Programs section.							
2017	Other	-100	0	0	-100	-1.0	1-Sided Adj	CSTRIEBE20161129132802160	
Explanation:		Labor savings from an unfilled vacancy due to a retirement in the water resources section. Position is not expected to be backfilled.							
2017	Other	35	0	0	35	0.4	1-Sided Adj	CSTRIEBE20161129133521263	
Explanation:		Labor expenses related to the addition of two FTE s in the Cultural Resources section that charge approximately 80% to capital projects and 20% to O&M projects. We are requesting funding to cover the estimated O&M component to labor charging only.							

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: A. Environmental Services
 Category-Sub: 1. Environmental Services
 Workpaper: 1EV000.000 - ENVIRONMENTAL SDGE NSS Cost Center

<u>Year</u>	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj_Type</u>	<u>RefID</u>
2017	Other	-15	0	0	-15	-0.1	1-Sided Adj	CSTRIEBE20161129144000570
Explanation:		Adjustment for labor savings associated with the unfilled vacancy from the retirement of an employee in the mitigation management department. Labor was charged 85% to capital and 15% to O&M.						
2017	Other	15	0	0	15	0.1	1-Sided Adj	CSTRIEBE20161129145315780
Explanation:		Labor annualization for mid-year hire during the base year within the Cultural Resources section. Labor is charged 80% to capital projects and 20% to O&M projects.						
2017	Other	62	0	0	62	0.7	1-Sided Adj	CSTRIEBE20161129145815987
Explanation:		Labor annualization for employee returning from leave in the Hazardous Materials Operations section. The base year costs incurred do not reflect full year labor costs for one employee.						
2017	Other	0	20	0	20	0.0	1-Sided Adj	CSTRIEBE20161205130522497
Explanation:		Adjustment for site mitigation costs incremental to base year expense.						
2017	Other	0	25	0	25	0.0	1-Sided Adj	CSTRIEBE20161205130752610
Explanation:		Annual fees related to a continuous emissions management system ("CEMS") reporting contract \$23k and other miscellaneous non labor expenses \$2k in the Field Operations department.						
2017	Other	32	0	0	32	0.5	1-Sided Adj	CSTRIEBE20161205131347917
Explanation:		Adjustment for increased costs due to the labor annualization related to the mid year transfer of an employee from the Environmental Communications section. Downward cost adjustment for same amount included in workpaper group 2100-3282.000.						
2017	FOF-Ongoing	-22	0	0	-22	-0.3	1-Sided Adj	CSTRIEBE20161205132007763
Explanation:		On going savings related to Fueling Our Future initiatives for the automating the tracking of site inspections and establishing priorities between the Safety Department and the Environmental Field Operations section.						
2017	Other	0	29	0	29	0.0	1-Sided Adj	CSTRIEBE20170306083951320
Explanation:		Adjustment for increased costs for the Greenhouse Gas Software annual use license fee that were not incurred in the base year. The System is utilized by the Environmental Programs group.						
2017	FOF-Ongoing	0	-399	0	-399	0.0	1-Sided Adj	CSTRIEBE20170306140311417
Explanation:		Estimated ongoing savings related to Fueling Our Future initiatives within the Hazardous Waste Operations section.						
2017	FOF-Ongoing	-69	-146	0	-215	-1.0	1-Sided Adj	CSTRIEBE20170306143141983
Explanation:		Ongoing estimated savings related to Fueling Our Future initiatives within the Environmental Programs section.						

Note: Totals may include rounding differences.

SDG&E/ENVIRONMENTAL/Exh No:SDG&E-23-WP/Witness: N. Clancy

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: A. Environmental Services
 Category-Sub: 1. Environmental Services
 Workpaper: 1EV000.000 - ENVIRONMENTAL SDGE NSS Cost Center

<u>Year</u>	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>	<u>RefID</u>
2017	FOF-Implementation	0	18	0	18	0.0	1-Sided Adj	CSTRIEBE20170310082524457
Explanation:		One time Fueling Our Future expenses related to implementation of Hazardous Waste Operations initiative implementing filter socks.						
2017	FOF-Implementation	0	105	0	105	0.0	1-Sided Adj	CSTRIEBE20170310082821020
Explanation:		Fueling Our Future one time implementation costs for outsourcing the creation of training modules.						
2017 Total		-62	-352	0	-414	-0.7		
2018	Other	-100	0	0	-100	-1.0	1-Sided Adj	CSTRIEBE20170306084823683
Explanation:		Labor savings due to unfilled vacancy in the water resources section related to retirement. Position not expected to be backfilled.						
2018	Other	0	55	0	55	0.0	1-Sided Adj	CSTRIEBE20170209112323263
Explanation:		Consulting fees not incurred within the base year for projects in Environmental Programs section.						
2018	Other	15	0	0	15	0.2	1-Sided Adj	CSTRIEBE20170306085146840
Explanation:		Labor annualization related to a mid-year hire of Cultural Resources specialist during the base year. Labor is charged 80% to capital and 20% to O&M.						
2018	Other	35	0	0	35	0.4	1-Sided Adj	CSTRIEBE20170306085314333
Explanation:		Labor expenses associated with the addition of 2 FTEs in the Cultural Resources section in 2017. Labor is charged 80% to capital and 20% to O&M.						
2018	FOF-Implementation	0	30	0	30	0.0	1-Sided Adj	CSTRIEBE20170613091840903
Explanation:		One time implementation costs associated with Fueling Our Future initiatives in Hazardous Materials Operations utilizing trailer generator with expanded filter sock set-up for faster water evacuation.						
2018	Other	0	29	0	29	0.0	1-Sided Adj	CSTRIEBE20170306090645053
Explanation:		Annual user license fee for Green House Gas software needed in the Environmental Programs section, This is an incremental non labor charge not included in the base year costs.						
2018	Other	0	3	0	3	0.0	1-Sided Adj	CSTRIEBE20170306090812867
Explanation:		Annual membership fees for APLIC needed in the Environmental Programs section.						
2018	Other	0	20	0	20	0.0	1-Sided Adj	CSTRIEBE20170306091604917
Explanation:		Adjustment for site mitigation costs incremental to base year expense.						

Note: Totals may include rounding differences.

SDG&E/ENVIRONMENTAL/Exh No:SDG&E-23-WP/Witness: N. Clancy

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ENVIRONMENTAL
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 Category: A. Environmental Services
 Category-Sub: 1. Environmental Services
 Workpaper: 1EV000.000 - ENVIRONMENTAL SDGE NSS Cost Center

<u>Year</u>	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>	<u>RefID</u>
2018	Other	62	0	0	62	0.7	1-Sided Adj	CSTRIEBE20170306091726637
Explanation:		Labor annualization for employee returning from leave within the Hazardous Materials Operations section. The base year costs do not include a full year of labor expense for this position. Labor is charged 50% to capital and 50% to O&M.						
2018	Other	-15	0	0	-15	-0.1	1-Sided Adj	CSTRIEBE20170306092117420
Explanation:		Labor savings related to an unfilled vacancy from retirement of position in the Environmental Mitigation department. Labor was charged 85% to Capital and 15% to O&M.						
2018	Other	0	25	0	25	0.0	1-Sided Adj	CSTRIEBE20170306092238900
Explanation:		Annual fees related to the Continuous Emissions Management System ("CEMS") reporting contract \$23k and other miscellaneous non labor expenses in the amount of \$2k.						
2018	Other	32	0	0	32	0.5	1-Sided Adj	CSTRIEBE20170306092422580
Explanation:		Labor annualization related to the midyear transfer of an employee from the Communications Strategy department.						
2018	FOF-Ongoing	-34	0	0	-34	-0.2	1-Sided Adj	CSTRIEBE20170306092721260
Explanation:		Ongoing Fueling Our Future savings from automated site tracking enhancements and establishing priorities between Field Safety Advisors and Field Environmental Reps.						
2018	Other	0	12	0	12	0.0	1-Sided Adj	CSTRIEBE20170306101237277
Explanation:		Natural gas discharge permit costs not incurred in the base year for the Environmental Programs section.						
2018	FOF-Ongoing	0	-809	0	-809	0.0	1-Sided Adj	CSTRIEBE20170306140344320
Explanation:		Ongoing estimated savings related to Fueling Our Future initiatives within the Hazardous Waste Operations section.						
2018	FOF-Ongoing	-93	-174	0	-267	-1.0	1-Sided Adj	CSTRIEBE20170306143220773
Explanation:		Fueling Our Future cost savings initiatives within the Environmental Programs section.						
2018	Other	0	-60	0	-60	0.0	1-Sided Adj	CSTRIEBE20170308091547553
Explanation:		Adjustment to base year costs related to non recurring Greenhouse Gas fees in the Environmental Programs section.						
2018	Other	0	14	0	14	0.0	1-Sided Adj	CSTRIEBE20170308091930410
Explanation:		Computer and telecom expenses for new employees added within the Environmental Programs section in 2017						

Note: Totals may include rounding differences.

SDG&E/ENVIRONMENTAL/Exh No:SDG&E-23-WP/Witness: N. Clancy

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: A. Environmental Services
 Category-Sub: 1. Environmental Services
 Workpaper: 1EV000.000 - ENVIRONMENTAL SDGE NSS Cost Center

<u>Year</u>	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj_Type</u>	<u>RefID</u>
2018 Total		-98	-855	0	-953	-0.5		
2019 Other		-100	0	0	-100	-1.0	1-Sided Adj	CSTRIEBE20170306090506823
Explanation:	Labor savings due to an unfilled vacancy in the Water Resources section due to retirement. Position not expected to be backfilled.							
2019 Other		0	29	0	29	0.0	1-Sided Adj	CSTRIEBE20170306090721990
Explanation:	Incremental costs not incurred within the base year for the annual user license fee for Greenhouse Gas software needed in the Environmental Programs section.							
2019 Other		0	3	0	3	0.0	1-Sided Adj	CSTRIEBE20170306090857160
Explanation:	Incremental costs not incurred in the base year related to annual membership fees for APLIC.							
2019 Other		0	12	0	12	0.0	1-Sided Adj	CSTRIEBE20170306091113250
Explanation:	Natural gas discharge permit costs not incurred in the base year for the Environmental Programs section.							
2019 Other		15	0	0	15	0.1	1-Sided Adj	CSTRIEBE20170306091254447
Explanation:	Labor annualization for mid-year hire in the Cultural Resources department within the base year. Labor is charged 80% to capital projects and 20% to O&M projects.							
2019 Other		35	0	0	35	0.4	1-Sided Adj	CSTRIEBE20170306091356697
Explanation:	Labor costs related to the addition of 2 FTEs during 2017 within the Natural Resources Department. Labor charges are split approximately 80% capital and 20% O&M.							
2019 Other		0	20	0	20	0.0	1-Sided Adj	CSTRIEBE20170306091636823
Explanation:	Adjustment for site mitigation costs incremental to base year expense.							
2019 Other		62	0	0	62	0.7	1-Sided Adj	CSTRIEBE20170306091931200
Explanation:	Labor annualization for employee returning from leave in the Hazardous Materials Operations section. Adjustment needed because the base year do not include full year of labor expense for this position. Labor is charged 50% to capital and 50% to O&M.							
2019 Other		0	25	0	25	0.0	1-Sided Adj	CSTRIEBE20170306092301360
Explanation:	Fees related to the Continuous Emissions Reporting System (CEMS) contract \$23k in addition to miscellaneous non labor expenses of \$2k in the Field Operations section.							
2019 Other		32	0	0	32	0.5	1-Sided Adj	CSTRIEBE20170306092458033

Note: Totals may include rounding differences.

SDG&E/ENVIRONMENTAL/Exh No:SDG&E-23-WP/Witness: N. Clancy

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ENVIRONMENTAL
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 Category: A. Environmental Services
 Category-Sub: 1. Environmental Services
 Workpaper: 1EV000.000 - ENVIRONMENTAL SDGE NSS Cost Center

<u>Year</u>	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>	<u>RefID</u>
Explanation:		Labor annualization related to the mid year transfer of an employee from Environmental Communication section.						
2019	FOF-Ongoing	-34	0	0	-34	-0.2	1-Sided Adj	CSTRIEBE20170306092842440
Explanation:		Ongoing Fueling Our Future savings from automated site inspections enhancements and establishing priorities between the Safety and Environmental Services departments.						
2019	Other	-15	0	0	-15	-0.1	1-Sided Adj	CSTRIEBE20170306093034567
Explanation:		Labor savings related to an unfilled vacancy from the voluntary retirement of an employee in the mitigation management section during 2016. Labor is charged 85% Capital and 15% O&M.						
2019	Other	0	33	0	33	0.0	1-Sided Adj	CSTRIEBE20170306101007243
Explanation:		Consulting fees not included in the base year within the Environmental Programs section.						
2019	FOF-Ongoing	0	-809	0	-809	0.0	1-Sided Adj	CSTRIEBE20170306140451730
Explanation:		Fueling Our Future savings related to initiatives in the Hazardous Waste Operations section.						
2019	FOF-Ongoing	-93	-174	0	-267	-1.0	1-Sided Adj	CSTRIEBE20170306143250890
Explanation:		Fueling Our Future savings initiatives within the Environmental Programs section.						
2019	Other	0	-60	0	-60	0.0	1-Sided Adj	CSTRIEBE20170308091617323
Explanation:		Nonrecurring costs incurred in the base year for Greenhouse Gas software development.						
2019	Other	0	14	0	14	0.0	1-Sided Adj	CSTRIEBE20170308092006990
Explanation:		Incremental computer and telecom fees for new employees added in 2017 within the Environmental Programs section.						
2019 Total		-98	-907	0	-1,005	-0.6		

Note: Totals may include rounding differences.

SDG&E/ENVIRONMENTAL/Exh No:SDG&E-23-WP/Witness: N. Clancy

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ENVIRONMENTAL
Witness: Nancy C. Clancy
Category: A. Environmental Services
Category-Sub: 1. Environmental Services
Workpaper: 1EV000.000 - ENVIRONMENTAL SDGE NSS Cost Center

Determination of Adjusted-Recorded (Incurred Costs):

	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
Recorded (Nominal \$)*					
Labor	2,454	2,465	2,478	2,413	2,207
Non-Labor	2,307	2,278	2,588	2,482	2,448
NSE	0	0	0	0	0
Total	4,760	4,742	5,066	4,896	4,655
FTE	29.3	28.5	28.2	26.7	23.8
Adjustments (Nominal \$) **					
Labor	0	5	3	0	0
Non-Labor	2	0	0	0	0
NSE	0	0	0	0	0
Total	2	5	3	0	0
FTE	0.0	0.1	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	2,454	2,470	2,482	2,413	2,207
Non-Labor	2,309	2,278	2,588	2,482	2,448
NSE	0	0	0	0	0
Total	4,762	4,748	5,069	4,896	4,655
FTE	29.3	28.6	28.2	26.7	23.8
Vacation & Sick (Nominal \$)					
Labor	356	392	396	373	366
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	356	392	396	373	366
FTE	4.7	5.0	5.0	4.7	4.3
Escalation to 2016\$					
Labor	260	199	135	66	0
Non-Labor	63	32	4	6	0
NSE	0	0	0	0	0
Total	324	230	140	72	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2016\$)					
Labor	3,069	3,060	3,013	2,852	2,573
Non-Labor	2,372	2,309	2,592	2,488	2,448
NSE	0	0	0	0	0
Total	5,442	5,369	5,605	5,340	5,021
FTE	34.0	33.6	33.2	31.4	28.1

* After company-wide exclusions of Non-GRC costs

** Refer to "Detail of Adjustments to Recorded" page for line item adjustments

Note: Totals may include rounding differences.

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Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: A. Environmental Services
 Category-Sub: 1. Environmental Services
 Workpaper: 1EV000.000 - ENVIRONMENTAL SDGE NSS Cost Center

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs					
Years	2012	2013	2014	2015	2016
Labor	0	5	3	0	0
Non-Labor	2	0	0	0	0
NSE	0	0	0	0	0
Total	2	5	3	0	0
FTE	0.0	0.1	0.0	0.0	0.0

Detail of Adjustments to Recorded:

Year	Adj Group	Labor	NLbr	NSE	FTE	Adj Type	RefID
2012	Other	0	2	0	0.0	CCTR Transf From 2100-0170.000	TP2RXL20161201200100493
Explanation:		Accounting adjustment: Transfer of qualified 2012 NERBA expense (Beacon Energy Srvs - Fugitive Emissions Testing)					
2012 Total		0	2	0	0.0		
2013	Other	5	0	0	0.1	CCTR Transf From 2100-0170.000	TP2RXL20161129175659030
Explanation:		Accounting adjustment: Transfer of NERBA expense					
2013 Total		5	0	0	0.1		
2014	Other	3	0	0	0.0	CCTR Transf From 2100-0170.000	TP2RXL20161129175848080
Explanation:		Accounting adjustment: Transfer of NERBA expense					
2014 Total		3	0	0	0.0		
2015 Total		0	0	0	0.0		
2016 Total		0	0	0	0.0		

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper 1EV000.000

Supplemental Workpapers for Workpaper 1EV000.000

Supplemental Workpaper: Environmental Field Operations Reporting System [1EV000.001]

Environmental Field Operations Reporting System Costs

SDG&E has three electric generation sites: Palomar Energy Center, Miramar Energy Center, and Cuyamaca Peak Energy Plant. These sites are required to monitor stack emissions at all times while operating and to report its emissions data quarterly to the EPA. The emissions data must be quality assured and certified to be accepted by the EPA. It is the responsibility of the owner/operator to ensure quality assurance and certification of the emissions data and to report it to the EPA on time.

At one time these electric generation sites had different emissions monitoring software systems due to different builders, contractors, consultants, Project Managers, etc. In order to streamline the management of its emissions monitoring software, SDG&E has replaced the different emissions monitoring software with the same emissions monitoring software by the CiSCO CEMS company. The CiSCO CEMS software and installation was paid for by the Electric Generation Department.

SDG&E is now requesting a reporting services contract with the CiSCO CEMS company to quality assure and certify its emissions data. Using the software developer to perform this function is faster and cheaper than hiring other contractors or consultants or trying to do this function in-house. This reporting service will be paid for by the Environment Services Department, specifically the Environmental Field Operations group who provides environmental compliance support to the Electric Generation Department.

Please see the attached cost estimate for this service.

**CUSTOM INSTRUMENTATION
SERVICES CORPORATION**



August 24, 2016

Frederick Waller
San Diego Gas & Electric Company

Re: Proposal #0501

Hello Fred,

The following is a quote for our ECMPs Reporting Services for the following generation facilities:

1. Palomar Energy Center
2. Miramar Energy Center
3. Cuyamaca Peak Energy Plant

ECMPs Reporting Services: 2016 Q3 – 2018 Q2 (Two year service agreement)

Custom Instrumentation Services Corporation (CiSCO) is pleased to provide a quote for covering the cost of our ECMPs Reporting Services for running the EDRs for the three generation facilities above for the eight quarters, 16Q3 – 18Q2. The cost of this service will be \$2,000 per quarter (Cuyamaca is \$1,250 per quarter) to run the EDR's and maintain the data on the DAHS computer. There is an additional charge of \$500 per unit once per year to enter the RATA data into the software and make the additional files necessary to obtain a successful EDR submittal. It is the site's responsibility to send a copy of the RATA result to the CiSCO offices in Denver so that we can retrieve this RATA information. **The total price for the ECMPs Reporting Service Contract for all eight quarters is \$47,000.** These charges include all five units and are invoiced quarterly once a successful EDR is obtained with appropriate feedback from the EPA. SDG&E does not supply CiSCO with remote access to the CEMS computers, therefore it is SDG&E's responsibility to perform the quarterly data retrieval from each site (Extracting Quarterly Data routine) and email it to CiSCO. CiSCO will prepare/run the EDRs and then will email the completed EDRs to SDG&E. SDG&E will submit the final EDRs to EPA. We will also maintain your history files and successful EDRs here at CiSCO. Lastly, we will work with your site and with the EDR submittal process until the EDR is successfully submitted and accepted.

Best Regards,

Michael Dolan
Director of Software Engineering
(303) 790-7827 ext 112
(303) 790-7292 (FAX)
mdolan@ciscocems.com

Supplemental Workpaper: Cultural Resources FTE [1EV000.002]

Cultural Resources FTEs

The San Diego region is a “hotspot” for biodiversity and threatened and endangered species management. The region has more types of rare, threatened, and endangered species than any comparable land area in the continental United States¹. To help protect California’s precious resources and support compliance, SDG&E conducts natural and cultural resource environmental reviews of its construction, operations and maintenance activities and projects that have the potential to disturb soil and may result in an environmental impact. This review process involves multiple environmental disciplines, tracks and documents permitting requirements and compliance issues.

Cultural resources are evaluated during the environmental review process to determine the remains or traces left by prehistoric or historic peoples who have inhabited the San Diego region. According to San Diego County Guidelines archaeological evidence reveals that San Diego County has a long cultural history and cultural resources are found throughout the County. Criteria used to conduct cultural resource reviews are based on the California Environmental Quality Act (CEQA), and the federal, state, and local Registers of Historical Resources.

Early involvement in the planning and design phases helps to identify cultural and natural resource areas allows SDG&E to modify project designs prior to starting work activities. These modifications provide major benefits for the environment.

The two additional FTE’s would assist the SDG&E District Operations and Construction personnel in designing jobs, conduct resource surveys and construction monitoring as opposed to sending this work out to consultants. [each FTE is 20% O&M; 80% Capital].

¹USDA Forest Service, San Diego Association of Governments Region, Tech Rep. PSW-GTR-187. 2003

Supplemental Workpaper: Greenhouse Gas (GHG) Reporting [1EV000.003]

Greenhouse Gas (GHG) Reporting

In 2016 SDG&E and SoCalGas worked with a consultant, Locus Technologies to develop a Greenhouse Gas (GHG) management and reporting software system to enable more timely collection and calculation of operational data and reporting of GHG emissions. This new centralized system is being implemented in 2017. The system streamlines the data collection and the reporting process for the operational business units, ensures precise, accurate and comprehensive reporting to Federal/State and local agencies. SDG&E needs consultant support to compile and review GHG reports at peak times. In addition, SDG&E pays annual licensing costs for the management and reporting system which is estimated to be \$29,000.00 per year in 2017-2019. Cost estimate is based on the 2016 licensing invoice attached.

Mandatory Reporting: SDG&E reporting of its GHG inventory is provided to the following:

- Federal mandatory GHG reporting in accordance with EPA's GHG Mandatory Reporting Rule.
- State mandatory GHG reporting for the CARB regulation for mandatory reporting of GHG.
- CARB regulation for reducing SF6 and the CARB Refrigerant Management Program.

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Client Name: **Sempra**
Project Number: 29-174-15

Page: 2 of 2
Invoice #: 982372
Date: December 8, 2016

Task 4000 - Licensing

Detail of Software Subscription Fees

Description	QTY	Rate	Amount
Licensing			29,500.00
Total Software Subscription Fees			29,500.00
Total Task - Licensing			29,500.00

Supplemental Workpaper: Consulting Fees [1EV000.004]

GRC Consultant Estimates	2017	2018	2019
SDG&E ENVIRONMENTAL PROGRAMS	Consultant est.	Consultant est.	Consultant est.
Health Risk Assessment			
3 facilities (\$15k for each facility)	\$15,000	\$15,000	\$15,000
contingencies (\$5k per facility)	\$5,000	\$5,000	\$5,000
Construction General Permit Renewal		\$21,200	
Vault Dewatering Permit	\$6,940	\$13,380	\$13,380
Special Studies			
TOTAL	\$26,940	\$54,580	\$33,380

Health Risk Assessments (HRAs)

In March 2015, the Office of Environmental Health Hazard Assessment (OEHHA) finalized updates to the Air Toxics “Hot Spots” (AB2588) Program Guidance Manual for Preparation of Health Risk Assessments. These changes consider the varying breathing rates of different age groups and update/increase the risk values for various air toxic pollutants. The combined effects of these updates will, in most cases, result in a higher estimated risk. The San Diego Air Pollution Control District (APCD) incorporated the new OEHHA guidance into its “Hot Spots” reporting program. None of SDGE’s sites are currently categorized as high risk facilities. However, with new (more stringent) pollutant risk factors and procedures released by OEHHA there is a possibility that some of SDGE’s facilities may be required to conduct a Health Risk Assessments (HRAs).

APCD staff indicated that they will be conducting a prioritization of the Miramar Energy Facility, Palomar Energy Center, and Cuyamaca Peaker based on their latest annual toxic emissions inventory reports and they will notify SDG&E know if a HRA will be triggered for these sites in 2017. An HRA requires extensive air dispersion modelling and plotting of risk isopleths and identification of the maximum exposed individual values and other identifiers. If

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the maximum cancer risk exceeds 10-in-one-million, the facility must notify the public. Higher risk values (e.g. 50-in-a-million) may also trigger risk reduction plans and possible installation of additional toxic controls.

SDG&E needs consultant support to prepare HRA reports, reduction plans and possible installation of additional toxic controls. The work is scheduled for Miramar in 2017-2018 and the work for Palomar and Cuyamaca is scheduled for 2018-2019. Consultant cost estimate is attached.

Total Expected Costs per Year

SDG&E Facility	2017	2018	2019
Miramar Energy Center	\$15,000	\$5,000	
Palomar Energy Center		\$15,000	\$5,000
Cuyamaca Peaker		\$15,000	\$5,000

Consultant Cost Estimate - HRA

From: James Westbrook | BlueScape [<mailto:jwestbrook@bluescapeinc.com>]

Sent: Tuesday, May 16, 2017 10:26 AM

To: Navrozali, Hashim <HNavrozali@semprautilities.com>

Subject: [EXTERNAL] Re: Health Risk Assessment - Cost Estimates

Hi Hashim,

As requested, here is a high-level cost estimate for SDAPCD AB2588 health risk assessment (HRA) efforts at SDG&E's three facilities: Miramar Energy Facility, Cuyamaca Peaking Energy Plant, and Palomar Energy Center. BlueScape expects the project to break down into three (3) primary tasks:

- Task 1 - AB2588 HRA Modeling
- Task 2 - AB2588 Report Generation
- Task 3 - Response to SDAPCD and ARB comments, and Report Updates

For an initial cost estimate, BlueScape assumes the following:

- Prioritization scoring will be performed by the SDAPCD, and it is assumed that the 3 facilities will require update AB2588 HRA's. It is also assumed air toxics emissions data will be final prior to proceeding with the HRA.
- This initial cost estimate assumes the project will require generation of new modeling files, though BlueScape understands previous older modeling work may be available to streamline these efforts.
- A brief protocol will be written for each facility for APCD acceptance, and meetings held with APCD for concurrence on approach.
- Some emissions and modeling refinements may be required and included in the work efforts.
- Much of the work involved is putting the required report tables and figures together, and compiling AERMOD and HARP2 files for agency review.
- This estimate does not include actions such as public notice or risk reduction, we assume that this work will not be required for gas-fired power plants.

The HRA process is often difficult to predict, thus, this is an initial high-level cost estimate subject to change with more information.

The individual facility cost would range from about \$10,000 for a smaller plant with fewer receptors close by to around \$15,000 for a larger plant such as Palomar. Assume total cost for all three performed at same time at around **\$45,000**. Plus you should add about \$5,000 contingency per facility average for agency comments and revisions, at least **another \$15,000**.

Please let me know if there are any questions. BlueScape appreciates the opportunity to support SDG&E.

Thank you,
James



JAMES WESTBROOK | PRESIDENT & CEO

BlueScape Environmental

Office 877 486 9257 x101 Fax 858 461 0323 Mobile 858 774 2009 Email jwestbrook@bluescapeinc.com
Los Angeles | San Diego | San Francisco

**Supplemental Workpaper: Construction Stormwater General Permit-5 year Renewal
[1EV000.005]**

Construction Stormwater General Permit (CGP) – 5 Year Renewal

On September 2, 2009, the California State Water Resources Control Board (SWRCB) adopted the new Construction Storm Water General Permit Order 2009-0009-DWQ (General Construction Permit - CGP). The CGP is a National Pollutant Discharge Elimination System (NPDES) permit pursuant to the Clean Water Act that regulates discharges from any construction or demolition activity, including, but not limited to, clearing, grading, grubbing, or excavation, or any other activity that results in a land disturbance of equal to or greater than one acre. The CGP also covers construction activity associated with Linear Underground/Overhead Projects (LUPs) including, but not limited to, those activities necessary for the installation of underground and overhead linear facilities (e.g., conduits, substructures, pipelines, towers, poles, cables, wires, connectors, switching, regulating and transforming equipment and associated ancillary facilities). The SWRCB will consider renewing the Permit for another 5 years in early 2018. It is anticipated that a draft renewal Permit will be issued for public review in late 2017. Potential changes to the Permit include insertion of requirements applicable to Toxic Maximum Daily Load (TMDL) for discharges to impaired water bodies and streamlining of monitoring and sampling requirements for LUP projects (using a programmatic/basin-wide approach). Consultant assistance may be needed to reconfigure existing SWPPP templates and reporting forms (to reflect the new Permit) and provide training to field staff on new procedures and monitoring requirement dictated by the Permit. A Consultant cost estimate is shown below.

Consultant Cost Estimate - CGP

From: Gerard Ellison [<mailto:GEllison@Geosyntec.com>]
Sent: Friday, May 12, 2017 3:44 PM
To: Phan, Andrew <APhan@semprautilities.com>
Cc: Curulla, Tania <tcurulla@geosyntec.com>; Greene, Alex - GEOSYNTEC <agreene@geosyntec.com>; Navrozali, Hashim <HNavrozali@semprautilities.com>
Subject: [EXTERNAL] RE: SWPPP templates for new CGP

Good afternoon Andrew,

Per your request we have prepared a cost estimate to provide a review of SDG&E SWPPP templates and potential updates to the CGP in 2018 as well as personnel training covering those topics. A review of CGP updates will not be possible until the document is released by the Water Board in 2018, however please let us know if you have any questions and we will begin review of the SWPPP templates with your authorization and notice to proceed. Thank you again for this opportunity.

-Gerard

Gerard A. Ellison, QSD/P, CPSWQ
Professional Scientist
Geosyntec Consultants, Inc.

New address as of May 15th
2355 Northside Dr., Suite #250
San Diego, CA 92108

3990 Old Town Avenue, Suite A-101
San Diego, CA 92110
Mobile: 760.807.7659



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Attachment to 5/12/17 email: "Cost Estimate – 2018 CGP Updates Training (005)"

SDG&E Project Name:

CGP 2018 Updates and Training

Work Lot	Work Lot Description	Unit	Unit Cost	# of Units	Cost
WL 8.4.c.1	On-Site Activities - QSD - Hourly	Per Hour	\$130	40	\$5,200
WL 8.4.c.2	Daily On-Site Activities - QSD - Full Day (over 6 hours)	Per Hour	\$1,100	4	\$4,400
WL 8.5.a.1	Preapproved Hourly Office Activities - Administrative	Per Hour	\$50	8	\$400
WL 8.5.a.5	Preapproved Hourly Office Activities - QSD	Per Hour	\$120	80	\$9,600
8.15	Program Management/Project Management	Per Hour	\$140	8	\$1,120
	Other Direct Costs - Misc reproduction expenses	Actual Cost	\$500	1	\$500

Total Estimated Costs:

\$21,220

Notes:

Assumptions

- QSD office time estimated at average of 20 hours per week for 4 weeks
- PM time estimated at 8-hours
- Admin time estimated at 10-hours
- Personnel Training Sessions estimated at 8-hours per day for two days for two QSDs
- Additional time required in excess of these stated assumptions will be performed on a time and materials basis in accordance with the authorized work lot categories provided in this estimate.

Supplemental Workpaper: Natural Gas Pipeline Discharge Permit [1EV000.006]

Natural Gas Pipeline Discharge Permit

Natural gas pipeline operations and maintenance (O&M) and construction activities require trenching and excavation to uncover existing buried pipelines and/or installation of new pipelines. In some cases, when trenching and excavation occurs, groundwater is encountered and must be removed to complete these activities. Further, required hydrostatic pressure tests of new or existing pipelines generates wastewater, for which we would generally need a permit to discharge it to surface waters. Similar activities and similar permitting is required of all major gas pipeline operators in the state of California.

To facilitate permitting for these activities and other pipeline activities, and to obtain uniform permit requirements throughout the state, SDG&E, in partnership with Southern California Gas Company (SoCalGas) and Pacific Gas and Electric Company, requested a programmatic permit from the SWRCB. This programmatic permit is focused only on wastewater discharges from natural gas facility activities and would serve as both a permit for waste water discharges to land and as an NPDES permit for discharges to surface waters. The Final Permit is expected to be issued by the SWRCB in Summer of 2017.

The cost estimate for the annual permit fee was based on Section B.3 of the draft Permit which states that:

"Application Fee. A fee payable to the State Water Board for enrollment under this General Order for a minor discharge, based on Category 1 in section 2200(b)(9) of title 23, California Code of Regulations, available at

http://www.waterboards.ca.gov/resources/fees/water_quality/#npdes.

The initial fee will serve as the application fee, and each subsequent annual fee will apply to all discharges covered by this General Order during the corresponding year."

The NPDES fees schedule (corresponding to Category 1 in Section 2200(b)(9) of Title 23 of the CCR) is \$11,877 (we rounded it up to \$12,000 for the GRC estimate). See the last page of Section 2200. Annual Fee Schedules.

CALIFORNIA CODE OF REGULATIONS
TITLE 23. Division 3. Chapter 9. Waste Discharge Reports and Requirements
Article 1. Fees

Section 2200. Annual Fee Schedules.

Each person for whom waste discharge requirements have been prescribed pursuant to Section 13263 of the Water Code shall submit, to the state board, an annual fee in accordance with the following schedules. The fee shall be submitted for each waste discharge requirement order issued to that person.¹

(a) The annual fees for persons issued waste discharge requirements (WDRs), except as provided in subdivisions (a)(3), (a)(4), (b), and (c), shall be based on the discharge's threat to water quality (TTWQ) and complexity (CPLX) rating according to the following fee schedule, plus applicable surcharge(s).

(b) The annual fees for persons issued NPDES permits shall be based on the following schedules, plus any applicable surcharge(s).

(5) Discharges associated with mosquito and vector control activities¹⁸ that are regulated by an individual or general NPDES permit adopted specifically for these purposes, including those issued by a regional board, shall pay a fee of \$241. Dischargers filing an application for a mosquito and vector control permit shall pay a fee of \$241. The fee shall be paid each time an application for initial certification or renewal of certification is submitted. Mosquito and vector control fees are not subject to ambient water monitoring surcharges.

(6) Planned and emergency discharges from community water systems that are regulated by a general NPDES permit adopted specifically for this purpose shall pay an application fee and subsequent annual fees (if applicable) based on the number of service connections for the public water system in accordance with the following schedule. The application fee shall be submitted with the discharger's NOI to be regulated by the general NPDES permit. For purposes of this section, an NOI is considered to be a report of waste discharge.

Dischargers with a Single System		
Service Connections	Application Fee	Annual Fee
15 – 999	\$100	No Annual Fee
1,000 – 9,999	\$500	\$500
10,000+	\$2,062	\$2,062
Transmission System or Water Wholesaler	\$2,062	\$2,062

¹ Federal facilities will generally not be invoiced for the portion of the annual fee that is attributable to the state board's ambient water monitoring programs. See *Massachusetts v. United States* (1978) 435 U.S. 444.

¹⁸ A mosquito and vector control activity involves discharge of pesticides into a designated area for the maintenance and control of mosquito larva for the protection of public health from the outbreak of lethal diseases. A mosquito and vector control agency discharges pesticides into surface waters for the control of mosquito larva.

Dischargers with Multiple Systems		
Total Number of Service Connections	Application Fee	Annual Fee¹⁹
15 – 999	\$100	No Annual Fee
1,000 – 9,999	\$500	\$500 per Primary System fee plus \$100 per Secondary System
10,000+	\$2,062	\$2,062 per Primary System fee plus \$100 per Secondary System
Transmission System or Water Wholesaler System	\$2,062	\$2,062 per Primary System fee plus \$100 per Secondary System

(7) All other NPDES permitted discharges, except as provided in (b)(8), (b)(9), and (c), shall pay a fee according to the following formula:

Fee equals \$2,062 plus 3,646 multiplied by the permitted flow, in mgd, with a maximum fee of \$515,537 plus any applicable surcharge(s).

If there is no permitted effluent flow specified, the fee shall be based on the design flow of the facility.

NPDES permitted industrial discharges²⁰ with a threat/complexity²¹ rating of 1A, 1B, or 1C are subject to a surcharge as follows:

- Threat/Complexity Rating 1A - \$15,000
- Threat/Complexity Rating 1B - \$10,000
- Threat/Complexity Rating 1C - \$5,000

Public wastewater treatment facilities with approved pretreatment programs are subject to a surcharge of \$10,000. Agencies with multiple facilities under one approved pretreatment program shall pay a \$10,000 surcharge per program.

(8)(A) Flow for wet weather municipal facilities²² will be based on the previous five years' actual monthly average flow²³, as of the date the permit is issued.

(B) Notwithstanding (8)(A), the minimum annual fee for wet weather municipal facilities shall be \$20,000.

¹⁹ All Transmission Systems and Water Wholesaler Systems are Primary Systems. If the Discharger does not have a Transmission System or a Water Wholesaler System, the Discharger's individual water system with the highest number of service connections will be designated as the Primary System. All systems that are not Primary Systems are designated as Secondary Systems.

²⁰ NPDES permitted industrial discharger(s) means those industries identified in the Standard Industrial Classification Manual, Bureau of Budget, 1967, as amended and supplemented, under the category "Division D-Manufacturing" and such other classes of significant waste producers as, by regulation, the U.S. EPA Administrator deems appropriate. (33 USC Sec. 1362).

²¹ Threat/complexity categories are listed under (a)(1) of this document.

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22 Wet weather municipal facilities are intermittently operated facilities that are designated specifically to handle flows during wet weather conditions.

23 The actual monthly average flow is defined as the average of the flows during each of the months that the discharge occurred during the previous five-year period.

(9) All other general NPDES permits and de minimis discharges²⁴ that are regulated by an individual or general NPDES permit, including those issued by a regional board, shall pay a fee as follows:

Category 1 – Discharges that require treatment systems to meet priority toxic pollutant limits and that could impair beneficial uses if limits are violated: \$11,877

Category 2 – Discharges that require treatment systems to meet non-priority pollutant limits, but are not expected to impair beneficial uses if limits are violated. Examples of non-priority pollutants include, but are not limited to, nutrients, inorganic compounds, pH, and temperature: \$7,177

Category 3 – Discharges that require minimal or no treatment systems to meet limits and pose no significant threat to water quality: \$2,062

24 De minimis discharge activities include, but are not limited to, the following: aquaculture activities (as defined in Chapter 40, Section 122.25(b) of the Code of Federal Regulations) defined as managed water areas that use discharges of pollutants into that designated area for maintenance or reproduction of harvestable freshwater, estuarine, or marine plants or animals including fish hatcheries; geothermal facilities that utilize, extract, or produce energy from geothermal fluids for heating, generating power, or other beneficial uses, and discharge geothermal fluids to surface waters; aquatic pesticide applications; evaporative condensate; swimming and landscape pool drainage; discharges from fire hydrant testing or flushing; discharges resulting from construction dewatering; discharges associated with supply well installation, development, test pumping, and purging; discharges resulting from the maintenance of uncontaminated water supply wells, pipelines, tanks, etc.; discharges resulting from hydrostatic testing of water supply vessels, pipelines, tanks, etc.; discharges resulting from the disinfection of water supply pipelines, tanks, reservoirs, etc.; discharges from water supply systems resulting from system failures, pressure releases, etc.; discharges of non-contact cooling water, not including steam/electric power plants; discharges resulting from diverted stream flows; water treatment plant discharges; and other similar types of wastes that have low pollutant concentrations and are not likely to cause or have a reasonable potential to cause or contribute to an adverse impact on the beneficial uses of receiving waters yet technically must be regulated under an NPDES permit.

Supplemental Workpaper: Vault Dewatering Permit-Special Studies [1EV000.007]

Vault De-Watering Permit-Special Studies

On October 21, 2014, the California State Water Resources Control Board (SWRCB) adopted the new Utility Vault De-Watering General Permit Order 2014-0174-DWQ. This Permit is a National Pollutant Discharge Elimination System (NPDES) permit pursuant to the Clean Water Act that regulates short-term intermittent discharges from utility vaults and underground structures to surface waters. Ongoing consultant support will be needed to maintain an up to date Pollution Prevention Plan, development of two Special Studies, field work including routine monitoring and Special Study monitoring, and reporting, as well as all supporting documents and activities.

Special Study 1 (i.e. Discharge Characterization Study) required by the new Permit is intended to characterize discharges from dewatered utility vaults by collecting sufficient effluent data to identify the priority pollutants present in the effluent (and their concentrations).

Special Study 2 (i.e. ASBS Monitoring) is targeted for discharges from vaults that are routed to an Area of Special Biological Significance (ASBS) via a municipal separate storm sewer system (MS4). This Study is intended to investigate if vault discharges have a potential to alter the natural ocean water quality in the ASBS.

The final reports for Studies 1 and 2 are due by January 1, 2020 and January 1, 2019 respectively. A consultant cost estimate is attached.

Total Expected Costs per Year

2017	2018	2019
6,940	13,380	13,380

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Consultant Cost Estimate

From: Bilezikjian, Tanya [<mailto:TBILEZIKJIAN@mbakerintl.com>]

Sent: Friday, May 12, 2017 12:44 PM

To: Gaters, Willie <WGaters@semprautilities.com>

Subject: [EXTERNAL] Projected Costs through 2019

Hi Willie,

The workload is simpler for the next three years since all of the PLAN and Special Study Workplan development is complete.

Please see below for the projection for our services through 2019.

Year	Task	Cost
2017	PLAN Evaluation and Revision	\$1,500
	Annual Report	\$5,440
2018	PLAN Evaluation and Revision	\$1,500
	Annual Report	\$5,440
	Special Study 2 Final Report	\$6,440
2019	PLAN Evaluation and Revision	\$1,500
	Annual Report	\$5,440
	Special Study 1 Final Report	\$6,440
		\$33,700

Thanks! Have a great weekend.

Tanya Bilezikjian, P.E., QSD/P | Project Manager | Michael Baker International
3536 Concourse Street, Suite 100 | Ontario, CA 91764 | [O] 909-974-4920 | [M] 714-321-3006

tanyab@mbakerintl.com | www.mbakintl.com

Supplemental Workpaper: Support To/From Others: SF6 [1EV000.008]

Sulfur Hexafluoride (SF6)

SDG&E is required to prepare and submit an annual report for SF6 emissions in accordance with Subpart DD of the EPA's GHG Mandatory Reporting Rule (MRR). Additionally, SDG&E also has to comply with CARB's Regulation for Reducing Sulfur Hexafluoride (SF6) Emissions from Gas Insulated Switchgear (as part of the AB32 requirements) and the SF6 emission rate limits and annual reporting requirements therein. SF6 is a potent GHG with a global warming potential (GWP) 22,800 times that of carbon dioxide (CO2). Although SF6 is emitted in smaller quantities than many other greenhouse gases, its atmospheric lifetime of 3,200 years causes it to accumulate in the earth's atmosphere for centuries. Because of its unique dielectric properties, electric utilities rely on SF6 in electric power systems for voltage electrical insulation, current interruption, and arc quenching in the distribution of electricity. While SF6 should theoretically remain contained within equipment, in reality, the gas may be emitted into the atmosphere inadvertently if leaks should develop during various stages of the equipment's lifecycle.

Under Subpart DD, owners or operators of electric power system facilities with a total nameplate capacity that exceeds 17,280 pounds of SF6 must report emissions of SF6 from the use of electrical distribution equipment. Electric power system facilities include electric power distribution systems that operate gas-insulated substations, circuit breakers, switchgear, gas-insulated lines or power transformers. Pursuant to Subpart DD, SDG&E has to calculate entity-wide SF6 losses from its system (using a mass-balance approach of SF6 purchases made, amounts sent to be recycled, and increase in nameplate capacity of equipment), and follow the specified procedures for quality assurance, recordkeeping and reporting. Reports are due annually in March for data collected in the previous calendar year. Subpart DD was enforced starting January 2011, with the first SF6 report submitted in September 2012 (for the 2011 emissions year).

In order to maintain continued compliance with EPA's Subpart DD and CARB's SF6 rule, SDG&E has to track closely the usage and disbursement of SF6 (and installation and removal of SF6 gas insulated distribution switchgear equipment) in its system. This process is labor intensive and requires retrieval of information from various internal databases and coordination with field personnel.

In order to achieve higher efficiencies, implement a more robust quality assurance program, reduce the risk of errors, and make progress toward achieving and sustaining the CARB mandated SF6 emission rate of 1 percent (by 2020), additional software Tools and staffing resources will be needed. In addition, field surveys will be needed to maintain an updated inventory of gas insulated switchgear equipment. SDG&E's Electric Distribution Engineering group has identified the incremental costs associated with the additional resources and measures that will be needed to maintain continued compliance with the SF6 rules. The Electric Distribution Engineering group has also developed a program, to proactively replace SF6 distribution switches with non-SF6 alternatives, which is described in more detail in the testimony of Mr. Alan Colton (see Ex. SDG&E-14). For Capital and O&M cost information see work papers for Electric Distribution Capital see Mr. Alan Colton (see Ex. SDG&E-14) and for Electric Distribution O&M costs see work papers for Mr. Darren Weim (see Ex. SDG&E-15).

Supplemental Workpaper: Support To/From Others: ATCM [1EV000.009]

Airborne Toxic Control Measures (ATCM)

On January 1, 2013, the CARB's Portable Engine Airborne Toxic Control Measure (ATCM) fleet emission standards went into effect. Pursuant to the ATCM regulations, portable diesel engines must meet certain fleet average emission standards for diesel particulate matter (PM) by January 1, 2017 and 2020. To meet these standards, SDG&E Fleet Services must replace and/or retrofit their portable engines in advance of 2017. The CARB's Portable Diesel Engine ATCM requires that companies meet specific diesel PM average emissions standards for their fleet of diesel portable engines (rated at 50 Horsepower (HP) or greater). The following horsepower classes each have their own fleet average standard: less than 175 HP; 175 – 750 HP; and more than 750 HP. The standards went into effect on January 1, 2013 and get progressively more stringent in 2017 and 2020. For example, the fleet average PM standard for portable engines in the under 175 HP class is 0.3 grams/HP per hour (HP-hr.) for 2013. The standards in 2017 and 2020 for this class are 0.18 and 0.04 grams/HP-hr. respectively. CARB's goal is to have all portable engines meet defined levels of PM emissions by 2020 (i.e., equivalent to PM emissions from engines that are controlled by a diesel particulate filter). SDG&E's existing fleet of 50 portable diesel engines already meets the 2013 PM standard. However, SDG&E's Fleet Services will make some adjustments (e.g., retire older units and/or retrofit them with diesel particulate filters) to the portable engine fleet to meet the 2017 and 2020 standards. Ms. Herrera's testimony and work papers sponsor such costs (SDG&E-21).

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Non-Shared Service Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: B. New Environmental Reg Balancing Acct (NERBA)
 Workpaper: VARIOUS

Summary for Category: B. New Environmental Reg Balancing Acct (NERBA)

	In 2016\$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2016	2017	2018	2019
Labor	0	0	0	0
Non-Labor	287	303	303	303
NSE	0	0	0	0
Total	287	303	303	303
FTE	0.0	0.0	0.0	0.0

Workpapers belonging to this Category:

1EV001.002 RNERBA-AB32 Fees-Electric

Labor	0	0	0	0
Non-Labor	287	287	287	287
NSE	0	0	0	0
Total	287	287	287	287
FTE	0.0	0.0	0.0	0.0

1EV001.003 RNERBA-MS4-Electric

Labor	0	0	0	0
Non-Labor	0	16	16	16
NSE	0	0	0	0
Total	0	16	16	16
FTE	0.0	0.0	0.0	0.0

Note: Totals may include rounding differences.

Beginning of Workpaper
1EV001.002 - RNERBA-AB32 Fees-Electric

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: B. New Environmental Reg Balancing Acct (NERBA)
 Category-Sub: 2. New Environmental Reg Balancing Acct (NERBA)
 Workpaper: 1EV001.002 - RNERBA-AB32 Fees-Electric

Activity Description:

Forecast Explanations:

Labor - Base YR Rec

Non-Labor - Base YR Rec

NSE - Base YR Rec

Summary of Results:

		In 2016\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2012	2013	2014	2015	2016	2017	2018	2019	
Labor		0	0	0	0	0	0	0	0	
Non-Labor		352	224	222	458	287	287	287	287	
NSE		0	0	0	0	0	0	0	0	
Total		352	224	222	458	287	287	287	287	
FTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Note: Totals may include rounding differences.

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Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: B. New Environmental Reg Balancing Acct (NERBA)
 Category-Sub: 2. New Environmental Reg Balancing Acct (NERBA)
 Workpaper: 1EV001.002 - RNERBA-AB32 Fees-Electric

Summary of Adjustments to Forecast:

In 2016 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2017	2018	2019	2017	2018	2019	2017	2018	2019
Labor	Base YR Rec	0	0	0	0	0	0	0	0	0
Non-Labor	Base YR Rec	287	287	287	0	0	0	287	287	287
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
Total		287	287	287	0	0	0	287	287	287
FTE	Base YR Rec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

<u>Year</u>	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>	<u>RefID</u>
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Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ENVIRONMENTAL
Witness: Nancy C. Clancy
Category: B. New Environmental Reg Balancing Acct (NERBA)
Category-Sub: 2. New Environmental Reg Balancing Acct (NERBA)
Workpaper: 1EV001.002 - RNERBA-AB32 Fees-Electric

Determination of Adjusted-Recorded (Incurred Costs):

	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
Recorded (Nominal \$)*					
Labor	0	0	0	0	0
Non-Labor	343	221	221	457	287
NSE	0	0	0	0	0
Total	343	221	221	457	287
FTE	0.0	0.0	0.0	0.0	0.0
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	0	0	0	0	0
Non-Labor	343	221	221	457	287
NSE	0	0	0	0	0
Total	343	221	221	457	287
FTE	0.0	0.0	0.0	0.0	0.0
Vacation & Sick (Nominal \$)					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Escalation to 2016\$					
Labor	0	0	0	0	0
Non-Labor	9	3	0	1	0
NSE	0	0	0	0	0
Total	9	3	0	1	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2016\$)					
Labor	0	0	0	0	0
Non-Labor	352	224	222	458	287
NSE	0	0	0	0	0
Total	352	224	222	458	287
FTE	0.0	0.0	0.0	0.0	0.0

* After company-wide exclusions of Non-GRC costs

** Refer to "Detail of Adjustments to Recorded" page for line item adjustments

Note: Totals may include rounding differences.

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Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: B. New Environmental Reg Balancing Acct (NERBA)
 Category-Sub: 2. New Environmental Reg Balancing Acct (NERBA)
 Workpaper: 1EV001.002 - RNERBA-AB32 Fees-Electric

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs					
Years	2012	2013	2014	2015	2016
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0

<u>Year</u>	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>RefID</u>
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Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper 1EV001.002

Supplemental Workpapers for Workpaper 1EV001.000

Supplemental Workpaper: RNERBA-PCB Phase Out [1EV001.001]

PCB Phase Out/ PCB Reassessment of Use Authorization

In SDG&E's 2012 GRC, SDG&E was authorized to record in the NERBA the costs associated with a final United States Environmental Protection Agency (EPA) rule on the phase-out of polychlorinated biphenyl (PCBs). The rule remains in the "Pre-Proposal" phase. SDG&E requests that its authorization to record any costs associated with a final EPA rule on the phase-out of PCBs continue during this GRC period for inclusion into rates. When a proposed rule is released SDG&E will require a consultant to analyze impacts of the proposed rule to phase out PCBs in electrical equipment, develop a project scope and an implementation plan once the final rule is adopted.

Supplemental Workpaper: RNERBA-AB32 Fees Electric [1EV001.002]

AB32 Administrative Fees

The California's Global Warming Solutions Act of 2006, referred to as "AB32" requires that administrative fees be paid to the California Air Resources Board (CARB) to recover its costs to implement AB32.

AB32 requires public utility gas corporations, such as SDG&E, to pay annual administrative fees for each therm of natural gas they deliver to any end user in California, excluding natural gas delivered to electric generating facilities and to wholesale providers.

AB32 requires electric generating facilities located in California, such as SDG&E's Palomar Power Plant, to pay annual administrative fees for each megawatt per hour (MW-hr.) of net power generated by the combustion of natural gas. This is reported pursuant to CARB's mandatory greenhouse gas (GHG) reporting rule. AB32 generally requires electricity importers (defined as an owner of electricity generated outside of California as it is delivered to the first point of delivery in California) to pay administrative fees for each MW-hr. of imported electricity reported pursuant to CARB's mandatory GHG reporting rule if the electricity is from unspecified sources or the combustion of fossil fuels.

SDG&E's AB32 Administrative Fees are currently tracked in the NERBA and SDG&E will continue to track in the NERBA during the GRC (2017-2019) due to the following:

- Regulatory uncertainty related to GHG inventory and reporting requirements such as the Common Carbon Cost (CCC) that is calculated annually by CARB based on total required revenue to administer the program divided by the total statewide emissions covered by the AB32 Regulation. The CCC fluctuates from year to year based on revenue requirements and statewide emissions for a particular year.
- The import of electric power from out of state is unpredictable.
- Production of power plants is subject to ISO load requirements in California.
- It is difficult to predict market forces in summer months.

The AB32 CARB Billing Summary report for SDG&E is shown below. These administrative fees¹ are paid directly to CARB. SDG&E is not seeking additional dollars for the electric AB32 Administrative Fees beyond the base year level.

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SDG&E AB 32 COI Fees - CARB Billing Summary						
8/16/2017		Billed in 2013	Billed in 2014	Billed in 2015	Billed in 2016	Billed in 2017
		<small>(For 2011 Emission Year)</small>	<small>(For 2012 Emission Year)</small>	<small>(For 2013 Emission Year)</small>	<small>(For 2014 Emission Year)</small>	<small>(For 2015 Emission Year)</small>
Facility	ARB ID #	Amount	Amount	Amount	Amount	Amount
Electric Power Entity	3004	\$87,924	\$77,538	\$225,868	\$130,935	\$151,149
Miramar Energy Facility	101401	\$10,849	\$11,471	\$11,444	\$7,013	\$8,789
Palomar Energy Facility	100362	\$122,391	\$128,809	\$216,154	\$146,769	\$228,380
Cuyamaca Peak Energy Plant ¹	101663	\$0	\$3,341	\$3,596	\$2,051	\$0
NERBA - Electric		\$221,164	\$221,159	\$457,062	\$286,768	\$388,318
<i>Covered Emissions (CO₂e) MT</i>		1,541,344	1,844,379	3,263,596	1,935,739	1,964,416
<i>Common Carbon Cost (\$/MT CO₂e)²</i>		0.145	0.121	0.151	0.148	0.198
Natural Gas - Local Distribution	104087	\$559,954	\$470,605	\$587,385	\$517,201	\$733,511
NERBA - Gas		\$559,954	\$470,605	\$587,385	\$517,201	\$733,511
<i>Covered Emissions (CO₂e) MT</i>		3,841,725	3,878,411	3,885,262	3,487,626	3,701,789
<i>Common Carbon Cost (\$/MT CO₂e)²</i>		0.145	0.121	0.151	0.148	0.198
	Total	\$781,118	\$691,764	\$1,044,447	\$803,969	\$1,121,829

¹ Cuyamaca was not part of SDGE's portfolio during 2011 (it was owned/operated by CalPeak). Cuyamaca was not billed in 2017 since its 2015 emissions were below the required threshold for AB32 reporting/verification.

² Common Carbon Cost is calculated by CARB based on total required revenue to administer the program divided by the total statewide emissions covered by the AB32 Regulation. The CCC fluctuates from year to year based on revenue requirements and statewide emissions for a particular year.

Note: Actual costs in this table are higher than forecasted. Changes will be shown in Errata.

Supplemental Workpaper: RNERBA-MS4-Electric [1EV001.003]

Municipal Separate Stormwater Sewer System (MS4) Permit

On May 8, 2013, the San Diego Regional Water Quality Control Board (RWQCB) issued a revised MS4 Permit, to owner/operators that includes new requirements for the cities and municipalities located within San Diego County and Orange County and for the San Diego Unified Port District, San Diego County Regional Airport Authority and the Orange County Flood Control District. This permit requires reduction of discharge of pollutants in storm water to the “Maximum Extent Practicable” through requirements for construction activities and for areas of existing development (e.g., commercial and industrial facilities).

The MS4 Permit also requires development and implementation of “jurisdictional” requirements including best management practices (BMPs) and other requirements for new development and redevelopment projects and for existing developments. The MS4 Permit also requires the development and implementation of watershed based plans (Water Quality Improvement Plans or WQIPs) that identify “priority water bodies” that need further protection and/or restoration, and strategies for such protection and/or restoration.

Requirements for post-construction BMPs are more restrictive in the new MS4 Permit, which should result in increased costs for construction, and operation and maintenance of post-construction BMPs. In some cases, projects could require additional land to accommodate the post-construction BMPs. Further, post-construction BMPs under certain circumstances may also be required for linear construction projects. Because SDG&E’s facilities and operations are located largely within the San Diego RWQCB boundaries, SDG&E’s facilities and operations will be subject to the new requirements.

In 2016 San Diego and Orange Counties, City of San Diego, the Orange County Flood Control District and the San Diego County Regional Airport Authority issued updated stormwater ordinances, released their new jurisdictional plans and BMP requirements. SDG&E is in the process of implementing the new stormwater provisions and BMP guidance issued by the agencies listed above. However, SDG&E needs the support of a consultant due to the uncertainty of additional cities and municipalities requirements that may become more stringent during BMP implementation and may impose further compliance requirements during an inspection at one of our facilities in the future.

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Please see the attached consultant cost estimate for MS4 work. Capital expenditures forecasts are sponsored by Real Estate, Land and Facilities (SDG&E 17 -CWP), and are prompted by the forecasted MS4 permitting requirements which we project will require stormwater remediation facilities to be constructed at multiple SDG&E sites.



November 23, 2016

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San Diego Gas & Electric
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San Diego, California 92123

Willie Gaters
Senior Environmental Specialist
San Diego Gas and Electric
8326 Century Park Court, CP21E
San Diego, California 92123

SUBJECT: MUNICIPAL SEPARATE STORM SEWER SYSTEM PERMIT GAP ANALYSIS SUPPORT

Dear Ms. Kripke and Mr. Gaters:

In response to your request, Mikhail Ogawa Engineering Inc. (MOE) is pleased to submit this task order scope of work and fee estimate to San Diego Gas and Electric (SDG&E). This scope outlines proposed tasks and associated costs to evaluate the current Municipal Separate Storm Sewer System (MS4) Permit (Regional Water Quality Control Board Order No. R9-2015-0100) and Best Management Practice (BMP) requirements for ten existing SDG&E facilities subject to these regulations (Project).

As an operating commercial entity, SDG&E is required to meet minimum pollution prevention and discharge requirements within each jurisdiction in which it operates. The Regional MS4 Permit requires local jurisdictions to develop city-specific discharge prohibitions and minimum BMPs for owners and operators of industrial and commercial businesses within their jurisdictional boundaries. Each local jurisdiction has municipal codes that provide the legal authority to enforce the discharge prohibitions and minimum requirements for businesses within their jurisdictions, such as SDG&E. The objective of this Project outlined in the scope below is to evaluate SDG&E's selected facilities in accordance with such regulations and requirements.

MOE has experience providing facility reviews and recommendations for compliance with discharge prohibitions and minimum BMPs throughout the region. In fact, our firm has developed many Jurisdictional Runoff Management Plans (JRMPs) and minimum BMP requirements for several municipalities, developed and updated municipal codes, and assisted in the MS4 Permit reissuance process. All of these experiences will be vital in completing the tasks presented in the scope.

Our understanding of the Project is to evaluate the present conditions at ten SDG&E facilities as compared to the discharge prohibitions, municipal codes and minimum BMPs identified in the Regional MS4 Permit and jurisdiction-specific programs and codes. The ten facilities are located within the following jurisdictions:

3525 Del Mar Heights Road #429 ♦ San Diego, California 92130 ♦ (619) 994-7074 ♦ Fax (858) 225-0531

Ms. Adrianna Kripke and Mr. Willie Gaters

November 23, 2016

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- City of Carlsbad (1 facility)
- City of El Cajon (1 facility)
- City of Escondido (1 facility)
- City of San Clemente (1 facility)
- City of San Diego (4 facilities)
- County of San Diego (2 facilities)

Applicable regulations, existing site conditions, operations, and BMP implementation will be evaluated at each facility, and recommendations and approaches for addressing these requirements at each site will be presented in a technical report as the final project deliverable.

I. SCOPE OF SERVICES

Based on our current understanding of the Project, MOE will provide the following professional services to support SDG&E's storm water program:

- ❖ **Task 1.** Review of all pertinent regulatory documents
- ❖ **Task 2.** Perform site visits
- ❖ **Task 3.** Develop draft and final technical report
- ❖ **Task 4.** (Optional) Perform facility-specific plan revisions

Task 1: MOE will evaluate the requirements of the MS4 Permit and jurisdictional requirements to identify those requirements that have an impact on SDG&E and its operations. This will include review of applicable Jurisdictional Runoff Management Plans (JRMPS), municipal codes, and MS4 Permit for mandated minimum BMPs as each of these may have specific requirements that affect the ten facilities. The detailed review will focus on Regional MS4 Permit requirements as well as regulatory documents of individual jurisdictions. Subtasks are as follows:

1A. Review of the Regional MS4 Permit, Jurisdictional Programs (e.g., JRMPS, Water Quality Improvement Plans), city-specific municipal codes, and minimum BMPs within the six jurisdictions where the facilities are located.

1B. Develop an inventory of BMP requirements and enforceable municipal code provisions that are applicable to each of the ten SDG&E facilities.

1C. Prepare a set of standardized checklists and assessment tools for the facility site visits. The checklists will ensure that facility evaluations are comprehensive and all necessary information is obtained during the site visits.

Task 2: To adequately assess SDG&E compliance with jurisdictional programs and/or minimum BMPs as identified in Task 1, MOE will coordinate with SDG&E staff to perform site visits at each of the ten facilities. Using the checklists and assessment tools developed as part of Task 1, the visits will be performed as internal audit inspections, where MOE will use the findings to develop facility-specific recommendations to meet jurisdictional and regional MS4 Permit requirements.

Site visits will evaluate all facility conditions and operations including, but not limited to: site drainage, implementation of existing BMPs, materials storage, staff work activities, location of storm drain inlets and conveyances, and irrigation infrastructure and activities. Based on current site conditions and BMPs observed at each facility, MOE will identify areas or activities that may not meet current standards of compliance with identified requirements.



Ms. Adrianna Kripke and Mr. Willie Gaters
November 23, 2016
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MOE will identify a suite of recommended BMPs necessary to address potential gaps in meeting jurisdictional requirements. Based on the site conditions, existing BMPs and complexity of the areas, the recommended BMPs will include a range of the following:

- Non-Structural BMPs (activity & material based)
- Structural BMPs
- Combination of BMPs to address potential gaps

Task 3: MOE will develop a technical report as the main project deliverable. The technical report will summarize findings from Task 1 and Task 2, as well as provide details on the regulatory background and current site conditions at each facility. A draft outline of this deliverable is included in Attachment 1.

The minimum BMP options at each site will be presented as a spectrum of solutions for SDG&E, with costs for short- and long-term implementation (i.e. order of magnitude costs for structural design, installation and long-term maintenance). Options for different combinations of minimum BMPs will be prioritized at each site, with best combinations ranked for implementation. Ranking criteria will be based on best professional judgment and include: cost; complexity of implementation; maintenance efforts; and, timeliness of implementation.

Task 3 Deliverable(s): Draft Technical Report
Final Technical Report

Task 4 (Optional): Under this optional task, MOE will further assist SDG&E by updating site-specific Storm Water Management Plans (SWMPs) for each facility based on the field evaluations performed in Task 2. This task would require MOE to obtain and review facility documents and plans, coordinate with facility staff if additional information is needed, and revise such plans as appropriate.

II. SCHEDULE, COST ESTIMATE, AND ASSUMPTIONS

It is our understanding that SDG&E expects the project tasks to be complete by the end of the first quarter of 2017, or March 31, 2017, with a draft technical report anticipated for submittal by the end of February 2017. Provided that a notice-to-proceed is issued in early December 2016, our proposed project timeline is presented in Table 1 and described as follows:

Table1: Schedule

Task	Timeline
Project kickoff meeting	December 2016
Task 1 – Regulatory review	December 2016 - (early) January 2017
Task 2 – Perform site visits	January 2017
Task 3 – Draft Technical Report	February 2017
Task 3 – Final Technical Report	March 31, 2017
<i>(Optional) Task 4 – Facility plan(s) revisions</i>	<i>TBD</i>

Activities included in Task 1 of the scope will be completed by January 2017. This includes the desktop review of all relevant regulatory documents (e.g., MS4 Permit requirements, JRMPs, municipal codes and minimum BMPs) applicable to each facility, as well as preparation of assessment tools and inspection checklists for the facility inspections. Site visits at all ten facilities will then be completed by the end of January 2017 under Task 2. The draft technical report will be prepared and delivered by the end of



Ms. Adrianna Kripke and Mr. Willie Gaters
November 23, 2016
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February 2017 for SDG&E internal review; the final technical report with incorporation of any comments/changes from SDG&E will be submitted to SDG&E by March 31, 2017.

A summary of proposed costs associated with each task is presented in Table 2.

Table 2: Summary of costs

Task	Estimated Hours	Estimated Total (\$)¹
Task 1	56	\$ 6,944.00
Task 2	70	\$ 8,680.00
Task 3	128	\$ 15,872.00
<i>Task 4 (Optional)</i>	<i>TBD</i>	<i>TBD</i>
Total	254	\$ 31,496.00

This scope of work is based on the following assumptions:

1. Ten facilities will be inspected as part of this project and MS4 gap analysis support. SDG&E will provide contact information for each facility; MOE will coordinate directly with each facility's point of contact. If additional facilities are to be included in the evaluation, the cost estimate may need to be adjusted.
2. Following the draft technical report to SDG&E, comments on the report and appendices from SDG&E will be returned to MOE within two weeks so that revisions may be incorporated prior to or on the final submittal due date.
3. The timeline presented above assumes SDG&E will provide the notice-to-proceed in early December (i.e. prior to December 15, 2016).
4. If SDG&E requests that MOE perform the revisions to the site-specific SWMPs or SPCC Plan documents as outlined in optional Task 4, the proposed costs and schedule will be agreed upon with SDG&E prior to commencement of such work.

Thank you again for this opportunity to submit this proposed scope of work. Please contact me anytime if you would like to discuss further or if you have any questions.

Respectfully,

A handwritten signature in blue ink, appearing to read "Mikhail Ogawa", with a long horizontal flourish extending to the right.

Mikhail Ogawa, P.E.
President

Enclosure:
Attachment 1



Attachment 1

San Diego Gas & Electric Facility Evaluation and Recommendations
MS4 Permit & Local Programs
Proposed Draft Table of Contents

EXECUTIVE SUMMARY

1 INTRODUCTION

- 1.1 Purpose
- 1.2 Regulatory Background
 - 1.2.1 MS4Permit
 - 1.2.2 Jurisdictional Programs
 - 1.2.3 Municipal Codes
- 1.3 Facility Evaluation Process

2 APPLICABLE REGULATIONS

- 2.1 Municipal Code Summary
Include: Summary Table of Municipal Code Requirements
- 2.2 Minimum BMPs
Include: Summary Table of Minimum BMPs

3 TYPICAL SITE CONDITIONS

Informative section on typical on-site conditions for reference

- 3.1 General
 - 3.1.1 Drainage
 - 3.1.1.1 Runon/Runoff
 - 3.1.1.2 Inlets
 - 3.1.1.3 Etc.
 - 3.1.2 Threat to Water Quality Areas
 - 3.1.2.1 Storage
 - 3.1.2.2 Parking
 - 3.1.2.3 Operations
 - 3.1.2.4 Etc.
- 3.2 Best Management Practices
 - 3.2.1 Non-Structural BMPs (Activity Based)
 - 3.2.2 Structural BMPs

Attachment 1

4 FACILITY EVALUATIONS

Include: Summary table of facilities, characteristics, and sub-section #.

- 4.1 Facility 1
 - 4.1.1 Findings & Recommendations
 - 4.1.2 Site-Option(s) Cost Estimates
- 4.2 (Repeat 4.1 for all facilities)

5 CONCLUSION

6 REFERENCES

1. California Stormwater Quality Association Industrial & Commercial BMP Online Handbook, 2014
2. City of Carlsbad Minimum BMPs for Industrial and Commercial Facilities 2015
3. City of Carlsbad Municipal Code – Section 15.12 Stormwater Management and Discharge Control
4. City of El Cajon Jurisdictional Runoff Management Program, Appendix C Minimum BMPs: Industrial, Commercial, and Municipal Sites/Sources, 2015
5. City of El Cajon Municipal Code - Chapter 13.10 Storm Water Management and Discharge Control
6. City of Escondido Jurisdictional Runoff Management Program, Appendix B BMP Manual, 2015
7. City of Escondido Municipal Code – Chapter 22 Article 2 Stormwater Management and Discharge Control
8. City of San Clemente Stormwater Local Implementation Plan, 2012
9. City of San Clemente Municipal Code – Chapter 13.40 Stormwater Runoff Control
10. City of San Diego - Minimum BMPs for Industrial and Commercial Sites/Sources 2015
11. City of San Diego Municipal Code – Section 43.03 Stormwater Management and Discharge Control
12. County of San Diego Jurisdictional Runoff Management Program, 2015
13. County of San Diego Watershed Protection, Stormwater Management, and Discharge Control Ordinance

APPENDICES

Appendix A.1: Facility 1

Appendix A.2: Facility 2

Appendix A.n: Facility *n*

Appendix B: Detailed Summary of Muni Code requirements applicable to Facilities

Appendix C: Detailed Summary of Jurisdictional Minimum BMPs applicable to Facilities

Beginning of Workpaper
1EV001.003 - RNERBA-MS4-Electric

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: B. New Environmental Reg Balancing Acct (NERBA)
 Category-Sub: 3. New Environmental Reg Balancing Acct (NERBA)
 Workpaper: 1EV001.003 - RNERBA-MS4-Electric

Activity Description:

Forecast Explanations:

Labor - Base YR Rec

Non-Labor - Base YR Rec

NSE - Base YR Rec

Summary of Results:

		In 2016\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2012	2013	2014	2015	2016	2017	2018	2019	
Labor		0	0	0	0	0	0	0	0	
Non-Labor		0	0	0	0	0	16	16	16	
NSE		0	0	0	0	0	0	0	0	
Total		0	0	0	0	0	16	16	16	
FTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: B. New Environmental Reg Balancing Acct (NERBA)
 Category-Sub: 3. New Environmental Reg Balancing Acct (NERBA)
 Workpaper: 1EV001.003 - RNERBA-MS4-Electric

Summary of Adjustments to Forecast:

In 2016 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2017	2018	2019	2017	2018	2019	2017	2018	2019
Labor	Base YR Rec	0	0	0	0	0	0	0	0	0
Non-Labor	Base YR Rec	0	0	0	16	16	16	16	16	16
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
Total		0	0	0	16	16	16	16	16	16
FTE	Base YR Rec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Forecast Adjustment Details:

<u>Year</u>	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>	<u>RefID</u>	
2017	Other	0	16	0	16	0.0	1-Sided Adj	CSTRIEBE20170310165241400	
Explanation:		Consulting expenses							
2017 Total		0	16	0	16	0.0			
2018	Other	0	16	0	16	0.0	1-Sided Adj	CSTRIEBE20170310165257163	
Explanation:		Consulting expenses							
2018 Total		0	16	0	16	0.0			
2019	Other	0	16	0	16	0.0	1-Sided Adj	CSTRIEBE20170310165309920	
Explanation:		Consulting expenses							
2019 Total		0	16	0	16	0.0			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: B. New Environmental Reg Balancing Acct (NERBA)
 Category-Sub: 3. New Environmental Reg Balancing Acct (NERBA)
 Workpaper: 1EV001.003 - RNERBA-MS4-Electric

Determination of Adjusted-Recorded (Incurred Costs):

	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
Recorded (Nominal \$)*					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Vacation & Sick (Nominal \$)					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Escalation to 2016\$					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2016\$)					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0

* After company-wide exclusions of Non-GRC costs

** Refer to "Detail of Adjustments to Recorded" page for line item adjustments

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: B. New Environmental Reg Balancing Acct (NERBA)
 Category-Sub: 3. New Environmental Reg Balancing Acct (NERBA)
 Workpaper: 1EV001.003 - RNERBA-MS4-Electric

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs					
Years	2012	2013	2014	2015	2016
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0

<u>Year</u>	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>RefID</u>
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Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ENVIRONMENTAL
Witness: Nancy C. Clancy
Category: C. New Environmental Reg Balancing Acct (NERBA)
Workpaper: VARIOUS

Summary for Category: C. New Environmental Reg Balancing Acct (NERBA)

	In 2016\$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2016	2017	2018	2019
Labor	0	0	0	0
Non-Labor	517	532	532	532
NSE	0	0	0	0
Total	517	532	532	532
FTE	0.0	0.0	0.0	0.0

Workpapers belonging to this Category:

1EV002.002 RNERBA-AB32 Fees-Gas

Labor	0	0	0	0
Non-Labor	517	517	517	517
NSE	0	0	0	0
Total	517	517	517	517
FTE	0.0	0.0	0.0	0.0

1EV002.004 RNERBA-MS4-Gas

Labor	0	0	0	0
Non-Labor	0	15	15	15
NSE	0	0	0	0
Total	0	15	15	15
FTE	0.0	0.0	0.0	0.0

Note: Totals may include rounding differences.

Beginning of Workpaper
1EV002.002 - RNERBA-AB32 Fees-Gas

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: C. New Environmental Reg Balancing Acct (NERBA)
 Category-Sub: 2. New Environmental Reg Balancing Acct (NERBA)
 Workpaper: 1EV002.002 - RNERBA-AB32 Fees-Gas

Activity Description:

Forecast Explanations:

Labor - Base YR Rec

Non-Labor - Base YR Rec

NSE - Base YR Rec

Summary of Results:

		In 2016\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2012	2013	2014	2015	2016	2017	2018	2019	
Labor		0	0	0	0	0	0	0	0	
Non-Labor		721	568	471	589	517	517	517	517	
NSE		0	0	0	0	0	0	0	0	
Total		721	568	471	589	517	517	517	517	
FTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: C. New Environmental Reg Balancing Acct (NERBA)
 Category-Sub: 2. New Environmental Reg Balancing Acct (NERBA)
 Workpaper: 1EV002.002 - RNERBA-AB32 Fees-Gas

Summary of Adjustments to Forecast:

In 2016 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2017	2018	2019	2017	2018	2019	2017	2018	2019
Labor	Base YR Rec	0	0	0	0	0	0	0	0	0
Non-Labor	Base YR Rec	517	517	517	0	0	0	517	517	517
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
Total		517	517	517	0	0	0	517	517	517
FTE	Base YR Rec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

<u>Year</u>	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>	<u>RefID</u>
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Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ENVIRONMENTAL
Witness: Nancy C. Clancy
Category: C. New Environmental Reg Balancing Acct (NERBA)
Category-Sub: 2. New Environmental Reg Balancing Acct (NERBA)
Workpaper: 1EV002.002 - RNERBA-AB32 Fees-Gas

Determination of Adjusted-Recorded (Incurred Costs):

	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
Recorded (Nominal \$)*					
Labor	0	0	0	0	0
Non-Labor	702	560	471	587	517
NSE	0	0	0	0	0
Total	702	560	471	587	517
FTE	0.0	0.0	0.0	0.0	0.0
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	0	0	0	0	0
Non-Labor	702	560	471	587	517
NSE	0	0	0	0	0
Total	702	560	471	587	517
FTE	0.0	0.0	0.0	0.0	0.0
Vacation & Sick (Nominal \$)					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Escalation to 2016\$					
Labor	0	0	0	0	0
Non-Labor	19	8	1	1	0
NSE	0	0	0	0	0
Total	19	8	1	1	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2016\$)					
Labor	0	0	0	0	0
Non-Labor	721	568	471	589	517
NSE	0	0	0	0	0
Total	721	568	471	589	517
FTE	0.0	0.0	0.0	0.0	0.0

* After company-wide exclusions of Non-GRC costs

** Refer to "Detail of Adjustments to Recorded" page for line item adjustments

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: C. New Environmental Reg Balancing Acct (NERBA)
 Category-Sub: 2. New Environmental Reg Balancing Acct (NERBA)
 Workpaper: 1EV002.002 - RNERBA-AB32 Fees-Gas

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs					
Years	2012	2013	2014	2015	2016
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0

<u>Year</u>	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>RefID</u>
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Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper 1EV002.002

Supplemental Workpapers for Workpaper 1EV002.000

Supplemental Workpaper: RNERBA-Subpart W [1EV002.001]

Subpart W

US EPA enacted the 40 CFR Part 98, Subpart W rule, as it applies to oil and natural gas industry in 2010. Subpart W requires the collection of GHG data from facilities that conduct petroleum and natural gas systems activities, including production, processing, transmission, distribution and produce more than 25,000 metric tons of GHG emissions annually. SDG&E is mainly subject to the provisions of Subpart W that apply to its natural gas distribution system. A natural gas distribution facility (as defined under Subpart W) is a collection of all pipelines, metering stations, and regulating stations that are operated by a single local distribution company (such as SDG&E). Owners or operators of these sources are required to collect emission data; calculate GHG emissions; and follow the specified procedures for quality assurance, missing data, recordkeeping, and reporting. Reports are due annually on March 31 for data collected in the previous calendar.

Under section 98.232(i) of Subpart W, a local distribution company is required to report GHG emissions from six different source categories:

- a) Above ground meters and regulators at custody transfer city gate stations, including equipment leaks from connectors, block valves, control valves, pressure relief valves, orifice meters, regulators, and open ended lines. A custody transfer city gate station is a facility operated by SDG&E that receives natural gas from a transmission company, a local production company or another distribution company. The facility usually meters and reduces the pressure of the received natural gas to the main piping pressure, but may also add odorant to the natural gas.
- b) Above ground meters and regulators at non-custody transfer city gate stations, including station equipment leaks.
- c) Below ground meters and regulators and vault equipment leaks.
- d) Pipeline main equipment leaks.
- e) Service line equipment leaks.
- f) Stationary fuel combustion sources.

Link: <http://www.epa.gov/climatechange/emissions/subpart/w.html>

SDG&E is not seeking any funding for Subpart W in the forecast years.

Supplemental Workpaper: RNERBA-AB32 Fees-Gas [1EV002.002]

AB32 Administrative Fees

The California's Global Warming Solutions Act of 2006, referred to as "AB32" requires that administrative fees be paid to the California Air Resources Board (CARB) to recover its costs to implement AB32.

AB32 requires public utility gas corporations, such as SDG&E, to pay annual administrative fees for each therm of natural gas they deliver to any end user in California, excluding natural gas delivered to electric generating facilities and to wholesale providers.

AB32 requires electric generating facilities located in California, such as SDG&E's Palomar Power Plant, to pay annual administrative fees for each megawatt per hour (MW-hr) of net power generated by the combustion of natural gas. This is reported pursuant to CARB's mandatory greenhouse gas (GHG) reporting rule. AB32 generally requires electricity importers (defined as an owner of electricity generated outside of California as it is delivered to the first point of delivery in California) to pay administrative fees for each MW-hr of imported electricity reported pursuant to CARB's mandatory GHG reporting rule if the electricity is from unspecified sources or the combustion of fossil fuels.

SDG&E's AB32 Administrative Fees are currently tracked in the NERBA and SDG&E will continue to track in the NERBA during the GRC (2017-2019) due to the regulatory uncertainty related to GHG inventory and reporting requirements such as the Common Carbon Cost (CCC) that is calculated annually by CARB based on total required revenue to administer the program divided by the total statewide emissions covered by the AB32 Regulation. The CCC fluctuates from year to year based on revenue requirements and statewide emissions for a particular year.

The AB32 CARB Billing Summary report for SDG&E is shown below. These administrative fees are paid directly to CARB. SDG&E is not seeking additional dollars for the gas AB32 Administrative Fees beyond the base year level.

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SDG&E AB 32 COI Fees - CARB Billing Summary¹						
		Billed in 2013	Billed in 2014	Billed in 2015	Billed in 2016	Billed in 2017
		(For 2011 Emission Year)	(For 2012 Emission Year)	(For 2013 Emission Year)	(For 2014 Emission Year)	(For 2015 Emission Year)
Facility	ARB ID #	Amount	Amount	Amount	Amount	Amount
Electric Power Entity	3004	\$87,924	\$77,538	\$225,868	\$130,935	\$151,149
Miramar Energy Facility	101401	\$10,849	\$11,471	\$11,444	\$7,013	\$8,789
Palomar Energy Facility	100362	\$122,391	\$128,809	\$216,154	\$146,769	\$228,380
Cuyamaca Peak Energy Plant ²	101663	\$0	\$3,341	\$3,596	\$2,051	\$0
NERBA - Electric		\$221,164	\$221,159	\$457,062	\$286,768	\$388,318
<i>Covered Emissions (CO₂e) MT</i>		<i>1,541,344</i>	<i>1,844,379</i>	<i>3,263,596</i>	<i>1,935,739</i>	<i>1,964,416</i>
<i>Common Carbon Cost (\$/MT CO₂e)³</i>		<i>0.145</i>	<i>0.121</i>	<i>0.151</i>	<i>0.148</i>	<i>0.198</i>
Natural Gas - Local Distribution	104087	\$559,954	\$470,605	\$587,385	\$517,201	\$733,511
NERBA - Gas		\$559,954	\$470,605	\$587,385	\$517,201	\$733,511
<i>Covered Emissions (CO₂e) MT</i>		<i>3,841,725</i>	<i>3,878,411</i>	<i>3,885,262</i>	<i>3,487,626</i>	<i>3,701,789</i>
<i>Common Carbon Cost (\$/MT CO₂e)³</i>		<i>0.145</i>	<i>0.121</i>	<i>0.151</i>	<i>0.148</i>	<i>0.198</i>
	Total	\$781,118	\$691,764	\$1,044,447	\$803,969	\$1,121,829

¹Actual costs in this table are higher than forecasted. Changes will be shown in Errata. 8/16/17

²Cuyamaca was not part of SDGE's portfolio during 2011 (it was owned/operated by CalPeak). Cuyamaca was not billed in 2017 since its 2015 emissions were below the required threshold for AB32 reporting/verification.

³ Common Carbon Cost is calculated by CARB based on total required revenue to administer the program divided by the total statewide emissions covered by the AB32 Regulation. The CCC fluctuates from year to year based on revenue requirements and statewide emissions for a particular year.

Supplemental Workpaper: RNERBA-LDAR [1EV002.003]

Leak Detection and Repair (LDAR)

SB1371 requirements were finalized in 2015 and in May 2017 the California Public Utilities Commission (CPUC) issued a proposed decision (Rulemaking (R.) 15-01-008) that establishes best practices and reporting requirements to minimize natural gas emissions from California's regulated transmission and distribution natural gas systems. This proposed recent decision supports California's goal to reduce methane emissions 40% below 2013 levels by 2030 implements the following. The Rulemaking (R.)15-01-008 shall remain open to address implementation issues in a second phase.

1. Annual reporting for tracking methane emissions;
2. Mandatory best practices for minimizing methane emissions pertaining to policies and procedures, recordkeeping, training, experienced trained personnel, leak detection, leak repair, and leak prevention;
3. Biennial compliance plan incorporated into the utilities' annual Gas Safety Plans, beginning in March 2018.
4. Cost recovery process to facilitate Commission review and approval of incremental expenditures to implement best practices, Pilot Programs and Research & Development.

Supplemental Workpaper: RNERBA-MS4-Gas [1EV002.004]

Municipal Separate Stormwater Sewer System (MS4) Permit

On May 8, 2013, the San Diego Regional Water Quality Control Board (RWQCB) issued a revised MS4 Permit, to owner/operators that includes new requirements for the cities and municipalities located within San Diego County and Orange County and for the San Diego Unified Port District, San Diego County Regional Airport Authority and the Orange County Flood Control District. This permit requires reduction of discharge of pollutants in storm water to the “Maximum Extent Practicable” through requirements for construction activities and for areas of existing development (e.g., commercial and industrial facilities).

The MS4 Permit also requires development and implementation of “jurisdictional” requirements including best management practices (BMPs) and other requirements for new development and redevelopment projects and for existing developments. The MS4 Permit also requires the development and implementation of watershed based plans (Water Quality Improvement Plans or WQIPs) that identify “priority water bodies” that need further protection and/or restoration, and strategies for such protection and/or restoration.

Requirements for post-construction BMPs are more restrictive in the new MS4 Permit, which should result in increased costs for construction, and operation and maintenance of post-construction BMPs. In some cases, projects could require additional land to accommodate the post-construction BMPs. Further, post-construction BMPs under certain circumstances may also be required for linear construction projects. Because SDG&E’s facilities and operations are located largely within the San Diego RWQCB boundaries, SDG&E’s facilities and operations will be subject to the new requirements.

In 2016 San Diego and Orange Counties, City of San Diego, the Orange County Flood Control District and the San Diego County Regional Airport Authority issued updated stormwater ordinances, released their new jurisdictional plans and BMP requirements. SDG&E is in the process of implementing the new stormwater provisions and BMP guidance issued by the agencies listed above. However, SDG&E needs the support of a consultant due to the uncertainty of additional cities and municipalities requirements that may become more stringent during BMP implementation and may impose further compliance requirements during an inspection at one of our facilities in the future.

Please see the attached consultant cost estimate for MS4 work. Capital expenditures forecasts are sponsored by Real Estate, Land and Facilities (SDG&E 17 -CWP), and are prompted by the

forecasted MS4 permitting requirements which we project will require stormwater remediation facilities to be constructed at multiple SDG&E sites.



November 23, 2016

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SUBJECT: MUNICIPAL SEPARATE STORM SEWER SYSTEM PERMIT GAP ANALYSIS SUPPORT

Dear Ms. Kripke and Mr. Gaters:

In response to your request, Mikhail Ogawa Engineering Inc. (MOE) is pleased to submit this task order scope of work and fee estimate to San Diego Gas and Electric (SDG&E). This scope outlines proposed tasks and associated costs to evaluate the current Municipal Separate Storm Sewer System (MS4) Permit (Regional Water Quality Control Board Order No. R9-2015-0100) and Best Management Practice (BMP) requirements for ten existing SDG&E facilities subject to these regulations (Project).

As an operating commercial entity, SDG&E is required to meet minimum pollution prevention and discharge requirements within each jurisdiction in which it operates. The Regional MS4 Permit requires local jurisdictions to develop city-specific discharge prohibitions and minimum BMPs for owners and operators of industrial and commercial businesses within their jurisdictional boundaries. Each local jurisdiction has municipal codes that provide the legal authority to enforce the discharge prohibitions and minimum requirements for businesses within their jurisdictions, such as SDG&E. The objective of this Project outlined in the scope below is to evaluate SDG&E's selected facilities in accordance with such regulations and requirements.

MOE has experience providing facility reviews and recommendations for compliance with discharge prohibitions and minimum BMPs throughout the region. In fact, our firm has developed many Jurisdictional Runoff Management Plans (JRMPs) and minimum BMP requirements for several municipalities, developed and updated municipal codes, and assisted in the MS4 Permit reissuance process. All of these experiences will be vital in completing the tasks presented in the scope.

Our understanding of the Project is to evaluate the present conditions at ten SDG&E facilities as compared to the discharge prohibitions, municipal codes and minimum BMPs identified in the Regional MS4 Permit and jurisdiction-specific programs and codes. The ten facilities are located within the following jurisdictions:

3525 Del Mar Heights Road #429 ♦ San Diego, California 92130 ♦ (619) 994-7074 ♦ Fax (858) 225-0531

Ms. Adrianna Kripke and Mr. Willie Gaters
November 23, 2016
Page | 2

- City of Carlsbad (1 facility)
- City of El Cajon (1 facility)
- City of Escondido (1 facility)
- City of San Clemente (1 facility)
- City of San Diego (4 facilities)
- County of San Diego (2 facilities)

Applicable regulations, existing site conditions, operations, and BMP implementation will be evaluated at each facility, and recommendations and approaches for addressing these requirements at each site will be presented in a technical report as the final project deliverable.

I. SCOPE OF SERVICES

Based on our current understanding of the Project, MOE will provide the following professional services to support SDG&E's storm water program:

- ❖ **Task 1.** Review of all pertinent regulatory documents
- ❖ **Task 2.** Perform site visits
- ❖ **Task 3.** Develop draft and final technical report
- ❖ **Task 4.** (Optional) Perform facility-specific plan revisions

Task 1: MOE will evaluate the requirements of the MS4 Permit and jurisdictional requirements to identify those requirements that have an impact on SDG&E and its operations. This will include review of applicable Jurisdictional Runoff Management Plans (JRMPs), municipal codes, and MS4 Permit for mandated minimum BMPs as each of these may have specific requirements that affect the ten facilities. The detailed review will focus on Regional MS4 Permit requirements as well as regulatory documents of individual jurisdictions. Subtasks are as follows:

1A. Review of the Regional MS4 Permit, Jurisdictional Programs (e.g., JRMPs, Water Quality Improvement Plans), city-specific municipal codes, and minimum BMPs within the six jurisdictions where the facilities are located.

1B. Develop an inventory of BMP requirements and enforceable municipal code provisions that are applicable to each of the ten SDG&E facilities.

1C. Prepare a set of standardized checklists and assessment tools for the facility site visits. The checklists will ensure that facility evaluations are comprehensive and all necessary information is obtained during the site visits.

Task 2: To adequately assess SDG&E compliance with jurisdictional programs and/or minimum BMPs as identified in Task 1, MOE will coordinate with SDG&E staff to perform site visits at each of the ten facilities. Using the checklists and assessment tools developed as part of Task 1, the visits will be performed as internal audit inspections, where MOE will use the findings to develop facility-specific recommendations to meet jurisdictional and regional MS4 Permit requirements.

Site visits will evaluate all facility conditions and operations including, but not limited to: site drainage, implementation of existing BMPs, materials storage, staff work activities, location of storm drain inlets and conveyances, and irrigation infrastructure and activities. Based on current site conditions and BMPs observed at each facility, MOE will identify areas or activities that may not meet current standards of compliance with identified requirements.



Ms. Adrianna Kripke and Mr. Willie Gaters
 November 23, 2016
 Page | 3

MOE will identify a suite of recommended BMPs necessary to address potential gaps in meeting jurisdictional requirements. Based on the site conditions, existing BMPs and complexity of the areas, the recommended BMPs will include a range of the following:

- Non-Structural BMPs (activity & material based)
- Structural BMPs
- Combination of BMPs to address potential gaps

Task 3: MOE will develop a technical report as the main project deliverable. The technical report will summarize findings from Task 1 and Task 2, as well as provide details on the regulatory background and current site conditions at each facility. A draft outline of this deliverable is included in Attachment 1.

The minimum BMP options at each site will be presented as a spectrum of solutions for SDG&E, with costs for short- and long-term implementation (i.e. order of magnitude costs for structural design, installation and long-term maintenance). Options for different combinations of minimum BMPs will be prioritized at each site, with best combinations ranked for implementation. Ranking criteria will be based on best professional judgment and include: cost; complexity of implementation; maintenance efforts; and, timeliness of implementation.

Task 3 Deliverable(s): Draft Technical Report
 Final Technical Report

Task 4 (Optional): Under this optional task, MOE will further assist SDG&E by updating site-specific Storm Water Management Plans (SWMPs) for each facility based on the field evaluations performed in Task 2. This task would require MOE to obtain and review facility documents and plans, coordinate with facility staff if additional information is needed, and revise such plans as appropriate.

II. SCHEDULE, COST ESTIMATE, AND ASSUMPTIONS

It is our understanding that SDG&E expects the project tasks to be complete by the end of the first quarter of 2017, or March 31, 2017, with a draft technical report anticipated for submittal by the end of February 2017. Provided that a notice-to-proceed is issued in early December 2016, our proposed project timeline is presented in Table 1 and described as follows:

Table1: Schedule

Task	Timeline
Project kickoff meeting	December 2016
Task 1 – Regulatory review	December 2016 - (early) January 2017
Task 2 – Perform site visits	January 2017
Task 3 – Draft Technical Report	February 2017
Task 3 – Final Technical Report	March 31, 2017
<i>(Optional) Task 4 – Facility plan(s) revisions</i>	<i>TBD</i>

Activities included in Task 1 of the scope will be completed by January 2017. This includes the desktop review of all relevant regulatory documents (e.g., MS4 Permit requirements, JRMPs, municipal codes and minimum BMPs) applicable to each facility, as well as preparation of assessment tools and inspection checklists for the facility inspections. Site visits at all ten facilities will then be completed by the end of January 2017 under Task 2. The draft technical report will be prepared and delivered by the end of



Ms. Adrianna Kripke and Mr. Willie Gaters

November 23, 2016

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February 2017 for SDG&E internal review; the final technical report with incorporation of any comments/changes from SDG&E will be submitted to SDG&E by March 31, 2017.

A summary of proposed costs associated with each task is presented in Table 2.

Table 2: Summary of costs

Task	Estimated Hours	Estimated Total (\$)¹
Task 1	56	\$ 6,944.00
Task 2	70	\$ 8,680.00
Task 3	128	\$ 15,872.00
<i>Task 4 (Optional)</i>	<i>TBD</i>	<i>TBD</i>
Total	254	\$ 31,496.00

This scope of work is based on the following assumptions:

1. Ten facilities will be inspected as part of this project and MS4 gap analysis support. SDG&E will provide contact information for each facility; MOE will coordinate directly with each facility's point of contact. If additional facilities are to be included in the evaluation, the cost estimate may need to be adjusted.
2. Following the draft technical report to SDG&E, comments on the report and appendices from SDG&E will be returned to MOE within two weeks so that revisions may be incorporated prior to or on the final submittal due date.
3. The timeline presented above assumes SDG&E will provide the notice-to-proceed in early December (i.e. prior to December 15, 2016).
4. If SDG&E requests that MOE perform the revisions to the site-specific SWMPs or SPCC Plan documents as outlined in optional Task 4, the proposed costs and schedule will be agreed upon with SDG&E prior to commencement of such work.

Thank you again for this opportunity to submit this proposed scope of work. Please contact me anytime if you would like to discuss further or if you have any questions.

Respectfully,

A handwritten signature in blue ink, appearing to read "Mikhail Ogawa", with a long horizontal flourish extending to the right.

Mikhail Ogawa, P.E.
President

Enclosure:
Attachment 1



Attachment 1

**San Diego Gas & Electric Facility Evaluation and Recommendations
MS4 Permit & Local Programs
Proposed Draft Table of Contents**

EXECUTIVE SUMMARY

1 INTRODUCTION

- 1.1 Purpose
- 1.2 Regulatory Background
 - 1.2.1 MS4 Permit
 - 1.2.2 Jurisdictional Programs
 - 1.2.3 Municipal Codes
- 1.3 Facility Evaluation Process

2 APPLICABLE REGULATIONS

- 2.1 Municipal Code Summary
Include: Summary Table of Municipal Code Requirements
- 2.2 Minimum BMPs
Include: Summary Table of Minimum BMPs

3 TYPICAL SITE CONDITIONS

Informative section on typical on-site conditions for reference

- 3.1 General
 - 3.1.1 Drainage
 - 3.1.1.1 Runon/Runoff
 - 3.1.1.2 Inlets
 - 3.1.1.3 Etc.
 - 3.1.2 Threat to Water Quality Areas
 - 3.1.2.1 Storage
 - 3.1.2.2 Parking
 - 3.1.2.3 Operations
 - 3.1.2.4 Etc.
- 3.2 Best Management Practices
 - 3.2.1 Non-Structural BMPs (Activity Based)
 - 3.2.2 Structural BMPs

Attachment 1

4 FACILITY EVALUATIONS

Include: Summary table of facilities, characteristics, and sub-section #.

- 4.1 Facility 1
 - 4.1.1 Findings & Recommendations
 - 4.1.2 Site-Option(s) Cost Estimates
- 4.2 (Repeat 4.1 for all facilities)

5 CONCLUSION

6 REFERENCES

1. California Stormwater Quality Association Industrial & Commercial BMP Online Handbook, 2014
2. City of Carlsbad Minimum BMPs for Industrial and Commercial Facilities 2015
3. City of Carlsbad Municipal Code – Section 15.12 Stormwater Management and Discharge Control
4. City of El Cajon Jurisdictional Runoff Management Program, Appendix C Minimum BMPs: Industrial, Commercial, and Municipal Sites/Sources, 2015
5. City of El Cajon Municipal Code - Chapter 13.10 Storm Water Management and Discharge Control
6. City of Escondido Jurisdictional Runoff Management Program, Appendix B BMP Manual, 2015
7. City of Escondido Municipal Code – Chapter 22 Article 2 Stormwater Management and Discharge Control
8. City of San Clemente Stormwater Local Implementation Plan, 2012
9. City of San Clemente Municipal Code – Chapter 13.40 Stormwater Runoff Control
10. City of San Diego - Minimum BMPs for Industrial and Commercial Sites/Sources 2015
11. City of San Diego Municipal Code – Section 43.03 Stormwater Management and Discharge Control
12. County of San Diego Jurisdictional Runoff Management Program, 2015
13. County of San Diego Watershed Protection, Stormwater Management, and Discharge Control Ordinance

APPENDICES

Appendix A.1: Facility 1

Appendix A.2: Facility 2

Appendix A.n: Facility *n*

Appendix B: Detailed Summary of Muni Code requirements applicable to Facilities

Appendix C: Detailed Summary of Jurisdictional Minimum BMPs applicable to Facilities

Beginning of Workpaper
1EV002.004 - RNERBA-MS4-Gas

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: C. New Environmental Reg Balancing Acct (NERBA)
 Category-Sub: 3. New Environmental Reg Balancing Acct (NERBA)
 Workpaper: 1EV002.004 - RNERBA-MS4-Gas

Activity Description:

Forecast Explanations:

Labor - Base YR Rec

Non-Labor - Base YR Rec

NSE - Base YR Rec

Summary of Results:

		In 2016\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2012	2013	2014	2015	2016	2017	2018	2019	
Labor		0	0	0	0	0	0	0	0	
Non-Labor		0	0	0	0	0	15	15	15	
NSE		0	0	0	0	0	0	0	0	
Total		0	0	0	0	0	15	15	15	
FTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: C. New Environmental Reg Balancing Acct (NERBA)
 Category-Sub: 3. New Environmental Reg Balancing Acct (NERBA)
 Workpaper: 1EV002.004 - RNERBA-MS4-Gas

Summary of Adjustments to Forecast:

In 2016 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2017	2018	2019	2017	2018	2019	2017	2018	2019
Labor	Base YR Rec	0	0	0	0	0	0	0	0	0
Non-Labor	Base YR Rec	0	0	0	15	15	15	15	15	15
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
Total		0	0	0	15	15	15	15	15	15
FTE	Base YR Rec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Forecast Adjustment Details:

<u>Year</u>	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>	<u>RefID</u>	
2017	Other	0	15	0	15	0.0	1-Sided Adj	CSTRIEBE20170310165336843	
Explanation:		Consulting expenses							
2017 Total		0	15	0	15	0.0			
2018	Other	0	15	0	15	0.0	1-Sided Adj	CSTRIEBE20170310165348963	
Explanation:		Consulting expenses							
2018 Total		0	15	0	15	0.0			
2019	Other	0	15	0	15	0.0	1-Sided Adj	CSTRIEBE20170310165402437	
Explanation:		Consulting expenses							
2019 Total		0	15	0	15	0.0			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: C. New Environmental Reg Balancing Acct (NERBA)
 Category-Sub: 3. New Environmental Reg Balancing Acct (NERBA)
 Workpaper: 1EV002.004 - RNERBA-MS4-Gas

Determination of Adjusted-Recorded (Incurred Costs):

	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
Recorded (Nominal \$)*					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Vacation & Sick (Nominal \$)					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Escalation to 2016\$					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2016\$)					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0

* After company-wide exclusions of Non-GRC costs

** Refer to "Detail of Adjustments to Recorded" page for line item adjustments

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: C. New Environmental Reg Balancing Acct (NERBA)
 Category-Sub: 3. New Environmental Reg Balancing Acct (NERBA)
 Workpaper: 1EV002.004 - RNERBA-MS4-Gas

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs					
Years	2012	2013	2014	2015	2016
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0

<u>Year</u>	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>RefID</u>
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Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ENVIRONMENTAL
Witness: Nancy C. Clancy

Summary of Shared Services Workpapers:

Description	In 2016 \$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2016	2017	2018	2019
A. Environmental Services Director	249	249	249	249
B. VP Operations Support	440	440	440	440
C. Environmental Lab	1,091	664	660	660
D. Environmental Communications	732	565	668	758
Total	2,512	1,918	2,017	2,107

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ENVIRONMENTAL
Witness: Nancy C. Clancy
Category: A. Environmental Services Director
Cost Center: 2100-3589.000

Summary for Category: A. Environmental Services Director

	In 2016\$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2016	2017	2018	2019
Labor	190	190	190	190
Non-Labor	59	59	59	59
NSE	0	0	0	0
Total	<u>249</u>	<u>249</u>	<u>249</u>	<u>249</u>
FTE	1.2	1.2	1.2	1.2

Cost Centers belonging to this Category:

2100-3589.000 ENVIRONMENTAL SERVICES DIRECTOR

Labor	190	190	190	190
Non-Labor	59	59	59	59
NSE	0	0	0	0
Total	<u>249</u>	<u>249</u>	<u>249</u>	<u>249</u>
FTE	1.2	1.2	1.2	1.2

Note: Totals may include rounding differences.

Beginning of Workpaper
2100-3589.000 - ENVIRONMENTAL SERVICES DIRECTOR

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: A. Environmental Services Director
 Category-Sub: 1. Environmental Services Director
 Cost Center: 2100-3589.000 - ENVIRONMENTAL SERVICES DIRECTOR

Activity Description:

The Director of Environmental Services provides overall leadership, strategy and direction to the Environmental Services organization and is supported by one Director, one financial planning project manager and one administrative assistant. The activity is a shared service with SDG&E and SoCalGas.

Forecast Explanations:

Labor - Base YR Rec

A base year forecast methodology plus incremental upward and downward pressures was used to determine cost requirements during the forecast period. This methodology is most appropriate because it identifies specific environmental regulatory changes and their related costs impacting the Company during the forecast period. The labor costs are related to staffing the activity and include three full time employees. There were no incremental upward or downward pressures identified during the forecast period.

Non-Labor - Base YR Rec

A base year forecast methodology plus incremental upward and downward pressures was used to determine cost requirements during the forecast period. This methodology is most appropriate because it identifies specific environmental regulatory changes and their related costs impacting the Company during the forecast period. Non Labor primarily includes expenditures for consulting fees, employee expenses and departmental functions funded by the Director cost center. There were no incremental upward or downward pressures identified during the forecast period.

NSE - Base YR Rec

There were no NSE adjustments for cost center 2100-3589.000.

Summary of Results:

		In 2016\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2012	2013	2014	2015	2016	2017	2018	2019	
Labor		313	166	153	204	190	190	190	190	
Non-Labor		26	24	44	50	59	59	59	59	
NSE		0	0	0	0	0	0	0	0	
Total		339	190	197	254	249	249	249	249	
FTE		2.4	1.2	0.8	1.2	1.2	1.2	1.2	1.2	

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: A. Environmental Services Director
 Category-Sub: 1. Environmental Services Director
 Cost Center: 2100-3589.000 - ENVIRONMENTAL SERVICES DIRECTOR

Cost Center Allocations (Incurred Costs):

	2016 Adjusted-Recorded					2017 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	0	0	0	0.0	0	0	0	0	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	190	59	0	249	1.2	190	59	0	249	1.2
Total Incurred	190	59	0	249	1.2	190	59	0	249	1.2
% Allocation										
Retained	99.24%	99.24%				99.24%	99.24%			
SEU	0.76%	0.76%				0.76%	0.76%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

	2018 Adjusted-Forecast					2019 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	0	0	0	0.0	0	0	0	0	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	190	59	0	249	1.2	190	59	0	249	1.2
Total Incurred	190	59	0	249	1.2	190	59	0	249	1.2
% Allocation										
Retained	99.24%	99.24%				99.24%	99.24%			
SEU	0.76%	0.76%				0.76%	0.76%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ENVIRONMENTAL
Witness: Nancy C. Clancy
Category: A. Environmental Services Director
Category-Sub: 1. Environmental Services Director
Cost Center: 2100-3589.000 - ENVIRONMENTAL SERVICES DIRECTOR

Cost Center Allocation Percentage Drivers/Methodology:

Cost Center Allocation Percentage for 2016

This is the Environmental Services Director cost center that administrates over the SDG&E and SoCalGas Environmental Services organizations. This cost center is shared on the basis of a collective roll-up of forecasted labor and non-labor spend and shared service allocations from the other operational cost centers in Environmental Services, subject to the leadership and administration of the Director. This cost center includes one Financial Planning Project Manager and one Administrative Assistant in addition to the Director.

Cost Center Allocation Percentage for 2017

This is the Environmental Services Director cost center that administrates over the SDG&E and SoCalGas Environmental Services organizations. This cost center is shared on the basis of a collective roll-up of forecasted labor and non-labor spend and shared service allocations from the other operational cost centers in Environmental Services subject to the leadership and administration of the Director. This cost center includes one Financial Planning Project Manager and one Administrative Assistant in addition to the Director.

Cost Center Allocation Percentage for 2018

This is the Environmental Services Director cost center that administrates over the SDG&E and SoCalGas Environmental Services organizations. This cost center is shared on the basis of a collective roll-up of forecasted labor and non-labor spend and shared service allocations from the other operational cost centers in Environmental Services subject to the leadership and administration of the Director. This cost center includes one Financial Planning Project Manager and one Administrative Assistant in addition to the Director.

Cost Center Allocation Percentage for 2019

This is the Environmental Services Director cost center that administrates over the SDG&E and SoCalGas Environmental Services organizations. This cost center is shared on the basis of a collective roll-up of forecasted labor and non-labor spend and shared service allocations from the other operational cost centers in Environmental Services subject to the leadership and administration of the Director. This cost center includes one Financial Planning Project Manager and one Administrative Assistant in addition to the Director.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: A. Environmental Services Director
 Category-Sub: 1. Environmental Services Director
 Cost Center: 2100-3589.000 - ENVIRONMENTAL SERVICES DIRECTOR

Summary of Adjustments to Forecast:

In 2016 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2017	2018	2019	2017	2018	2019	2017	2018	2019
Labor	Base YR Rec	190	190	190	0	0	0	190	190	190
Non-Labor	Base YR Rec	59	59	59	0	0	0	59	59	59
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
Total		249	249	249	0	0	0	249	249	249
FTE	Base YR Rec	1.2	1.2	1.2	0.0	0.0	0.0	1.2	1.2	1.2

<u>Year</u>	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>	<u>RefID</u>
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Note: Totals may include rounding differences.

SDG&E/ENVIRONMENTAL/Exh No:SDG&E-23-WP/Witness: N. Clancy

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: A. Environmental Services Director
 Category-Sub: 1. Environmental Services Director
 Cost Center: 2100-3589.000 - ENVIRONMENTAL SERVICES DIRECTOR

Determination of Adjusted-Recorded (Incurred Costs):

	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
Recorded (Nominal \$)*					
Labor	255	136	127	174	163
Non-Labor	24	23	42	49	59
NSE	0	0	0	0	0
Total	280	159	170	223	222
FTE	2.1	1.0	0.7	1.0	1.0
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	255	136	127	174	163
Non-Labor	24	23	42	49	59
NSE	0	0	0	0	0
Total	280	159	170	223	222
FTE	2.1	1.0	0.7	1.0	1.0
Vacation & Sick (Nominal \$)					
Labor	37	22	20	27	27
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	37	22	20	27	27
FTE	0.3	0.2	0.1	0.2	0.2
Escalation to 2016\$					
Labor	21	8	5	3	0
Non-Labor	2	1	1	1	0
NSE	0	0	0	0	0
Total	22	9	6	4	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2016\$)					
Labor	313	166	153	204	190
Non-Labor	26	24	44	50	59
NSE	0	0	0	0	0
Total	339	190	197	254	249
FTE	2.4	1.2	0.8	1.2	1.2

* After company-wide exclusions of Non-GRC costs

** Refer to "Detail of Adjustments to Recorded" page for line item adjustments

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: A. Environmental Services Director
 Category-Sub: 1. Environmental Services Director
 Cost Center: 2100-3589.000 - ENVIRONMENTAL SERVICES DIRECTOR

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs					
Years	2012	2013	2014	2015	2016
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0

<u>Year</u>	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>RefID</u>
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Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ENVIRONMENTAL
Witness: Nancy C. Clancy
Category: B. VP Operations Support
Cost Center: 2100-3588.000

Summary for Category: B. VP Operations Support

	In 2016\$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2016	2017	2018	2019
Labor	329	329	329	329
Non-Labor	111	111	111	111
NSE	0	0	0	0
Total	440	440	440	440
FTE	1.7	1.7	1.7	1.7

Cost Centers belonging to this Category:

2100-3588.000 VP OPERATIONS SUPPORT

Labor	329	329	329	329
Non-Labor	111	111	111	111
NSE	0	0	0	0
Total	440	440	440	440
FTE	1.7	1.7	1.7	1.7

Note: Totals may include rounding differences.

Beginning of Workpaper
2100-3588.000 - VP OPERATIONS SUPPORT

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: B. VP Operations Support
 Category-Sub: 1. VP Operations Support
 Cost Center: 2100-3588.000 - VP OPERATIONS SUPPORT

Activity Description:

The Executive Vice President of Administrative Support and one administrative assistant make up this functional area. This activity serves as the executive oversight function and provides leadership for Environmental Services. The Executive Vice President of Administrative Support serves as the Company's Chief Environmental Officer.

Forecast Explanations:

Labor - Base YR Rec

A base year forecast methodology plus or minus incremental upward or downward pressures was used to determine cost requirements for the forecast period. This method is most appropriate because it identifies specific environmental regulatory changes and their related costs impacting the company during the GRC period. There were no incremental upward or downward cost pressures included in the forecast period.

Non-Labor - Base YR Rec

A base year forecast methodology plus or minus incremental upward or downward pressures was used to determine cost requirements for the forecast period. This method is most appropriate because it identifies specific environmental regulatory changes and their related costs impacting the company during the GRC period. There were no incremental upward or downward pressures included in the forecast period.

NSE - Base YR Rec

There were no NSE adjustments for cost center 2100-3588.000.

Summary of Results:

		In 2016\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2012	2013	2014	2015	2016	2017	2018	2019	
Labor		380	289	341	326	329	329	329	329	
Non-Labor		30	30	70	82	111	110	110	110	
NSE		0	0	0	0	0	0	0	0	
Total		410	319	411	408	440	439	439	439	
FTE		2.1	1.8	2.9	1.8	1.6	1.7	1.7	1.7	

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: B. VP Operations Support
 Category-Sub: 1. VP Operations Support
 Cost Center: 2100-3588.000 - VP OPERATIONS SUPPORT

Cost Center Allocations (Incurred Costs):

	2016 Adjusted-Recorded					2017 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	16	0	16	0.0	0	16	0	16	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	329	94	0	423	1.7	329	94	0	423	1.7
Total Incurred	329	110	0	439	1.7	329	110	0	439	1.7
% Allocation										
Retained	41.00%	41.00%				41.00%	41.00%			
SEU	57.00%	57.00%				57.00%	57.00%			
CORP	1.00%	1.00%				1.00%	1.00%			
Unreg	1.00%	1.00%				1.00%	1.00%			

	2018 Adjusted-Forecast					2019 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	16	0	16	0.0	0	16	0	16	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	329	94	0	423	1.7	329	94	0	423	1.7
Total Incurred	329	110	0	439	1.7	329	110	0	439	1.7
% Allocation										
Retained	41.00%	41.00%				41.00%	41.00%			
SEU	57.00%	57.00%				57.00%	57.00%			
CORP	1.00%	1.00%				1.00%	1.00%			
Unreg	1.00%	1.00%				1.00%	1.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ENVIRONMENTAL
Witness: Nancy C. Clancy
Category: B. VP Operations Support
Category-Sub: 1. VP Operations Support
Cost Center: 2100-3588.000 - VP OPERATIONS SUPPORT

Cost Center Allocation Percentage Drivers/Methodology:

Cost Center Allocation Percentage for 2016

This is the Executive Vice President cost center that provides directional oversight and governance over the SDG&E and SoCalGas Operational Support organizations. This cost center will allocate costs in proportion to the weighted average of shared service amounts for all cost centers under the direction of the office of the Vice President,

Cost Center Allocation Percentage for 2017

This is the Executive Vice President cost center that provides directional oversight and governance over the SDG&E and SoCalGas Operational Support organizations. This cost center will allocate costs in proportion to the weighted average of shared service amounts for all cost centers under direction of the office of the Vice President.

Cost Center Allocation Percentage for 2018

This is the Executive Vice President cost center that provides directional oversight and governance over the SDG&E and SoCalGas Operational Support organizations. This cost center will allocate costs in proportion to the weighted average of shared service amounts for all cost centers under direction of the office of the Vice President.

Cost Center Allocation Percentage for 2019

This is the Executive Vice President cost center that provides directional oversight and governance over the SDG&E and SoCalGas Operational Support organizations. This cost center will allocate costs in proportion to the weighted average of shared service amounts for all cost centers under the direction of the office of the Vice President.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: B. VP Operations Support
 Category-Sub: 1. VP Operations Support
 Cost Center: 2100-3588.000 - VP OPERATIONS SUPPORT

Summary of Adjustments to Forecast:

In 2016 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2017	2018	2019	2017	2018	2019	2017	2018	2019
Labor	Base YR Rec	329	329	329	0	0	0	329	329	329
Non-Labor	Base YR Rec	111	111	111	0	0	0	111	111	111
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
Total		440	440	440	0	0	0	440	440	440
FTE	Base YR Rec	1.7	1.7	1.7	0.0	0.0	0.0	1.7	1.7	1.7

<u>Year</u>	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>	<u>RefID</u>
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Note: Totals may include rounding differences.

SDG&E/ENVIRONMENTAL/Exh No:SDG&E-23-WP/Witness: N. Clancy

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ENVIRONMENTAL
Witness: Nancy C. Clancy
Category: B. VP Operations Support
Category-Sub: 1. VP Operations Support
Cost Center: 2100-3588.000 - VP OPERATIONS SUPPORT

Determination of Adjusted-Recorded (Incurred Costs):

	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
Recorded (Nominal \$)*					
Labor	310	237	133	36	36
Non-Labor	28	29	19	33	60
NSE	0	0	0	0	0
Total	338	265	153	69	96
FTE	1.8	1.5	1.5	0.5	0.4
Adjustments (Nominal \$) **					
Labor	0	0	150	240	247
Non-Labor	0	0	48	48	51
NSE	0	0	0	0	0
Total	0	0	198	288	298
FTE	0.0	0.0	1.0	1.0	1.0
Recorded-Adjusted (Nominal \$)					
Labor	310	237	284	276	283
Non-Labor	28	29	67	81	111
NSE	0	0	0	0	0
Total	338	265	351	357	393
FTE	1.8	1.5	2.5	1.5	1.4
Vacation & Sick (Nominal \$)					
Labor	45	38	46	44	47
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	45	38	46	44	47
FTE	0.3	0.3	0.4	0.3	0.2
Escalation to 2016\$					
Labor	25	14	11	5	0
Non-Labor	2	1	2	1	0
NSE	0	0	0	0	0
Total	27	16	14	7	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2016\$)					
Labor	380	289	341	326	329
Non-Labor	30	30	70	82	111
NSE	0	0	0	0	0
Total	410	319	411	408	440
FTE	2.1	1.8	2.9	1.8	1.6

* After company-wide exclusions of Non-GRC costs

** Refer to "Detail of Adjustments to Recorded" page for line item adjustments

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: B. VP Operations Support
 Category-Sub: 1. VP Operations Support
 Cost Center: 2100-3588.000 - VP OPERATIONS SUPPORT

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs					
Years	2012	2013	2014	2015	2016
Labor	0	0	150	240	247
Non-Labor	0	0	48	48	51
NSE	0	0	0	0	0
Total	0	0	198	288	298
FTE	0.0	0.0	1.0	1.0	1.0

Detail of Adjustments to Recorded:

Year	Adj Group	Labor	NLbr	NSE	FTE	Adj Type	RefID
2012 Total		0	0	0	0.0		
2013 Total		0	0	0	0.0		
2014	Other	-85	0	0	0.0	CCTR Transf To 2100-3067.000	CSTRIEBE20161118120344900
Explanation:	Transfer labor associated with Business Analyst role from cost center 2100-3588 in WP group to cost center 2100-3067 to align costs where Business Planning IT functions reside.						
2014	Other	0	1	0	0.0	CCTR Transf From 2200-2517.000	TP5MXD20170508124136030
Explanation:	Adjustment to nonlabor costs from 2200-2517 to 2100-3588 to appropriately reflect costs in SDGE for VP OPS Supp						
2014	Other	0	47	0	0.0	CCTR Transf From 2200-2517.000	TP5MXD20170508124413550
Explanation:	Adjustment to nonlabor costs from 2200-2517 to 2100-3588 to appropriately reflect costs in SDGE for VP OPS Supp.						
2014	Other	236	0	0	1.0	CCTR Transf From 2200-2517.000	TP5MXD20170508124546067
Explanation:	Adjustment to labor costs and FTE from 2200-2517 to 2100-3588 to appropriately reflect costs in SDGE for VP OPS Supp						
2014 Total		150	48	0	1.0		
2015	Other	-1	0	0	0.0	CCTR Transf To 2100-3067.000	CSTRIEBE20161118120441993
Explanation:	Transfer labor associated with Business Analyst role from cost center 2100-3588 in WP group to cost center 2100-3067 to align costs where Business Planning IT functions reside.						

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: B. VP Operations Support
 Category-Sub: 1. VP Operations Support
 Cost Center: 2100-3588.000 - VP OPERATIONS SUPPORT

<u>Year</u>	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>RefID</u>
2015	Other	0	48	0	0.0	CCTR Transf From 2200-2517.000	TP5MXD20170508132112980
Explanation: Adjustment to nonlabor costs from 2200-2517 to 2100-3588 to appropriately reflect costs in SDGE for VP OPS Supp.							
2015	Other	0	0	0	0.0	CCTR Transf From 2200-2517.000	TP5MXD20170508134701110
Explanation: Adjustment to nonlabor costs from 2200-2517 to 2100-3588 to appropriately reflect costs in SDGE for VP OPS Supp.							
2015	Other	241	0	0	1.0	CCTR Transf From 2200-2517.000	TP5MXD20170508135400840
Explanation: Adjustment to labor and FTE costs from 2200-2517 to 2100-3588 to appropriately reflect costs in SDGE for VP OPS Supp.							
2015 Total		240	48	0	1.0		
2016	Other	0	1	0	0.0	CCTR Transf From 2200-2517.000	TP5MXD20170508132850747
Explanation: Adjustment to nonlabor costs from 2200-2517 to 2100-3588 to appropriately reflect costs in SDGE for VP OPS Supp.							
2016	Other	0	49	0	0.0	CCTR Transf From 2200-2517.000	TP5MXD20170508132949370
Explanation: Adjustment to nonlabor costs from 2200-2517 to 2100-3588 to appropriately reflect costs in SDGE for VP OPS Supp.							
2016	Other	247	0	0	1.0	CCTR Transf From 2200-2517.000	TP5MXD20170508133346370
Explanation: Adjustment to labor and FTE costs from 2200-2517 to 2100-3588 to appropriately reflect costs in SDGE for VP OPS Supp.							
2016 Total		247	51	0	1.0		

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ENVIRONMENTAL
Witness: Nancy C. Clancy
Category: C. Environmental Lab
Cost Center: 2100-0632.000

Summary for Category: C. Environmental Lab

	In 2016\$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2016	2017	2018	2019
Labor	736	400	400	400
Non-Labor	355	264	260	260
NSE	0	0	0	0
Total	1,091	664	660	660
FTE	8.9	4.7	4.7	4.7

Cost Centers belonging to this Category:

2100-0632.000 ENVIRONMENTAL LAB OPERATIONS

Labor	736	400	400	400
Non-Labor	355	264	260	260
NSE	0	0	0	0
Total	1,091	664	660	660
FTE	8.9	4.7	4.7	4.7

Note: Totals may include rounding differences.

Beginning of Workpaper
2100-0632.000 - ENVIRONMENTAL LAB OPERATIONS

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: C. Environmental Lab
 Category-Sub: 1. Environmental Lab
 Cost Center: 2100-0632.000 - ENVIRONMENTAL LAB OPERATIONS

Activity Description:

SDG&E operates a California State Certified environmental laboratory that conducts environmental sampling and test analyses. The SDG&E Environmental Analysis Laboratory is certified to test over 500 chemical compounds. The Lab's sampling and test analyses on behalf of SDG&E primarily support SDG&E permitting and compliance, hazardous waste characterization and predictive and preventative testing for electrical equipment.

Forecast Explanations:

Labor - Zero-Based

A zero based forecast methodology was used to determine cost requirements. This method is most appropriate because it identifies the specific amount of labor costs that are required to operate the Lab during the forecast period. Due to the downsizing of the Lab that took place during the base year 2016, a base year or historical averaging forecast methodology is not appropriate as those forecasting methodologies would overstate the cost requirements during the forecast period. The labor forecast is based upon six full time employees that charge approximately 80% of their time to O&M work and 20% to Capital projects.

Non-Labor - Zero-Based

A zero based forecast methodology was used to determine cost requirements. This method is most appropriate because it identifies the specific amount of non labor costs that are required to operate the lab during the forecast period. Due to the downsizing of the Lab that took place during the base year 2016, a base year or historical averaging forecast methodology is not appropriate because those forecasting methodologies would overstate the cost requirements during the forecast period. The non labor costs required to operate the Lab primarily include contractor fees for outsourced work, lab supplies and employee-related expenses.

NSE - Zero-Based

There were no NSE adjustments for cost center 2100-0632-000.

Summary of Results:

		In 2016\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2012	2013	2014	2015	2016	2017	2018	2019	
Labor		832	832	820	784	736	400	400	400	
Non-Labor		417	423	389	257	355	264	260	260	
NSE		0	0	0	0	0	0	0	0	
Total		1,249	1,255	1,209	1,041	1,091	664	660	660	
FTE		10.3	10.3	10.0	9.6	9.0	4.7	4.7	4.7	

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: C. Environmental Lab
 Category-Sub: 1. Environmental Lab
 Cost Center: 2100-0632.000 - ENVIRONMENTAL LAB OPERATIONS

Cost Center Allocations (Incurred Costs):

	2016 Adjusted-Recorded					2017 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	3	12	0	15	0.0	0	0	0	0	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	734	343	0	1,077	8.9	400	264	0	664	4.7
Total Incurred	737	355	0	1,092	8.9	400	264	0	664	4.7
% Allocation										
Retained	96.50%	96.50%				100.00%	100.00%			
SEU	3.50%	3.50%				0.00%	0.00%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

	2018 Adjusted-Forecast					2019 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	0	0	0	0.0	0	0	0	0	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	400	260	0	660	4.7	400	260	0	660	4.7
Total Incurred	400	260	0	660	4.7	400	260	0	660	4.7
% Allocation										
Retained	100.00%	100.00%				100.00%	100.00%			
SEU	0.00%	0.00%				0.00%	0.00%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Cost Center Allocation Percentage Drivers/Methodology:

Cost Center Allocation Percentage for 2016

Last year of Shared Service

Cost Center Allocation Percentage for 2017

Non Shared Service Cost Center. All costs retained by SDG&E Environmental Services.

Cost Center Allocation Percentage for 2018

Non Shared Service cost center. All costs retained by SDG&E Environmental Services.

Cost Center Allocation Percentage for 2019

Non Shared Service cost center. All costs retained by SDG&E Environmental Services.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: C. Environmental Lab
 Category-Sub: 1. Environmental Lab
 Cost Center: 2100-0632.000 - ENVIRONMENTAL LAB OPERATIONS

Summary of Adjustments to Forecast:

In 2016 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2017	2018	2019	2017	2018	2019	2017	2018	2019
Labor	Zero-Based	0	0	0	400	400	400	400	400	400
Non-Labor	Zero-Based	0	0	0	264	260	260	264	260	260
NSE	Zero-Based	0	0	0	0	0	0	0	0	0
Total		0	0	0	664	660	660	664	660	660
FTE	Zero-Based	0.0	0.0	0.0	4.7	4.7	4.7	4.7	4.7	4.7

Forecast Adjustment Details:

Year	Adj Group	Labor	NLbr	NSE	Total	FTE	Adj Type	RefID	
2017	FOF-Ongoing	-667	-88	0	-755	-6.4	1-Sided Adj	CSTRIEBE20161205091347933	
Explanation:		Ongoing Fueling Our Future savings from downsizing the Environmental Lab through reduced headcount and non labor savings.							
2017	FOF-Ongoing	-6	0	0	-6	-0.1	1-Sided Adj	CSTRIEBE20161205132602670	
Explanation:		Recurring Fueling Our Future cost savings by eliminating the quarterly split sampling process for the Miramar Separator.							
2017	FOF-Ongoing	0	-1	0	-1	0.0	1-Sided Adj	CSTRIEBE20170306141403123	
Explanation:		Fueling Our Future savings achieved by direct charging business units for Lab services ordered with the objective of reducing the overall number of jobs serviced by the Lab.							
2017	Other	1,073	353	0	1,426	11.2	1-Sided Adj	CSTRIEBE20170308132748223	
Explanation:		Full year zero-based labor and non labor requirements to operate the Environmental Lab before the downsizing and cost reductions through Fueling Our Future initiatives.							
2017 Total		400	264	0	664	4.7			

2018	FOF-Ongoing	-667	-88	0	-755	-6.4	1-Sided Adj	CSTRIEBE20161205091724743	
Explanation:		Ongoing Fueling Our Future savings from downsizing the Environmental Lab headcount reduced non labor expenses.							
2018	FOF-Ongoing	-6	0	0	-6	-0.1	1-Sided Adj	CSTRIEBE20161205132722393	
Explanation:		Recurring savings from Fueling Our Future initiative to eliminate the quarterly split sampling process for the Miramar separator.							

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: C. Environmental Lab
 Category-Sub: 1. Environmental Lab
 Cost Center: 2100-0632.000 - ENVIRONMENTAL LAB OPERATIONS

<u>Year</u>	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj_Type</u>	<u>RefID</u>
2018	FOF-Ongoing	0	-5	0	-5	0.0	1-Sided Adj	CSTRIEBE20170306141438397
Explanation:		Cost savings related to Fueling Our Future initiative for direct charging business units for Lab services ordered with the objective of reducing the overall number of jobs serviced by the Lab.						
2018	Other	1,073	353	0	1,426	11.2	1-Sided Adj	CSTRIEBE20170308133223263
Explanation:		Full year zero-based labor and non labor costs to operate the Environmental Lab before downsizing and cost reductions through Fueling Our Future initiatives.						
2018 Total		400	260	0	660	4.7		
2019	FOF-Ongoing	-667	-88	0	-755	-6.4	1-Sided Adj	CSTRIEBE20161205091808977
Explanation:		Ongoing Fueling Our Future savings from downsizing the Environmental Lab headcount and reducing non labor expenses.						
2019	FOF-Ongoing	-6	0	0	-6	-0.1	1-Sided Adj	CSTRIEBE20161205132754417
Explanation:		On going Fueling Our Future savings by eliminating the quarterly split sampling process for the Miramar Separator.						
2019	FOF-Ongoing	0	-5	0	-5	0.0	1-Sided Adj	CSTRIEBE20170306141509210
Explanation:		Fueling Our Future savings for direct charging business units for Lab services ordered with the objective of reducing the overall number of jobs serviced by the Lab.						
2019	Other	1,073	353	0	1,426	11.2	1-Sided Adj	CSTRIEBE20170308133302360
Explanation:		Full year zero-based labor and non labor cost requirements to operate the Environmental Lab before downsizing and cost reductions through Fueling Our Future initiatives.						
2019 Total		400	260	0	660	4.7		

Note: Totals may include rounding differences.

SDG&E/ENVIRONMENTAL/Exh No:SDG&E-23-WP/Witness: N. Clancy

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ENVIRONMENTAL
Witness: Nancy C. Clancy
Category: C. Environmental Lab
Category-Sub: 1. Environmental Lab
Cost Center: 2100-0632.000 - ENVIRONMENTAL LAB OPERATIONS

Determination of Adjusted-Recorded (Incurred Costs):

	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
Recorded (Nominal \$)*					
Labor	679	683	684	668	631
Non-Labor	390	402	376	253	355
NSE	0	0	0	0	0
Total	1,069	1,084	1,060	921	986
FTE	9.0	8.8	8.5	8.2	7.6
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	679	683	684	668	631
Non-Labor	390	402	376	253	355
NSE	0	0	0	0	0
Total	1,069	1,084	1,060	921	986
FTE	9.0	8.8	8.5	8.2	7.6
Vacation & Sick (Nominal \$)					
Labor	98	108	109	103	105
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	98	108	109	103	105
FTE	1.4	1.5	1.5	1.4	1.4
Escalation to 2016\$					
Labor	55	41	27	13	0
Non-Labor	28	21	13	4	0
NSE	0	0	0	0	0
Total	82	62	40	17	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2016\$)					
Labor	832	832	820	784	736
Non-Labor	417	423	389	257	355
NSE	0	0	0	0	0
Total	1,249	1,255	1,209	1,041	1,091
FTE	10.4	10.3	10.0	9.6	9.0

* After company-wide exclusions of Non-GRC costs

** Refer to "Detail of Adjustments to Recorded" page for line item adjustments

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
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Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: C. Environmental Lab
 Category-Sub: 1. Environmental Lab
 Cost Center: 2100-0632.000 - ENVIRONMENTAL LAB OPERATIONS

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs					
Years	2012	2013	2014	2015	2016
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0

<u>Year</u>	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>RefID</u>
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Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: D. Environmental Communications
 Cost Center: 2100-3282.000

Summary for Category: D. Environmental Communications

	In 2016\$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2016	2017	2018	2019
Labor	695	448	538	628
Non-Labor	37	117	130	130
NSE	0	0	0	0
Total	<u>732</u>	<u>565</u>	<u>668</u>	<u>758</u>
FTE	6.1	4.6	5.6	6.6

Cost Centers belonging to this Category:

2100-3282.000 ENVIRONMENTAL COMMUNICATIONS

Labor	695	448	538	628
Non-Labor	37	117	130	130
NSE	0	0	0	0
Total	<u>732</u>	<u>565</u>	<u>668</u>	<u>758</u>
FTE	6.1	4.6	5.6	6.6

Note: Totals may include rounding differences.

Beginning of Workpaper
2100-3282.000 - ENVIRONMENTAL COMMUNICATIONS

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: D. Environmental Communications
 Category-Sub: 1. Environmental Communications
 Cost Center: 2100-3282.000 - ENVIRONMENTAL COMMUNICATIONS

Activity Description:

The Environmental Strategy activity is now referred to as the Environmental Communication activity. The group develops and manages internal and external environmental communications and performs agency outreach activities. This activity had been a shared service cost center in prior years which is why it is reflected as shared service in a separate workpaper group. During the forecast period, this activity will be a non-shared service activity.

Forecast Explanations:

Labor - Base YR Rec

A base year forecast methodology plus incremental upward and downward pressures was used to determine cost requirements in the forecast period. This method is most appropriate because it identifies specific incremental upward and downward pressures applicable to the forecast period. Incremental downward pressures include the retirement of two employees. Incremental upward pressures include the addition of three new employees to support the development and implementation of the communication plan during the forecast years. Employee labor is charged 100% O&M.

Non-Labor - Base YR Rec

A base year forecast methodology plus incremental upward and downward pressures was used to determine cost requirements in the forecast period. This method is most appropriate because it identified specific incremental upward and downward pressures applicable to the forecast period. Non labor expenditures include consulting fees, training and employee support costs.

NSE - Base YR Rec

There were no NSE adjustments for cost center 2100-3282.000.

Summary of Results:

		In 2016\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2012	2013	2014	2015	2016	2017	2018	2019	
Labor		605	637	671	733	695	448	538	628	
Non-Labor		218	150	74	57	37	116	129	129	
NSE		0	0	0	0	0	0	0	0	
Total		824	787	745	790	732	564	667	757	
FTE		5.9	5.8	6.0	6.6	6.0	4.6	5.6	6.6	

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: D. Environmental Communications
 Category-Sub: 1. Environmental Communications
 Cost Center: 2100-3282.000 - ENVIRONMENTAL COMMUNICATIONS

Cost Center Allocations (Incurred Costs):

	2016 Adjusted-Recorded					2017 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	1	0	1	0.0	0	1	0	1	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	695	35	0	730	6.1	448	115	0	563	4.6
Total Incurred	695	36	0	731	6.1	448	116	0	564	4.6
% Allocation										
Retained	79.34%	79.34%				100.00%	100.00%			
SEU	19.83%	19.83%				0.00%	0.00%			
CORP	0.83%	0.83%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

	2018 Adjusted-Forecast					2019 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	1	0	1	0.0	0	1	0	1	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	538	128	0	666	5.6	628	128	0	756	6.6
Total Incurred	538	129	0	667	5.6	628	129	0	757	6.6
% Allocation										
Retained	100.00%	100.00%				100.00%	100.00%			
SEU	0.00%	0.00%				0.00%	0.00%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Cost Center Allocation Percentage Drivers/Methodology:

Cost Center Allocation Percentage for 2016

Last year of shared service.

Cost Center Allocation Percentage for 2017

No longer shared service. All costs retained within SDG&E Environmental Services.

Cost Center Allocation Percentage for 2018

No longer shared service. All costs retained within SDG&E Environmental Services.

Cost Center Allocation Percentage for 2019

No longer shared service. All cost retained within SDG&E Environmental Services

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: D. Environmental Communications
 Category-Sub: 1. Environmental Communications
 Cost Center: 2100-3282.000 - ENVIRONMENTAL COMMUNICATIONS

Summary of Adjustments to Forecast:

In 2016 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2017	2018	2019	2017	2018	2019	2017	2018	2019
Labor	Base YR Rec	695	695	695	-247	-157	-67	448	538	628
Non-Labor	Base YR Rec	37	37	37	80	93	93	117	130	130
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
Total		732	732	732	-167	-64	26	565	668	758
FTE	Base YR Rec	6.1	6.1	6.1	-1.5	-0.5	0.5	4.6	5.6	6.6

Forecast Adjustment Details:

Year	Adj Group	Labor	NLbr	NSE	Total	FTE	Adj Type	RefID	
2017	Other	-305	0	0	-305	-2.0	1-Sided Adj	CSTRIEBE20161123105211227	
Explanation:		Retirement of two FTE's that are not expected to be backfilled into their former roles.							
2017	Other	0	0	0	0	0.0	SSD_Type Transf	CSTRIEBE20161205095001223	
Explanation:		Reduce labor for employee transfer to Field Operations							
2017	Other	90	0	0	90	1.0	1-Sided Adj	CSTRIEBE20161123105543477	
Explanation:		Upward pressure for the addition of one Communications Advisor in 2017 to support the communication plan activities.							
2017	Other	0	60	0	60	0.0	1-Sided Adj	CSTRIEBE20161129103231083	
Explanation:		Upward pressure for consulting expense related to outreach activities and implementation of the communication plan.							
2017	Other	0	20	0	20	0.0	1-Sided Adj	CSTRIEBE20161129103333357	
Explanation:		Upward pressure for employee non labor expenses and other non labor costs related to the expansion of the Communications group.							
2017	Other	0	0	0	0	0.0	SSD_Type Transf	CSTRIEBE20170307102447033	
Explanation:		Offset labor increase.							
2017	Other	-32	0	0	-32	-0.5	1-Sided Adj	CSTRIEBE20170309091729140	
Explanation:		Adjustment to reduce labor costs for the partial year transfer of employee to the Field Operations group within Environmental Services NSS, Upward pressure adjustment for the same amount is reflected in Environmental Svcs workpaper group 1EV000.000. Net impact to Department is \$0.							
2017 Total		-247	80	0	-167	-1.5			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: D. Environmental Communications
 Category-Sub: 1. Environmental Communications
 Cost Center: 2100-3282.000 - ENVIRONMENTAL COMMUNICATIONS

<u>Year</u>	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj_Type</u>	<u>RefID</u>
2018	Other	90	0	0	90	1.0	1-Sided Adj	CSTRIEBE20161129102850007
Explanation:		Upward pressure for the addition of one Graphics Designer in 2018 to support the implementation of the communications plan.						
2018	Other	-305	0	0	-305	-2.0	1-Sided Adj	CSTRIEBE20161205095118183
Explanation:		Labor reductions due to retirement of two FTE's that will not be backfilled into their former roles.						
2018	Other	90	0	0	90	1.0	1-Sided Adj	CSTRIEBE20161205095719760
Explanation:		Upward pressure for Communications Advisor added in 2017 to support the development and implementation of the Environmental Communications Plan.						
2018	Other	-32	0	0	-32	-0.5	1-Sided Adj	CSTRIEBE20170209093806670
Explanation:		Labor cost reduction due to the partial year employee transfer from the Strategy group to the Field Operations group in Environmental Services during the base year. The Field Operations group reflects the same amount \$32k as an upward cost pressure in workpaper group 1EV000.000. Net overall impact to Environmental Services is \$0						
2018	Other	0	60	0	60	0.0	1-Sided Adj	CSTRIEBE20170306133455537
Explanation:		Upward pressure for consulting expenses to support communication plan in addition to expanded agency outreach programs.						
2018	Other	0	20	0	20	0.0	1-Sided Adj	CSTRIEBE20170306133538390
Explanation:		Employee non labor expenses and other non labor expenses related to the growth of the Environmental Communications group.						
2018	Other	0	13	0	13	0.0	1-Sided Adj	CSTRIEBE20170306134137097
Explanation:		Upward pressure for benchmarking study fees not included in the base year.						
2018 Total		-157	93	0	-64	-0.5		
2019	Other	90	0	0	90	1.0	1-Sided Adj	CSTRIEBE20161129102925457
Explanation:		Upward pressure for the addition of one Communications Advisor in 2019 to support the communications plan.						
2019	Other	90	0	0	90	1.0	1-Sided Adj	CSTRIEBE20161205095228773
Explanation:		Upward pressure for the addition of one Graphics designer in 2018 to support the communications plan.						

Note: Totals may include rounding differences.

SDG&E/ENVIRONMENTAL/Exh No:SDG&E-23-WP/Witness: N. Clancy

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: D. Environmental Communications
 Category-Sub: 1. Environmental Communications
 Cost Center: 2100-3282.000 - ENVIRONMENTAL COMMUNICATIONS

<u>Year</u>	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>	<u>RefID</u>
2019	Other	-305	0	0	-305	-2.0	1-Sided Adj	CSTRIEBE20161205095316060
Explanation:		Labor cost savings from the retirement of two FTE's not expected to be backfilled into their former roles.						
2019	Other	0	60	0	60	0.0	1-Sided Adj	CSTRIEBE20161205095526070
Explanation:		Upward pressure for consulting expenses to support the communication plan and for expanded agency outreach activities.						
2019	Other	90	0	0	90	1.0	1-Sided Adj	CSTRIEBE20161205095755930
Explanation:		Upward pressure for the addition of one Communications Advisor in 2017 to support the communications plan.						
2019	Other	-32	0	0	-32	-0.5	1-Sided Adj	CSTRIEBE20170209093914717
Explanation:		Partial year transfer of employee from Stategy/Communications group to Field Operations group in Environmental Services during the base year. An upward pressure in the same amount (\$32k) is reflected for the Field Operations group in workpaper group 1EV000.000. The net overall impact to the Environmental Services Department is \$0						
2019	Other	0	20	0	20	0.0	1-Sided Adj	CSTRIEBE20170306133813127
Explanation:		Upward pressure for employee non labor expenses and other non labor increases related to staffing increase and implementation of the communications plan.						
2019	Other	0	13	0	13	0.0	1-Sided Adj	CSTRIEBE20170306134159050
Explanation:		Upward pressure for benchmarking study fees not included in the base year.						
2019 Total		-67	93	0	26	0.5		

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: D. Environmental Communications
 Category-Sub: 1. Environmental Communications
 Cost Center: 2100-3282.000 - ENVIRONMENTAL COMMUNICATIONS

Determination of Adjusted-Recorded (Incurred Costs):

	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
Recorded (Nominal \$)*					
Labor	494	523	560	624	596
Non-Labor	204	143	72	56	37
NSE	0	0	0	0	0
Total	698	665	631	681	633
FTE	5.1	4.9	5.2	5.6	5.1
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	494	523	560	624	596
Non-Labor	204	143	72	56	37
NSE	0	0	0	0	0
Total	698	665	631	681	633
FTE	5.1	4.9	5.2	5.6	5.1
Vacation & Sick (Nominal \$)					
Labor	72	83	89	96	99
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	72	83	89	96	99
FTE	0.8	0.9	0.9	1.0	0.9
Escalation to 2016\$					
Labor	40	31	22	12	0
Non-Labor	14	7	2	1	0
NSE	0	0	0	0	0
Total	54	39	25	13	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2016\$)					
Labor	605	637	671	733	695
Non-Labor	218	150	74	57	37
NSE	0	0	0	0	0
Total	824	787	745	790	732
FTE	5.9	5.8	6.1	6.6	6.0

* After company-wide exclusions of Non-GRC costs

** Refer to "Detail of Adjustments to Recorded" page for line item adjustments

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ENVIRONMENTAL
 Witness: Nancy C. Clancy
 Category: D. Environmental Communications
 Category-Sub: 1. Environmental Communications
 Cost Center: 2100-3282.000 - ENVIRONMENTAL COMMUNICATIONS

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs					
Years	2012	2013	2014	2015	2016
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0

<u>Year</u>	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>RefID</u>
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Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ENVIRONMENTAL
Witness: Nancy C. Clancy

Appendix A: List of Non-Shared Cost Centers

Cost Center	Sub	Description
2100-0190	000	HAZARDOUS MATERIAL MANAGEMENT
2100-0206	000	HAZMAT & HAZ WASTE OPS MANAGER
2100-0323	000	GENERATION DIVESTURE
2100-0391	000	ENVAL FEES
2100-0398	000	HAZARDOUS MATERIAL - SDGE
2100-3022	000	SDGE ENVIRONMENTAL PROGRAMS
2100-3033	000	ENV SAFETY & FAC LVC for Budget Use Only
2100-3034	000	ENVIRONMENTAL MANAGEMENT NORTH MANAGER
2100-3035	000	SITE ASSESSMENT & MITIGATION
2100-3301	000	ENVIRONMENTAL FEES
2100-3304	000	SILVERGATE SITE ASSESSMENT & MITIGATION
2100-3680	000	SUNRISE ENV & LAND
2100-3685	000	ENVIRONMENTAL FIELD OPERATIONS
2100-3746	000	SUNRISE R/W PRIVATE
2100-3747	000	SUNRISE R/W AGENCY
2100-3748	000	SUNRISE LAND SERVICES
2100-3749	000	SUNRISE LAND MANAGEMENT
2100-3750	000	SUNRISE ENVIRONMENTAL MITIGATION
2100-3818	000	ENV REFUNDABLE PROG
2100-3825	000	SUNRISE ENV OPERATIONS & MAINTENANCE
2100-3826	000	SUNRISE ENV COMPLIANCE
2100-3851	000	SUNRISE ENVIRONMENTAL
2100-3858	000	ENVIRONMENTAL CAPITAL PROGRAMS
2100-3965	000	ENVIRONMENTAL MITIGATION MANAGEMENT
2100-3967	000	ENVIRONMENTAL PLANNING
2100-3968	000	ENVIRONMENTAL AIR QUALITY GHG
2100-3969	000	ENVIRONMENTAL WATER RESOURCES
2100-3970	000	ENVIRONMENTAL NATURAL RESOURCES
2100-3971	000	ENVIRONMENTAL CULTURAL RESOURCES
2100-3985	000	ENVIRONMENTAL COMMUNICATIONS
2100-3987	000	ENV ENHANCEMENT PROGRAM