Application of SAN DIEGO GAS & ELECTRIC)
COMPANY for authority to update its gas and)
electric revenue requirement and base rates)
effective January 1, 2016 (U 902-M))
Application No. 14.11	
Application No. 14-11-	

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

WORKPAPERS TO PREPARED DIRECT TESTIMONY OF DAVID I. SARKARIA ON BEHALF OF SAN DIEGO GAS & ELECTRIC COMPANY

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

NOVEMBER 2014



2016 General Rate Case - APP INDEX OF WORKPAPERS

Exhibit SDG&E-23-WP - PENSION & PBOPS

DOCUMENT	PAGE
Overall Summary For Exhibit No. SDG&E-23-WP	1
Summary of Non-Shared Services Workpapers	2
Category: A. EMPLOYEE PENSION	3
1PN000.000 - EMPLOYEE PENSION	4
1PN000.001 - EMPLOYEE PENSION-PBOP	13
Appendix A: List of Non-Shared Cost Centers	22

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

Area: PENSION & PBOPs

Witness: David I. Sarkaria

Description
Non-Shared Services
Shared Services
Total

In 2013 \$ (000) Incurred Costs								
Adjusted-Recorded	Adjusted-Forecast							
2013	2014	2015	2016					
60,972	59,684	8,972	9,550					
0	0	0	0					
60,972	59,684	8,972	9,550					

Area: PENSION & PBOPs Witness: David I. Sarkaria

Summary of Non-Shared Services Workpapers:

Description
A. EMPLOYEE PENSION
Total

In 2013 \$ (000) Incurred Costs							
Adjusted- Recorded	Adjusted-Forecast						
2013	2014	2015	2016				
60,972	59,684	8,972	9,550				
60,972	59,684	8,972	9,550				

Area: PENSION & PBOPs Witness: David I. Sarkaria

Category: A. EMPLOYEE PENSION

Workpaper: VARIOUS

Summary for Category: A. EMPLOYEE PENSION

	In 2013\$ (000) Incurred Costs						
	Adjusted-Recorded		Adjusted-Forecast				
	2013	2014	2015	2016			
Labor	0	0	0	0			
Non-Labor	60,972	0	0	0			
NSE	0	59,684	8,972	9,550			
Total	60,972	59,684	8,972	9,550			
FTE	0.0	0.0	0.0	0.0			
Workpapers belonging t	o this Category:						
1PN000.000 EMPLOYE	E PENSION						
Labor	0	0	0	0			
Non-Labor	46,779	0	0	0			
NSE	0	48,660	0	0			
Total	46,779	48,660	0	0			
FTE	0.0	0.0	0.0	0.0			
1PN000.001 EMPLOYE	E PENSION-PBOP						
Labor	0	0	0	0			
Non-Labor	14,193	0	0	0			
NSE	0	11,024	8,972	9,550			
Total	14,193	11,024	8,972	9,550			
FTE	0.0	0.0	0.0	0.0			

Beginning of Workpaper 1PN000.000 - EMPLOYEE PENSION

Area: PENSION & PBOPs Witness: David I. Sarkaria

Category: A. EMPLOYEE PENSION
Category-Sub 1. EMPLOYEE PENSION

Workpaper: 1PN000.000 - EMPLOYEE PENSION

Activity Description:

This is SDG&E's qualified retirement benefits plan, also known as the San Diego Gas & Electric Company Cash Balance Plan. Represented and non-represented employees participate in the plan.

Forecast Explanations:

Labor - Zero-Based

Please see NSE below

Non-Labor - Zero-Based

Please see NSE below

NSE - Zero-Based

Zero Based method chosen as pension contributions are provided by the Company's certified actuary Towers Watson.

Summary of Results:

		In 2013\$ (000) Incurred Costs								
		Adjι	ısted-Recor	ded		Ad	justed-Fored	cast		
Years	2009	2010	2011	2012	2013	2014	2015	2016		
Labor	0	0	0	0	0	0	0	0		
Non-Labor	62,812	60,938	70,152	44,818	46,779	0	0	0		
NSE	0	0	0	0	0	48,660	0	0		
Total	62,812	60,938	70,152	44,818	46,779	48,660	0	0		
FTE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

Area: PENSION & PBOPs
Witness: David I. Sarkaria

Category: A. EMPLOYEE PENSION
Category-Sub: 1. EMPLOYEE PENSION

Workpaper: 1PN000.000 - EMPLOYEE PENSION

Forecast Summary:

In 2013 \$(000) Incurred Costs										
Forecas	t Method	Base Forecast			Forec	ast Adjust	tments	Adjusted-Forecast		
Years	s	2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Zero-Based	0	0	0	0	0	0	0	0	0
Non-Labor	Zero-Based	0	0	0	0	0	0	0	0	0
NSE	Zero-Based	0	0	0	48,660	0	0	48,660	0	0
Tota	ıl	0	0	0	48,660	0	0	48,660	0	0
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Forecast Adjustment Details:

Year/Expl.	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	Adj Type
2014	0	0	48,660	48,660	0.0	1-Sided Adj
2014 Pensio	on Projection					
2014 Total	0	0	48,660	48,660	0.0	
2015	0	0	0	0	0.0	1-Sided Adj
2015 Pensio	on Projection					
2015 Total	0	0	0	0	0.0	
2016	0	0	0	0	0.0	1-Sided Adj
2016 Pensio	on Projection					
2016 Total	0	0	0	0	0.0	

Area: PENSION & PBOPs Witness: David I. Sarkaria

Category: A. EMPLOYEE PENSION
Category-Sub: 1. EMPLOYEE PENSION

Workpaper: 1PN000.000 - EMPLOYEE PENSION

Determination of Adjusted-Recorded (Incurred Costs):

stermination of Aujusted	i-Recorded (incurred Cos 2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
ecorded (Nominal \$)*					
Labor	0	0	0	0	0
Non-Labor	56,833	56,967	68,461	44,956	46,779
NSE	0	0	0	0	0
Total	56,833	56,967	68,461	44,956	46,779
FTE	0.0	0.0	0.0	0.0	0.0
djustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	-574	-935	-838	0
NSE	0	0	0	0	0
Total	0	-574	-935	-838	0
FTE	0.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Nomin	nal \$)				
Labor	0	0	0	0	0
Non-Labor	56,833	56,393	67,526	44,118	46,779
NSE	0	0	0	0	0
Total	56,833	56,393	67,526	44,118	46,779
FTE	0.0	0.0	0.0	0.0	0.0
acation & Sick (Nominal \$	5)				
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
scalation to 2013\$					
Labor	0	0	0	0	0
Non-Labor	5,979	4,545	2,627	700	0
NSE	0	0	0	0	0
Total	5,979	4,545	2,627	700	0
FTE	0.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Const	ant 2013\$)				
Labor	0	0	0	0	0
Non-Labor	62,812	60,938	70,152	44,818	46,779
NSE	0	0	0	0	0
Total	62,812	60,938	70,152	44,818	46,779
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

Area: PENSION & PBOPs Witness: David I. Sarkaria

Category: A. EMPLOYEE PENSION
Category-Sub: 1. EMPLOYEE PENSION

Workpaper: 1PN000.000 - EMPLOYEE PENSION

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs									
Years	2009	2010	2011	2012	2013				
Labor	0	0	0	0	0				
Non-Labor	0	-574	-935	-838	0				
NSE	0	0	0	0	0				
Total	0	-574	-935	-838	0				
FTE	0.0	0.0	0.0	0.0	0.0				

Detail of Adjustments to Recorded:

Year/Expl.	<u>Labor</u>	<u>NLbr</u>	NSE	<u>FTE</u>	Adj Type	From CCtr	RefID
2009 Total	0	0	0	0.0			
2010	0	-574	0	0.0 1-	Sided Adj	N/A	DSREED2013120
					- · · · · · · · · · · · · · · · · · · ·		6105217373
Adjust to agre	e to pensior	n funding am	ount				
2010 Total	0	-574	0	0.0			
2011	0	-935	0	0.0 1-	Sided Adj	N/A	DSREED2013120
Adjustment to	agree to pe	nsion fundir	ig amount				6105551967
2011 Total	0	-935	0	0.0			
2012	0	-838	0	0.0 1-	Sided Adj	N/A	DSREED2013120
Adjust pensio	n to equal a	mount funde	ed				6110541023
2012 Total	0	-838	0	0.0			
2013 Total	0	0	0	0.0			

Supplemental Workpapers for Workpaper 1PN000.000

San Diego Gas & Electric Pension Contribution Projection For Years 2014-2016

ASSUMPTIONS

 Pension contribution amounts based on estimates provided by the Company's certified actuary, Towers Watson.

	Actual		Pro	ected			
	2013	2014	2	015	2	2016	
Pension Contributions	\$ 46,779,282	\$ 48,660,000	\$		\$		

San Diego Gas & Electric Company Qualified Pension Plan **General Rate Case Forecast**

FAS Costs - Minimum Required Contribution - Maximum Allowable Deduction

Reflecting New Segment Rates Passed in the Highway and Transportation Funding Act of 2014 (HATFA)

(in millions)

SE	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
SDG G&S Cost • FrAS Cost	20.12	21.19	29.35	31.96	33.05	31.31	29.95	28.23	27.45	27.94
Minimum Required	48.66	0.00	0.00	34.80	40.89	45.36	48.61	48.95	36.56	20.36
• Maximum Deductible	591.32	506.31	556.40	595.84	636.31	670.13	692.97	694.60	672.43	664.32
Agtive Participant Headcount (1)	4,555	4,603	4,795	4,854	4,893	4,893	4,893	4,893	4,893	4 ₹ 93 an
• Figh Funded Percentage (AVA ÷ FT)	99%	108%	104%	100%	98%	96%	96%	98%	101%	7- 49 3% eg
• Agtive Participant Headcount (1) • Agtive Participant Headcount (1) • Page 11 of 22 • Agtive Participant Headcount (1) • Page 11 of 22	tion data, forecast	ed active part	ticipant headco	ount provided	by Sempra.	Values shown	reflect one-ye	ear service rec	quirement for p	San Diego Gas & Electric Company 3 % 2016 G陳C - APP Won-Shared Se虔ice Workpapers



San Diego Gas & Electric Company Qualified Pension Plan **General Rate Case Forecast** FAS Costs - Minimum Required Contribution - Maximum Allowable Deduction

Reflecting New Segment Rates Passed in the Highway and Transportation Funding Act of 2014 (HATFA)

Assumptions and Notes

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Discount rate (FAS costs)	4.70%	4.35%	4.35%	4.35%	4.35%	4.35%	4.35%	4.35%	4.35%	4.35%
Effective interest rate (PPA - contributions)	6.40%	6.20%	6.02%	5.83%	5.35%	4.92%	4.57%	4.37%	4.35%	4.34%
Cash balance crediting rate	3.80%	3.52%	3.52%	3.52%	3.52%	3.52%	3.52%	3.52%	3.52%	3.52%
Annual compensation rate of increase	Age-graded									
Expected return on assets (FAS costs)	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%
Assumed investment return	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%
Lump sum rate	See notes									
Lump Sum Take Rate for All Years	90%									

San Diego Gas & Electric Company

GRC

Non-Shared Service Workpapers

- January 1, 2014 participant census
- December 31, 2013 value of assets
- Plan provisions as of January 1, 2014
- April 30, 2014 capital market conditions used to determine discount rates and cash balance/HRA crediting rates for 2015 and beyond
- All plans reflect annual mortality improvements for 2014 and 2015
- The mortality tables were changed from RP-2000 "Employees"/"Healthy Annuitants" tables using Scale AA to RP-2014 mortality tables projected using Scale MP-2014 starting in 2016
- Balance of assumptions same as noted in draft 2014 actuarial valuation reports
- SDG&E contributes minimum required contribution
- Forecasted counts reflect anticipated future headcount increases, and known participant transfers between plans during 2013
- For FAS costs, lump sum rate is a single effective rate based on PPA segment rates for November of prior year. For PPA contributions, lump sum rate is equal to the PPA segment rates.



Beginning of Workpaper
1PN000.001 - EMPLOYEE PENSION-PBOP

Area: PENSION & PBOPs Witness: David I. Sarkaria

Category: A. EMPLOYEE PENSION

Category-Sub 2. EMPLOYEE PENSION-PBOP

Workpaper: 1PN000.001 - EMPLOYEE PENSION-PBOP

Activity Description:

SDG&E provides post-retirement benefits other than pensions (PBOP) such as health and life insurance benefits, also known as the San Diego Gas & Electric Company Postretirement Health and Life Plans. Represented and non-represented employees participate in the plan.

Forecast Explanations:

Labor - Zero-Based

Please see NSE below

Non-Labor - Zero-Based

Please see NSE below

NSE - Zero-Based

Zero Based method chosen as PBOP contributions are provided by the Company's certified actuary Towers Watson.

Summary of Results:

				In 2013\$ (00	0) Incurred (Costs		
		Adju	sted-Recor		Ad	cast		
Years	2009	2010	2011	2012	2013	2014	2015	2016
Labor	0	0	0	0	0	0	0	0
Non-Labor	17,191	16,364	15,491	13,549	14,193	0	0	0
NSE	0	0	0	0	0	11,024	8,972	9,550
Total	17,191	16,364	15,491	13,549	14,193	11,024	8,972	9,550
FTE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Area: PENSION & PBOPs Witness: David I. Sarkaria

Category: A. EMPLOYEE PENSION

Category-Sub: 2. EMPLOYEE PENSION-PBOP

Workpaper: 1PN000.001 - EMPLOYEE PENSION-PBOP

Forecast Summary:

	In 2013 \$(000) Incurred Costs													
Forecas	t Method	Bas	se Foreca	st	Forec	ast Adjust	ments	Adjus	ted-Forec	ast				
Years	s	2014	2015	2016	2014	2015	2016	2014	2015	2016				
Labor	Zero-Based	0	0	0	0	0	0	0	0	0				
Non-Labor	Zero-Based	0	0	0	0	0	0	0	0	0				
NSE	Zero-Based	0	0	0	11,024	8,972	9,550	11,024	8,972	9,550				
Tota	ıl	0	0	0	11,024	8,972	9,550	11,024	8,972	9,550				
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				

Forecast Adjustment Details:

Year/Expl.	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	Adj Type
2014	0	0	11,024	11,024	0.0	1-Sided Adj
2014 PBOP	projection					
2014 Total	0	0	11,024	11,024	0.0	
2015 2015 PBOP	0 P projection	0	8,972	8,972	0.0	1-Sided Adj
2015 Total	0	0	8,972	8,972	0.0	
2016 2016 PBOP	0 P projection	0	9,550	9,550	0.0	1-Sided Adj
2016 Total	0	0	9,550	9,550	0.0	

Area: PENSION & PBOPs Witness: David I. Sarkaria

Category: A. EMPLOYEE PENSION

Category-Sub: 2. EMPLOYEE PENSION-PBOP

Workpaper: 1PN000.001 - EMPLOYEE PENSION-PBOP

Determination of Adjusted-Recorded (Incurred Costs):

sterillination of Aujusteu	-Recorded (incurred Cos 2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
ecorded (Nominal \$)*					
Labor	0	0	0	0	0
Non-Labor	15,554	15,195	14,910	13,337	14,193
NSE	0	0	0	0	0
Total	15,554	15,195	14,910	13,337	14,193
FTE	0.0	0.0	0.0	0.0	0.0
djustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	-52	0	0	0
NSE	0	0	0	0	0
Total	0	-52	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Nomin	al \$)				
Labor	0	0	0	0	0
Non-Labor	15,554	15,144	14,910	13,337	14,193
NSE	0	0	0	0	0
Total	15,554	15,144	14,910	13,337	14,193
FTE	0.0	0.0	0.0	0.0	0.0
acation & 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
scalation to 2013\$					
Labor	0	0	0	0	0
Non-Labor	1,636	1,221	580	212	0
NSE	0	0	0	0	0
Total	1,636	1,221	580	212	0
FTE	0.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Consta	ant 2013\$)				
Labor	0	0	0	0	0
Non-Labor	17,191	16,364	15,491	13,549	14,193
NSE	0	0	0	0	0
Total	17,191	16,364	15,491	13,549	14,193
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

Area: PENSION & PBOPs Witness: David I. Sarkaria

Category: A. EMPLOYEE PENSION

Category-Sub: 2. EMPLOYEE PENSION-PBOP

Workpaper: 1PN000.001 - EMPLOYEE PENSION-PBOP

Summary of Adjustments to Recorded:

	In Nominal \$ (000) Incurred Costs										
Years	2009	2010	2011	2012	2013						
Labor	0	0	0	0	0						
Non-Labor	0	-52	0	0	0						
NSE	0	0	0	0	0						
Total	0	-52	0		0						
FTE	0.0	0.0	0.0	0.0	0.0						

Detail of Adjustments to Recorded:

Year/Expl.	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	Adj Type	From CCtr	<u>RefID</u>
2009 Total	0	0	0	0.0			
2010	0	-52	0	0.0 1-8	ided Adj	N/A	DSREED2013120
Adjust to agre	a to PROP fi	ındina amoı	ınt				6105237137
Adjust to agre	c to i Boi it	anding aniot	arit				
2010 Total	0	-52	0	0.0			
2011 Total	0	0	0	0.0			
2012 Total	0	0	0	0.0			
2013 Total	0	0	0	0.0			

Supplemental Workpapers for Workpaper 1PN000.001

San Diego Gas & Electric PBOP Contribution Projection For Years 2014-2016

ASSUMPTIONS

 PBOP contribution amounts based on estimates provided by the Company's certified actuary, Towers Watson.

	Actual		Projected	
	2013	2014	2015	2016
PBOP Contributions	\$ 14,193,202	\$ 11,020,000	\$ 9,030,000	\$ 9,550,000

San Diego Gas & Electric Company PBOP **General Rate Case Forecast FAS Regulatory Costs** (in millions)

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Page 20 of 22

Cost and contributions are for the respective years, headcount and funded status information is as of 1/1.

Ø	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
SDG PBOP (1)										
• F AS Cost (2)	11.02	9.03	9.55	9.58	9.48	8.53	6.43	6.74	6.91	7.09
Contributions (3)	11.02	9.03	9.55	9.58	9.48	6.15	6.03	6.41	6.81	7.08
Active Participant Headcount	4,603	4,795	4,854	4,893	4,893	4,893	4,893	4,893	4,893	4,893
Far Value of Assets	145.77	158.91	169.93	181.20	192.24	203.10	210.58	218.33	226.96	236.13
• A <u>\$78</u> 0	168.09	189.60	203.17	210.48	217.56	224.57	231.68	239.48	248.08	257.16
 F@ded Percentage (FV ÷ APBO) 	87%	84%	84%	86%	88%	90%	91%	91%	91%	92%

OGE excludes valuation of the retiree utility discount program.



DGE 2014 cost includes an estimated one-time charge of \$3.15M for the 2014 VREP.

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Page 21 of 22

San Diego Gas & Electric Company PBOP General Rate Case Forecast FAS Regulatory Costs

Assumptions and Notes

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Baseline Assumptions:										
Discount rate (FAS costs)	5.00%	4.55%	4.55%	4.55%	4.55%	4.55%	4.55%	4.55%	4.55%	4.55%
 Expected return on assets (FAS costs) 	7%/4%	7%/4%	7%/4%	7%/4%	7%/4%	7%/4%	7%/4%	7%/4%	7%/4%	7%/4%
Assumed investment return	7%/4%	7%/4%	7%/4%	7%/4%	7%/4%	7%/4%	7%/4%	7%/4%	7%/4%	7%/4%
Healthcare Trend										
	Varies by									
 Pre - 65 	medical plan ⁽¹⁾	7.75%	7.75%	7.75%	6.50%	5.50%	5.00%	5.00%	5.00%	5.00%
 Post - 65 	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%	4.50%	4.50%	4.50%	4.50%

⁽¹⁾ The trend rate used in 2014 was 13.9% for Anthem plans and -4.3% for Kaiser plans For Mobile Gas, the trend rate used in 2014 was 8.25%

Notes

- January 1, 2013 participant census
- · Forecasted counts reflect anticipated future headcount increases as provided by Sempra and known participant transfers between plans during 2013
- April 30, 2014 capital market conditions for determining discount rates and cash balance/HRA crediting rates for 2015 and beyond market conditions are expected to remain constant throughout the forecast period
- December 31, 2013 value of assets
- Includes all plan changes described with December 31, 2013 disclosure
- SDG&E results were adjusted to reflect the estimated impact of the 2014 VREP.
- The 2014 trend rates were updated to reflect the most recent experience
- All plans reflect annual mortality improvements for 2014 and 2015
- The mortality tables were changed from RP-2000 "Employees"/"Healthy Annuitants" tables using Scale AA to RP-2014 mortality tables projected using Scale MP-2014 starting in 2016
- Other assumptions same as December 31, 2013 financial reporting
- SDG&E contributes the lesser of FAS cost or maximum tax deductible contributions



San Diego Gas & Electric Company



Area: PENSION & PBOPs Witness: David I. Sarkaria

Appendix A: List of Non-Shared Cost Centers

Cost Center	Sub	<u>Description</u>
2100-0375	000	EMPLOYEE PENSION
2100-8001	000	EMP BEN-LIFE INSURANCE RETIRED-For GRC use only