FILED
5-19-16
02:04 PM

APPENDIX B

Sempra 2016 GRC
Appendix B

Table of Contents

Section	Content
1	Summary of Rate Base Reductions
2	Southern California Gas - Rate Base Calculations
3	San Diego Gas & Electric / Gas - Rate Base Calculations
4	San Diego Gas & Electric / Electric - Rate Base Calculations
5	50% Bonus Depreciation for 2015 and 2016
6	Disallowance of SONGs O&M expense

Sempra 2016 GRC

Revenue Requirement Impact of Rate Base Reduction

Section 1

I. Summary of Calculations

Southern California Gas	NPV Costs**	Rate Base Reductions	
	$ 81,102	$ 59,815	See Section 2

San Diego Gas & Electric	2016 Present Rates	NPV Costs**	Percentage Ratio	Rate Base Reductions	
Gas Revenue Requirement	$ 310,452	$ 17,942	17%	$ 13,103	See Section 3
Electric Revenue Requirement	$ 1,479,399	$ 85,501	83%	$ 61,844	See Section 4
SDG&E Total GRC Revenue Requirement	$ 1,789,851	$ 103,443	100%	$ 74,947	

**Reference: TURN's motion to enter late-submitted exhibit into the Evidentiary Record, Workpapers, Page 1.
NPV Costs to Ratepayers are the higher future taxes due to forgone depreciation deductions less Section 481a adjustments, discounted to present value.

II. Adjustments in the RO model

Reductions were made to the Rate Base in the RO model. The following were the changes made to the RO model:

1) Southern California Gas

a) File Name: rbSCGTotals.xlsb, Tab: "Summarization": Adjustment of ($59,815) was made to cell: F23

2) San Diego Gas & Electric

a) File Name: rbSDGETotals.xlsb, Tab: "SummaryTotalRB": Adjustment of ($74,947) was made to cell: F21

b) File Name: rbSDGETotals.xlsb, Tab: "SummaryElectric": Adjustment of ($61,844) was made to cell: F20

c) File Name: rbSDGETotals.xlsb, Tab: "SummaryGas": Adjustment of ($13,103) was made to cell: F21

d) File Name: rbSDGETotals.xlsb, Tab: "ElecDistRatebase": Adjustment of ($61,844) was made to cell: F20

e) File Name: sum.xlsb, Tab: "Input 2": Made adjustments of ($61,844) to Electric Rate Base and ($13,103) to Gas Rate Base to Row 40

III. Revenue Impacts

1) Our models (shown in pages 2-4 of these workpapers) ESTIMATE that the 2016 Revenue Requirement impact of these Rate Base Reductions are:

a) Southern California Gas: Reduction of $7.143M

b) San Diego Gas & Electric - Electric Revenue Requirement: Reduction of $7.435M

c) San Diego Gas & Electric - Gas Revenue Requirement: Reduction of $1.554M

2) The Results of Operations model calculated that the ACTUAL 2016 Revenue Requirement impact of these Rate Base Reductions are:

a) Southern California Gas: Reduction of $7.138M

b) San Diego Gas & Electric - Electric Revenue Requirement: Reduction of $7.569M

c) San Diego Gas & Electric - Gas Revenue Requirement: Reduction of $1.580M

3) The ESTIMATED revenue requirements are within a 2% margin of error from the ACTUAL revenue requirement. See table below.

	Actual Rev Req Calculated by RO model	Estimated Rev Req	% Diff
SDGE/Gas	$1,624	$1,554	4.3%
SDGE/Electric	$7,780	$7,435	4.4%
SCG	$7,447	$7,143	4.1%

A.14-11-003, A.14-11-004 ALJ/JSW/RL8/jt2 PROPOSED DECISION

Sempra 2016 GRC
Revenue Requirement Impact of Rate Base Reduction
Section 2
Pg 1 of 2

Southern California Gas

(in $000s)

Total Revenue Requirement Impact 2015-2042 (Nominal $):	**(156,243)**
Net Present Value of Revenue Requirement Impact (2016 $):	**(81,102)**

Total Rate Base Reduction **$ 59,815**

Wt Cost of Capital (Rate of Return on RB)	8.02%
Income Tax Gross up	1.68765
FF&U NTG	1.01737
NTG Multiplier (adjusting for Taxes & FFU)	1.71697
Federal & State Tax Rate	40.746%
Uncollectible Rate	0.298%
Franchise Fee Rate	1.414%

	Capital Ratio	Cost	Weighted	Gross Up for Taxes & FFU	
Long Term Debt	45.60%	5.77%	2.63%	2.68%	
Preferred Stock	2.40%	6.00%	0.14%	0.25%	
Common Equity	52.00%	10.10%	5.25%	9.02%	
Total	100.00%		-8.03%	**11.94%**	a

		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Rate Base	b	(59,815)	(57,514)	(55,214)	(52,913)	(50,613)	(48,312)	(46,012)	(43,711)	(41,410)	(39,110)	(36,809)	(34,509)
Depreciation	c		(2,301)	(2,301)	(2,301)	(2,301)	(2,301)	(2,301)	(2,301)	(2,301)	(2,301)	(2,301)	(2,301)
Revenue Requirement Calculations (Bottoms Up)													
Return on Ratebase, after Gross Up	a*b	(7,143)	(6,868)	(6,593)	(6,319)	(6,044)	(5,769)	(5,494)	(5,220)	(4,945)	(4,670)	(4,396)	(4,121)
Depreciation Expense	c		(2,301)	(2,301)	(2,301)	(2,301)	(2,301)	(2,301)	(2,301)	(2,301)	(2,301)	(2,301)	(2,301)
Revenue Requirement (Nominal)	(a*b)+c	**(7,143)**	**(9,169)**	**(8,894)**	**(8,619)**	**(8,345)**	**(8,070)**	**(7,795)**	**(7,520)**	**(7,246)**	**(6,971)**	**(6,696)**	**(6,421)**
Net Present Value Calculations*													
Rev Req in 2016$		**(7,143)**	**(8,488)**	**(7,622)**	**(6,838)**	**(6,129)**	**(5,487)**	**(4,907)**	**(4,382)**	**(3,909)**	**(3,481)**	**(3,096)**	**(2,748)**
Net Present Value		**(81,102)**											

* Discount Rate used is the Cost of Capital, 8.02%.

Sempra 2016 GRC
Revenue Requirement Impact of Rate Base Reduction
Section 2 of 4
Pg 2 of 2

2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	Total
(32,208)	(29,907)	(27,607)	(25,306)	(23,006)	(20,705)	(18,405)	(16,104)	(13,803)	(11,503)	(9,202)	(6,902)	(4,601)	(2,301)	(0)	-
(2,301)	(2,301)	(2,301)	(2,301)	(2,301)	(2,301)	(2,301)	(2,301)	(2,301)	(2,301)	(2,301)	(2,301)	(2,301)	(2,301)	(2,301)	**(69,815)**
(3,846)	(3,571)	(3,297)	(3,022)	(2,747)	(2,473)	(2,198)	(1,923)	(1,648)	(1,374)	(1,099)	(824)	(549)	(275)	(0)	(96,428)
(2,301)	(2,301)	(2,301)	(2,301)	(2,301)	(2,301)	(2,301)	(2,301)	(2,301)	(2,301)	(2,301)	(2,301)	(2,301)	(2,301)	(2,301)	(59,815)
(6,147)	**(5,872)**	**(5,597)**	**(5,323)**	**(5,048)**	**(4,773)**	**(4,498)**	**(4,224)**	**(3,949)**	**(3,674)**	**(3,399)**	**(3,125)**	**(2,850)**	**(2,576)**	**(2,301)**	**(156,243)**
(2,436)	**(2,154)**	**(1,901)**	**(1,673)**	**(1,469)**	**(1,286)**	**(1,122)**	**(975)**	**(844)**	**(727)**	**(623)**	**(530)**	**(447)**	**(374)**	**(310)**	**(81,102)**

Sempra 2016 GRC
Revenue Requirement Impact of Rate Base Reduction
Section 3
Page 1 of 2

San Diego Gas & Electric - Gas
(in $000s)

Total Revenue Requirement Impact 2015-2042 (Nominal $):	**(34,077)**
Net Present Value of Revenue Requirement Impact (2016 $):	**(17,942)**

Total Rate Base Reduction	**$ 13,103**
Wt Cost of Capital (Rate of Return on RB)	7.79%
Income Tax Gross up	1.68765
FF&U NTG - Gas	1.02295
NTG Multiplier (adjusting for Taxes & FFU) - Gas	1.72637
Federal & State Tax Rate	40.746%
Uncollectible Rate - Gas	0.174%
Franchise Fee Rate - Gas	2.073%

	Capital Ratio	Cost	Weighted	Gross Up for Taxes & FFU	
Long Term Debt	45.25%	5.00%	2.26%	2.31%	
Preferred Stock	2.75%	6.22%	0.17%	0.30%	
Common Equity	52.00%	10.30%	5.36%	9.25%	
Total	100.00%		7.79%	**11.86%**	a

		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Rate Base	b	(13,103)	(12,599)	(12,095)	(11,591)	(11,088)	(10,584)	(10,080)	(9,576)	(9,072)	(8,568)	(8,064)	(7,560)
Depreciation	c		(504)	(504)	(504)	(504)	(504)	(504)	(504)	(504)	(504)	(504)	(504)
Revenue Requirement Calculations (Bottoms Up)													
Return on Ratebase, after Gross Up	a*b	(1,554)	(1,494)	(1,434)	(1,374)	(1,315)	(1,255)	(1,195)	(1,135)	(1,076)	(1,016)	(956)	(896)
Depreciation Expense	c		(504)	(504)	(504)	(504)	(504)	(504)	(504)	(504)	(504)	(504)	(504)
Revenue Requirement (Nominal)	(a*b)+c	**(1,554)**	**(1,998)**	**(1,938)**	**(1,878)**	**(1,819)**	**(1,759)**	**(1,699)**	**(1,639)**	**(1,580)**	**(1,520)**	**(1,460)**	**(1,400)**
Net Present Value Calculations*													
Rev Req in 2016$		**(1,553.56)**	**(1,853)**	**(1,668)**	**(1,500)**	**(1,347)**	**(1,209)**	**(1,083)**	**(970)**	**(867)**	**(774)**	**(690)**	**(614)**
Net Present Value		**(17,942)**											

* Discount Rate used is the Cost of Capital, 7.79%.

A.14-11-003, A.14-11-004 ALJ/JSW/RL8/jt2 PROPOSED DECISION

Sempra 2016 GRC
Revenue Requirement Impact of Rate Base Reduction
Section 3
Page 2 of 2

2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	Total
(7,056)	(6,552)	(6,048)	(5,544)	(5,040)	(4,536)	(4,032)	(3,528)	(3,024)	(2,520)	(2,016)	(1,512)	(1,008)	(504)	-	-
(504)	(504)	(504)	(504)	(504)	(504)	(504)	(504)	(504)	(504)	(504)	(504)	(504)	(504)	(504)	**(13,103)**
(837)	(777)	(717)	(657)	(598)	(538)	(478)	(418)	(359)	(299)	(239)	(179)	(120)	(60)	-	(20,973)
(504)	(504)	(504)	(504)	(504)	(504)	(504)	(504)	(504)	(504)	(504)	(504)	(504)	(504)	(504)	(13,103)
(1,341)	**(1,281)**	**(1,221)**	**(1,161)**	**(1,102)**	**(1,042)**	**(982)**	**(922)**	**(862)**	**(803)**	**(743)**	**(683)**	**(623)**	**(564)**	**(504)**	**(34,077)**
(545)	**(483)**	**(427)**	**(377)**	**(332)**	**(291)**	**(255)**	**(222)**	**(192)**	**(166)**	**(143)**	**(122)**	**(103)**	**(86)**	**(72)**	**(17,942)**

Sempra 2016 GRC
Revenue Requirement Impact of Rate Base Reduction
Section 4
Page 1 of 2

San Diego Gas & Electric - Electric
(in $000s)

Total Revenue Requirement Impact 2015-2042 (Nominal $):	**(162,219)**
Net Present Value of Revenue Requirement Impact (2016 $):	**(85,501)**

Total Rate Base Reduction	**$ 61,844**
Wt Cost of Capital (Rate of Return on RB)	7.79%
Income Tax Gross up	1.68765
FF&U NTG - Electric	1.03729
NTG Multiplier (adjusting for Taxes & FFU) - Electric	1.75059
Federal & State Tax Rate	40.746%
Uncollectible Rate - Electric	0.174%
Franchise Fee Rate - Electric	3.427%

	Capital Ratio	Cost	Weighted	Gross Up for Taxes & FFU	
Long Term Debt	45.25%	5.00%	2.26%	2.35%	
Preferred Stock	2.75%	6.22%	0.17%	0.30%	
Common Equity	52.00%	10.30%	5.36%	9.38%	
Total	100.00%		7.79%	**12.02%**	a

		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Rate Base	b	(61,844)	(59,465)	(57,087)	(54,708)	(52,330)	(49,951)	(47,572)	(45,194)	(42,815)	(40,436)	(38,058)	(35,679)
Depreciation	c		(2,379)	(2,379)	(2,379)	(2,379)	(2,379)	(2,379)	(2,379)	(2,379)	(2,379)	(2,379)	(2,379)
Revenue Requirement Calculations (Bottoms Up)													
Return on Ratebase, after Gross Up	a*b	(7,435)	(7,149)	(6,863)	(6,577)	(6,291)	(6,005)	(5,719)	(5,433)	(5,147)	(4,861)	(4,575)	(4,290)
Depreciation Expense	c		(2,379)	(2,379)	(2,379)	(2,379)	(2,379)	(2,379)	(2,379)	(2,379)	(2,379)	(2,379)	(2,379)
Revenue Requirement (Nominal)	(a*b)+c	**(7,435)**	**(9,528)**	**(9,242)**	**(8,956)**	**(8,670)**	**(8,384)**	**(8,098)**	**(7,812)**	**(7,526)**	**(7,240)**	**(6,954)**	**(6,668)**
Net Present Value Calculations*													
Rev Req in 2016$		**(7,435)**	**(8,839)**	**(7,954)**	**(7,151)**	**(6,422)**	**(5,762)**	**(5,163)**	**(4,621)**	**(4,130)**	**(3,686)**	**(3,284)**	**(2,922)**
Net Present Value		**(85,501)**											

* Discount Rate used is the Cost of Capital, 7.79%.

Sempra 2016 GRC
Revenue Requirement Impact of Rate Base Reduction
Section 4
Page 2 of 2

2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	Total
(33,301)	(30,922)	(28,543)	(26,165)	(23,786)	(21,408)	(19,029)	(16,650)	(14,272)	(11,893)	(9,514)	(7,136)	(4,757)	(2,379)	(0)	-
(2,379)	(2,379)	(2,379)	(2,379)	(2,379)	(2,379)	(2,379)	(2,379)	(2,379)	(2,379)	(2,379)	(2,379)	(2,379)	(2,379)	(2,379)	**(61,844)**
(4,004)	(3,718)	(3,432)	(3,146)	(2,860)	(2,574)	(2,288)	(2,002)	(1,716)	(1,430)	(1,144)	(858)	(572)	(286)	(0)	(100,375)
(2,379)	(2,379)	(2,379)	(2,379)	(2,379)	(2,379)	(2,379)	(2,379)	(2,379)	(2,379)	(2,379)	(2,379)	(2,379)	(2,379)	(2,379)	(61,844)
(6,382)	**(6,096)**	**(5,810)**	**(5,524)**	**(5,238)**	**(4,952)**	**(4,666)**	**(4,380)**	**(4,094)**	**(3,808)**	**(3,522)**	**(3,237)**	**(2,951)**	**(2,665)**	**(2,379)**	**(162,219)**
(2,594)	**(2,299)**	**(2,033)**	**(1,793)**	**(1,677)**	**(1,383)**	**(1,209)**	**(1,053)**	**(913)**	**(788)**	**(676)**	**(576)**	**(488)**	**(408)**	**(338)**	**(85,501)**

Sempra 2016 GRC
Bonus Depreciation of 50% for 2015 and 2016
Section 5

I. Context

The Results of Operation model was adjusted to reflect 50% bonus depreciation for 2015 and 2016.
The 50% Bonus Depreciation was extended by the Protecting Americans from Tax Hikes Act (Path Act) in December 2015.

II. Adjustments in the RO model

To reflect the 50% bonus depreciation for 2015 and 2016, the following adjustments were made to the Results of Operations model.

1) Southern California Gas

a) File Name: taxSCGDeferred.xlsb, Tab: "2016RMFedDeprOnAdds": Adjustment of 50% was made to "Bonus Depreciation"
b) File Name: taxSCGDeferred.xlsb, Tab: "2015RMFedDeprOnAdds": Adjustment of 50% was made to "Bonus Depreciation"
c) File Name: taxSCGDeferred.xlsb, Tab: "2016RMFedDeprOnAddsShrdSvcs": Adjustment of 50% was made to "Bonus Depreciation"
d) File Name: taxSCGDeferred.xlsb, Tab: "2015RMFedDeprOnAddsShrdSvcs": Adjustment of 50% was made to "Bonus Depreciation"

2) San Diego Gas & Electric

a) File Name: taxSDGEDeferred.xlsb, Tab: "2016RMFedDeprOnAdds": Adjustment of 50% was made to "Bonus Depreciation"
b) File Name: taxSDGEDeferred.xlsb, Tab: "2015RMFedDeprOnAdds": Adjustment of 50% was made to "Bonus Depreciation"
c) File Name: taxSDGEDeferred.xlsb, Tab: "2016RMFedDeprOnAddsShrdSvcs": Adjustment of 50% was made to "Bonus Depreciation"
d) File Name: taxSDGEDeferred.xlsb, Tab: "2015RMFedDeprOnAddsShrdSvcs": Adjustment of 50% was made to "Bonus Depreciation"

III. Revenue Impacts

2016 Revenue Requirement impact of reflecting 50% Bonus Depreciation for 2015 and 2016 are:

a) Southern California Gas: Reduction of $12.784M in Revenue Requirement
b) San Diego Gas & Electric: Reduction of $9.390M in Revenue Requirement

Sempra 2016 GRC
Adjustment to SONGs O&M
Section 5

I. Context

In its Test Year 2016 GRC application, SDG&E requests $1.064 million for SONGS Unit 1 offsite spent fuel costs. The decision disallows recovery of these costs.

II. Adjustments in the RO model

San Diego Gas & Electric

a) File Name: RO.mdb, 2100-NSS, 1ES000-000 EG SONGS Wkp_Grp1: Adjustment of ($1,064) to NSE