

Proceeding No.: A.10-07-
Exhibit No.: _____
Witness: Frederick W. Myers

Application of San Diego Gas & Electric Company (U 902 E) for Approval of its Proposals for Dynamic Pricing and Recovery of Incremental Expenditures Required for Implementation.

**PREPARED DIRECT TESTIMONY OF
FREDERICK W. MYERS
CHAPTER 6
SAN DIEGO GAS & ELECTRIC COMPANY**

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA
July 06, 2010**



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1 **PREPARED DIRECT TESTIMONY OF**

2 **FREDERICK W. MYERS**

3 **CHAPTER 6**

4 **I. PURPOSE AND SUMMARY**

5 The purpose of my testimony is to (1) identify the forecasted dynamic pricing
6 Application (Application) revenue requirements based on the estimated costs presented by San
7 Diego Gas & Electric Company (SDG&E) witnesses and (2) describe the development of the
8 forecasted revenue requirements for the periods 2010-2015 under SDG&E's proposal.

9 **II. DESCRIPTION OF INCREMENTAL DPA COSTS**

10 **A. Summary**

11 The forecasted revenue requirements identified in Attachment FWM-1 include the
12 incremental electric distribution capital and O&M costs presented in the testimony of various
13 SDG&E witnesses. Only incremental electric distribution costs are included in the revenue
14 requirements for recovery with details of the cost recovery proposal included in the testimony of
15 SDG&E witness Yvonne Le Mieux (Ch. 7) and the associated rate impacts presented in the
16 testimony of SDG&E witness Hansen (Ch. 4). These costs were adjusted to include applicable
17 sales taxes, overhead loaders, and price escalations, as identified in the Attachment FWM-2 and
18 FWM-3. Table FWM-1 below provides, at the aggregate level, the adjusted capital, O&M, and
19 Allowance for Funds Used During Construction (AFUDC) costs that are reflected in the revenue
20 requirements for electric operations for years 2010-2015.

Table FWM-1
Capital and O&M Costs
(includes escalation, sales taxes, and loaders)

<i>(in \$000)</i>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>Total</u>
Capital	\$ 2,676	\$ 23,747	\$ 18,063	\$ 7,228	\$ -	\$ -	\$ 51,713
AFUDC	\$ 57	\$ 1,261	\$ 2,020	\$ 603	\$ -	\$ -	\$ 3,941
O&M	\$ 1,700	\$ 5,079	\$ 9,593	\$ 17,062	\$ 15,717	\$ 13,276	\$ 62,427

B. Incremental Capital Costs

Attachment FWM-2 identifies the capital costs included in the revenue requirements, and the sponsoring SDG&E witness for the particular cost. The major capital costs include information technology (IT) systems development and implementation costs (Ch. 5, Daniel Shulman), (b) PeakShift at Work (PSW) related website development costs (Ch. 2, Glen Breed), and (c) PeakShift at Home (PSH) related website development costs (Ch. 3, William Saxe).

C. Incremental O&M Costs

Attachment FWM-3 identifies the O&M cost elements included in the revenue requirements, and the sponsoring SDG&E witness for the particular cost. These O&M costs comprise numerous elements associated with the areas addressed in the prepared direct testimonies of SDG&E witnesses Messrs. Shulman, Breed and Saxe. The costs include O&M associated with the information technology (IT) systems, marketing, education, and outreach costs.

D. Adjustments to Direct Costs

The dynamic pricing proposal's costs reflect direct capital and O&M costs adjusted to include appropriate escalation factors and applicable overhead rates, sales taxes, and Allowance for Funds Used During Construction (AFUDC).

1
2 1. Escalation and Overhead Rates

3 Escalation factors and applicable overhead rates are applied to both capital and O&M
4 costs. Overhead rates are applied to each direct cost input, according to its classification as
5 union or non-union labor, contract labor, purchased services and capital using the same
6 methodology as the General Rate Case. Overhead rates were estimated using 2009 actuals.
7 Table FWM -2 below shows overhead rates that were applied.

<u>Overhead Category</u>	<u>Percentage</u>	<u>Loading Base</u>
Payroll Taxes	6.91%	Direct Labor
Vacation and Sick Time	16.01%	Direct Labor
Pension and Benefits	41.10%	Direct Labor
Worker's Compensation	2.20%	Direct Labor
Public Liability / Property Damage	4.07%	Direct Labor
Incentive Compensation Plan	22.24%	Non-Union Direct Labor
Purchased Services and Materials	0.48%	Contract Labor, Services and Purchased Materials
Administrative and General	3.57%	Capital, Company Labor and Contract Costs

8
9 Loaded constant-dollar incremental costs are escalated for inflation using the following
10 escalation factors for years 2010 – 2015. The factors shown below are from escalation indices
11 published in Global Insight's 1st Quarter 2009 Utility Cost Forecast.

<u>Cost Category</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
Capital	0.2%	1.8%	2.1%	2.7%	2.7%	2.2%
O&M Labor	0.5%	1.8%	2.2%	2.7%	2.7%	2.6%
O&M Non-Labor	1.4%	2.4%	2.9%	2.9%	2.7%	2.6%

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2. Sales Taxes

Costs also include applicable sales taxes on purchased materials and service. A sales tax rate of 8.75 percent was applied. SDG&E witness Mr. Shulman (Ch. 5) identifies the costs which require the application of sales taxes.

3. AFUDC

SDG&E will finance capital projects using debt, equity, and preferred stock in proportions matching its Commission-authorized capital structure. SDG&E recovers new project financing costs through the AFUDC mechanism while projects are in Construction Work in Progress (CWIP). Consequently, SDG&E has projected AFUDC for dynamic pricing-related IT capital projects that are in CWIP. AFUDC is applied until such time as the project is completed and transferred into service. At that time, AFUDC is no longer applied since the capital project then earns SDG&E's authorized return on rate base. AFUDC has been applied using SDG&E's authorized capital structure and rates of return as shown in Table FWM-5 of this testimony.

Monthly capital expenditures were projected for years 2010-2013 together with project-completion dates. The capital expenditure schedule along with the authorized capital structure and cost percentages are the input variables that determine the AFUDC amounts in Table FWM-1 above.

III. REVENUE REQUIREMENTS

The forecasted revenue requirements for the deployment period 2010-2013 are presented in Attachment FWM-1. The various components of the revenue requirements are discussed below.

1 **A. Rate Base**

2 Rate base reflects the sum of all the dynamic pricing proposal’s capital costs. The
3 average rate base net of depreciation and deferred taxes and its components is used in the
4 calculation of the 2010-2015 revenue requirements are presented in Table FWM-4 below.

<i>(in \$000)</i>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
IT Assets	\$ -	\$ -	\$ 3,852	\$ 14,179	\$ 13,546	\$ 8,567
Self-Developed Software	\$ -	\$ -	\$ 9,418	\$ 24,471	\$ 23,033	\$ 16,098
Total Rate Base	\$ -	\$ -	\$ 13,270	\$ 38,650	\$ 36,580	\$ 24,665

5
6 **B. O&M Costs**

7 As stated above, O&M costs reflect the sum of dynamic pricing-related O&M costs. The
8 O&M costs used in the calculation of the 2010-2015 revenue requirements are presented in Table
9 FWM -1.

10 **C. Return**

11 The return on rate base included in the proposal’s revenue requirements is calculated by
12 multiplying SDG&E’s currently authorized rate of return (ROR) of 8.40 percent by the average
13 rate base for each year. The average rate bases used in the return calculations are identified in
14 Table FWM-4 above. The authorized ROR is based on SDG&E’s authorized capital structure,
15 authorized cost of debt, cost of preferred stock, and authorized return on equity (ROE), effective
16 January 1, 2008. The ROR calculation is shown on Table FWM-5.

	<u>Capital Ratio</u> (%)	<u>Cost</u>	<u>Authorized</u> <u>Weighted Cost</u>
Long Term Debt	45.25%	5.62%	2.54%
Preferred Equity	5.75%	7.25%	0.42%
Common equity	<u>49.00%</u>	11.10%	<u>5.44%</u>
	100.00%		8.40%

D. Depreciation

Capital costs will be depreciated for book purposes under a straight-line remaining life depreciation method, in accordance with the Commission’s Standard Practice U-4, Determination of Straight-Line Remaining Life Depreciation Accruals. SDG&E proposes a depreciable life of 5 years for IT assets. The 5-year book life for IT assets is in accordance with the book life adopted for these assets in D.04-12-015 (SDG&E’s 2004 Cost of Service proceeding). While the 2008 General Rate Case settlement addressed other depreciation issues, the book like for IT assets remained as previously authorized. The resulting depreciation rate equals 20 percent for IT assets.

E. Taxes

1. Property Taxes

The forecasted property tax expenses for dynamic pricing-related assets are calculated by multiplying the projected assessed annual value of the assets as of the given year by the estimated tax rate of 1.246 percent. The assessed value is based on a Historical Cost Less Depreciation (HCLD) indicator of value, which is the primary value indicator for rate base regulated utility property. HCLD is the estimated cost of property that is subject to assessment

1 by the State Board of Equalization less depreciation on this property. The deferred federal
2 income tax reserve related to taxable property further reduces the HCLD indicator.

3 2. Income Taxes

4 This section provides SDG&E's estimate of income taxes that will be incurred due to
5 dynamic pricing-related investments, and discusses the assumptions and methodology used to
6 make the income tax estimates.

7 a. *Current and Deferred Tax*

8 California Corporation Franchise Tax (CCFT) and federal income tax expense are
9 estimated based on net operating income before income taxes. The estimated federal and state
10 income tax expenses are identified in the forecasted revenue requirements provided in
11 Attachment FWM-1. Current tax law has been utilized to compute income taxes for dynamic
12 pricing investments. Federal income tax expense, including deferred income tax, is calculated by
13 multiplying the statutory corporate federal income tax rate of 35 percent by applicable federal
14 taxable income. Similarly, state income tax expense is calculated by multiplying the statutory
15 rate of 8.84 percent of state taxable income.

16 In accordance with established Commission policy, ratemaking federal income taxes are
17 computed on a normalized basis. Deferred federal income taxes are calculated as the difference
18 between a depreciation calculation that uses a book life and method to depreciate the tax basis of
19 the property and federal Modified Accelerated Cost Recovery System (MACRS) tax
20 depreciation times the federal tax rate. The Accumulated Deferred Federal Income Tax Reserve
21 is included as a credit to rate base. State income taxes are calculated on a flow-through basis.

22 b. *Tax Depreciation*

1 For capital costs, which will consist primarily of IT-related computer software costs,
2 federal tax depreciation is calculated in accordance with the Tax Reform Act of 1986, as
3 amended. State tax depreciation is based on the Asset Depreciation Range system, as specified
4 by California law. In classifying property for tax depreciation purposes, SDG&E has followed
5 Internal Revenue Service (IRS) guidelines under the Modified Accelerated Cost Recovery
6 System (MACRS).

7 Under the IRS Guidelines, capitalized computer software is depreciated over a three-year
8 period using a straight-line depreciation method. Capitalized software is also depreciated over a
9 three-year period under the straight-line method for state income tax purposes. For tax purposes,
10 computer software can consist of two types: purchased software and internally developed
11 software. Purchased software is capitalized and depreciated over three years using a straight-line
12 method for both federal and state taxes. Internally developed software may be deducted
13 currently as an expense. As discussed in Chapter 5 (Shulman), IT costs will be comprised of
14 both purchased and internally developed software. SDG&E will flow through the deductible
15 portion of internally developed software costs in calculating income tax expense for ratemaking
16 purposes, thereby lowering ratemaking income tax expense in the earlier years. The deferred
17 taxes associated with deductible internally developed software costs are not a component of the
18 accumulated deferred tax reserve that reduces ratebase. Instead, those deferred taxes are offset
19 by a regulatory asset that will reverse over five years as the software is amortized for book
20 purposes

21 **F. Franchise Fees and Uncollectibles**

22 Franchise Fees and Uncollectibles (FF&U) is the revenue requirement needed to pay
23 required franchise fees on electric sales and to recover estimated uncollectible expenses. The

1 FF&U factor used in calculating the proposed revenue requirement is 3.70 percent for electric,
2 which is the factor adopted in D.08-07-046 (SDG&E's Test Year 2008 General Rate Case).

3 This concludes my direct testimony.

1 **IV. STATEMENT OF QUALIFICATIONS**

2 My name is Frederick W. Myers. I am employed with SDG&E. My business address is
3 8326 Century Park Court, San Diego, California, 92123-1530. I am employed as a principal
4 business analyst in the Regulatory Case Financial area of the Finance department of SDG&E. I
5 have worked for SDG&E since June 2008. In my current capacity, I am responsible for
6 providing financial analysis of various utility projects and initiatives. In addition, I provide
7 regulatory financial support and have been involved in regulatory proceedings such as the
8 Advanced Metering Initiative for Southern California Gas Company. I am also responsible for
9 updating the utilities' project evaluation guide and toolkit, which provides financial analysis for
10 new utility projects.

11 I received a Bachelor of Science degree in Economics from the United States Naval
12 Academy in 2003. I received a Master of Business Administration degree from the University of
13 California, Los Angeles Anderson School of Management in 2010.

14 I have not testified previously at the Commission.

ATTACHMENT

FWM-1

**San Diego Gas & Electric
Dynamic Pricing Application
5 Year Property - Total O&M & Capital Costs
Annual Revenue Requirement - 2010-2015**

(\$ thousands)		2010	2011	2012	2013	2014	2015
Franchise Fees & Uncollectibles	3.70%	31.9	(283.6)	353.0	1,256.1	1,355.5	1,197.0
O&M expenses		1,700.5	5,078.9	9,592.9	17,061.5	15,716.9	13,275.8
Property Taxes	1.25%	-	-	165.3	481.6	455.8	307.3
Preferred Equity Interest	0.42%	-	-	55.3	161.1	152.5	102.8
Interest Expense	2.54%	-	-	337.5	982.9	930.2	627.2
Depreciation Expense		-	-	3,053.5	9,493.2	11,130.9	11,130.9
Federal Tax Expense		(668.1)	(10,165.5)	(3,299.0)	3,098.5	5,169.5	4,498.8
State Tax Expense		(168.7)	(2,582.4)	(1,081.2)	587.2	1,110.3	1,085.6
Return on Equity	5.44%	-	-	721.7	2,102.2	1,989.6	1,341.5
Revenue Requirement		<u>895.6</u>	<u>(7,952.7)</u>	<u>9,899.1</u>	<u>35,224.4</u>	<u>38,011.2</u>	<u>33,567.0</u>

ATTACHMENT

FWM-2

**San Diego Gas & Electric
Dynamic Pricing Application
5 Year Property - Capital Costs
Direct Capital Costs**

(\$ thousands)	2010	2011	2012	2013	2014	2015	Total
IT Systems (Mr. Shulman)	\$ 2,061	\$ 13,152	\$ 11,879	\$ 5,304	\$ -	\$ -	\$ 32,396
PeakShift at Home (Mr. Saxe)	\$ -	\$ 260	\$ 140	\$ -	\$ -	\$ -	\$ 399
PeakShift at Work (Mr. Breed)	\$ 110	\$ 4,828	\$ 1,135	\$ -	\$ -	\$ -	\$ 6,073
Total Capital	\$ 2,171	\$ 18,239	\$ 13,154	\$ 5,304	\$ -	\$ -	\$ 38,869

**San Diego Gas & Electric
Dynamic Pricing Application
5 Year Property - Capital Costs
(includes escalation, sales taxes and loaders)**

(\$ thousands)	2010	2011	2012	2013	2014	2015	Total
IT Systems (Mr. Shulman)	\$ 2,561	\$ 18,444	\$ 16,632	\$ 7,228	\$ -	\$ -	\$ 44,865
PeakShift at Home (Mr. Saxe)	\$ -	\$ 340	\$ 222	\$ -	\$ -	\$ -	\$ 561
PeakShift at Work (Mr. Breed)	\$ 115	\$ 4,963	\$ 1,209	\$ -	\$ -	\$ -	\$ 6,287
AFUDC	\$ 57	\$ 1,261	\$ 2,020	\$ 603	\$ -	\$ -	\$ 3,941
Total Capital	\$ 2,732	\$ 25,008	\$ 20,083	\$ 7,831	\$ -	\$ -	\$ 55,654

ATTACHMENT

FWM-3

**San Diego Gas & Electric
Dynamic Pricing Application
2010 - 2015 O&M Costs
Direct O&M Costs**

(\$ thousands)	2010	2011	2012	2013	2014	2015	Total
IT Systems (Mr. Shulman)	\$ 460	\$ 90	\$ 942	\$ 2,316	\$ 2,617	\$ 2,678	\$ 9,103
PeakShift at Home (Mr. Saxe)	\$ 62	\$ 572	\$ 1,177	\$ 2,358	\$ 2,728	\$ 2,810	\$ 9,706
PeakShift at Work (Mr. Breed)	\$ 477	\$ 3,132	\$ 4,577	\$ 7,070	\$ 5,008	\$ 2,887	\$ 23,151
Total O&M	\$ 999	\$ 3,794	\$ 6,695	\$ 11,744	\$ 10,353	\$ 8,375	\$ 41,961

**San Diego Gas & Electric
Dynamic Pricing Application
2010 - 2015 O&M Costs
(includes escalation, sales taxes and loaders)**

(\$ thousands)	2010	2011	2012	2013	2014	2015	Total
IT Systems (Mr. Shulman)	\$ 844	\$ 96	\$ 1,389	\$ 3,592	\$ 4,163	\$ 4,341	\$ 14,425
PeakShift at Home (Mr. Saxe)	\$ 119	\$ 926	\$ 1,746	\$ 3,313	\$ 3,860	\$ 4,207	\$ 14,171
PeakShift at Work (Mr. Breed)	\$ 737	\$ 4,057	\$ 6,458	\$ 10,157	\$ 7,694	\$ 4,729	\$ 33,831
Total O&M	\$ 1,700	\$ 5,079	\$ 9,593	\$ 17,062	\$ 15,717	\$ 13,276	\$ 62,427