Application No.: 07-05-____________
Exhibit No.: ____________________
Witness: Joanne C. Wang__________
Date: May 8, 2007_______________

Application No. 07-05-____
Exhibit No. SDGE-3

# SAN DIEGO GAS & ELECTRIC COMPANY
# PREPARED DIRECT TESTIMONY OF
# JOANNE C. WANG

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

May 8, 2007

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# PREPARED DIRECT TESTIMONY OF
# JOANNE C. WANG
# ON BEHALF OF
# SAN DIEGO GAS & ELECTRIC COMPANY

## I. INTRODUCTION

The purpose of my testimony is to present a forecast of the embedded costs of long-term debt and preferred stock for San Diego Gas & Electric Company (SDG&E or Company) for test year 2008 and to recommend maintaining SDG&E's current authorized capital structure. Table 1 summarizes the currently authorized and the forecasted embedded costs for SDG&E.

**Table 1 Embedded Costs for SDG&E**

| | Currently Authorized | 2008 Forecast |
|---|---|---|
| Long-term Debt | 5.75% | 5.55% |
| Preferred Stock | 6.83% | 6.77% |

The forecasted cost of debt is slightly lower than SDG&E's currently authorized cost of debt mainly because SDG&E has issued $500 million new and $161 million of refunding first mortgage bonds, which have lower interest rates, since the last cost of capital proceeding in 2005. The forecasted cost of preferred stock is slightly lower than SDG&E's currently authorized cost of preferred stock mainly because SDG&E plans to issue $75 million and $125 million of preferred stock in 2007 and 2008, respectively, which has lower forecasted effective rates than the current preferred portfolio. The following sections and the appendices detail my calculations and recommendation.

## II. THE 2008 EMBEDDED COST OF DEBT REFLECTS CONSIDERABLE NEW FINANCING

SDG&E's capital expenditure budget is expected to exceed internally generated cash for the next few years. Over the next five years, the Company expects to make capital expenditures of $4.1 billion at a rate ranging from $600 million to $1.1 billion per year. The Company's investment program reflects significant investments in generation, transmission, and new technologies. As a result, the Company plans to raise approximately $200 million and $430 million of new long-term debt in 2007 and 2008, respectively, by issuing taxable first mortgage bonds. Since the precise timing and terms of these financings have not yet been determined, I assume in my calculations three mid-year issues.

My embedded-debt calculations utilize the April 2007 Global Insight forecast of the thirty-year Treasury bond yield for 2007 and 2008 plus a recent SDG&E-specific credit spread provided by the Company's investment banks.

In keeping with prior SDG&E cost-of-capital testimony, I exclude SDG&E Funding LLC's rate-reduction bonds (RRBs) from my calculations. These special-purpose bonds, issued in December 1997, securitized assets stranded by electric deregulation under AB1890 and are serviced by a special charge paid by customers. Since the RRBs do not support the utility's ratebase, SDG&E excludes them from all aspects of traditional ratemaking. The RRBs will fully mature in December 2007. (See A.98-05-019 and CPUC interim decision D.97-09-054 for applicable precedent.)

As is customary in cost-of-capital proceedings, I will submit in September 2007 an embedded-cost update that reflects the latest Global Insight forecast as well as any changes to the Company's debt forecast that may take place between the preparation of this testimony and the submittal of the update.

## III. THE EMBEDDED PREFERRED-STOCK COST ALSO REFLECTS SDG&E'S SIZEABLE FINANCING NEEDS

In addition to the debt financings described above, the Company plans to support its capital-expenditure program by issuing approximately $75 million and $125 million of preferred stock during 2007 and 2008, respectively. Like the planned debt offerings, the new preferred stocks' exact terms and timing are still undefined, so I assume a mid-year issuance for each new series.

One aspect of SDG&E's embedded-cost calculation is the amortization of SDG&E's $1.7625 Preference Series, which features five years of mandatory sinking-fund redemptions followed by mandatory retirement. In January 2007, the Company retired 100,000 shares of this series, leaving 550,000 shares that the Company must fully retire in January 2008.

Similar to my debt calculations above, I utilize the April 2007 Global Insight forecast of the thirty-year Treasury bond yield for 2007 and 2008 plus a recent spread provided by the Company's investment banks to determine the new preferred securities' dividend rates. As with my debt calculations, I will update interest-rate and preferred-issuance forecasts in my September 2007 supplemental testimony.

## IV. THE COMPANY'S CURRENT RATEMAKING CAPITAL STRUCTURE REMAINS APPROPRIATE

SDG&E recommends a test-year 2008 capital structure composed of 45.25% debt, 5.75% preferred stock, and 49% common equity. The CPUC authorized this capital structure in Decision 99-06-057 and re-confirmed in Decisions 02-11-027 and 05-12-043, and the Company has been managing to it since then. Since SDG&E proposes to mitigate the negative impact of debt equivalence associated with PPAs and FIN 46(R) on a contract-by-contract basis as described by Mr. Schneider in Exhibit No. SDGE-4, the Company believes that the current authorized capital structure is appropriate for SDG&E's CPUC jurisdictional ratebase.

## V. CONCLUSION

My calculations, tabulated in Attachments 1 and 2, indicate that SDG&E's embedded costs of debt and preferred stock for test year 2008 will be 5.55% and 6.77%, respectively. As described herein, the current authorized capital structure for SDG&E, shown in Table 2, remains appropriate for test year 2008.

**Table 2 SDG&E Capital Ratio**

| | |
|---|---|
| Debt | 45.25% |
| Preferred | 5.75% |
| Equity | 49% |

This concludes my prepared direct testimony.

## VI. STATEMENT OF QUALIFICATIONS

I, Joanne C. Wang, am employed by Sempra Energy as a Finance Manager. My principal responsibilities include conducting analysis on company financing needs, performing financial and credit analysis for risk management, and executing financial transactions.

I possess a Ph. D in Electrical Engineering from the Illinois Institute of Technology and a Master of Business Administration degree from Kellogg-Northwestern. I have held a variety of engineering and financial positions in the utility, investment banking, and commercial banking industries. I joined the Corporate Finance department in the Treasury organization in 2003.

I have been involved in a number of proceedings held by the California Public Utilities Commission.

**Attachment 1**
**SDG&E Embedded Cost of Debt**
**Test Year 2008**
(in Thousands)

| Line number | Description | A<br>Principal | B<br>Total discount and expense | C<br>Net proceeds (A - B) | D<br>Annual interest payment | E<br>Total amortization | F<br>Effective rate [(D + E) ÷ C] |
|---|---|---|---|---|---|---|---|
| 1 | Series KK | 14,400 | 904 | 13,496 | 979 | 38 | |
| 2 | Series OO-2 | 60,000 | 556 | 59,444 | 3,000 | 16 | |
| 3 | Series OO-3 | 45,000 | 642 | 44,358 | 2,363 | 18 | |
| 4 | Series OO-4 | 45,000 | 417 | 44,583 | 2,250 | 12 | |
| 5 | Series RR | 60,000 | 2,143 | 57,857 | 3,510 | 77 | |
| 6 | Series VV | 43,615 | 1,196 | 42,419 | 1,107 | 40 | |
| 7 | Series WW | 40,000 | 1,097 | 38,903 | 1,016 | 37 | |
| 8 | Series XX | 35,000 | 961 | 34,039 | 881 | 32 | |
| 9 | Series YY | 24,000 | 660 | 23,340 | 680 | 22 | |
| 10 | Series ZZ | 33,650 | 923 | 32,727 | 953 | 31 | |
| 11 | Series AAA | 75,000 | 2,286 | 72,714 | 2,121 | 66 | |
| 12 | Series BBB | 250,000 | 3,006 | 246,994 | 13,375 | 100 | |
| 13 | Series CCC | 250,000 | 2,484 | 247,516 | 13,250 | 248 | |
| 14 | Series DDD | 250,000 | 3,496 | 246,504 | 15,000 | 175 | |
| 15 | Series EEE | 161,240 | 2,328 | 158,912 | 5,756 | 197 | |
| 16 | Amortization of call premiums | - | 24,269 | (24,269) | - | 4,328 | |
| 17 | First mortgage bonds | 1,386,905 | 47,367 | 1,339,538 | 66,240 | 5,439 | 5.35% |
| 18 | CPCFA96A | 129,820 | 1,368 | 128,452 | 7,659 | 76 | |
| 19 | CV96A | 38,900 | 569 | 38,331 | 2,062 | 23 | |
| 20 | CV96B | 60,000 | 680 | 59,320 | 3,300 | 27 | |
| 21 | CV97A | 25,000 | 386 | 24,614 | 1,225 | 15 | |
| 22 | Unsecured bonds | 253,720 | 3,003 | 250,717 | 14,246 | 141 | 5.74% |
| 23 | Other expense and amortization | - | 13 | (13) | 250 | 21 | |
| 24 | December 31, 2006 total long-term debt | 1,640,625 | 50,384 | 1,590,241 | 80,736 | 5,601 | 5.43% |
| 25 | Change in amortization during 2007 | | (68) | 68 | | (259) | |
| 26 | New debt issued in 2007: | | | | | | |
| 27 | Series FFF | 200,000 | 1,993 | 198,008 | 11,670 | 66 | |
| 28 | December 31, 2007 total long-term debt | 1,840,625 | 52,309 | 1,788,316 | 92,406 | 5,408 | 5.47% |
| 29 | Change in amortization during 2008 | - | (285) | 285 | - | (329) | |
| 30 | New debt issued in 2008: | | | | | | |
| 31 | Series GGG | 230,000 | 2,272 | 227,728 | 14,226 | 76 | |
| 32 | Series HHH | 200,000 | 1,996 | 198,004 | 12,370 | 67 | |
| 33 | December 31, 2008 total long-term debt | 2,270,625 | 56,576 | 2,214,049 | 119,001 | 5,551 | 5.63% |
| 34 | Average 2008 embedded cost of long-term debt | | | | | | 5.55% |

**Attachment 2**
**SDG&E Embedded Cost of Preferred**
**Test Year 2008**
(in Thousands)

| Line number | | A<br>Face amount | B<br>Expense | C<br>Net proceeds (A - B) | D<br>Dividend | E<br>Total amortization | F<br>Effective rate [(D + E) ÷ C] |
|---|---|---|---|---|---|---|---|
| | Not subject to mandatory redemption | | | | | | |
| 1 | 5% Series | 7,500 | (196) | 7,696 | 375 | - | |
| 2 | 4.5% Series | 6,000 | 0 | 6,000 | 270 | - | |
| 3 | 4.4% Series | 6,500 | (104) | 6,604 | 286 | - | |
| 4 | 4.6% Series | 7,475 | 50 | 7,425 | 344 | (0) | |
| 5 | $9.84 Series | 0 | 24 | (24) | 0 | 24 | |
| 6 | $7.20 Series | 0 | 135 | (135) | 0 | 29 | |
| 7 | $7.80 Series | 0 | 147 | (147) | 0 | 21 | |
| 8 | $2.68 Series | 0 | 114 | (114) | 0 | 114 | |
| 9 | $2.475 Series | 0 | 415 | (415) | 0 | 111 | |
| 10 | $4.65 Series | 0 | 0 | 0 | 0 | 237 | |
| 11 | $1.70 Series | 35,000 | 465 | 34,535 | 2,380 | - | |
| 12 | $1.82 Series | 16,000 | (75) | 16,075 | 1,165 | - | |
| 13 | Preferred not subject to redemption | 78,475 | 975 | 77,500 | 4,820 | 535 | 6.91% |
| | Subject to mandatory redemption | | | | | | |
| 14 | $15.44 Series | 0 | 118 | (118) | 0 | 118 | |
| 15 | $7.05 Series | 0 | 1,031 | (1,031) | 0 | 90 | |
| 16 | $1.7625 Series | 16,250 | 301 | 15,949 | 1,322 | 12 | |
| 17 | Preferred subject to redemption | 16,250 | 1,450 | 14,800 | 1,322 | 219 | 10.41% |
| 18 | December 31, 2006 total preferred | 94,725 | 2,426 | 92,300 | 6,142 | 755 | 7.47% |
| 19 | Preferred issued during 2007 | 75,000 | 2,613 | 72,388 | 4,388 | 87 | |
| 20 | Sink of $1.7625 during 2007 | (2,500) | (46) | (2,454) | (203) | (2) | |
| 21 | December 31, 2007 total preferred | 167,225 | 4,992 | 162,233 | 10,326 | 840 | 6.88% |
| 22 | Preferred issued during 2008 | 125,000 | 4,193 | 120,808 | 7,750 | 140 | |
| 23 | Sink of $1.7625 during 2008 | (13,750) | (255) | (13,495) | (1,119) | (10) | |
| 24 | December 31, 2008 total preferred | 278,475 | 8,929 | 269,546 | 16,957 | 969 | 6.65% |
| 25 | Average 2008 embedded cost of preferred | | | | | | 6.77% |