Application No.: 07-05-007
Exhibit No.: ____________________
Witness: Dennis V. Arriola, Michael M. Schneider and Joanne C. Wang
Date: August 8, 2007

Application No. 07-05-007
Exhibit No. SDGE-S1

SAN DIEGO GAS & ELECTRIC COMPANY
*REDACTED*
PREPARED SUPPLEMENTAL TESTIMONY OF
DENNIS V. ARRIOLA
MICHAEL M. SCHNEIDER
JOANNE C. WANG

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

August 8, 2007

#205905

## TABLE OF CONTENTS

## PREPARED SUPPLEMENTAL TESTIMONY OF DENNIS V. ARRIOLA, MIKE M. SCHNEIDER AND JOANNE C. WANG ON BEHALF OF SAN DIEGO GAS & ELECTRIC COMPANY

### I. INTRODUCTION

The purpose of this testimony is to respond to ALJ Galvin's June 14, 2007 request issued in the cost of capital pre-hearing conference for supplemental testimony on the impact of power purchase obligations on San Diego Gas & Electric's ("SDG&E") credit profile. In this supplemental testimony, we provide the requested information on SDG&E's credit ratings, business profile, and Standard & Poor's ("S&P") credit ratio guidelines for such business profile. SDG&E also provides pro forma credit ratios based on S&P's definitions for the requested cost of capital and currently authorized cost of capital. SDG&E strongly believes that its proposed equity rebalancing mechanism, described in the direct testimony of Mr. Schneider dated May 8, 2007, is fair and prudent policy for mitigating Power Purchase Agreement ("PPA") debt equivalence for SDG&E[1]. However, absent SDG&E's equity rebalancing proposal, the appropriate capital structure for SDG&E is described herein in Section VI. At the prehearing conference Commissioner Bohn requested information regarding decoupling of revenue and risk. In response, SDG&E has attached as Exhibit 1 a table that features the revenue requirement recovered through balancing and memorandum accounts.

[1] SDG&E presented its proposed equity rebalancing mechanism to mitigate the negative effect of entering into prospective PPAs on its credit ratios in the Long-Term Procurement Plan proceeding R.06-02-013. Although the contract evaluation process, which includes SDG&E's equity rebalancing costs, remains in the LTPP proceeding, SDG&E's ratemaking proposal associated with equity rebalancing was moved into this instant proceeding by ALJ Brown in a Ruling on Motions to Strike Testimony issued May 2, 2007.

## II. CURRENT CREDIT RATINGS

Ordering Paragraph 6 (OP6) from Decision 04-12-047 requires a utility to provide "current credit ratings from Moody's and S&P." SDG&E's current credit ratings are:

| | S&P | Moody's |
|---|---|---|
| Long-Term Issuer | A | A2 |
| Unsecured Debt | A- | A2 |
| Secured Debt | A+ | A1 |
| Preferred Stock | BBB+ | Baa1 |
| Commercial Paper | A-1 | P-1 |

## III. S&P BENCHMARKS

S&P assigns business profile scores using a 10-point scale, where '1' represents the lowest risk and '10' the highest risk. Business profile scores generally are assessed using five categories: regulation, markets, operations, competitiveness and management. SDG&E has been assigned a business profile score of 5 since 2004; the S&P financial guidelines for business profile 5 are shown in the table below:[2]

| S&P-Adjusted Ratio | "A" Range |
|---|---|
| Funds from Operations / Total Debt (%) | 30% to 22% |
| Total Debt / Total Capital (%) | 42% to 50% |
| Funds from Operations / Interest Coverage (x) | 4.5x to 3.8x |

[2] "New Business Profile Scores Assigned for U.S. Utility and Power Companies; Financial Guidelines Revised," Standard & Poor's, June 2, 2004.

## IV. SDG&E'S PPA DEBT EQUIVALENCE AND PROPOSED MITIGATION MECHANISM

In its most recent publication,[3] S&P calculates $697 million of debt equivalence associated with SDG&E's existing PPAs. SDG&E infers that S&P used the methodology described in their September 13, 2006 report that "capitalize(s) the capacity payments and have assumed 90% of all-in energy payments to equal the capacity payment in the case of SDG&E's wind and solar contracts."[4] S&P used an implied discount rate of 6.92% and assigned a risk factor of 25%.[5] The implied discount rate is slightly higher than SDG&E's cost of debt, so the debt equivalence calculated by S&P ($697 million) is lower than a calculation using SDG&E's cost of debt. To be conservative, SDG&E will use the same parameters, i.e. 6.92% as the discount rate and 25% as the risk factor, for debt equivalence calculations in this supplemental testimony.

In direct testimony filed on May 8, 2007, SDG&E's witness Schneider discussed in detail the necessity for SDG&E to enter into additional PPAs in order to replace the California Department of Water Resource ("CDWR") energy contracts and to meet the state-wide renewable standard. SDG&E filed its resource plan as shown in Exhibit 2 in the ongoing long term procurement plan proceeding (R.06-02-013). The following table shows the amount of MWs that SDG&E plans to place under contract during the planning horizon for both renewables and peakers in order to meet its long-term procurement plan

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[3] "Sempra Energy's, Units' Ratings Are Affirmed After Spin-Off News; Outlook Stable," Standard & Poor's, July 9, 2007.
[4] "Sempra Energy Research Report," Standard & Poor's, September 13, 2006, page 9.
[5] *Id.*

("New PPAs"). It should be noted that SDG&E will continue to sign more PPAs going forward in order to meet its resource requirement.

**Table 1 Projected in-service schedule for New PPAs**

| (MW- nameplate capacity) | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | Total |
|---|---|---|---|---|---|---|---|
| Renewable Resources PPAs | 2 | 5 | 7 | 275 | | | **288** |
| Peaker PPAs for CDWR Replacement /Resource Requirements | [redacted] | | | 450 | 150 | 200 | **930** |

Steps 1 to 4 of Appendix D in Mr. Schneider's prepared direct testimony details S&P's methodology of calculating PPA debt equivalence. In summary, the PPA debt equivalent equals the net present value of future capacity payments multiplied by an assigned risk factor. In order to estimate the capacity payments of the New PPAs, SDG&E uses $145/kW-Yr,[6] based on the installed cost published by the California Energy Commission ("CEC"), as the proxy capacity charge. This approach is consistent with S&P's published PPA debt equivalence calculation methodology.[7] Using 6.92% as the discount rate and a 25% risk factor, SDG&E would incur an additional $424 million of debt equivalence if it signed up the planned MWs, as shown in Table 2.

[6] Based on the installed cost per kW and Fixed O&M costs published by the California Energy Commission (CEC) in a Draft Staff Report entitled "Comparative Costs of California Central Station Electricity Generation Technologies"

[7] Bodek, David. "Research: Standard & Poor's Methodology for Imputing Debt for U.S. Utilities' Power Purchase Agreements," Standard & Poor's, New York: May 7, 2007.

**Table 2 – SDG&E PPA Debt Equivalence**

## Debt Equivalent

| ($MM) | 2007 | |
|---|---|---|
| PPA - Existing QF | 89 | 697 |
| PPA - Existing Renewables (inc. pending for approval) | 498 | |
| PPA - Existing PGE, SD Co Water, Other bilaterals | 110 | |
| PPA - Renewables to be signed | 95 | 424 |
| PPA - Peaker PPAs to be signed (base case) | 329 | |
| Total Debt Equivalent | $ 1,120 | |

The additional debt equivalence, a 61% increase over that associated with SDG&E's existing PPAs, will have a material adverse impact to SDG&E's credit profile, which is illustrated in the next section of this supplemental testimony. As mentioned before, because SDG&E needs to enter into more PPAs (in addition to the New PPAs) to meet its load demand shown in Exhibit 2, SDG&E's incremental debt equivalence will be greater than $424 million after signing additional PPAs. Given SDG&E's five-year cost of capital cycle under its MICAM, SDG&E strongly recommends in this proceeding that the Commission establish a proactive and timely equity adjustment policy for mitigating the adverse credit impacts of PPA debt equivalence that will preserve SDG&E's creditworthiness.

SDG&E has been advocating the concept that the equity rebalancing costs be recovered in rates only after customers receive benefits from contracts. The majority of the New PPAs will be phased into service over the next several years. There are several reasons why a contract-by-contract approach is preferable to an all-encompassing advance mitigation approach. Until a contract is signed, SDG&E does not know what treatment that PPA will receive; i.e., whether it will be required to be consolidated under FIN 46(R) or whether an associated debt equivalence will be added to SDG&E's credit balance sheet. The debt equivalence for New PPAs is estimated based on the proxy capacity charge and MWs planned to be signed. SDG&E believes that it is most equitable to recover a revenue requirement related to equity rebalancing once customers benefit from these contracts or projects so SDG&E has proposed the automatic mitigation mechanism detailed in the direct testimony of Mr. Schneider dated May 8, 2007. This ensures that customers would only face an incremental revenue requirement to offset the adverse credit impact mitigation costs associated with a PPA when they are actually served by the PPA.

It should be noted that S&P has been adding debt equivalence when the contracts become effective or have a higher probability of becoming effective. It should also be noted that FIN46(R) requires consolidation when the contracts are binding. S&P's $697 million PPA debt equivalence includes the debt equivalence of those PPAs that will be in service in 2009 or 2010 and those that are pending CPUC approval. SDG&E believes the proposed mechanism is fair to customers, who will not pay anything in advance, and to SDG&E, which will recover the costs associated with PPA debt equivalence mitigation in a relatively timely manner--albeit not concurrently with the initial assignment of debt equivalence or initial FIN 46(R) consolidation.

## V. ADVERSE IMPACT OF DEBT EQUIVALENCE ON CREDIT RATIOS

ALJ Galvin clarified that the utilities should calculate pro forma S&P credit ratios for 2007, instead of 2008, in response to a question from PG&E regarding the supplemental testimony. Using its 2007 financial forecast, SDG&E's credit ratios are as shown in Table 3.

**Table 3 – SDG&E Financial Ratios with and without PPA Debt Equivalence**

| | **2007** | **2007** | **Pro Forma Post Effective** | **S&P Guidelines for Business Profile 5** |
|---|---|---|---|---|
| | Without PPA Debt Equivalence | Including Existing PPA Debt Equivalence ($697MM) | Including All PPA Debt Equivalence ($1120MM) | |
| | Current ROR Current Cap | Current ROR Current Cap | Current ROR Current Cap | 'A' Rating |
| **FFO / Adjusted Debt** | **26.1%** | **19.7%** | **17.1%** | 30% - 22% |
| **Adjusted Total Debt / Total Capitalization** | **49.0%** | **56.0%** | **59.4%** | 42% - 50% |
| **Funds From Operations Interest Coverage** | **5.64** | **4.30** | **3.81** | 4.5x - 3.8x |

SDG&E's forecast credit ratios will improve slightly upon adoption of its recommended ROE, embedded costs of debt and preferred stock.

**Table 4 – SDG&E Financial Ratios for Current and Requested ROR**

| | 2007 | Pro Forma Post Effective | S&P Guidelines for Business Profile 5 |
|---|---|---|---|
| | Including Existing PPA Debt Equivalence ($697MM) | Including All PPA Debt Equivalence ($1120MM) | |
| | Current ROR Current Cap | Current ROR Current Cap | 'A' Rating |
| **FFO / Adjusted Debt** | **19.7%** | **17.1%** | 30% - 22% |
| **Adjusted Total Debt / Total Capitalization** | **56.0%** | **59.4%** | 42% - 50% |
| **Funds From Operations Interest Coverage** | **4.30** | **3.81** | 4.5x - 3.8x |
| | Requested ROR Current Cap | Requested ROR Current Cap | |
| **FFO / Adjusted Debt** | **20.1%** | **17.5%** | 30% - 22% |
| **Adjusted Total Debt / Total Capitalization** | **55.8%** | **59.2%** | 42% - 50% |
| **Funds From Operations Interest Coverage** | **4.37** | **3.87** | 4.5x - 3.8x |

## VI. RATEMAKING CAPITAL STRUCTURE

SDG&E believes that its proposed contract-by-contract credit impact mitigation mechanism is fair to customers as discussed in Section IV, while also preserving SDG&E's creditworthiness. Several intervenors have asked SDG&E to propose an alternative ratemaking capital structure if its proposed automatic adjustment mechanism is not adopted. Since the debt equivalence associated with the New PPAs will be added to SDG&E's credit balance sheet over the next several years, it is difficult to make a single recommendation for such an alternative ratemaking capital structure. However, to respond to the intervenors' requests, SDG&E has developed an adjusted capital structure to mitigate the adverse credit impact of New PPAs based on the point estimate of debt equivalence calculated in Section IV. If the automatic adjustment mechanism proposed by SDG&E is not adopted by the Commission, then SDG&E's ratemaking capital structure at 2008 should provide some cushion for SDG&E to absorb the debt equivalence associated with future PPAs. SDG&E hypothesizes that bringing two of the three credit ratios into the 'A' rating category before signing any new PPAs may achieve this goal. Based on this logic, a 4% increase in equity and a corresponding decrease in debt would be required to bring the 2007 FFO/Adjusted Debt ratio (including the debt equivalence from existing PPAs) back to the 'A' rating category. This capital structure change would increase SDG&E's Commission-jurisdictional revenue requirement by $16.6 million.

**Table 5 – SDG&E Financial Ratios for Current and Assumed Capital Structure**

| | **2007** | **Pro Forma Post Effective** | **S&P Guidelines for Business Profile 5** |
|---|---|---|---|
| | Including Existing PPA Debt Equivalence ($697MM) | Including All PPA Debt Equivalence ($1120MM) | |
| | Current ROR Current Cap | Current ROR Current Cap | 'A' Rating |
| **FFO / Adjusted Debt** | **19.7%** | **17.1%** | 30% - 22% |
| **Adjusted Total Debt / Total Capitalization** | **56.0%** | **59.4%** | 42% - 50% |
| **Funds From Operations Interest Coverage** | **4.30** | **3.81** | 4.5x - 3.8x |
| | Requested ROR Assumed Cap | Requested ROR Assumed Cap | |
| **FFO / Adjusted Debt** | **22.1%** | **19.1%** | 30% - 22% |
| **Adjusted Total Debt / Total Capitalization** | **52.4%** | **56.0%** | 42% - 50% |
| **Funds From Operations Interest Coverage** | **4.69** | **4.12** | 4.5x - 3.8x |

## VII. CONCLUSION

In order to replace power from the expiring CDWR energy contracts and to meet the state-wide renewable standard, SDG&E plans to enter into a significant number of PPAs in 2007 and beyond. The debt equivalence associated with the New PPAs represents a 61% increase in debt equivalence added to SDG&E's credit balance sheet based on today's estimation. The negative effect of this additional debt equivalence would be significant, although it is difficult to estimate the exact impact on SDG&E's credit profile in coming years. This further reinforces SDG&E's belief that the proposed automatic adjustment mechanism, which mitigates the impact of debt equivalence and FIN46(R) consolidation on a contract-by-contract basis, is a just and reasonable policy for the Commission to adopt for SDG&E since the rebalancing costs are recovered in rates only after the PPAs begin to benefit customers.

This concludes SDG&E's prepared supplemental testimony.

## EXHIBIT 1: REVENUE REQUIREMENT RECOVERED THROUGH BALANCING & MEMORANDUM ACCOUNTS

San Diego Gas and Electric Company
Percentage of 2007 Authorized Revenue Requirement
Recovered Through Balancing/Memorandum Accounts
($ in Thousands)

| Line | | 2007 |
|---|---|---|
| 1. | 2007 Authorized Base Margin (1) | **976,987** |
| 2. | Adjust Items Excluded from Cost of Service Proceeding : | |
| 3. | Commodity (Excl. DWR) : | |
| 4. | Fuel (ERRA) (2) | 577,500 |
| 5. | Fuel (PGA) (3) | 339,789 |
| 6. | Non-Fuel (NGBA) | 217,000 |
| 7. | Total Commodity | 1,134,289 |
| 8. | Public Purpose Programs (PPP): | |
| 9. | Electric | 122,505 |
| 10. | Gas | 27,398 |
| 11. | Total Public Purpose Programs | 149,903 |
| 12. | Competition Transition Charge (CTC) | 47,000 |
| 13. | Nuclear Decommissioning | 6,691 |
| 14. | **Adjusted Revenue Requirement** | **2,314,870** |
| 15. | Revenue Requirements Recovered Through Bal/Memo Acct | |
| 16. | Total Commodity | 1,134,289 |
| 17. | Total Public Purpose Programs | 149,903 |
| 18. | Competition Transition Charge (CTC) | 47,000 |
| 19. | Tree Trimming (3) | 22,376 |
| 20. | Pension (4) | 17,000 |
| 21. | PBOPs | 7,100 |
| 22. | **Total Balancing/Memorandum Accounts** | **1,377,668** |
| 23. | **Bal/Memo Account Recovery as % of Adjusted Rev Req** | **59.51%** |
| 24. | **Excl. Tree Trimming, Bal/Memo Account Recovery as % of Adjusted Rev Req** | **58.55%** |

(1) Distribution &Transportation excluding SONGS & FERC amounts.
(2) Commodity revenue requirements authorized in D. 07-02-027.
(3) Based on annual weighted average cost of gas for the period 6/06 - 5/07.
(4) One-way balancing account.
(5) Pension sharing between ratepayer and shareholder at above ERISA minimum forecast .

# EXHIBIT 2: SDG&E RESOURCE PLAN

**Exhibit 2 SDG&E Resource Plan**

| *(in MW)* | | Redacted | | | | |
|---|---|---|---|---|---|---|
| | **2007** | **2008** | **2009** | **2010** | **2011** | **2012** |
| Total Resource Requirement - base case | [redacted] | | | 4420 | 4475 | 4511 |
| Total Resource Requirement - high case | | | | 4753 | 4864 | 4958 |
| | | | | | | |
| SDG&E's Plan | | | | | | |
| Existing Generating Facilities | | | | | | |
| Palomar | 542 | 542 | 542 | 542 | 542 | 542 |
| SONGS | 449 | 449 | 449 | 449 | 449 | 449 |
| DWR Contracts | 1403 | 1028 | 1028 | 1028 | 703 | 26 |
| | | | | | | |
| Existing PPAs | | | | | | |
| Otay Mesa | | | 562 | 562 | 562 | 562 |
| Other Bilaterals | 86 | 86 | 126 | 126 | 126 | 126 |
| QF | 226 | 226 | 226 | 226 | 226 | 226 |
| Reliability- Sbay/ Encina | 1662 | 1662 | 1662 | | | |
| Approved Renewables (RA MW values) | 105 | 116 | 231 | 353 | 453 | 507 |
| | | | | | | |
| Peaker Facilities Owned by SDG&E | | | | | | |
| Miramar | 47 | 47 | 47 | 47 | 47 | 47 |
| | | | | | | |
| Other | | | | | | |
| Dispatchable DR | 86 | 86 | 86 | 86 | 86 | 86 |
| Market Purchase On-Peak | [redacted] | | | 211 | 294 | 232 |
| | | | | | | |
| Future Resources (nameplate capacity) | | | | | | |
| **Resource to be acquired** | | | | | | |
| Renewable Resources PPAs | 2 | 6 | 13 | 288 | 288 | 288 |
| Peaker PPAs - Estimated | [redacted] | | | 580 | 730 | 930 |
| Owned Peakers - Estimated | | | | 135 | 180 | 180 |
| Combined Cycle Plant | | | | 0 | 0 | 500 |
| **Potential Resource to be acquired** | | | | | | |
| Potential Renewable Resources PPAs | | | | | 3 | 84 |
| | | | | | | |
| Total | [redacted] | | | 4420 | 4475 | 4511 |
| | | | | | | |
| *New Renewable RA Value* | *2* | *5* | *12* | *76* | *79* | *99* |

**Assumptions**

Based on SDG&E's 2007-2016 Long-Term Procurement Plan filing
Adjusted to reflect result of 2008 Peaking RFO
Adjusted to reflect change in anticipated delivery date for a renewable contract