

Decision 05-12-043 December 15, 2005

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

Application of Pacific Gas and Electric Company for Authority to Establish Its Authorized Rate of Return on Common Equity for Electric Utility Generation and Distribution Operations and Gas Distribution for Test Year 2006. (U 39 M)

Application 05-05-006  
(Filed May 9, 2005)

Application of Southern California Edison Company (U 338-E) for Authorized Capital Structure, Rate of Return on Common Equity, Embedded Cost of Debt and Preferred Stock, and Overall Rate of Return for Utility Operations for 2006.

Application 05-05-011  
(Filed May 9, 2005)

Application of San Diego Gas & Electric Company (U 902-M) for Authority to: (i) Increase its Authorized Return on Common Equity, (ii) Adjust its Authorized Capital Structure, (iii) Adjust its Authorized Embedded Costs of Debt and Preferred Stock, (iv) Increase its Overall Rate of Return, and (v) Revise its Electric Distribution and Gas Rates Accordingly, and for Related Substantive and Procedural Relief.

Application 05-05-012  
(Filed May 9, 2005)

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## **OPINION ON TEST YEAR 2006 RETURN ON EQUITY FOR THE MAJOR ENERGY UTILITIES**

### **I. Summary**

This decision establishes the 2006 ratemaking return on common equity (ROE) for Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE) and San Diego Gas and Electric Company (SDG&E). The test year 2006 ROE for PG&E is 11.35%, which results in a corresponding 8.79% return on rate base (ROR). This ROR is two basis points<sup>1</sup> higher than its currently authorized 8.77% ROR and results in a revenue requirement increase of approximately \$4.3 million (\$3.3 million electric and \$1.0 million gas). The test year 2006 ROE for SCE is 11.60% which results in a corresponding 8.77% ROR. This ROR is 30 basis points lower than its currently authorized 9.07% ROR and results in a revenue requirement decrease of approximately \$26.4 million. The test year 2006 ROE for SDG&E is 10.70%, which results in a corresponding 8.23% ROR. This ROR is 5 basis points higher than its currently authorized ROR and results in a nominal change in its revenue requirement.

### **II. Jurisdiction and Background**

Applicants are public utilities subject to the jurisdiction of this Commission as defined in Pub. Util. Code § 218.<sup>2</sup> PG&E, a California corporation, provides electric and gas services in northern and central California. SCE, a California corporation and wholly owned subsidiary of Edison International, provides electric service principally in southern California.

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<sup>1</sup> One basis point equals 0.01%.

<sup>2</sup> All statutory references are to the Public Utilities Code unless otherwise stated.

SDG&E, a California corporation wholly owned by Sempra Energy, provides electric service in a portion of Orange County and electric and gas services in San Diego County.

PG&E and SCE filed their respective test year 2006 ROE applications pursuant to Decision (D.) 89-01-040 and SDG&E pursuant to D.04-12-047.<sup>3</sup> PG&E seeks to increase its ROE to 11.50% from 11.22% while SCE seeks to increase its ROE to 11.80% from 11.40%. SDG&E seeks to increase its electric and gas operations ROE to 12.00% from 10.38%. SDG&E also seeks to change its authorized capital structure to 43.25% long-term debt and 51.00% common stock equity from 45.25% and 49.00%, respectively. SDG&E proposes no change to its currently approved preferred stock ratio of 5.75%.

On June 16, 2005, the applications were consolidated pursuant to Rule 55 of the Commission's Rules of Practice and Procedure. The consolidation of these applications does not necessarily mean that a uniform ROE should be applied to each of the utilities. This is because each of these utilities has unique factors and differences that need to be considered in arriving at a reasonable return. These unique factors and differences encompass three distinct areas: capital structure, long-term debt and preferred stock costs, and return on common equity.

### **III. Procedural Matters**

The utilities requested that their respective ROE application be classified as a ratesetting proceeding within the meaning of Rule 5(c). By Resolution ALJ 176-3153, dated May 26, 2005, the Commission preliminarily determined that the applications of SCE and PG&E were ratesetting proceedings and that

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<sup>3</sup> SDG&E was required to file its application so that we may assess what impact, if any, that debt equivalence has on its credit ratings and capital structure.

hearings were expected. This ratesetting classification was subsequently affirmed in the Assigned Commissioner's June 22, 2005 Scoping Memo and Ruling.

That Scoping Memo and Ruling, among other matters, designated ALJ Galvin as the principal hearing officer, established an evidentiary hearing schedule and determined the issues of this proceeding. Those issues encompassed all estimates, including debt equivalence, upon which the utilities proposed capital structure and rate of return for the test year 2006.

An evidentiary hearing was held on September 7, 2005 and continued through September 9, 2005. Each of the utilities, Federal Executive Agencies (FEA), Office of Ratepayer Advocates (ORA), and jointly Aglet Consumer Alliance, The Utility Reform Network and Utility Consumers' Action Network (ATU), submitted testimony and evidence. The proceeding was submitted upon the receipt of October 6, 2005 reply briefs.

#### **IV. Capital Structure**

Capital structure consists of long-term debt, preferred stock, and common equity.<sup>4</sup> Because the level of financial risk that the utilities face is determined in part by the proportion of their debt to permanent capital, or leverage, we must ensure that the utilities' adopted equity ratios are sufficient to maintain reasonable credit ratings and to attract capital.

##### **A. PG&E**

PG&E seeks a test year 2006 ratemaking capital structure of 46.00% long-term debt, 2.00% preferred stock, and 52.00% common equity. This capital

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<sup>4</sup> Debt due within one year, short-term debt, is excluded.

structure reflects a 50 basis point increase in its currently authorized 45.50% long-term debt ratio and a 50 basis point decrease in its currently authorized 2.50% preferred stock ratio. PG&E proposes no change in its currently authorized 52.00% common stock ratio.

The minor change in PG&E's long-term debt and preferred stock ratios is consistent with the approved Modified Settlement Agreement and PG&E's bankruptcy court approved Plan of Reorganization. The proposed ratemaking capital structure is also nearly identical to its 2006 projected financial reporting capital structure.<sup>5</sup> There is no opposition to PG&E's requested test year 2006 capital structure.

#### **B. SCE**

SCE seeks a test year 2006 ratemaking capital structure of 43.00% long-term debt, 9.00% preferred stock, and 48.00% common equity. This is the same capital structure that it is currently authorized. It is also consistent with its 2006 simple average projected financial reporting capital structure of 44.00% long-term debt, 9.00% preferred stock, and 47.00% common equity.<sup>6</sup> There is no opposition to SCE's requested test year 2006 capital structure.

#### **C. SDG&E**

SDG&E seeks a test year 2006 ratemaking capital structure consisting of 43.25% long-term debt, 5.75% preferred stock, and 51.00% common equity. This is a 200 basis points change from its currently authorized 45.25% long-term debt

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<sup>5</sup> Exhibit 25, p. 3.

<sup>6</sup> Exhibit 4, p. 2.

and 49.00% common equity ratios. SDG&E proposes no change in its currently authorized 5.75% preferred stock ratio.

### **1. SDG&E's Position**

SDG&E seeks a change in its authorized capital structure to mitigate the negative effects of debt equivalence imputed by rating agencies into SDG&E's financial coverage for credit rating purposes.<sup>7</sup> This proposed change resulted from SDG&E conducting studies to evaluate the financial impact and cost to customers to bring its ratio of funds from operations (cash flow) to debt<sup>8</sup> back to the range of an Standard & Poor's (S&P) "A" rating and to mitigate the increase in its debt to capitalization ratio.<sup>9</sup> These ratios are two of the three primary financial factors used by S&P to assess the impact of debt equivalence.<sup>10</sup> The remaining financial factor is cash flow to interest coverage, a measurement of the headroom a company has to fulfill its current interest payments.

### **2. Interested Parties' Position**

This requested change in capital structure is opposed by the Office of Ratepayer Advocates (ORA), Federal Executive Agencies (FEA), and ATU.

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<sup>7</sup> Debt equivalence is a term used by credit analysts for treating long-term non-debt obligations, such as purchased power agreements, leases, or other contracts, as if they were debt in assessing an entity's credit rating.

<sup>8</sup> Cash flow to debt is a measurement of how many years it takes for a company to repay all its debt with internally generated cash flows.

<sup>9</sup> Debt to capitalization is a financial leverage indicator.

<sup>10</sup> Although other rating agencies such as Moody's also consider the impact of debt equivalency, S&P is the only rating agency that utilizes a formula.

ORA opposes the capital structure change on the basis that the appropriate means of resolving the potential impact of debt equivalence is through SDG&E's Market Indexed Capital Adjustment Mechanism (MICAM).<sup>11</sup> The MICAM was implemented in D.96-06-055, as modified by the adoption of an all-party settlement with SDG&E, ORA, UCAN, and FEA in D.03-09-008. This is because such a deviation from the MICAM would contravene Commission policy in favor of settlement as a means of conserving the resources of parties and the Commission for contested matters that cannot otherwise be resolved.<sup>12</sup>

FEA opposes the change on the basis that the change would not further strengthen SDG&E's "A" credit rating from S&P. This is because SDG&E's currently authorized capital structure, actual capital structure at year end 2004, and cash flow coverage of debt interest expense already support a strong A bond rating from S&P.<sup>13</sup>

ATU opposes the change on the basis that SDG&E has not been placed on credit watch by either S&P or Moody's and has received a stable outlook from both rating agencies.<sup>14</sup> ATU concludes that the capital structure incorporated into the MICAM is sufficient for SDG&E to maintain its current credit quality. However, if the Commission finds it necessary to mitigate SDG&E's debt

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<sup>11</sup> The MICAM is a formula that allows SDG&E to automatically adjust its revenue requirement based on utility bond rate changes in each year that SDG&E is not required to file a cost of capital (COC) application. The MICAM does require SDG&E to file COC applications on a five-year cycle.

<sup>12</sup> ORA's Opening Brief, p. 31.

<sup>13</sup> Exhibit 30, p. 8.

<sup>14</sup> Exhibit 32, p. 10.

equivalence through a change in capital structure, ATU recommends that the percentage of debt be decreased by 285 basis points to 42.40% with a corresponding increase in preferred stock to 8.60% and no change in the common equity ratio. ATU contends that this alternative capital structure would achieve approximately the same improvement in the funds from operation to debt ratio as shifting the capital structure from debt to common equity. More importantly, it would be less costly to SDG&E's ratepayers.

### **3. Discussion**

Debt equivalence is not a new issue. As recognized in D.04-12-047, debt equivalence has been reflected in the utilities' credit rating since at least 1990. We specifically recognized in last year's ROE proceeding, in which SDG&E along with PG&E and SCE participated, that debt equivalence associated with purchased power agreements (PPA) can affect utility credit ratios, credit ratings, and capital structure.

We declined to adopt a formal debt equivalence policy in that proceeding. However, we affirmed that debt equivalence impacts would be assessed on a case-by-case basis along with other financial, regulatory, and operational risks in setting a balanced capital structure and fair ROE. Our goal in so doing was and continues to be to provide reasonable confidence in the utilities' financial soundness, maintain and support investment-grade credit ratings, and provide utilities the ability to raise money necessary for the proper discharge of their public duty.<sup>15</sup> We have no reason to change, and no utility has requested that we change this method of considering debt equivalence.

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<sup>15</sup> D.04-12-047, *mimeo.*, p. 13.

SDG&E is the only utility seeking to mitigate debt equivalence through its capital structure. Normally, we would assess the debt equivalence impact on its current investment grade “A” credit rating from S&P and A2 credit rating from Moody’s. However, SDG&E used only the three primary financial factors of S&P to support its capital structure change. Appendix A to this order sets forth a comparison of that result.<sup>16</sup>

Although power contracts with the California Department of Water Resources (CDWR) are not considered obligations of SDG&E and do not impact its operating leverage or debt equivalence, SDG&E included in its calculations a portion of its CDWR contracts expiring in the 2008 through 2010 time frame which SDG&E may replace with PPAs.<sup>17</sup>

While Appendix A show that the inclusion of SDG&E’s PPA debt equivalence would lower its A rating coverage under each of S&P’s primary financial factors, its cash flow interest coverage would remain near the mid-A range irrespective of which scenario is used. These scenarios are no change in the equity ratio and ROE, a change in only the equity ratio, and a change in the equity ratio and ROE.<sup>18</sup> These cash flow interest coverage changes do not support a need to change the authorized capital structure.

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<sup>16</sup> SDG&E first used an S&P 30% risk factor then revised it downward to 20% and again increased it to 30%. This comparison is based on a 30% risk factor assigned to SDG&E by S&P on the basis that this risk factor assigned by S&P is expected by SDG&E to increase to 30% next year.

<sup>17</sup> Exhibit 13, p. 12.

<sup>18</sup> Both PG&E and SCE considered cash flow interest coverage to be the most important benchmark for their credit rating in last year’s ROE proceeding. See D.04-12-047, *mimeo.*, p. 9.

Although SDG&E's debt to capital coverage would improve under each of the scenarios, its coverage would remain around the bottom BBB rating range and substantially below an S&P A rating range. This coverage would not materially change under either of the scenarios.

The cash flow to debt coverage under either a change in ROE or a change in common equity and ROE scenario would bring this coverage up to the bottom of an S&P A rating range. Under the no change scenario, SDG&E's coverage would barely drop outside of the bottom of an S&P A rating range. The cash flow to debt coverage would not materially differ under either of the scenarios.

As addressed in last year's cost of capital proceeding, those financial factors are used as part of an S&P formula in assessing the viability of future power procurement contracts, and are not the sole criteria in establishing an overall credit rating.<sup>19</sup> The above comparison of SDG&E's information demonstrates that its financial coverage under S&P's primary financial factors would improve, although not materially, with an increase in its ROE and further improve with an increase in its common equity ratio. However, this capital structure change, in SDG&E's assessment, would require a 90 basis point increase in its ROE to compensate its shareholders for a more highly-leveraged capital structure. This requirement equates to a \$17.64 million increase in its revenue requirement, almost half of its requested \$39.10 million revenue requirement.<sup>20</sup>

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<sup>19</sup> D.04-12-047, *mimeo.*, p. 13.

<sup>20</sup> A 10 basis point change in the authorized ROE results in a \$1.96 million revenue requirement change pursuant to Late-Filed Exhibit 50. Hence, 90 basis points divided by 10 time \$1.96 million equals \$17.64 million.

This information, in itself, does not justify a change in capital structure. This is particularly so, given that the increased revenue requirement needed to compensate shareholders for added risk would not materially improve the financial factors S&P considers in setting credit ratings or result in an improved credit rating of its investment grade credit rating of A from S&P or A2 from Moody's.<sup>21</sup> Further, SDG&E has received a stable outlook from S&P and Moody's and is not on credit watch by either of the rating agencies. SDG&E's information, credit status, and credit ratings do not substantiate a need to mitigate debt equivalence through a change in its authorized capital structure at this time.

**D. Conclusion**

The capital structures proposed by PG&E and SCE are balanced, attainable, and are intended to maintain an investment grade rating, and to attract capital. For these reasons, we find that the proposed capital structures of PG&E and SCE are fair, consistent with law, in the public interest and should be adopted. SDG&E's currently authorized capital structure is also balanced, intended to maintain an investment grade rating, to attract capital, consistent with the law, in the public interest and should be adopted. The adopted capital structures are detailed in the following tabulation.

| <b>CAPITAL RATIO</b> | <b>PG&amp;E</b> | <b>SCE</b> | <b>SDG&amp;E</b> |
|----------------------|-----------------|------------|------------------|
| Long-Term Debt       | 46.00%          | 43.00%     | 45.25%           |

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<sup>21</sup> The S&P credit rating is at the fourth of ten steps above a non investment grade rating and Moody's is at the fifth of ten steps above a non investment grade rating.

|                 |         |         |         |
|-----------------|---------|---------|---------|
| Preferred Stock | 2.00    | 9.00    | 5.75    |
| Common Equity   | 52.00   | 48.00   | 49.00   |
| Total           | 100.00% | 100.00% | 100.00% |

The next step in determining a fair ROE is to establish reasonable long-term debt and preferred stock costs.

#### **V. Long-Term Debt and Preferred Stock Costs**

Long-term debt and preferred stock costs are based on actual, or embedded, costs. Future interest rates must be anticipated to reflect projected changes in a utility's cost caused by the issuance and retirement of long-term debt and preferred stock during the year. This is because the ROE is established on a forecast basis each year.

We recognize that actual interest rates do vary and that our task is to determine "reasonable" debt cost rather than actual cost based on an arbitrary selection of a past figure.<sup>22</sup> In this regard, we conclude that the latest available interest rate forecast should be used to determine embedded debt cost in ROE proceedings. Consistent with this conclusion, the assigned Commissioners' Scoping Memo and Ruling allowed the utilities to update their long-term debt and preferred stock costs to reflect September 2005 Global Insight forecasted interest rates. That update was submitted on September 20, 2005 as Late-Filed Exhibits 48, 49, and 50 by PG&E, SCE and SDG&E, respectively.

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<sup>22</sup> 38 CPUC2d 233 at 242 and 243 (1990).

### **A. PG&E**

PG&E projected a long-term debt cost of 6.05%, a reduction from its currently authorized 6.10% rate. This decrease in cost results from the net impact of PG&E decreasing its credit support costs which is offset by increasing its Pollution Control (PC) bonds short-term interest costs. The PC bonds carry a very low cost because their interest costs are tax-exempt and their rates are set daily based on interest rates which track the Federal Fund rate. PG&E updated its long-term debt costs to reflect the most recent forecast of interest rates. That update results in its long-term debt cost being further decreased to 6.02% from 6.05%. This revised rate is eight basis points lower than the 6.10% long-term debt cost authorized in PG&E's test year 2005 ROE proceeding.

PG&E projected a preferred stock cost of 5.87%, a 55 basis point reduction from its currently authorized rate of 6.42%. This decrease in cost is due largely to the end of a ten-year amortization period over which PG&E was amortizing the redemption costs of certain preferred stock redeemed in 1995. PG&E does not project any new issuances or redemptions of preferred stock in 2006. Hence, the updated forecast of interest rates did not impact its test year preferred stock cost.

### **B. SCE**

SCE projected its test year 2006 long-term debt cost to be 6.53% based on a simple average of its projected year end 2005 and year end 2006 long-term debt forecasts. That 2006 forecast provides for the issuance of \$700 million in new long-term debt and \$330 million in PC bonds. Based on its late-filed exhibit that updated the impact of the most recent forecasted interest rates, SCE lowered its forecasted long-term debt cost to 6.17% from 6.53%. This revised rate is 79 basis points lower than the 6.96% long-term debt cost authorized in its test year 2005 ROE proceeding.

SCE used that same method to calculate a preferred stock cost of 6.43%. Its forecast provided for the issuance of \$115 million of traditional preferred stock in 2006. Based on its late-filed exhibit that updated the impact of the most recent forecasted interest rates, SCE lowered its forecast to 6.09% from 6.43%. This revised rate is 64 basis points lower than the 6.73% preferred stock cost SCE was authorized in its test year 2005 ROE proceeding.

### **C. SDG&E**

SDG&E projected its test year 2006 long-term debt cost to be 5.99% based on a simple average of its projected year end 2005 and year end 2006 long-term debt forecasts. That 2006 forecast provides for the issuance of \$320 million in new long-term debt. Based on its late-filed exhibit that updated the impact of the most recent forecasted interest rates, SDG&E lowered forecast to 5.75% from 5.99%. This revised rate is 15 basis points lower than the 5.90% long-term debt cost authorized in its 2004 Market Index Capital Adjustment Mechanism (MICAM) and 89 basis points lower than its 6.64% long-term debt cost authorized in its test year 2003 ROE proceeding.<sup>23</sup>

SDG&E used that same method to calculate a preferred stock cost of 7.15%. Its forecast provided for a \$40 million issuance of traditional preferred stock in test year 2006 to coincide with its Palomar power plant acquisition. This cost is also impacted by a required 50,000 share redemption plus the anticipated exercise of an option to redeem an additional 50,000 shares of SDG&E's \$1.7625 Preference Series. Based on its late-filed exhibit that updated the impact of the most recent forecasted interest rates, SDG&E lowered its forecast to 6.83% from

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<sup>23</sup> Exhibit 15, p. 1.

7.15%. This revised rate is 62 basis points lower than the 7.45% preferred stock costs authorized in its 2004 MICAM true-up and 68 basis points lower than the 7.51% authorized in its test year 2003 ROE proceeding.

#### **D. Discussion**

No party disputes the long-term debt or preferred stock costs being proposed by the utilities. We have reviewed the undisputed costs, which have been updated to reflect the most recent forecasted interest rates, September 2005, and find that the following long-term debt and preferred stock costs for the utilities are consistent with the law, in the public interest and should be adopted.

| Rates           | PG&E  | SCE   | SDG&E |
|-----------------|-------|-------|-------|
| Long-term Debt  | 6.02% | 6.17% | 5.75% |
| Preferred Stock | 5.87% | 6.09% | 6.83% |

Having determined the appropriate long-term debt and preferred stock costs, we address the appropriate ROE.

#### **VI. Return on Common Equity**

The legal standard for setting the fair rate of return has been established by the United States Supreme Court in the Bluefield and Hope cases.<sup>24</sup> The Bluefield decision states that a public utility is entitled to earn a return upon the value of its property employed for the convenience of the public and sets forth parameters to assess a reasonable return. Such return should be equal to that

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<sup>24</sup> The Federal Power Commission v. Hope Natural Gas Company, 320 U.S. 591 (1944) and Bluefield Water Works & Improvement Company v. Public Service Commission of the State of Virginia, 262 U.S. 679 (1923).

generally being made at the same time and in the same general part of the country on investments in other business undertakings attended by corresponding risks and uncertainties. That return should also be reasonably sufficient to assure confidence in the financial soundness of the utility, and adequate, under efficient management, to maintain and support its credit and to enable it to raise the money necessary for the proper discharge of its public duties.

The Hope decision reinforces the Bluefield decision and emphasizes that such returns should be sufficient to cover operating expenses and capital costs of the business. The capital cost of business includes debt service and stock dividends. The return should also be commensurate with returns available on alternative investments of comparable risks. However, in applying these parameters, we must not lose sight of our duty to utility ratepayers to protect them from unreasonable risks including risks of imprudent management.

We attempt to set the ROE at a level of return commensurate with market returns on investments having corresponding risks, and adequate to enable a utility to attract investors to finance the replacement and expansion of a utility's facilities to fulfill its public utility service obligation. To accomplish this objective we have consistently evaluated analytical financial models as a starting point to arrive at a fair ROE.

The models commonly used in ROE proceedings are the Capital Asset Pricing Model (CAPM), Discounted Cash Flow (DCF) Analysis, and Market Risk Premium (MRP). SCE also introduced the use of a new model to our ROE proceeding, the Fama-French Model. Detailed descriptions of each financial model are contained in the record and are not repeated here. It is the application of these subjective inputs that results in a wide range of ROEs being

recommended by the parties. The results of these financial models are used to establish a range from which the parties apply risk factors and individual judgment to support their recommended ROE.

### **A. PG&E's Return on Equity**

There are two positions on the appropriate ROE for PG&E. PG&E seeks an 11.50% ROE. ORA, FEA, and ATU each recommend an 11.22% ROE.

#### **1. PG&E's Position**

PG&E's recommendation is based on the results of its CAPM, DCF, and MRP financial models. PG&E used Value Line's 61 electric companies as a starting point to select companies that are generally comparable to PG&E for its proxy group of companies in its financial models. It excluded from this list companies with annual sales under one billion dollars, less than five years of trading history, inconsistent payment of dividends over the last four quarters, and those that derived less than 50% of their earnings from regulated utility business, or were involved in merger activities. This exception criterion left PG&E with a comparable group of 36 companies. Although it used the 36 companies for its CAPM analysis, four of those companies were excluded from its DCF analysis because of negative earnings growth rates or lack of growth rate information.

PG&E, using an April 2005 forecast of 2006 interest rates, derived a broad 4.63% to 19.07% range from its financial models. This broad range was derived from the lowest and highest results of its financial models. The average point of PG&E's CAPM was 11.67%, DCF 9.18%, and MRP 11.95% resulting in an overall 10.93% average.

PG&E then compared its risk with that of its proxy group based on five risk factors. The risk factors were Value Line's beta, Value Line's Safety Rank,

Standard and Poor's (S&P) business profile score, Regulatory Research Associates (RRA) ranking of each state's regulatory climate, and debt leverage. Based on this risk analysis, PG&E concluded that it is riskier than its comparable group of companies and should be compensated for this higher risk through its ROE. PG&E also discounted its DCF result on the basis that it was less than two full percentage points above its expected 7.40% marginal cost of debt in 2006.

PG&E seeks a 11.50% ROE, near the top of the range of its ROE model results, to compensate its shareholders for the greater risk they bear relative to its comparable companies group. This is 60 basis points above its 10.90% average financial models result.

## **2. ORA's Positions**

ORA also used the CAPM, DCF, and MRP financial models. It selected a group of 61 electric companies and 16 gas companies from two of Value Line's comparable group of companies as a starting point. From these groups, ORA excluded companies without an investment grade bond rating and a Value Line safety rank above four,<sup>25</sup> those with inconsistent dividend payment over the prior two years, or involved in a merger. This purging of companies left ORA with a group of 32 electric companies and 14 gas companies.

ORA used a June 2005 forecast of 2006 interest rates for its financial models. It averaged the results of its electric and gas financial models to arrive at a 10.64% CAPM, 9.29% DCF, and 10.47% MRP resulting in an overall average of 10.13%. ORA acknowledging that PG&E faces greater risk than its comparable group of companies did not recommend a risk premium. This is because the

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<sup>25</sup> With a safety range of 1 being least risky and 4 most risky, PG&E's rank of 3 makes it risky.

terms of PG&E's Modified Settlement Agreement (MSA) requires PG&E to receive a minimum 11.22% ROE until PG&E's credit rating is raised into an A category by one of the rating agencies.<sup>26</sup> ORA concluded that the 109 basis points difference between its average model results and the minimum ROE more than compensates PG&E for added risks. Consistent with the terms of the MSA, ORA recommends an 11.22% ROE.

### **3. FEA's Position**

FEA also used the CAPM, DCF, and MRP financial models. It started with the same proxy group of companies which PG&E used. It excluded from this list companies not having investment grade bond ratings from both S&P and Moody's or those having less than a 40% common equity ratio as reported by Value Line and C.A. Turner. This left FEA with a comparable risk proxy group of 23 companies.

FEA used current interest rates for its MRP, and June 2005 forecasts of 2006 interest rates for its other financial models. The averaged point of its CAPM was 10.80%, DCF 8.70%, and MRP 9.80%, resulting in an overall average of approximately 9.80%. FEA, complying with the limitations imposed within the MSA guidelines, also recommends an 11.22% ROE.

### **4. ATU's Position**

ATU also used the CAPM, DCF, and MRP financial models. ATU used a basic set of 82 electric, combination and natural gas distribution utilities in the

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<sup>26</sup> PG&E needs either an S&P rating of A- or a Moody's rating of A3 to obtain the minimum A credit rating. PG&E's current BBB credit rating from S&P is three levels below an A rating and one level above non investment grade. PG&E's current Baa1 credit rating from Moody is one level below an A rating and two levels above non-investment grade.

United States for its risk proxy group of companies. Unlike the other parties, ATU did not exclude any company based on size, location, asset base, regulatory status, dividend history, market news or any other variable. However, it did exclude a few companies it deemed not to have meaningful historical data.<sup>27</sup>

ATU used a July 2005 forecast of 2006 interest rates for its financial models. The average point of its CAPM was 9.93%,<sup>28</sup> DCF 9.05%, and MRP 10.48%. Although the overall average is 9.72%, ATU derived an overall 9.67% average by giving one-third weight to its CAPM result and equal weight to its DCF and MRP results.<sup>29</sup>

ATU added a 73 basis point premium to its 9.67% weighted average financial result to arrive at an overall 10.40% ROE. This premium was based on its judgment of how much added risk PG&E is facing, such as its perception of regulatory uncertainties associated with electric procurement and realities of the Commission's willingness to support utility earnings and credit quality.

Consistent with the MSA guidelines and the other interested parties, ATU recommends a 11.22% ROE. In addition, ATU recommends that a reasonable range of ROE be adopted to allow for a reduction to PG&E's ROE in the event PG&E attains an A credit rating prior to the end of its test year 2006.

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<sup>27</sup> Exhibit 34, p. 15.

<sup>28</sup> Reporter's Transcript Vol. 3, p. 376.

<sup>29</sup> Exhibit 34, p. 18.

## 5. Discussion

We must set the ROE at the lowest level that meets the test of reasonableness.<sup>30</sup> At the same time, our adopted ROE should be sufficient to provide a margin of safety for payment of interest and preferred dividends, to pay a reasonable common dividend, and to allow for some money to be kept in the business as retained earnings.

Although the parties agree that the models are objective, the results are dependent on subjective inputs. The parties used different proxy groups, risk-free rates, beta, market risk premiums, growth rates, interest rates, calculations of market returns, and time periods within their respective financial models. Parties even took different positions on the appropriateness of the individual financial models.

The following tabulation summarizes the results of the individual financial models used by the parties, including the simple weighted average of the financial model results and their recommended test year ROE for PG&E.

|      | <b>CAPM</b> | <b>DCF</b> | <b>MRP</b> | <b>Average</b>      | <b>Recommended ROE</b> |
|------|-------------|------------|------------|---------------------|------------------------|
| PG&E | 11.67%      | 9.18%      | 11.95%     | 10.93%              | 11.50%                 |
| ORA  | 10.64%      | 9.29%      | 10.47%     | 10.13%              | 11.22%                 |
| FEA  | 10.80%      | 8.70%      | 9.80%      | 9.77%               | 11.22%                 |
| ATU  | 9.93%       | 9.05%      | 10.48%     | 9.82% <sup>31</sup> | 11.22%                 |

<sup>30</sup> 46 CPUC2d at 369 (1992), 78 CPUC at 723 (1975).

<sup>31</sup> ATU applied equal weight to its DCF and MRP results and one-third of its CAPM to arrive at a 9.67% weighted average.

From these broad ROE ranges the parties advance arguments in support of their respective analyses and in criticism of the input assumptions used by other parties. These arguments will not be addressed extensively in this opinion, since they do not materially alter model results. However, it should be noted that none of the parties agreed on the financial formula results of the others.

The parties also recalculated the results of some, if not all, of the other parties' financial models, by substituting the other parties' inputs with their inputs and recalculating the other parties' results to demonstrate that their individual results are appropriate. For example, PG&E and FEA substituted each other's inputs into the other's CAPM calculation and recalculated the other's CAPM. PG&E inputs into FEA's CAPM resulted in a 11.50% CAPM, a 70 basis point increase from the 10.80% calculated by FEA and only 17 basis points lower than PG&E's 11.67%.<sup>32</sup> FEA inputs into PG&E's CAPM resulted in a 9.50% CAPM, a 217 basis point decrease from 11.67% and 43 basis points lower than FEA's 9.3%.<sup>33</sup>

In the final analysis, it is the application of informed judgment, not the precision of financial models, which is the key to selecting a specific ROE estimate. We affirmed this view in D.89-10-031, which established ROEs for GTE California, Inc. and Pacific Bell, noting that we continue to view the financial models with considerable skepticism.

We find no reason to adopt the financial modeling results of any one party. Therefore, we will establish a base ROE range from the financial model results.

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<sup>32</sup> Exhibit 23, p. 28.

<sup>33</sup> Exhibit 27, p. 27.

The floor of this base range for PG&E is 9.91%, the simple average of the average results of ORA, FEA, and ATU. This average is based on informed judgment of the impact of the interested parties' individual input differences into the financial models, such as FEA erroneously assuming that the utilities are free to file for a change in their authorized ROEs outside of this proceeding to reflect increases in their capital market costs.<sup>34</sup> The ceiling of this base range is 10.93%, the simple average of PG&E's financial models results.

Having established a fair and reasonable base ROE we next consider the additional risks identified by the parties to determine whether this base range should be modified. PG&E, ORA, and ATU each included additional basis points in recognition of increased risk that PG&E is facing.

Both S&P and Value Line perceive PG&E's risk to be higher than PG&E's proxy group. For example, Value Line ranks PG&E more risky at a safety rank of 3 in comparison to its proxy group which has a 2.3 average rank.

PG&E derived a 60 to 110 basis point risk premium from an evaluation of its business risk, regulatory environment, debt leverage, and debt equivalence in relation to its proxy group.<sup>35</sup> ORA acknowledges that PG&E faces more risk without quantifying the additional risk in basis points.<sup>36</sup> ATU adds 73 basis points to its weighted average financial results for the additional risk PG&E faces due to electric procurement risks and rating agency skepticism about regulation treatment in California.

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<sup>34</sup> *Id.*, p. 29.

<sup>35</sup> Exhibit 20, p. 1-4 through p. 1-12.

<sup>36</sup> Exhibit 41, p. 2 and p. 3.

This evidence justifies the inclusion of a risk premium in PG&E's authorized ROE.

Based on informed judgment, the base ROE range should be increased 70 basis points, the bottom end of PG&E's analysis and upper end of ATU's debt leverage and electric procurement risk assessment. The addition of this risk premium to the 9.91% to 10.93% base range results in an overall 10.61% to 11.63% ROE range.<sup>37</sup>

As to interest rate risks, we consistently consider the current estimate and anomalous behavior of interest rates when making a final decision on authorizing a fair ROE. In PG&E's 1997 cost of capital proceeding we stated that our consistent practice has been to moderate changes in ROE relative to changes in interest rates in order to increase the stability of ROE over time.<sup>38</sup> That consistent practice has also resulted in the practice of only adjusting an ROE by one half to two thirds of the change in the benchmark's interest rate.<sup>39</sup>

Consistent with our practice to moderate ROE changes relative to interest rate changes we compare the most recent trend of 2006 forecasted interest rates from April of 2005 used by PG&E, SCE, and SDG&E and from June and July of 2005 used by the interested parties to prepare their respective financial models to the October 2005 forecast of 2006 interest rates. There is a downward trend of approximately 70 basis points from the April forecast used by the Utilities to the September forecast warranting a 35 to 47 downward adjustment to an authorized

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<sup>37</sup> Although the 11.63% ceiling exceeds PG&E's requested ROE, it falls within PG&E's broad 4.63% to 19.07% financial model results.

<sup>38</sup> 77 CPUC2d, 556 at 563 (1996).

<sup>39</sup> 57 CPUC2d, 533 at 549 (1994).

ROE based on the traditional half to two-thirds adjustment. However, there is an upward trend of approximately 20 basis points from the July forecast period used by ATU to the September forecast indicating an upward ROE adjustment of 10 to 13 basis points from that point in time.

As shown in the following tabulation, there is no consistent trend in the 2005 monthly forecasts of Moody's 2006 long-term Aa utility bonds. However, it does appear to have reached a floor in July of 2005, the forecast period used by ATU in its financial models. Hence, we look to the trend, if any, in short-term rates only to determine the direction of long-term interest rates.

We take official notice of the changes that have occurred in the short-term Federal Funds rate from January 1, 2005 to the October 6, 2005 submittal date. This short-term rate has increased a consistent 25 basis points at each of the six Federal Reserve Board's Open Market Committee meetings held during this time from 2.25% to 3.75% at its September 9, 2005 meeting.<sup>40</sup> Based on this inconsistent direction of long-term interest rates and consistent quarter percent increases in the short-term rates, the utilities are facing increased interest rate risks in 2006. This increased interest rate risks warrants approval of an ROE toward the upper end of the ROE range found to be fair and reasonable in this proceeding.<sup>41</sup>

|                   |                      |
|-------------------|----------------------|
| <b>Forecasted</b> | <b>2006 Forecast</b> |
|-------------------|----------------------|

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<sup>40</sup> Consistent increases in short-term rates tend to drive up long-term interest rates.

<sup>41</sup> The lower end of the adopted ROE range is based on interest rate projections that were lower than the October 2005 forecast of 2006 interest rates and the higher end is based on interest rate projections that were higher.

|                 |       |
|-----------------|-------|
| April, 2005     | 6.90% |
| May, 2005       | 6.68% |
| June, 2005      | 6.44% |
| July, 2005      | 6.00% |
| August, 2005    | 6.34% |
| September, 2005 | 6.19% |

After considering the evidence on the market conditions, trends, creditworthiness, interest rate forecasts, quantitative financial models based on subjective inputs, risk factors, and interest coverage presented by the parties and applying our informed judgment, we conclude that a subjective 11.35% ROE is fair and reasonable for PG&E's test year 2006.

Having arrived at an authorized ROE for PG&E, we must assess whether that ROE is sufficient to maintain and support its credit ratings. A comparison of PG&E's requested 11.50% ROE and ATU's recommended 10.40% ROE set forth in Appendix B demonstrates that the adopted ROE, which falls within that ROE range, would not materially change PG&E's BBB credit rating position within the S&P benchmarks or adversely impact its Moody's BBB+ credit rating. PG&E's cash flow interest coverage, the most important ratio to PG&E, would remain within the S&P mid-A credit rating range, its debt to capital ratio would remain within the mid-BBB range, and its cash flow to debt ratio remains in the lower BBB range. A test year 2006 ROE of 11.35% for PG&E is fair, reasonable and adequate for PG&E to maintain and support its credit ratings.

## **B. SCE's Return on Equity**

There are four positions on the appropriate test year 2006 ROE for SCE. SCE seeks 11.80% ROE. ORA recommends a 10.30% ROE, FEA 9.80%, and ATU 10.40%.

### **1. SCE's Position**

SCE's recommendation is based on the results of its CAPM, MRP, DCF, and Fama French financial models. SCE selected seven electric utilities from a Value Line list of electric utilities which met the criteria for its risk proxy group. Its criteria required the selected companies to be categorized as electric utilities by Value Line Investment Survey, categorized as integrated utilities by S&P, have quantified and reported debt equivalence by S&P, consistently pay and be expected to continue to pay common stock dividends, and to not be involved in merger or major restructuring activities.

SCE, using an April 2005 forecast of 2006 interest rates, derived a broad 7.30% to 18.88% range from its financial models. The average point of SCE's CAPM was 12.55%, DCF 8.79%, MRP 11.19% and Fama French 14.00% resulting in an overall 11.63% average.

SCE also performed a purchased power risk assessment on utility returns on equity. It began with a sample of 61 holding companies identified as electric utilities by Value Line. It then removed companies with subsidiaries not classified by S&P as being in SCE's integrated electric, gas, and combination utilities sector. It then split the remaining group in half based on whether the company's purchased power totaled less or more than 30% of its total energy disposition. From these groups, SCE conducted a CAPM and Fama-French analyses. To determine whether SCE, as a medium to high purchased power electric utility, requires a premium above other electric utilities because it is more

risky, it compared the average total betas for the two groups and multiplied the difference by a 7.17% equity risk premium. SCE concluded from this analysis that it was 53 basis points riskier. After weighting, but not quantifying, the results of its financial models and risk assessment it concluded that a test year 2006 ROE of 11.80% was appropriate.

## **2. Interested Parties' Positions**

The recommendations of ORA and ATU were based on the same financial models, proxy groups, and results that they used for PG&E. However, ORA's analysis differed for SCE in two respects. First, ORA relied on its 10.05% electric companies' average financial models result for SCE instead of an average of its electric and gas proxy groups used for PG&E. Second, ORA applied a 28 basis point risk premium to the 10.05% model result on the basis that SCE is riskier than the average firm of ORA's electric companies risk proxy group. ORA recommended a 10.30% of ROE.

Similar to its PG&E recommendation, ATU increased its 9.67% average financial models result by 73 basis points to 10.40% for the added risk SCE is facing, such as its perception of regulatory uncertainties associated with electric procurement and realities of the Commission's willingness to support utility earnings and credit quality. ATU recommends a 10.40% ROE.

FEA, unlike its acceptance and use of PG&E's proxy group as a starting point for its proxy group of comparable companies, rejected SCE's proxy group in favor of a group of electric utility companies listed in Value Line. It selected from this list companies that had an investment grade bond rating from S&P and Moody's, at least a 40% common equity ratio, consistently paid dividends over the past two years, had published consensus analysts' growth rate estimates, and, were not involved in merger or acquisition activities. This selection

criterion resulted in a proxy group of 23 companies for its financial models analyses. The average point of FEA's CAPM was 10.80%, DCF 8.70%, and MRP 9.80%, resulting in an overall average of 9.80%. FEA recommends a 9.80% ROE.

### **3. Discussion**

The following tabulation summarizes the results of the individual financial models used by the parties, including the simple weighted average of the financial model results and recommended test year ROE.

|     | <b>CAPM</b> | <b>DCF</b> | <b>MRP</b> | <b>Fama French</b> | <b>Average</b>       | <b>Recommended ROE</b> |
|-----|-------------|------------|------------|--------------------|----------------------|------------------------|
| SCE | 12.55%      | 8.79%      | 11.19%     | 14.00%             | 11.63% <sup>42</sup> | 11.80%                 |
| ORA | 10.76%      | 8.92%      | 10.47%     | -                  | 10.05%               | 10.30%                 |
| FEA | 10.80%      | 8.70%      | 9.80%      | -                  | 9.77%                | 9.80%                  |
| ATU | 9.93%       | 9.05%      | 10.48%     | -                  | 9.82% <sup>43</sup>  | 10.40%                 |

As shown in the above tabulation, SCE included the result of an additional financial model not commonly included in an ROE proceeding. This additional financial model is the Fama French model, a risk-based model which differs from the traditional CAPM which recognizes the market factor in that it also recognizes risks investors are exposed to due to size and value.

ORA opposes the Fama French model on the basis that academic literature shows that the gain in accuracy and improvement in estimation are likely to be too small to justify the burden of defending a deviation from the CAPM model.<sup>44</sup> FEA also oppose the use of this financial model. Its opposition is based on the lack of regulatory acceptance and use of investment data not generally available to the marketplace.<sup>45</sup>

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<sup>42</sup> The overall average is 10.84% if the Fama-French model result is excluded.

<sup>43</sup> ATU applied equal weight to its DCF and MRP results and one-third of its CAPM to arrive at a 9.67% weighted average.

<sup>44</sup> Exhibit 41, p. 1-12.

<sup>45</sup> Exhibit 28, p. 34.

Neither PG&E nor SDG&E applied the Fama French model to justify their respective ROE request. SDG&E did not use the model because of its complexity and because it hasn't been tested in the regulatory environment in terms of ability to explain the model and results.<sup>46</sup> Similarly, SCE is unaware of any regulatory commission relying on the Fama French model.

SCE derived a 14.00% average and 13.90% midpoint result from its use of the Fama French model. These results suggest that the required ROE for SCE is significantly higher than the 11.80% requested by SCE. Unable to explain this discrepancy, SCE acknowledges that it would take a few years working with the model to see if this phenomenon persists, if the estimates are highly unstable from period to period.<sup>47</sup>

SCE has not met its burden of proof to show that the Fama French model is useful for our ROE proceedings or that its methodology is reasonable and produces reliable results. The evidence in this proceeding does not give us confidence that the Fama French model is more accurate or useful than the other financial models which we are comfortable with. At such a time that it can be demonstrated that the Fama French model is useful for our purposes, we will consider referring the model, along with a reassessment of the three traditional financial models, to a workshop. However, we decline to do so today. We place no reliance on the Fama French results of SCE in this proceeding.

The process for setting a fair and reasonable ROE and use of financial models to assist us in establishing that ROE is set forth in our PG&E's ROE

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<sup>46</sup> Reporter's Transcript Vol. 2, p. 160, lines 2 through 12.

<sup>47</sup> Reporter's Transcript Vol. 1, p. 128, lines 7 through 28.

discussion and will not be repeated here. Consistent with that discussion, we use the same method for establishing a fair and reasonable ROE for SCE. The floor of the base ROE range for SCE is 9.88%, the simple average of the average financial models results of ORA, FEA, and ATU. The ceiling of this base range is 10.84%, the simple average of SCE's financial models results excluding the Fama-French result.

SCE, ORA, and ATU each included additional basis points in recognition of increased risk that SCE is facing. SCE included a risk premium for additional purchased power risks in its ROE request. Although SCE derived a 53 basis point purchased power risk premium from a quantitative analysis between electric utilities with a small amount purchased power versus electric utilities with a medium to high level of purchased power, it did not quantify how much of that risk was included in its ROE request. If SCE based its ROE recommendation on the simple average of its financial models results, we could calculate how much of the risk premium was included. However, SCE did not.

ORA, acknowledging that SCE is riskier than the average firm in its comparable group, applied a 28 basis point risk premium to its own financial results to compensate SCE for additional risk due to debt equivalence.<sup>48</sup> ATU applies the same 70 basis point risk premium to SCE that it applied to PG&E in recognition that SCE is riskier than ATU's proxy group due to debt leverage, electric procurement risks, and rating agency skepticism about regulatory treatment in California. Although ATU did not recommend an additional risk premium for SCE, it acknowledges that SCE's projected credit ratios, including

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<sup>48</sup> Exhibit 41, p. 3.

debt equivalence,<sup>49</sup> under business position 6 of S&P are inferior to the credit ratios of PG&E under the same business position.

This evidence justifies the inclusion of an additional risk premium to SCE's authorized ROE. Based on informed judgment, a 98 basis point risk premium should be added to the base ROE range. This risk premium consists of 70 basis points for electric procurement risk as acknowledged by ATU and 28 basis points for inferior credit ratios as acknowledged by ORA and ATU. The addition of these risk premiums to the 9.88% to 10.84% base range results in an overall 10.86% to 11.82% range. After considering the evidence on the market conditions, trends, creditworthiness, interest rate forecasts, quantitative financial models based on subjective inputs, risk factors, and interest coverage presented by the parties and applying our informed judgment, we conclude that a subjective 11.60% ROE is fair and reasonable for SCE's test year 2006.

A comparison of SCE's currently authorized 11.40% ROE and ATU's recommended 10.40% ROE for SCE set forth in Appendix B demonstrates that the adopted ROE, which falls 20 basis points above that ROE range, would not materially change SCE's BBB credit rating position within the S&P benchmarks or adversely impact its Baa1 credit rating from Moody's.<sup>50</sup> SCE's cash flow interest coverage, the most important ratio to SCE, would move up toward the ceiling of the BBB credit rating range, its debt to capital ratio would remain near that ceiling, and the cash flow to debt ratio remains near the floor of that range.

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<sup>49</sup> Exhibit 34, p. 18 through p. 22.

<sup>50</sup> Because credit ratios based on SCE's requested ROE were not included in its testimony, a comparison of the impact of its credit ratios between its currently authorized and requested ROE was not done.

A test year 2006 ROE of 11.60% for SCE is fair, reasonable and adequate for SCE to maintain and support its credit ratings.

### **C. SDG&E's Return on Equity**

There are four positions on the appropriate ROE for SDG&E. SDG&E seeks a 12.00% ROE. ORA recommends no change from SDG&E's currently authorized return on rate base. FEA recommends a 9.38% ROE, and ATU 10.20%.

#### **1. SDG&E's Position**

SDG&E also used the CAPM, DCF, and MRP financial models. It used a proxy group of 30 comparable electric companies and a proxy group of 13 comparable gas companies. From these groups SDG&E conducted two CAPM financial model analyses, historical and DCF. It also conducted a DCF financial model analysis and two MRP analyses, ex post and ex ante.

SDG&E, using an April 2005 forecast of 2006 interest rates, derived a broad 9.10% to 12.30% range from its financial models. SDG&E concludes from the results of its financial analysis that an ROE of 11.10% is appropriate for its proxy groups.<sup>51</sup> However, it seeks a 90 basis point premium above the 11.10% average ROE, or a 12.00% ROE to compensate its investors for a more highly-leveraged capital structure. This is because its requested capital structure with 51.00% common equity reflects greater risk than the 57.97% average common equity of its electric proxy companies and 65.86% average common equity of its gas proxy companies.

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<sup>51</sup> This ROE is an average of the results of SDG&E's financial models; two variations of the CAPM, DCF, and two variations of the MRP.

## **2. Interested Parties' Positions**

ORA takes no position on an appropriate ROE for SDG&E other than to recommend that SDG&E's currently authorized 8.18% return on rate base should remain in effect. Its recommendation is not based on the results of any financial models. It is based on prior MICAM settlement agreements between SDG&E, ORA, UCAN, and FEA which provides for SDG&E to file ROE proceeding on a five year cycle.<sup>52</sup> The periodic ROE filings were required to reduce, but not eliminate, risk during the interval between full ROE proceedings and to promote public interest by allowing for necessary, periodic, full ROE reviews. Because SDG&E's last ROE proceeding was for the test year 2003, its next full review is not due until 2007 for test year 2008. ORA, standing by the MICAM settlement agreement, recommends continued compliance with the agreement.

FEA, also a party to the MICAM settlement agreement, chose to assess the reasonableness of SDG&E's ROE request. It used the same financial models and results for SDG&E that it used for SCE. Similar to its ROE recommendation for PG&E and SCE, FEA recommends a 9.80% ROE.

Another party to the MICAM agreement is UCAN, being represented by ATU in this proceeding. ATU also chose to assess the reasonableness of SDG&E's ROE request. ATU used the same financial models as the other parties. The development of its proxy group and results of its financial models are summarized in our PG&E discussion. The only differences in its SDG&E recommendation is that ATU calculated a 9.64% CAPM for SDG&E compared to a 9.93% for PG&E and SDG&E and recommended a 58 basis point risk premium

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<sup>52</sup> 66 CPUC2d, 568 (1996) and D.03-09-008.

versus the 73 basis point risk premium it added to its PG&E and SCE ROE recommendation. ATU recommends a 10.20% ROE.

### 3. Discussion

The following tabulation summarizes the results of the individual financial models used by the parties, including the simple weighted average of the financial model results and recommended test year ROE. ORA is excluded from the below tabulation because ORA did not use or recommend any of the financial models for SDG&E.<sup>53</sup>

|                     | <b>CAPM</b> | <b>DCF</b> | <b>MRP</b> | <b>Average</b>      | <b>Recommended ROE</b> |
|---------------------|-------------|------------|------------|---------------------|------------------------|
| SDG&E <sup>54</sup> | 11.60%      | 9.30%      | 11.45%     | 10.78%              | 12.00%                 |
| FEA                 | 10.80%      | 8.70%      | 9.80%      | 9.77%               | 9.80%                  |
| ATU                 | 9.64%       | 9.05%      | 10.48%     | 9.72% <sup>55</sup> | 10.20%                 |

The process for setting a fair and reasonable ROE and use of financial models to assist us in establishing that ROE is set forth in our discussion of PG&E's ROE and will not be repeated here. Consistent with that discussion, we use the same method for establishing a fair and reasonable ROE for SDG&E. The

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<sup>53</sup> ORA consistently took the position that SDG&E's MICAM should continue as provided in the joint MICAM agreement.

<sup>54</sup> SDG&E conducted two variations of the CAPM model, a historic and a DCF version. It also conducted two variations of the MRP model, an ex post and ex ante. Variations of these individual models should be considered as a validation or fine tuning of the individual model. This table reflects the simple average of the model variations undertaken by SDG&E to avoid skewing of the overall result.

<sup>55</sup> ATU applied equal weight to its DCF and MRP results and one-third of its CAPM to arrive at a 9.62% weighted average.

floor of SDG&E's base range is 9.75%, the simple average of the average financial models results of FEA and ATU. The ceiling of this base range is 10.78%, the simple average of SDG&E's financial models results.

SDG&E identifies numerous business risks that it is facing to justify a risk premium. These risks include investment risk, energy market uncertainty, and customer uncertainty as detailed in Exhibit 9. SDG&E acknowledged these business risks are similar to the business risks of its proxy companies used in its CAPM and RMP financial models.<sup>56</sup> Because these risks are already reflected in the upper base ROE range of SDG&E there should be no additional premium for such risks.

SDG&E also seeks an additional risk premium to its ROE on the basis that its financial risk is greater than its proxy group because its requested 51% common equity ratio is not comparable to the 57.97% electric and 65.86% gas average common equity ratios of its comparable group of companies. This is a new adjustment not previously considered or adopted by this Commission.<sup>57</sup>

Although the Hope decision reinforces the Bluefield decision in emphasizing that authorized returns should be commensurate with returns available on alternative investments of comparable risks, these authorities also require us not to lose sight of our duty to protect ratepayers from unreasonable risks. This risk adjustment calibrates, at a cost to ratepayers, the common equity ratio of SDG&E to an average common equity ratio of its proxy groups having a 36.20% to 85.04% broad common equity range. It reflects a dramatic impact to

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<sup>56</sup> Exhibit 11, p. 25.

<sup>57</sup> Reporter's Transcript Vol. 2, p. 180, lines 13 through 20.

the balanced capital structure of SDG&E without evidence that such an adjustment is appropriate in an ROE proceeding or that it is superior to or necessary to complement the CAPM, DCF, and RMP financial models results.

SDG&E has not substantiated that this risk premium adjustment based on an average equity structure, which not one of its proxy group maintains, is appropriate. We continue to place importance on the financial models (CAPM, DCF, and MRP) and credit ratings including earnings and cash flow coverage in assessing a fair ROE. Similar to our review of the Fama French model in this proceeding, we decline to place any reliance on this capital structure risk adjustment.

ATU acknowledges that SDG&E faces additional risk. However, it reduced the 73 basis point risk premium it recommended for PG&E and SCE down to 58 basis points for SDG&E. This reduced risk premium was due to the judgment of ATU that SDG&E is facing less risk than PG&E and SCE as demonstrated by SDG&E's parent company's Value Line beta of 0.95 which is lower than the 1.05 beta of PG&E and SCE, declining interest rates, SDG&E's currently authorized 10.38% ROE, an investment grade rating of A from S&P and A2 from Moody's, a stable credit outlook from S&P and Moody's, and the fact that SDG&E is not on credit watch by any rating agency.

This evidence justifies the addition of a risk premium adjustment to the floor of the base ROE range.<sup>58</sup> Based on informed judgment, a 50 basis point risk premium, the upper end of ATU's risk adjustment, should be added to the base ROE range. The addition of this risk premium to the 9.75% to 10.78% base ROE

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<sup>58</sup> This risk premium reflects additional risk from business, regulatory debt leverage, and debt equivalence.

range results in an overall 10.25% to 10.78% range. After considering the evidence on the market conditions, trends, creditworthiness, interest rate forecasts, quantitative financial models based on subjective inputs, risk factors, and interest coverage presented by the parties and applying our informed judgment, we conclude that a 10.70% ROE is fair and reasonable for SDG&E's test year 2006.

A comparison of SDG&E's 12.00% requested ROE and currently authorized 10.38% ROE set forth in Appendix A demonstrates that the adopted ROE, which falls within that ROE range, would not materially change SDG&E's position within the S&P A credit rating benchmarks or adversely impact its credit ratings. SDG&E's cash flow interest coverage would remain within the S&P Business Position 5 A credit rating range, its debt to capital ratio would remain within the BBB range, and cash flow to debt ratio would approach the bottom A range.

SDG&E should calibrate its MICAM to conform to this decision. Consistent with the terms of the MICAM agreement, SDG&E's next full ROE review is due 2010 for test year 2011. However, SDG&E may file a 2006 ROE application for test Year 2007 so we may update risk and debt equivalency impacts on its ROE.

## **VII. Implementation**

Consistent with PG&E's implementation proposal, the change in total electric and gas rates will be implemented with its next electric and gas rate changes. PG&E anticipates that these changes would be consolidated in its Annual Electric True Up proceeding for January 1, 2006 implementation. Changes applicable to Direct Access rates for electric service would be made at the same time as changes in bundled electric customer rates. All gas rate changes

for January 1, 2006 will be consolidated with its Annual Gas True-Up of Balancing Accounts for implementation January 1, 2006.

SCE shall consolidate the revenue requirement change being authorized in this decision with revenue changes from other SCE applications through an advice letter filing to become effective January 1, 2006.

SDG&E shall consolidate the gas revenue requirement change being authorized in this decision with other gas rate changes authorized in other SDG&E applications through an advice letter filing to become effective January 1, 2006. Unbundled electric distribution rate changes being authorized in this decision shall be through an advice letter filing to become effective January 1, 2006. SDG&E shall also update its electric commodity rates; including the revenue requirements for its utility-owned generation, in its Rate Design Window proceeding (A.05-02-019) with the electric commodity rate changes being authorized in this decision to become effective January 1, 2006.

#### **VIII. Comments on Proposed Decision**

The proposed decision of the ALJ in this matter was mailed to the parties in accordance with § 311(d) and Rule 77.1 of the Rules of Practice and Procedure. Comments were filed by PG&E, SCE, SDG&E, ATU, FEA, and ORA on December 5, 2005. To the extent changes were necessary as a result of the filed comments, they were made to in the body of this order. Pursuant to Rule 77.3, new factual information untested by cross-examination which was included in the parties' comments to the draft decision shall not be relied on as the basis for assertions made in the comments.

#### **IX. Assignment of Proceeding**

Michael R. Peevey is the Assigned Commissioner and Michael J. Galvin is the assigned Administrative Law Judge (ALJ) in this proceeding.

### **Findings of Fact**

1. Applicants are public utilities subject to the jurisdiction of this Commission.
2. SCE seeks to increase its test year 2006 ROE to 11.80% from 11.40%.
3. PG&E seeks to increase its test year 2006 ROE to 11.50% from 11.22%.
4. SDG&E seeks to increase its test year 2006 ROE to 12.00% from 10.38%.
5. SDG&E also seeks to change its capital structure by increasing its common equity ratio 200 basis points and reducing its long-term debt ratio 200 basis points.
6. PG&E and SCE, and SDG&E's applications were consolidated pursuant to Rule 55.
7. PG&E and SCE seek no material change in their authorized capital structures.
8. Debt equivalence is a term used by credit analysts for treating long-term non-debt obligations, such as PPAs and leases, as if they were debt in assessing an entity's credit rating.
9. Debt equivalence has been reflected in the utilities' credit rating since at least 1990.
10. SDG&E has investment grade credit ratings of A from S&P and A2 from Moody's.
11. SDG&E has received a stable outlook from S&P and Moody's and is not on credit watch by either of the rating agencies.
12. We recognized that actual interest rates do vary and that our task is to determine reasonable debt costs rather than actual cost based on an arbitrary selection of a past figure.

13. In September, 2005, PG&E, SCE, and SDG&E submitted late-filed Exhibits 48, 49, and 50, respectively, to reflect the most recent forecasted interest rates.

14. There is no dispute on the cost of PG&E, SCE, or SDG&E's long-term debt or preferred stock.

15. The legal standard for setting the fair ROE has been established by the United States Supreme Court in the Bluefield and Hope cases.

16. An ROE is set at a level of return commensurate with market returns on investments having corresponding risks, and adequate to enable a utility to attract investors to finance the replacement and expansion of a utility's facilities to fulfill its public utility obligation.

17. PG&E has an investment grade rating of BBB from S&P and Baa1 from Moody's.

18. SCE has an investment grade rating of BBB+ from S&P and a Baa1 from Moody's.

19. Quantitative financial models are commonly used as a starting point to estimate a fair ROE.

20. Although the quantitative financial models are objective, the results are dependent on subjective inputs.

21. It is the application of informed judgment, not the precision of quantitative financial models, which is the key to selecting a specific ROE.

22. The individual parties' use of quantitative financial models resulted in a broad test year 2006 ROE average range from 8.70% to 11.95% for PG&E, 8.70% to 14.00% for SCE, and 8.70% to 11.60% for SDG&E.

23. Two important components of the Hope and Bluefield decisions are that the utilities have the ability to attract capital to raise money for the proper discharge of their public utility duties and to maintain creditworthiness.

24. Our consistent practice has been to moderate changes in ROE relative to changes in interest rates in order to increase the stability of ROE over time.

25. The September 2005 Aa utility bond interest rate forecast for test year 2006 is 6.19%, a 71 basis point reduction in interest rate from the April 2005 forecast of 6.90% used by the utilities, a 25 basis point reduction from the June 2005 forecast used by ORA and FEA, and a 19 basis increase from the July 2005 forecast used by ATU.

26. Official notice is taken of the changes that have occurred in the short-term Federal Funds rate from the January 1, 2005 to the October 6, 2005 submittal date.

27. The Federal Funds short-term rate has increased a consistent 25 basis points at each of the six Federal Reserve Board's Open Market Committee meetings held this year up to the submittal date from 2.25% to 3.75%.

### **Conclusions of Law**

1. The consolidation of these applications does not mean that a uniform ROE should be applied to each of the utilities.

2. The capital structures proposed by PG&E and SCE should be adopted because they are balanced, attainable, and intended to maintain an investment grade rating and attract capital.

3. SDG&E's debt equivalence argument does not justify a change in its authorized capital structure.

4. The impact of SDG&E's debt equivalence should be considered along with its other risks in arriving at a fair and reasonable ROE.

5. The long-term debt and preferred stock costs being proposed by the utilities are consistent with the law, in the public interest, and should be adopted.
6. The latest available interest rate forecast should be used to determine embedded long-term debt and preferred stock costs in ROE proceedings.
7. The inconsistent direction of long-term interest rates and consistent quarter percent increases in the short-term rates demonstrate that the utilities are facing increased interest risk.
8. Interest risks being experienced by the utilities warrant the ROEs being adopted in this proceeding at the upward end of an ROE range found just and reasonable.
9. A test year 2006 ROE range from 10.61% to 11.63% is just and reasonable for PG&E.
10. A test year 2006 ROE of 11.35% is just and reasonable for PG&E.
11. A test year ROE range from 10.86% to 11.82% is just and reasonable for SCE.
12. A test year 2006 ROE of 11.60% is just and reasonable for SCE.
13. A test year ROE range from 10.25% to 10.78% is just and reasonable for SDG&E.
14. A test year 2006 ROE of 10.70% is just and reasonable for SDG&E.
15. The utilities ROE applications should be granted to the extent provided for in the following order.

**O R D E R**

**IT IS ORDERED** that:

1. Pacific Gas and Electric Company's (PG&E) cost of capital for its test year 2006 electric and gas operations is as follows:

|  | <b>Capital Ratio</b> | <b>Cost Factor</b> | <b>Weighted Cost</b> |
|--|----------------------|--------------------|----------------------|
|--|----------------------|--------------------|----------------------|

|                 |              |       |             |
|-----------------|--------------|-------|-------------|
| Long-Term Debt  | 46.00%       | 6.02% | 2.77%       |
| Preferred Stock | 2.00         | 5.87  | 0.12        |
| Common Stock    | <u>52.00</u> | 11.35 | <u>5.90</u> |
| Total           | 100.00%      |       | 8.79%       |

2. Southern California Edison Company's (SCE) cost of capital for test year 2005 is as follows:

|                 | <b>Capital Ratio</b> | <b>Cost Factor</b> | <b>Weighted Cost</b> |
|-----------------|----------------------|--------------------|----------------------|
| Long-Term Debt  | 43.00%               | 6.17%              | 2.65%                |
| Preferred Stock | 9.00                 | 6.09               | 0.55                 |
| Common Stock    | <u>48.00</u>         | 11.60              | <u>5.57</u>          |
| Total           | 100.00%              |                    | 8.77%                |

3. San Diego Gas & Electric Company's (SDG&E) cost of capital for its test year 2006 electric and gas operations is as follows:

|                 | <b>Capital Ratio</b> | <b>Cost Factor</b> | <b>Weighted Cost</b> |
|-----------------|----------------------|--------------------|----------------------|
| Long-Term Debt  | 45.25%               | 5.75%              | 2.60%                |
| Preferred Stock | 5.75                 | 6.83               | 0.39                 |
| Common Stock    | <u>49.00</u>         | 10.70              | <u>5.24</u>          |
| Total           | 100.00%              |                    | 8.23%                |

4. SDG&E shall calibrate its Market Indexed Capital Adjustment Mechanism to conform to this decision. Although its next full ROE review is not due until 2010 for test year 2011, SDG&E may file such an application in 2006 for test year 2007.

5. PG&E, SCE and SDG&E shall implement the revenue requirement changes authorized by this decision as set forth in the body of this order. If the Energy Division Director suspends any tariffs in those filings, such tariffs shall become

effective upon the date the Energy Division Director confirms that the tariffs are in compliance.

6. Applications (A.) 05-05-006, A.05-05-011, and A.05-05-012 are closed.

This order is effective today.

Dated December 15, 2005, at San Francisco, California.

MICHAEL R. PEEVEY  
President  
GEOFFREY F. BROWN  
SUSAN P. KENNEDY  
DIAN M. GRUENEICH  
JOHN A. BOHN  
Commissioners

**APPENDIX A**  
**SAN DIEGO GAS & ELECTRIC COMPANY**  
**DEBT EQUIVALENCE IMPACT ON S&P GUIDELINES**  
**TEST YEAR 2006**

|                                      | <b>CASH FLOW<br/>TIMES (x)<br/>INTEREST<br/>COVERAGE</b> | <b>DEBT/<br/>CAPITAL</b> | <b>CASH FLOW/<br/>DEBT</b> |
|--------------------------------------|--|--------------------------|----------------------------|
| S&P Rating Ranges                    |  |                          |                            |
| A Rating Range                       | 4.50 - 3.80 x  | 42%-50%                  | 30% - 22%                  |
| BBB Rating Range                     | 3.80 - 2.80x   | 50% - 60%                | 22% - 15%                  |
| NO Debt Equivalence                  |  |                          |                            |
| Current 49% Equity                   | 5.78 x   | 53.6%                    | 29.2%                      |
| Current 10.38% ROE                   |  |                          |                            |
| Debt Equivalence                     |  |                          |                            |
| Current 49% Equity                   | 3.95 x   | <b>60.3%</b>             | <b>21.5%</b>               |
| Current 10.38% ROE                   |  |                          |                            |
| Debt Equivalence                     |  |                          |                            |
| Current 49% Equity Requested 12% ROE | 4.12 x   | <b>59.9%</b>             | 22.7%                      |
| Debt Equivalence                     |  |                          |                            |
| Requested 51% Equity                 | 4.22 x   | <b>58.7%</b>             | 23.4%                      |
| Requested 12% ROE                    |  |                          |                            |

**Note:** Bold Numbers are outside S&P Business Position 5 guidelines for an A credit rating but within the guidelines for a BBB credit rating.

**(END OF APPENDIX A)**

**APPENDIX B  
CREDIT RATIOS INCLUDING DEBT EQUIVALENCE  
TEST YEAR 2006**

|                                | <b>CASH FLOW<br/>TIMES (x)<br/>INTEREST<br/>COVERAGE</b> | <b>DEBT/<br/>CAPITAL</b> | <b>CASH FLOW/<br/>DEBT</b> |
|--------------------------------|--|--------------------------|----------------------------|
| S&P Rating Ranges              |  |                          |                            |
| A Range                        | 5.2 - 4.2 x  | 40%-48%                  | 35% - 28%                  |
| BBB Range                      | 4.2 - 3.0 x  | 48% - 58%                | 28% - 18%                  |
|                                |  |                          |                            |
| <b>PG&amp;E</b>                |  |                          |                            |
| @ Requested 11.50% ROE         | 4.7 x  | <b>52.3%</b>             | <b>21.8%</b>               |
| @ ATU's Recommended 10.40% ROE | 4.6 x  | <b>52.3%</b>             | <b>21.2%</b>               |
|                                |  |                          |                            |
| <b>SCE</b>                     |  |                          |                            |
| @ Current 11.40% ROE           | <b>4.0 x</b>   | <b>51.5%</b>             | <b>20.2%</b>               |
| @ ATU Recommended 10.40% ROE   | <b>3.9 x</b>   | <b>51.5%</b>             | <b>20.2%</b>               |

**Note:** Bold Numbers are outside S&P Business Position 6 guidelines for an A credit rating but within the guidelines for a BBB credit rating.

**(END OF APPENDIX B)**