



Van Horn Consulting
*Energy, Economic, Regulatory
& Environmental Consultants*
Orinda, CA 94563

Public Version

**Independent Evaluator's Report:
SDG&E's Product 3 Selection
for Its March 9, 2007
Request for Offers for
Supply Resources**

Van Horn Consulting
Orinda, CA 94563
consulting@vhcenergy.com

Mike Katz
Ed Remedios
Andy Van Horn

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1. INTRODUCTION

This report provides Van Horn Consulting’s (VHC’s) assessment of the fairness of San Diego Gas & Electric Company’s (SDG&E’s) Product 3 selection for its 2007 Request for Offers (RFO) for Supply Resources. VHC has reviewed SDG&E’s bid receipt and evaluation processes and methods, as well as spot-checking data, calculations and results.¹ In addition to conducting on-site and telephone interviews and discussions with SDG&E personnel, VHC has reviewed bid-related materials and quantitative analyses.

This report describes VHC’s role as the Independent Evaluator (IE) and activities performed, and it presents our opinion of SDG&E’s Product 3 bid processing and selection process.

This is the “public” version of Van Horn Consulting’s report. The unredacted version of this report contains confidential and/or privileged materials. Review and access to it are restricted subject to California Public Utilities Code Sections 454.5(g) and 583, and California Public Utilities Commission’s (CPUC’s) Decision (D.) 06-06-066, and General Order (GO) 66-C. Text that has been redacted (not displayed in the public version) is designated as such by being shaded in black, e.g., [REDACTED].

a. California Regulatory Background on the Role of Independent Evaluator

This section summarizes the California regulatory background for the IE’s review of SDG&E’s solicitations for Supply Resources.

The “Report of the Independent Evaluator on 2008 Local Peaking Capacity RFO” for SDG&E provides a good summary of the regulatory requirements for an IE.² Highlights from this report and additional discussions follow.

The primary focus of the Federal Energy Regulatory Commission’s (FERC’s)³ IE requirements is to prevent a bias and to avoid preferences for affiliate offer selections over other participants. The CPUC’s December 2004 decision on long-term resource procurement (D. 04-12-048) stated that it would “require the use of an IE for resource procurement where there are affiliates, IOU-built or IOU-turnkey bidders” from that point forward (pp. 135f). The CPUC’s intent was to ensure that a utility did not favor itself or an affiliate. Since this RFO did not preclude affiliate bids or build-own-transfer (BOT) bids, SDG&E has contracted for an IE. Under the decision cited above, the role of the IE is to

¹ VHC did not independently verify the absolute value of all elements incorporated in SDG&E’s evaluation. However, VHC generally identified the methods supporting these cost calculations, in order to determine that the models applied and the results were reasonable.

² PA Consulting Group, Report of the Independent Evaluator on the 2008 Local Peaking Capacity RFO for San Diego Gas and Electric. May 1, 2007.

³ 108 FERC ¶61,081 (2004).



assist the utility in RFO design and observe the utility’s procurement and evaluation process in order to provide an opinion concerning “fairness.”

Since this RFO involves the option to acquire a plant from an affiliate, both the FERC and the CPUC require an IE report confirming that a fair solicitation was done and that the evaluation had no bias or preference for the acquisition of a plant from an affiliate.

b. Van Horn Consulting’s Role as the Independent Evaluator

VHC began its role as IE for SDG&E on May 14, 2007, three days prior to the receipt of bids on May 17, 2007. VHC assumed the role previously performed by PA Consulting, which had reviewed the design of the solicitation and the early evaluation criteria. PA Consulting’s review is discussed in Appendix A. As the IE, VHC has performed two principal roles:

- To ensure that SDG&E performs a fair and unbiased solicitation and bid selection process; and
- To provide advice to improve processes, evaluation techniques and assumptions.

VHC has looked for potential biases that could arise from the following three types of bids:

- Bids from SDG&E’s affiliate;
- Bids that advance SDG&E’s transmission development & ownership interests; and
- BOT bids.

Potential advantages could possibly result from the design of the RFO structure itself or the use of evaluation techniques or underlying assumptions that could create bias in the selection process.

VHC’s primary focus has been to ensure the fair treatment of bids and to avoid economic techniques and assumptions that could lead to intentional or unintentional biases in the selection of resources (e.g., preferences for certain types of technologies; supply versus demand-side options; the mix of peaking, dispatchable resources and baseload resources; and start-date and contract term preferences). VHC has not focused on the absolute value of bids, but on the relative costs and adjustments to costs made in order to ensure a proper ranking of the offers.



c. Van Horn Consulting’s Review and Advisory Activities

VHC was given access to all personnel involved with bid processing and evaluation. VHC team members were on-site the day of the initial receipt and processing of the bids, which were delivered electronically.

During the bid evaluation period, VHC conducted interviews, held on-site meetings and participated in numerous conference calls and e-mail communications to discuss the bid processing and evaluation criteria. VHC reviewed SDG&E’s economic spreadsheets, methodology, models and key assumptions. VHC did not perform a separate economic evaluation to validate the results. VHC was given an overview of the locational difference analysis model⁴ and key assumptions used in the model, but VHC did not critique or validate the model, which was applied by an SDG&E contractor.⁵

d. Background on the Product 3 Bid Solicitation

Product 3 requested one fully dispatchable approximately 500 MW generation facility with a remaining useful life of at least 20 years capable of delivering unit-contingent firm energy and capacity to SDG&E’s service territory with deliveries commencing between October 1, 2011 and March 31, 2012. Heat rates should be no higher than 8,000 Btu/kWh, and the unit should be capable of operating at capacity factors of 80% or more.

SDG&E has an option to purchase from a Sempra Energy affiliate the approximately 480 MW El Dorado Energy, LLC power plant located in Boulder City, Nevada in late 2011, for the depreciated book value of the plant, which was estimated to be approximately \$189 million (the “El Dorado Option”). In its RFO, SDG&E included the following statement:

“Prospective bidders should be aware that offers in this RFO for Product 3 are competing with the El Dorado Option. More information, including the relevant agreements, on this El Dorado Option can be found on the RFO website. If SDG&E exercises the El Dorado Option to purchase El Dorado, SDG&E will seek approval of the transaction by both the CPUC and FERC. If the option is exercised after evaluation of competing offers, regulatory approvals will follow a separate filing process that is more expedited than the dates shown below in this RFO.”

In response to its RFO for Product 3, SDG&E received one conforming offer, referred to as the “Offer” and [REDACTED] non-conforming offers. [REDACTED]

⁴ ABB’s Gridview market simulation model produces locational marginal prices that represent line losses and congestion between pricing points.

⁵ The congestion cost analysis approach used by SDG&E has been reviewed by TURN, the CPUC’s Energy Division and the previous IE and was found to be satisfactory for this purpose.



[REDACTED]

2. COMMENTS ON THE REQUEST FOR OFFERS OUTREACH

VHC can only provide cursory comments on the outreach, since PA Consulting was under contract during the time of the issuance of the RFO, which requested offers for three Products. Appendix A is a summary of PA Consulting activity during the RFO process. VHC understands that notification was given to a large number of bidders and a workshop for potential bidders was held. This appears to be common practice among the three IOUs in California. In light of the relatively low-cost option to transfer the El Dorado project from its affiliate at the depreciated book value, VHC did not expect many bids for Product 3. The outreach appears to be sufficient because there were [REDACTED] offers for Product 2 (new peaking generation capacity within SDG&E’s service territory capable of operating at a minimum of 30% annual capacity factor) and [REDACTED] offers for Product 1 (delivery of measurable Demand Response).⁶

3. REVIEW OF THE BID PROCESSING

The SDG&E Processing Team (PT) determined whether or not each bid conformed to the RFO and prepared a summary page of information from the individual bids along with a checklist indicating the location of required information within each bid document. Electronic passwords and separate servers were used to ensure that no members of the SDG&E Evaluation Team (ET) had access to the bid information, until after the bids were processed by the RFO processing team.

a. Bid Conformance & Error Correction

The PT screened each bid against a checklist and checked the bids for conformance with the RFO.

Mike Katz and Andy Van Horn were on-site on May 17, when Supply bids were delivered electronically to SDG&E. Most of the bids were submitted before the 12:00 p.m. soft deadline.

The “Offer” did not provide a CAISO interconnection study. SDG&E added estimated transmission upgrade costs to the “Offer,” which turned out to be immaterial for the decision. This is discussed in Section 4.b.

⁶ See Appendix A for PA Consulting’s review of this phase of the RFO.



b. Bidder Anonymity

The general practice for the bid processing team is not to make bidders’ identities anonymous to the ET, except for disguising potential affiliate bids.⁷ The reason given for choosing not to conceal bidders’ identities is the difficulty of removing all identifying characteristics of each entity submitting a bid. Bid documents usually contain extensive use of logos and other identifying characteristics. However, if a bid were to be received from an affiliate, extensive care would have been taken to disguise the identity of the bidder (e.g., by using a fictional name) to prevent the ET from concluding that the offer was from its affiliate. This was not necessary for El Dorado affiliate bid, since it was part of a CPUC settlement with Sempra Energy and was acknowledged to be an affiliate bid in the Product 3 solicitation.

VHC concurs with this approach. It was important for other bidders to know that a relatively low cost option from an asset sale at book value from an affiliate was going to be included in this RFO and to be given the approximate parameters of the El Dorado bid.

c. Data Verification

The ET receives all data from the bid sheets electronically and then transfers the information into economic analysis spreadsheets. Various people transfer information in Excel workbooks. A different person checks this data transfer to verify its accuracy. Additional review was performed to ensure not only that the data were transferred accurately, but also that interpretations of the bids were done correctly.

4. REVIEW OF THE BID EVALUATION

a. Economic Evaluation

SDG&E compared the “Offer” with the El Dorado option calculating the Net Present Value (NPV) of costs over a twenty-five year period. Discussion of the assumptions underlying the estimates of costs and the components of these costs are discussed in Section 5. VHC believes SDG&E’s approach is a valid method to compare the “Offer” with the El Dorado option.

⁷ For bids that are received from an affiliate, it is SDG&E’s procedure to change the identifying characteristics by using a fictional name and removing materials that would allow the Evaluation Team (ET) to conclude that the offer was from an affiliate. This was not done for the El Dorado bid, because it was public knowledge at the time and was referenced in the RFO.



b. Overview of the Bid Evaluation

SDG&E has adopted a three-step process to evaluate bids: 1) Conformance check; 2) Preliminary modeling to develop a Short List; and 3) More detailed modeling with SDG&E’s production simulation model. For the evaluation of Product 3, the second step was unnecessary, since the evaluation was limited to the “Offer” [REDACTED] and the El Dorado option from a Sempra Energy affiliate. SDG&E used Global Energy’s ProSym model to perform the third step.

The conformance check verified that the “Offer” met minimum RFO requirements and enabled SDG&E to eliminate non-conforming bids.

The NPV of eight cost components listed below were summed and compared over a twenty-five year analysis period for the two bids.

- Capacity

Capacity costs represent the fixed cost portion of the contract or resource.⁸ The El Dorado capacity costs equal the NPV of financing the acquisition cost of \$189 million, which is the estimated depreciated plant value in late 2011, and other fixed costs that do not vary with the plant’s output. The \$189 million acquisition cost would be treated as a utility investment. SDG&E would recover the carrying costs for this investment and the other fixed costs through traditional ratemaking. Annual fixed costs for the El Dorado option were calculated over an 18-year period (2012 to 2029) using straight-line depreciation with zero salvage value for the plant. The remaining seven years of the economic comparison period applied the fixed costs of a combined-cycle plant.⁹ At the end of this seven-year period, the net profit on the sale of the generic power plant reduced the NPV of this capacity cost.

The Power Purchase Agreement (PPA) price for capacity in the “Offer” is [REDACTED], in 2012 escalating at [REDACTED]. The NPV of this cost stream equals the NPV capacity cost for this offer over the forecast period.

- Debt Equivalence (DE)

Long-term contracts are viewed by debt rating agencies as a long-term financial or debt-like liability. The El Dorado offer excludes the DE adder, because this

⁸ The components of fixed costs are: depreciation expense; return on common equity, preferred equity and debt; federal and state income taxes; property taxes; insurance; and fixed O&M expenses. Insurance costs were not included. VHC believes that insurance costs should be included, even though they are relatively small and would not change the selection for Product 3.

⁹ SDG&E used composite [REDACTED].



project will be financed like all other utility-owned assets.

The methodology used to calculate the DE adder is consistent with the approach approved by the CPUC in D.04-12-048 in the 2004 Long-Term Procurement Plans (LTPP) proceeding. A risk factor of 20% and discount rate of 10% are used. The rebalancing percentage for both debt and equity are each assumed to be 50%.¹⁰

- Incremental System Energy Costs

The incremental system energy costs for the “Offer” equal the difference in total system energy costs resulting from production simulation runs with each option included in SDG&E’s resource mix through 2021. For the remaining years of the economic comparison period, system energy costs were escalated at 2.5% per year. System energy costs are dependent on a number of factors, including fuel prices, resource mix and heat rates.

[REDACTED]

Included in the system energy costs are the net savings resulting from energy sales for each plant to other entities. SDG&E would not need the full output of either unit at certain times, which allows surplus energy to be sold. The difference in the variable costs to support the sales and the sales revenues results in a net reduction in the system energy costs.

- Carbon Dioxide (CO₂) Emissions

The total amount of CO₂ emissions equals the change in system emissions from adding each project. The emission costs for each project equal the product of the total CO₂ system emissions and the CO₂ value.¹¹ VHC concurs with SDG&E that estimating a change in total system emissions is a proper modeling approach. For future RFOs, VHC notes that a more detailed treatment of CO₂ emissions costs over time, such as the inclusion of these costs in the production simulation, will be needed for the evaluation of a more varied set of options.

- Ancillary Services Costs/Revenues

Both projects have the capability to sell or avoid purchases of Ancillary

¹⁰ SDG&E has capital ratios of 45.25% for Debt, 5.75% for Preferred Equity and 49.0% for Equity. Rating Agencies treat Preferred Equity as debt for DE calculations.

¹¹ A value of \$8 per metric ton CO₂ in 2004 is used. This value is escalated at 5 percent per year. VHC did not critique this value and escalation rate, since it did not influence the economic evaluation.



Services (AS) for SDG&E, when the units are on-line. The projected AS revenues were based on the capacity of the units that is available to be sold as regulating capacity (Reg up and Reg down). [REDACTED]

SDG&E added non-spinning reserve benefits for the [REDACTED] of additional capacity purchases for the El Dorado project to normalize the economic analysis for size differences. The additional capacity purchases are discussed in the Capacity Differential section below.

- Locational Benefits

Locational benefits represent the cost difference due to power being generated in Nevada from the El Dorado project and the “Offer,” which would deliver power in SDG&E’s service territory. SDG&E uses the results from the GridView market simulation model to calculate the price differential (or locational spread) of [REDACTED] from Nevada compared to power delivered in its service territory for the year 2015.¹² [REDACTED]

[REDACTED] The product of the locational price differential and the output of El Dorado equals the additional costs to account for the different injection points into the grid.

- Capacity Differential

The Capacity or Megawatt Differential represents the value of additional capacity from the “Offer,” with a capacity of [REDACTED] compared to 480 MW for El Dorado. The levelized annual replacement capacity value was assumed to be a levelized cost of [REDACTED] over the forecast period. The product of [REDACTED] and the replacement capacity costs are added to the costs of the El Dorado project.

- Transmission Costs

SDG&E has added transmission costs for the “Offer” project. These costs represent the local transmission upgrade costs that would be necessary for delivery of power from this unit.

¹² Another method would have been to estimate the wheeling costs and line losses to deliver the El Dorado energy to SDG&E and to use these costs instead of the locational benefits. For this Product 3 comparison, VHC considers both approaches to be valid.



5. DISCUSSION AREAS

a. *Selection of Assumptions*

The choice of key assumptions can affect the NPV of the costs, and ultimately the selection of options. Key assumptions are noted below. However, the discussion of these parameters is limited to their possible impacts on the selection of offers.

i. General Economic Parameters

Changes in the assumptions for escalation and discount rates will affect the absolute prices, but VHC does not believe that they would alter the overall comparison in this case.

ii. Forward Price Curves

A minor impact, unless the price differential between the wholesale electricity prices at the injection points of the two projects widens considerably from the values used in this comparison. This uncertainty is discussed in Section 5.i – Locational Benefits.

iii. Natural Gas Prices

Different natural gas price forecasts would influence the absolute price of the projects, but have a relatively small effect on the comparative economics of the “Offer” and El Dorado, because the heat rates of both generating units are fairly close to each other. The El Dorado plant has access to a slightly lower cost of gas transportation estimated to be approximately [REDACTED] in current dollars for every year, because of its location in Nevada.¹³

iv. Electric Demand Growth

The total projected demand growth could influence the total amount of resources required to meet SDG&E’s Resource Adequacy (RA) requirements. SDG&E performed a sensitivity analysis of its RA requirements, which demonstrated that its selection of the preferred Product 3 offer was not changed.

13 [REDACTED]



b. Results of the Economic Comparison

Table 1 shows a cost comparison of the two conforming Product 3 bids: the El Dorado affiliated bid and the “Offer.” The two primary components of the NPV results shown in the table are Capacity-Related Costs and Energy-Related Costs. Overall, the NPV of the cost savings of the El Dorado bid relative to the “Offer” is estimated to be about \$243 million in 2012 dollars.

A simple way to look at the overall comparison of these two bids is to realize that the capacity-related cost for the El Dorado project, \$529 million NPV, is [REDACTED] of the NPV cost of capacity for the “Offer.” In VHC’s opinion SDG&E used conservative end-effects assumptions for El Dorado that most likely made the difference in the estimated NPV of capacity-related costs shown in Table 1 slightly higher than would have been the case with alternative assumptions. Even so, the considerably lower NPV capacity-related costs for El Dorado dominate the comparison of these two bids and clearly favor the selection of the El Dorado bid.

The NPV of projected incremental energy-related costs is slightly higher for the El Dorado project by \$72 million. Energy-related costs are comprised of system energy costs, AS benefits and locational costs. The system energy costs are relatively close, because the heat rates of the generators in each bid are nearly the same. El Dorado has a slightly lower natural gas cost of about [REDACTED] for each year, because of its location, but it provides a lower energy value, because of the delivery of its energy in Nevada, and because it is a smaller unit. Adding the locational spread (or wheeling charges and line losses) of \$103 million NPV to the cost of the El Dorado bid boosts its energy costs higher than that from the “Offer.”¹⁴ The AS savings for the “Offer” are higher than El Dorado by about \$17 million \$ NPV.

¹⁴ VHC believes that the capacity costs estimated for the El Dorado bid are capable of producing some energy benefits that would decrease the energy costs somewhat for the El Dorado project. However, these benefits were not included for El Dorado.



Table 1. Comparison of Costs of the El Dorado Option and the “Offer”¹⁵

Years 2012-2036	With Sales of Excess Power		Difference
NPV in 1/1/2012 \$,	El	“The Offer”	Cost
million	Dorado		(Savings)
(a)	(b)	(c)	(d)
Capacity Cost	\$529	████	████
Debt Equivalence Cost	\$0	\$87	(\$87)
Capacity Differential Cost	████	\$0	████
Transmission Upgrade Cost	\$0	\$23	(\$23)
Capacity-Related Costs - Subtotal	████	████	(\$316)
Incremental System Energy Cost	\$0	\$48	(\$48)
Ancillary Services Benefit	(\$222)	(\$239)	\$17
Location Cost	\$103	\$0	\$103
Energy-Related Costs - Subtotal	(\$119)	(\$191)	\$72
CO ₂ Emissions Cost	\$821	\$821	\$0
Total NPV 2012\$	████	████	(\$243)

The primary situation that would result in the El Dorado project being less attractive than the “Offer” would be a situation where locational spreads in wholesale electricity prices were to widen dramatically, so much so that the increased energy costs of El Dorado

¹⁵ Subtotals and totals differ from sums due to rounding.



would overwhelm its capacity cost advantage. However, an increase of this magnitude seems very unlikely. This risk could be managed through physical or financial hedges and/or swaps. In addition, transmission upgrades could reduce the locational spread in these prices, if it was to increase significantly in the future.

SDG&E calculated the CO₂ related costs for these two options to be the same. CO₂ emissions are, therefore, not a factor in the economic comparison. A discussion of CO₂ emissions is included in Section 5.j – CO₂ Emissions.

In the following sections, we discuss various elements of the economic comparison and where VHC would have treated some assumptions and modeling techniques slightly differently. VHC believes that these differences would have only a very small impact on the economic results and would not change the selection for Product 3.

c. Capacity Costs

The NPV of the cost of capacity for the El Dorado project is \$529 million compared to [REDACTED] for the “Offer.” However, the “Offer” is for a facility that could provide [REDACTED], when compared to El Dorado. The size difference was accounted by adding the Capacity Differential costs to the El Dorado project cost. Adding the capacity differential cost of [REDACTED] to the \$529 million NPV capacity cost for the El Dorado plant equals a comparative NPV capacity cost of [REDACTED] for the El Dorado project, which is [REDACTED] the NPV of capacity costs for the “Offer.” Furthermore, SDG&E used conservative assumptions regarding the end-effects costs that were added to the El Dorado costs to normalize the economic lifetimes.¹⁶

Overall, the cost advantage of acquiring El Dorado capacity dominates all other factors in comparing the Product 3 offers.

d. Debt Equivalence

VHC concurs that the “Offer” should have a DE adder to reflect the additional debt-like impact that would result from a long-term contract for the “Offer.” The resulting cost of \$87 million NPV can be viewed as increasing the capacity costs of the “Offer” [REDACTED]. SDG&E has based the debt calculation on a 25-year contract starting in 2012. Including the DE in the capacity cost comparison discussed above further increases the

¹⁶ VHC believes that SDG&E’s methodology for taking into account the difference in the expected project lives by assuming the addition of a new combined-cycle unit under traditional ratemaking and then selling this new resource at the end of the period may result in a higher NPV cost for El Dorado than would be the case, if SDG&E were to contract for a combined-cycle unit with similar cost and performance characteristics to El Dorado for the remaining years of the evaluation period. Hence, SDG&E’s comparison potentially overstates the NPV of El Dorado capacity costs, making it appear somewhat more costly for this Product 3 comparison than it might have been.



capacity cost advantage of El Dorado compared to the “Offer.”

e. Capacity Differential

The capacity differential represents the cost of incremental capacity purchases to make the El Dorado capacity equivalent to the “Offer’s” project capacity, so that both projects provide the same amount of capacity to SDG&E. VHC concurs that comparing projects of different sizes on an NPV basis requires such a calculation.

SDG&E used a levelized capacity cost of capacity [REDACTED] over the twenty-five year period. VHC views this as a conservative assumption for the capacity cost comparison of these two projects. [REDACTED]

[REDACTED] This would reduce the energy-related costs of the El Dorado option in this economic comparison.

f. Transmission Upgrades

Transmission upgrade costs are assigned to the “Offer,” even though the “Offer” is located within SDG&E’s service territory. In its evaluation of bids in response to its Renewables RFO, SDG&E assigned zero transmission costs for several bids located within its service territory. VHC understands that SDG&E had enough specific information regarding the “Offer” to allow it to estimate system transmission upgrades for the “Offer” and to allow an apples to apples comparison to the El Dorado project.

SDG&E estimated the system transmission upgrade capital costs to be [REDACTED], which would allow power delivered from the “Offer” for a NPV cost of \$23 million. VHC understands that these transmission costs are approximate, because the estimates are based on internal studies not specific to the “Offer” project. VHC can not comment on the accuracy of these estimates for this application, but VHC believes this cost is a valid cost to include in the economic comparison. The \$23 million NPV transmission upgrade costs are relatively small compared to the total cost and do not affect the choice for Product 3.

g. Incremental System Energy Costs

The total system energy costs for the operation of the “Offer” have an NPV \$48 million higher than for the operation of the El Dorado plant. VHC would expect slightly higher system energy costs for the “Offer,” because of its higher fuel costs compared to El Dorado. However, the locational spread cost, which can be viewed as the wheeling costs



and line losses for El Dorado offsets its fuel savings advantage. Section i discusses the locational cost differences.

h. Ancillary Services Revenue

The El Dorado project shows lower AS benefits than the “Offer” with a savings (or negative cost) of \$222 million NPV compared to \$239 million NPV savings for the “Offer.”

AS revenues come from the sale of Reg up and Reg down services to the grid. El Dorado’s operating hours are estimated to be greater than the “Offer’s,” making it generally more available to provide AS. This is offset by the fact that it is smaller and can provide less total regulating capability than the “Offer.” The additional dispatch from El Dorado may be a result of its locational spread costs being added after the production simulation modeling. If El Dorado’s variable costs used for simulation modeling had included locational spread costs, El Dorado’s operational hours would be expected to drop slightly, thus reducing its AS benefits. However, the total energy costs for El Dorado and its locational spread costs would also drop slightly, partially offsetting the drop in its AS benefits. The AS benefits of non-spinning reserves from the capacity differential were also added in the economic analysis to make up for the smaller size of the El Dorado bid.

VHC had extensive discussions with SDG&E regarding the modeling approach and assumptions used to calculate AS revenues. VHC concurs that AS benefits should be approximately the same for the two options with slightly higher AS benefits for the “Offer,” because of its slightly greater flexibility compared to El Dorado.

i. Locational Benefits

The key issue with estimating the locational benefits is estimating the zonal (or nodal) spreads in electricity prices over the term of the contract. VHC did not do a detailed review of the GridView modeling to arrive at the [REDACTED] locational spread cost for the El Dorado project. However, even if the spreads were to double, then the NPV costs would increase by \$103 million NPV. This hypothetical increase is large, but not large enough to change the conclusion.

Note that the locational spread costs were added as an additional cost after the production simulation modeling. VHC believes that incorporating them prior to the production simulation modeling would cause only minor changes to the overall economic results.

j. CO₂ Emissions

SDG&E calculated that the system-wide CO₂ emissions costs for El Dorado and the “Offer” are the same at \$821 million NPV. VHC believes that the system-wide CO₂



emissions would be slightly higher for El Dorado because: 1) its heat rate ([REDACTED]) is above that of the “Offer” ([REDACTED]); and 2) its transmission line losses would be greater than those of the “Offer.” Transmission line losses were not included in the modeling. Transmission line losses of one percent would increase the CO₂ emissions costs by about [REDACTED] NPV for El Dorado.

VHC believes that the increase in CO₂ emissions costs due to El Dorado’s higher heat rate was offset by the difference in the dispatch between El Dorado and the “Offer.” El Dorado is dispatched more than the “Offer” and the increase in the dispatch of El Dorado displaces other higher CO₂ emitting resources on the margin. Including El Dorado’s locational cost as a variable cost would reduce El Dorado’s dispatch, thereby slightly increasing its system-wide CO₂ emissions costs.

On the other hand, the increases in El Dorado’s CO₂ emissions costs compared to those of the “Offer” would be reduced or eliminated with a change in an assumption for the differential capacity. If the differential capacity of [REDACTED] were assumed to be from a combined-cycle plant rather than a combustion turbine unit, then the differential capacity would displace other less efficient gas-fired units on the margin. This displacement would result in a reduction in system-wide CO₂ emissions.

VHC considers these issues as secondary, and they would not change the overall economics, but could change the CO₂ estimates for each option by a small amount.

From a broader CO₂ emissions reduction perspective, El Dorado has two advantages compared to the “Offer:” 1) It has a shorter life, providing SDG&E with an opportunity in 18 years to replace this fossil generation resource with renewable resources, if needed for portfolio compliance with future greenhouse gas regulations. 2) It is also a smaller unit, which results in a smaller Product 3 commitment to a fossil fuel-based resource.

k. Alternative Scenario Discussion

SDG&E examined four alternative scenarios: Local Resource Adequacy, Locational Costs, Transmission Costs and Terminal Value. In all the scenarios, the NPV of the overall costs for the El Dorado project was lower, making it the preferred choice. VHC did not examine these scenarios in detail, but agrees that varying these parameters within a reasonable range would not sway the RFO decision in favor of the “Offer.”

One scenario that VHC believes might influence an overall economic evaluation and comparison is a situation where the development of the Sunrise Transmission Link is delayed or not constructed. Additional local capacity would be needed under this scenario, and the “Offer” power plant might then become a part of alternative development plans that could be devised. In this RFO, VHC recommends the selection of the El Dorado power plant. However, in the absence of the Sunrise Transmission Link, additional analyses would be required to determine the best set of options. Under a “no Sunrise”



contingency plan another variation for analysis might include [REDACTED]

l. Treatment of the Affiliate Bid

VHC has reviewed the evaluation of the Sempra Energy affiliate bid and the other Product 3 bids. VHC concludes that all offers were treated in a consistent, fair and equitable manner. No preference was shown for the affiliate bid.

In our judgment, the bids were evaluated fairly, enabling SDG&E to make a reasonable comparison of the values of the bids and to make an appropriate Product 3 selection.

6. VHC’S OPINIONS AND CONCLUSIONS REGARDING THE EL DORADO SELECTION

As discussed above, VHC reviewed SDG&E’s bid receipt and evaluation processes and methods, as well as spot-checking data and calculations. In addition to conducting on-site and telephone interviews and discussions with SDG&E personnel, VHC reviewed bid-related materials and quantitative analyses, recommended refinements, and initiated numerous discussions.

VHC concludes that SDG&E has run a fair and unbiased solicitation for Product 3, resulting in its selection of the El Dorado project. No preference was shown for the El Dorado affiliate bid. As noted earlier, SDG&E provided the acquisition costs of the El Dorado project in the RFO solicitation, in order to allow other bidders to estimate the benchmark costs that their offers would need to beat in their bids.

VHC concurs with SDG&E that the El Dorado project is a lower cost option than the “Offer” and is the appropriate Product 3 resource selection. VHC has noted areas where it may have used different assumptions in the economic evaluation for Product 3. Overall, VHC believes that SDG&E’s set of assumptions for the Product 3 evaluation have led to the comparative costs of the El Dorado project being somewhat higher than they might otherwise have been estimated to be. However, even using such relatively conservative assumptions, the costs of the El Dorado bid remain considerably lower than the costs of the “Offer.” VHC does not see a likely scenario where the “Offer” would be a superior selection to the transfer of the El Dorado plant to SDG&E.

Although, not considered in the evaluation, the smaller, shorter-lived El Dorado project may also allow greater flexibility in the future to comply with more stringent rules and regulations regarding CO₂ emissions reductions.



APPENDIX A: PA CONSULTING’S REVIEW OF THE SUPPLY RFO

During the period prior to the receipt of bids, PA Consulting served as the IE. This Appendix incorporates text from an August 1, 2007, letter from Jonathan Jacobs, Managing Consultant, PA Consulting, to Mike Katz, Van Horn Consulting.

SDG&E Supply RFO, Product 3

This letter describes the activities undertaken by PA Consulting Group as the Independent Evaluator for the March 9, 2007 Supply RFO, prior to VHC’s engagement in that position, and, in particular, the activities related to the evaluation of “Product 3.”

1. I attended SDG&E’s pre-bid conference in San Diego on March 30, 2007, where I was introduced to the potential bidders.
2. In April, I received and reviewed the draft Evaluation Criteria document. I met with SDG&E in San Diego to discuss in detail the evaluation criteria for the RFO. The primary function of this was to review the assumptions to be used in a production cost model that would provide the value of each offer, and more specifically, the way that SDG&E’s approved Resource Plan would be extended for the longer period associated with the RFO. That extension was necessary more for the Product 2 evaluation than Product 3. Specific to Product 3, we addressed the issue of verifying that a Sempra bid really represented the plant’s depreciated book value.
3. I also reviewed with SDG&E a few scenarios of otherwise unexpected combination bids, e.g., a bid from a single plant that could deliver both Products 2 and 3.
4. Finally, I discussed with SDG&E whether it would be necessary to evaluate the EI Dorado bid in isolation, for example, to ensure that it was cost-effective in the absence of a “market” benchmark, if there were no other reasonable Product 3 bids.



APPENDIX B: SDG&E’S PRODUCT 3 ECONOMIC ANALYSIS SPREADSHEET AND DISCUSSION OF SDG&E’S ANALYSIS AND ASSUMPTIONS

Overview

VHC has reviewed the spreadsheets used by SDG&E in its economic comparison of the “Offer” and the El Dorado option and concurs with SDG&E’s selection of the El Dorado option. VHC has spot checked many calculations and discussed with SDG&E personnel the rationale for various assumptions and calculations.

Some aspects of SDG&E’s economic analysis are discussed below.

Capacity Difference

The capacity of the “Offer” is [REDACTED] compared to 480 MW for El Dorado project. In its analysis, SDG&E added the product of the difference in capacity of the two plants and the replacement capacity value to the costs of the El Dorado project. The levelized annual replacement capacity value was assumed to be \$ [REDACTED]¹⁷ over the forecast period. This value for capacity appears to be close to the cost for a combined-cycle power plant rather than a gas turbine peaking unit. If so, the costs added to the El Dorado project are high. VHC notes that the capacity cost for a generic peaking unit would result in lower costs. Alternatively, an energy credit could be applied if the capacity value is based on a combined-cycle.

Another technique that could have been used would be to assume that SDG&E could sell the capacity difference of [REDACTED] at the “Offer” price. Then, all costs could be calculated on a comparable basis compared to the El Dorado project.

End Effects

There is a difference in the expected economic lives of the El Dorado project and the “Offer.” The last [REDACTED] years of the economic comparison period applied the fixed costs of a combined-cycle unit with straight line (SL) depreciation and a 30-year economic life. At the end of this [REDACTED] period, SDG&E assigned a gain on the sale of the combined-cycle power plant. The gain on sale is calculated using a “replacement” cost based on an escalated capital cost for the combined-cycle unit less accumulated SL depreciation. VHC agrees with this approach for the analysis.

There are other methods for calculating end effects that would result in lower costs for the El Dorado project. For example, an annualized capacity cost (a stream of values that

¹⁷ The capacity costs are based on SDG&E’s Local Peaking Capacity RFO.



increases with inflation) of a combined-cycle power plant would tend to give lower costs.

Locational Spread

The El Dorado project can currently deliver power to South of Path 15 (SP15). So, rather than computing wheeling charges and taking into account line losses, SDG&E used a difference in energy prices between the El Dorado project’s location and the San Diego load aggregation point.

This approach is reasonable but, if line losses are significant, an adjustment to the capacity of the El Dorado project for line losses should be taken into account. Not doing so, may understate the capacity costs for El Dorado by a small amount.

Sunrise Transmission Link

The “Offer,” with its location in SDG&E’s service territory, could potentially provide reliability benefits in the event that the Sunrise Transmission Link is either delayed or not constructed.

SDG&E received [REDACTED] non-conforming bids, [REDACTED]
[REDACTED]
[REDACTED]

Ancillary Services

SDG&E’s analysis takes into account the sale of or avoidance of purchases of AS, based on projected SP15 prices for Reg up and Reg down, during periods when the units are on-line. In addition, SDG&E has added a non-spinning reserve benefit to the additional capacity purchases.

The Reg up and Reg down results are dependent on the number of hours that the plants are on-line. VHC believes the dispatch of El Dorado is slightly high, because the locational spreads were included after the production modeling was done. If these costs were added to the variable costs of El Dorado, then the hours of dispatch of El Dorado would have most likely dropped slightly. VHC does not believe the AS revenues would have changed significantly, but points out that this modeling assumption somewhat affects the estimated AS costs of the options.

The AS prices are [REDACTED]
[REDACTED]. This relationship may change over time. As more non-dispatchable renewable resources are added, the need and prices for regulation would tend to increase. Since both options can provide regulation services,



higher AS prices would change the absolute AS costs, but not enough to change the overall economic comparison.

VHC examined the non-spinning reserve prices that were estimated and used to calculate an AS benefit from the additional capacity purchase, which was assumed in order to normalize the capacity under the El Dorado option with the larger capacity provided by the “Offer.” VHC agrees that using much lower prices for non-spinning reserves relative to the prices for regulation services is appropriate. Although VHC would have used slightly different assumptions in various areas, the final AS revenues would have been close to SDG&E’s estimates.

Proceeding No.: A.07-08-
Exhibit No.: _____
Witness: Mike McClenahan

**DIRECT TESTIMONY OF
MIKE McCLENAHAN
SAN DIEGO GAS & ELECTRIC COMPANY**

*****redacted, public version*****

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA
August 8, 2007**

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Exhibit 1 2010-2012 Supply Resources RFO document (issued March 9, 2007)

Exhibit 2 Settlement Agreement

1 planned resources in the SDG&E portfolio. As the LTPP illustrated and as demonstrated here in
2 the testimony of Mr. Montoya, SDG&E's bundled customers are going to require significant
3 procurement to replace expiring contracts over the next five years. As explained in the testimony
4 of Mr. Montoya, the filed LTPP shows a bundled customer total need that grows to
5 approximately 1,900 MW of capacity by 2012. The relatively small size of this RFO renders
6 moot any concerns about over procurement. It is therefore appropriate to fill a portion of that
7 future need now for the following reasons:

- 8 ➤ The option to buy El Dorado, at a price that our RFO shows to be unquestionably
9 the best available to SDG&E, must be approved by the CPUC by the end of
10 December 2007, unless the Settlement parties agree to a different date;
- 11 ➤ Mr. Montoya's testimony clearly shows that the quantity of procurement for
12 which SDG&E seeks approval in this Application is much smaller than the
13 forecasted future need found in the LTPP; and
- 14 ➤ SDG&E is procuring its future net short incrementally and over time. Adding
15 resources gradually over time diversifies SDG&E's purchased price of capacity,
16 rather than buying all of the identified short position in a single RFO.

17 After analyzing the portfolio needs, SDG&E made a decision on product type and
18 quantity to seek in the RFO. SDG&E sought supply resources to supply energy to bundled
19 customers and/or meet other portfolio needs, including resource adequacy requirements.

20 Product 1 in the RFO was for demand response. The product requirements stated that
21 each demand response project must be a means of reducing an end-use customer's demand
22 and/or energy usage by at least 1.0 MW and be within SDG&E's service territory.

23 Product 2 in the RFO was defined as new generation capacity with a "preferred on line
24 date of March 2010, but with consideration of offers for dates as early as March 2009 or as late
25 as March 2012."² The new generation had to "be located physically within SDG&E's service
26 territory ... or have its sole generator transmission system interconnection (gen-tie) directly
27 interconnected to the electric network internal to SDG&E's service area such that the unit
28 supports SDG&E's local resource adequacy requirement."³ Recognizing that there may be
29 qualified developers that do not have familiarity with the San Diego region and may not have a
30 site readily available to them, SDG&E offered two of its own sites (Rainbow and Lonestar) to

² RFO, p. 3.

³ Id.

1 potential developers in order to garner the best possible response to its RFO. The sites were
2 opened for power purchase agreements (“PPA”) and build-own-transfer (“turnkey”) offers.

3 Product 3 in the RFO was for resources able to compete with the services and
4 characteristics offered by the El Dorado Option. Product 3 was for “one fully dispatchable,
5 approximately 500 MW generation facility with a remaining useful life of at least 20 years
6 capable of delivering unit contingent firm energy and capacity to SDG&E’s service territory,
7 with deliveries commencing between October 1, 2011 and March 31, 2012.”⁴ Heat rates were
8 generally held to be “... no higher than 8,000 btu/kWh, and the unit ... [was to] ... be capable of
9 operating at capacity factors of 80% or more.”⁵ Offers were to be “... PPA (tolls only) with an
10 option offered at respondents’ sole election for transfer to SDG&E at a price certain; or an
11 acquisition by SDG&E.”⁶ In every case, deliveries would begin no later than Q1 2012.

12 The 2010-2012 RFO was conducted for a portion of the targeted need identified in the
13 LTPP, as well as a need to evaluate a specific, pre-existing opportunity (the El Dorado Option).
14 Although the RFO solicited demand response and conventional resources, it did not solicit
15 renewables (and was thus not a true All-Source RFO) due to the release the following business
16 day (on March 12, 2007) of SDG&E’s 2007 Renewable Portfolio Standard RFO.

17 SDG&E continues to work on negotiating contracts for Products 1 and 2 and may file any
18 resulting contracts for approval by the Commission in the future.

19 **IV. CONSULTATION PRIOR TO RFO RELEASE**

20 At all stages of the RFO, SDG&E consulted with its Procurement Review Group
21 (“PRG”) and also worked with its Independent Evaluator (“IE”) to ensure that the solicitation
22 was open, designed and evaluated without bias and likely to garner a robust response from the
23 market. The PRG was briefed on SDG&E’s plans for the 2010-2012 RFO as early as October
24 13, 2006. On October 27, 2006, a PRG meeting was held to discuss, among other topics, the El
25 Dorado Option. On March 1, 2007, draft RFO documents were sent to the PRG for their review
26 prior to release publicly. On March 2, 2007, a call was held with Energy Division staff who had
27 suggested changes that SDG&E incorporated into the RFO document prior to its release on
28 March 9, 2007. On March 16, 2007, SDG&E again reviewed with its PRG the goals of the RFO,
29 the process to be followed in the RFO and the need to be filled.

⁴ Id. at 4.

⁵ Id.

⁶ Id.

1 SDG&E consulted with its IE and provided it an opportunity to review and comment on
2 the RFO document prior to its release. Additionally, SDG&E worked with the IE to resolve
3 items that were brought to SDG&E's attention prior to issuing the RFO. SDG&E had chosen to
4 continue with the same IE used for previous solicitations by the utility due to that entity's
5 familiarity with SDG&E's portfolio and the PRG. After the RFO was underway, the IE asked to
6 withdraw from this matter due to a potential conflict related to other work being done by the IE's
7 firm. SDG&E therefore switched IE firms immediately prior to the receipt of offers. This
8 change in IE was discussed with the PRG on two occasions. The IE's Report, reflecting the
9 input from both IEs who worked on the 2010 - 2012 RFO, is also being served with this
10 Application.

11 On March 9, 2007, SDG&E issued its 2010-2012 RFO to the market. In order to achieve
12 our goals of maximum participation and robust competition, SDG&E took the following actions:
13 (1) issued a press release, which was carried by major trade publications;⁷ (2) conducted a direct
14 mailing (via e-mail) to a list of likely interested parties;⁸ (3) noticed the RFO on its Web site; and
15 (4) posted all relevant documents on that site for access by any interested party. SDG&E also
16 convened a pre-bid conference on March 30, 2007, which was attended by almost 50 individuals.
17 At that meeting, SDG&E and potential bidders could engage in a dialogue where bidders could
18 get clarity on any questions with regard to the RFO. Further, SDG&E regularly updated its RFO
19 Web site with new information and responses to questions submitted in writing regarding the
20 RFO.

21 **V. OFFER EVALUATION AND SELECTION**

22 **A. Evaluation Overview**

23 The evaluation of the bids started with screening for conformance with the RFO.
24 SDG&E received two conforming offers in Product 3, one of which was the El Dorado Option.
25 Both conforming bids were modeled for life-cycle customer impacts. The detailed explanation
26 of this modeling is provided in the direct testimony of SDG&E witness Michael Calabrese.

27 **1. El Dorado**

28 The El Dorado Option for purchase of 100% interest in the existing 480 MW combined
29 cycle power plant is described in Exhibit 2 to my testimony. The unit is located in southern

⁷ See MW Daily, Monday March 12, 2007 and CEM March 16, 2006.

⁸ List includes WSPP membership and parties who had requested that they be advised of future RFOs.

1 Nevada and will be capable of providing system resource adequacy to SDG&E’s portfolio as an
2 import, which is dynamically scheduled into the ISO on the Merchant Branch Group. The unit
3 will also provide SDG&E’s bundled customers with ancillary services and energy at a heat rate
4 that is attractive relative to the market. The offered price of the El Dorado Option, as defined in
5 the Equity Purchase Option Agreement, is equal to the closing book value of the plant at the time
6 of transfer in 2011, which is currently estimated by El Dorado to be \$189 million.

7 **2. Competing Offer**

8 There was a sole conforming bid to compete with El Dorado in the Product 3 category
9 (“Competing Offer”). It was for a [REDACTED]

10 [REDACTED]

11 [REDACTED]

12 [REDACTED]

13 A brief summary of SDG&E’s analysis follows:

14 The evaluation considered the fixed and variable costs of El Dorado ownership and the
15 Competing Offer. For El Dorado, it included the full revenue requirement of plant in rate base,
16 fixed O&M, variable O&M and fuel costs, and delivery costs. Ancillary services revenues and
17 Greenhouse Gas (“GHG”) impacts were also included. An adjustment was made for the
18 difference in capacity size (480 MW vs. [REDACTED]) between the two candidates.

19 For the Competing Offer, the analysis covered all PPA fixed costs, variable O&M and
20 fuel costs of dispatch, and debt equivalence. Ancillary services revenues and GHG impacts were
21 also included.

22 The results of the comparison of full life cycle costs showed that El Dorado was a
23 significantly more beneficial offer.

24 **B. Technology**

25 Both El Dorado and the Competing Offer are industry standard combined cycle units.
26 The El Dorado plant, at 480 MW, uses Siemens-Westinghouse 501F technology in a 2x1
27 configuration and has a full load heat rate of approximately 7,200 Btu/kWh. [REDACTED]

28 [REDACTED]

29 [REDACTED]

1 **C. Conformance with the State GHG Standards**

2 In D.07-01-039, the state adopted standards that set limits on the GHG emissions profiles
3 of long-term base loaded contracts entered into by the IOUs. El Dorado was reviewed for
4 compliance and met the standard that was established in that order, which is described in the
5 testimony of Mr. Montoya.

6 **D. Transmission Costs**

7 The impact of transmission system upgrade costs was also analyzed. The RFO required
8 that all offers for new projects provide a CAISO System Impact Study so SDG&E’s analysis
9 could assess any transmission system upgrade costs (beyond the “gentie”) that would be required
10 to make the plants deliverable. SDG&E did not receive such a study for the Competing Offer
11 and thus made an assumption for this analysis that costs would be similar to the cost for
12 integrating the Palomar combined cycle plant. Mr. Calabrese discusses this analysis in his
13 testimony, as well as a sensitivity that evaluates lower transmission system upgrade costs. If
14 transmission costs were higher than the costs assumed in the base case, such higher costs would
15 represent further improvement in the economics of the El Dorado Option vs. the Competing
16 Offer.

17 **E. Selection**

18 Selection was a simple comparison of the revenue requirement impacts of the two
19 offerings – El Dorado vs. the Competing Offer. The outcome of the analysis described and
20 conducted by Mr. Calabrese shows that El Dorado is clearly a superior alternative to the
21 Competing Offer.

22 **F. Offers Not Selected**

23 Market interest in the 2010-2012 RFO for Product 3 produced three parties submitting
24 four offers. All offers for Product 3 that were found to be non-conforming were dropped from
25 consideration at this time [REDACTED]

26 [REDACTED]

27 [REDACTED]

28 [REDACTED]

29 The RFO states on p. 4: “Offers may be for either a 20 year PPA (tolls only) with an option
30 offered at respondents’ sole election for transfer to SDG&E at a price certain; or an acquisition
31 by SDG&E. ... Prospective bidders should be aware that offers in this RFO for Product 3 are

1 competing with the El Dorado option.” Our clear intent here was to invite bids that compete
2 with our purchase of the El Dorado plant.

3 [REDACTED]

4 [REDACTED]

5 [REDACTED]

6 [REDACTED]

7 [REDACTED]

8 **G. Consultation on Selection**

9 The PRG continued to be briefed after the RFO was issued. On April 27, 2007, SDG&E
10 met with its PRG to discuss and review the proposed evaluation criteria to be used in making a
11 selection. On June 20, 2007, SDG&E reviewed the results of its analysis and presented its
12 proposed shortlist to the PRG, including its decision to exercise the El Dorado Option.

13 Methodologies and empirical data assumptions were proposed and considered by both the
14 IE and SDG&E. The subjects covered isolation of key variables, consistency of analytical
15 approaches and the possible presence of perceived bias. This process included numerous site
16 visits, conference calls and e-mails with the IEs.

17 **VI. CONTRACT DESCRIPTION**

18 The procurement associated with Product 3 sought in this RFO has at this time resulted in
19 SDG&E electing to accept one proposal, the ownership of the El Dorado plant as the Product 3
20 winner, for approximately 480 MW. The Settlement Agreement for the El Dorado Option is
21 contained in Exhibit 2. The Equity Purchase Option Agreement is also available to parties upon
22 request, but due to its large size, SDG&E is not serving it with my testimony.

23 SDG&E requests that the Commission approve SDG&E’s election to exercise the El
24 Dorado option and purchase the El Dorado plant in 2011.

25 **VII. COST RECOVERY**

26 SDG&E proposes to use its existing balancing accounts to recover all of the costs
27 associated with this resource from bundled customers. SDG&E’s exercise of this option and
28 transfer of property to its accounts is contingent upon Commission approval for full recovery of
29 all related costs from ratepayers. The details of cost recovery are explained in the testimony of
30 Mr. Calabrese.

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VIII. QUALIFICATIONS

My name is Mike McClenahan. My business address is 8306 Century Park Court, San Diego, California, 92123-1593. I am employed by SDG&E as Director, Procurement and Portfolio Design. My responsibilities include long-term procurement, incorporating regulatory and policy issues into commercial transactions and portfolio planning. I joined the Electric and Gas Procurement group in September 2002.

I received my Bachelor’s Degree in Industrial Technology from the California Maritime Academy. My career in electricity has spanned a broad range of functional areas – generation operations, power system control and transmission operations, system resource planning (real-time to two year time horizon), commercial operation (trading and risk management), market analysis, business development and market design/regulatory efforts in all major U.S. markets and several Asian markets. I have worked in both regulated (SDG&E and PG&E) and unregulated (Mirant) energy companies as well as a market service provider (Automated Power Exchange).

EXHIBIT LIST

Exhibit 1: 2010-2012 Supply Resources RFO document (issued March 9, 2007)

Exhibit 2: Settlement Agreement (due to its large size, the Equity Purchase Option Agreement is available upon request)

EXHIBIT 1



**REQUEST FOR OFFERS
for
SUPPLY RESOURCES**

March 9, 2007

San Diego Gas & Electric Company
Electric and Gas Procurement Department
8306 Century Park Court,
San Diego, CA 92123-1593

1. Scope of Supply

San Diego Gas & Electric Company (SDG&E) is issuing this Request for Offers (RFO) for supply resources to support reliability within the SDG&E service territory, supply energy to bundled customers and/or meet other portfolio needs (including Resource Adequacy (RA) requirements and the Greenhouse Gas (GHG) emissions profile). All resources that can meet the obligations set forth below for each of the three requested products are welcome to bid into this RFO; however, all renewable resources are strongly encouraged to participate in the parallel Renewables RFO, which will be issued in March 2007.

The following products are sought in this RFO: 1) Demand Response Capacity (DR) for initial delivery in 2010, 2011, or 2012, running for a total of 15 years; 2) peakers or intermediate class resources, in SDG&E's territory, totaling a minimum of approximately 200 MW as turnkey or power purchase agreements (PPA) for a minimum of 15 years with on line dates of between April 2010 and April 2012; and 3) a generation facility, located inside or outside SDG&E's service territory of approximately 500 MW nameplate capacity, deliverable to SDG&E's service territory.

Product 1

Respondents may propose a 15-year product for the delivery of measurable Demand Response. This product must be a means of reducing an end-use customer's demand and/or energy usage, must be for at least 1.0 MW and be within SDG&E's service territory. The offer must provide, in sufficient detail, the Demand Response product, the process for delivering Demand Response and the manner in which it will meet the minimum guidelines specified in Section 6, Resource Criteria.

Product 2

Bids for this product must be new generation capacity. SDG&E prefers an on line date of March 2010, but will consider offers for dates as early as March 2009 or as late as March 2012. The new generation must be located physically within SDG&E's service territory (as more specifically described in the Addendum) or have its sole generator transmission system interconnection (gen-tie) directly interconnected to the electric network internal to SDG&E's service area such that the unit supports SDG&E's Local RA requirement.¹ SDG&E seeks a total of at

¹ This determination will ultimately be made by the CASIO; however, SDG&E cautions that interconnection with the 500-kV Southwest Power Link or the Imperial Valley 500/230-kV Substation are not acceptable delivery points for proposals under this RFO because the reliability resource requirement is based on a contingency condition with the SWPL out of service. Similarly, direct interconnection to the San Onofre switchyard or the 230-kV lines from San Onofre to either Talega Substation or San Luis Rey Substation are not acceptable for the purpose of this RFO because these network facilities are fully utilized for the reliability condition of concern.

least 200 MW of Product 2. Products offered in this category shall be capable of operating at annual capacity factors of a minimum of 30%. It is anticipated that heat rates will be no higher than 10,500 btu/kWh. For this product, SDG&E requires resources that are capable of quick start operations (that is, capable of synchronizing and providing energy to the grid within 10 minutes of notification). SDG&E also requires that each offer contain pricing for, and an option to provide, black start capability.

Contracts for Product 2 will be either Build-Own-Transfer (turnkey) or Tolling Agreements. In the case of a tolling agreement, the contract term shall be for a period of 15, 20 or 25 years. For any tolling agreement, the bidder may offer at its sole election an option for transfer of ownership to SDG&E at a price certain at the end of the term of the tolling agreement. SDG&E's evaluation of all Product 2 offers will be adjusted for and compared at an in-basin level of costs and benefits.

Product 3

One fully dispatchable approximately 500 MW generation facility with a remaining useful life of at least 20 years capable of delivering unit contingent firm energy and capacity to SDG&E's service territory, with deliveries commencing between October 1, 2011 and March 31, 2012. Heat rates should be no higher than 8,000 btu/kWh, and the unit should be capable of operating at capacity factors of 80% or more.

Offers may be for either a 20 year PPA (tolls only) with an option offered at respondents' sole election for transfer to SDG&E at a price certain; or an acquisition by SDG&E. In both cases, deliveries shall begin no later than Q1 2012. SDG&E shall have exclusive rights to the product and all benefits derived therefrom, including the exclusive right to use, market or sell the product and the right to all revenues generated from the use, sale or marketing of the product. SDG&E will exercise exclusive dispatch control over the generating facility.

SDG&E has an option to purchase from a Sempra Energy affiliate the approximately 480 MW El Dorado Energy, LLC power plant (located in Boulder City, Nevada) on October 1, 2011 for depreciated book value, which is currently estimated to be approximately \$189 million (the "El Dorado Option"). The El Dorado Option was first announced to the public by the CPUC in a press release issued on October 13, 2006, relating to the settlement of a lawsuit between Sempra Energy and the CPUC. A copy of this press release can be found at www.cpuc.ca.gov. The El Dorado Option was also referenced in SDG&E's 2008 Peaker RFO issued on October 17, 2006, as well as in SDG&E's December 11, 2006 Long-Term Procurement Plan, both of which are available at www.sdge.com. Prospective bidders should be aware that offers in this RFO for Product 3 are competing with the El Dorado Option. More information, including the relevant agreements, on this El Dorado Option can be found on the

RFO website. If SDG&E exercises the El Dorado Option to purchase El Dorado, SDG&E will seek approval of the transaction by both the CPUC and FERC. If the option is exercised after evaluation of competing offers, regulatory approvals will follow a separate filing process that is more expedited than the dates shown below in this RFO.

General Information

The Respondent shall be responsible for development, permitting, financing, and construction of any required facilities. In the case of a turnkey project, the project's property rights will be transferred to SDG&E as part of the generation facility acquisition. The generating facility and transmission interconnection must be designed and constructed in conformance with CAISO's Tariff, applicable CPUC and/or FERC rules, orders, and/or regulations, and SDG&E's specifications.

SDG&E requires that all offers requiring interconnection for ultimate delivery to SDG&E be accompanied by CAISO LGIP transmission interconnection studies that provide the cost of such interconnection to be used in SDG&E's evaluation process. If such LGIP interconnection study related information is not available at the time the bid(s) is submitted, then Respondent agrees to provide SDG&E with such LGIP interconnection study related information as soon as such information is received by Respondent, but in no case later than 9/01/2007.

The information presented here is preliminary and non-binding. SDG&E reserves the right to withdraw or change any element of this proposed offering at any time.

2. RFO Communication

All questions or other communications regarding this RFO should be submitted via e-mail to the RFO's mailbox: 2010-2012CapacityRFO@semprautilities.com. All questions and answers will be available to all RFO recipients, with Respondents' identity removed, via the RFO website at www.sdge.com/2010-2012Capacityrfo. SDG&E will not accept questions or comments in any other form, except during the bidders conference and the Respondent interviews. Respondents are encouraged to check the RFO Website periodically for updates, notices, and postings. E-mail requests for access to the RFO bid upload site may be made to the RFO mailbox.

SDG&E will hold a conference for registered bidders on March 23, 2007 at 9:00 am. Parties who intend to bid are required to e-mail the RFO's mailbox: 2010-2012CapacityRFO@semprautilities.com requesting registration as bidders in this RFO.

3. RFO Schedule

SDG&E reserves the right to revise this schedule at SDG&E's sole discretion and will post such changes to the RFO website. Short-listed Respondents will be notified of interview date, time, and meeting room location. All interviews will be conducted at SDG&E's Century Park complex. Product 3 will follow a different schedule than Products 1 and 2 (see table below.) Please also be advised that this schedule may be affected by the timing of the Long-Term Procurement Plan proceeding in which SDG&E has made its need showing that underlies this RFO.

#	MILESTONE EVENT	DATE
1.	RFO Issued	3/09/2007
2.	Intent to Bid e-mail due at RFO mailbox for registration	3/23/07
3.	Registered Bidders meeting with SDG&E Location: SDG&E CP4200A&B Time: 9:00 – 11:30 a.m. March 30, 2007	3/30/2007
4.	Question submittal cut-off date: noon	5/11/2007
5.	CLOSING DATE: Electronic Offers must be uploaded to and received by the RFO Website by noon (local prevailing time).	05/17/2007
6.	Hard-copies of Offers must be received at SDG&E's offices	05/18/2007
7.	SDG&E completes evaluation and creates shortlist of candidates Product 3 ²	No later than 07/01/2007
8.	SDG&E completes evaluation and creates shortlist of candidates Products 1 and 2	07/15/2007
9.	Last date for Respondents to submit completed ISO LGIP System Impact Study to SDG&E	09/01/2007
10.	Negotiations with shortlist. Product 3	No later than Sep 15, 2007
11.	Negotiations with shortlist. Products 1 and 2	Sept/Oct/Nov 2007
12.	Definitive Agreement filed at CPUC Product 3	No later than 09/01/2007
13.	Definitive Agreement filed at CPUC Products 1 and 2	12/01/2007
14.	Expected CPUC contract approval; final notice to proceed Product 3	12/15/2007
15.	Expected CPUC contract approval; final notice to proceed Products 1 and 2	01/15/2008

4. RFO Response

In order to remain on the mailing/notice list for this RFO, SDG&E requires that each interested party send an e-mail to the RFO mailbox indicating that it is either considering or intending to submit an offer.

² As noted above, if SDG&E exercises the El Dorado option, the related Commission filings will proceed on an expedited basis on a separate track from this schedule.

SDG&E **requires** that all offers submitted pursuant to this RFO contain, at a minimum:

- a) the information requested in the Offer Response Forms (which will be in the technical specifications on the RFO website) using the forms provided. The forms should be submitted in editable electronic form for efficient processing by SDG&E.
- b) a detailed Gantt chart (or equivalent alternative) which outlines all major project milestones (including but not limited to permitting, engineering, site preparation, equipment contract and delivery and construction). The project timeline will also include milestones associated with major cost commitments (>\$500,000). The workplan should also include a description of any uncertainties, where any changes would still result in not meeting the required on line date.
- c) Respondents proposing a tolling arrangement should submit comments on the draft Power Purchase Tolling Agreement. All other Respondents, including those proposing to provide Product 2 pursuant to a Turnkey Agreement, must submit a draft Term Sheet outlining the key features of any proposed transactions
- d) Credit. Respondent's offer **must include** a completed credit application (found on RFO website).

SDG&E will review and may utilize all information submitted by a Respondent including any information identified as "confidential." SDG&E reserves the right to request additional information from Respondents prior to interviews.

All offers must be submitted to the RFO Website by 12:00 noon, PDT, May 17, 2007. One original offer, identical to the electronic submittal and signed by an authorized officer of the Respondent, shall also be sent to the address shown below and must be received by SDG&E by May 18, 2007. All content of the electronic offer submittal and the original signed offer shall be identical. Any conflicts between the information set forth in an electronic bid and the signed offer shall be resolved in favor of the signed offer. All offer materials and information submitted shall be subject to the confidentiality provisions of this RFO.

**San Diego Gas & Electric Company
Electric and Gas Procurement Department
8315 Century Park Court, CP 21D
San Diego, CA 92123-1548
Attn: Mike McClenahan
Director of Electric Procurement,**

5. Interconnection

SDG&E requests that all offers for new projects requiring interconnection for ultimate delivery to SDG&E be accompanied by CAISO LGIP transmission interconnection feasibility study studies. **SDG&E must receive a completed CAISO System Impact Study for any new project by 09/01/2007.** If a Respondent has previously obtained interconnection studies pursuant to SDG&E's Transmission Owner Tariff within the last 12 months (located at <http://www2.sdge.com/tariff/document7.pdf>), SDG&E will utilize the transmission costs identified in such studies for its evaluation of the offer. If adequate interconnection studies have not previously been conducted, Respondent must apply for an ISO System Impact Study through the LGIP and submit such report to SDG&E by September 1, 2007 (July 1, 2007 for Product 3 bids). Respondents will be responsible for all costs associated with performing more detailed interconnection studies for system impacts pursuant to the CAISO's LGIP tariff.

6. Offer Requirements

1. The Respondent shall be financially responsible for all costs for land, development, permitting (including emissions offsets, if applicable), engineering, procurement, and construction and for associated taxes, insurance, financing and bonding. The Respondent shall be operationally responsible for all development work and construction, including acquisition of land, permitting (including emissions offsets), engineering, procurement, and construction up to the highest industry standards and in accordance with time critical milestones and schedules.
2. The Respondent shall be responsible for all electric system and gas pipeline upgrades and / or extensions if required under applicable gas and electric tariffs. See <http://www.sdge.com/tariff> .
3. The Respondent must have all necessary water rights consistent with the generating resource needs. All property and water rights must be transferable to SDG&E if SDG&E is to assume ownership of the facility through a turnkey arrangement or by exercising an option (offered at respondent's sole discretion) at the end of the PPA term. For projects that contain such options, though, SDG&E has a preference for facilities with title to land. Resources located on leased properties may be accepted upon review of the lease terms, but must have a minimum lease term that covers the term of the PPA offered plus the remaining useful life of the plant.
4. Respondent must identify all necessary emissions offsets and the associated costs. Emissions offsets and/or credits must be transferable to SDG&E upon the date, if any, that SDG&E assumes ownership.

5. For turnkey projects, the Respondent shall train SDG&E's operating personnel in the operation and maintenance of the Facility.
6. Product 2 Respondents must provide generating facilities designed and permitted for operation for a minimum availability of 2,700 hours per year annual operations for peaking and intermediate duty. Product 3 Respondents must provide generating facilities designed and permitted for operation for a minimum availability of approximately 7,000 hours per year.
7. SDG&E will, if requested, be responsible for the purchase and transportation cost of natural gas or other fuels to the plant site during commissioning, testing and contract term, for turnkey (and tolling) projects. In such instance, electric output during commissioning and testing shall be delivered at no charge to SDG&E, and SDG&E shall be entitled to receive all revenues for such energy.
8. Permitting information provided by the Respondent shall include status of existing and required additional new permits, including any additional required approvals, along with a permitting and approval schedule. Such schedule must demonstrate an achievable on line date of no later than that COD required of the bid's Product type. This will not apply to bids for Product 3 from existing resources.
9. Demand Response Offers must comply with the policy guidance of the Energy Action Plan (I and II) and be in alignment with the state's Demand Response Vision for the Future.³ Offers must also meet the California Public Utilities Commission (CPUC) definition of Demand Response.⁴ As such, generation resources located on the customer side of the meter, such as back-up generation, will not qualify as a Demand Response product in this offer.⁵ To further clarify, the Demand Response product must be by means of reducing an end-use customer's demand and/or energy usage. SDG&E is seeking offers that meet RA requirements for Demand Response as set forth by the CPUC in D.05-10-042, and will give preference to said offers incorporating Resource Adequacy in its evaluation of these responses. Agreements will be submitted to the CPUC for prior approval.
10. Demand Response offers must provide at least 1 MW of measurable Demand Response, of which the entire load reduction is located within the SDG&E service territory. SDG&E prefers that the proposed Demand Response product be available May 1, 2010 through October 31, 2025. If the Demand Response product is not available for all the months during the three-year period, Respondent should explain in detail when the product would be available and the circumstances surrounding its availability. The Demand Response product shall not include Demand Response committed on existing programs. Offers for a Direct Load Control program targeted toward residential customers and business customers with demands <100kW will not be considered.

³ California Demand Response: A Vision for the Future. D. 03-06-032, Appendix A.

⁴ D.05-01-056 (mimeo at pp. 47-49) discusses the use of generation as demand response. More recently, D.06-03-024 states that demand response "applies to rate design, incentives and technology to induce changes in customer demand" (mimeo at p. 3).

⁵ D.06-11-049 (mimeo at pp.57-58) discusses the Commission's policy regarding back-up generation options.

11. Any Demand Response products should meet the following minimum criteria:

- Available during all of the months from May 1 through October 31.
- Available on weekdays for a minimum of two hours per day and up to five hours per day.
- Confirmation for the need for Demand Response will be given no earlier than 9:00 AM on the day the product is needed. The delivery period will be no sooner than noon or later than 6:00 PM on the day the product is needed.
- Detail any limitations of the product, for example: the minimum or maximum number of hours per year the product is available.
- Explain how the Demand Response product will be measured to ensure the load reduction amount committed is achieved and how the baseline will be established to exclude free ridership.⁶
- Specify a fixed price in the form of a capacity price (\$/MW/year) for actual delivered Demand Response. Respondents may also offer an energy price (\$/MWh), but must specify the number of hours (e.g., daily, monthly, seasonally, and/or annually) the product is available.
- Explain target customers for participation in the Demand Response product by customer class and whether the customers will be bundled SDG&E customers, Direct Access customers or both.
- The proposed energy price for Demand Response applicable to participating customers shall include an “ex-post price credit”, by which the proposed energy price is reduced by the hourly ex-post price (i.e., CAISO hourly SP 15 ex post energy price, applicable to each demand response program event hour). For example, refer to SDG&E’s Schedule CBP—Capacity Bidding Program, Special Condition 6.a.ii. (see http://sdge.com/tm2/pdf/ELEC_ELEC-SCHEDS_CBP.pdf) Such an adjustment is required in order to compensate SDG&E’s’ ratepayers for any failure of the contractor to deliver committed load reductions.

7. Binding Offer Evaluation

SDG&E anticipates evaluating offers for different Products on different timelines. First the offers for Product 3 will be evaluated. Offers that are determined to meet the threshold requirements will be evaluated on the basis of an expected cost analysis covering both quantitative and qualitative information. In general, offers that meet RFO requirements will be evaluated on the basis of a least cost/best fit (LCBF) analysis. The quantitative analysis will look at the total expected cost to SDG&E’s bundled customers when the offer is added to SDG&E’s resource portfolio. The quantitative components of this analysis include the following:

⁶ “Free ridership” refers to load reduction that would have occurred even without the benefit of the proposed demand response product. This reference is derived from a definition in the energy efficiency proceeding (R. 01-08-028): Appendix B of Attachment 3 in D. 05-04-051 – Common Energy Efficiency Terms and Definitions.

1. Binding Offer prices for both capacity and energy (offers deemed by SDG&E to contain unreasonably low or high prices will be rejected)
2. Transmission system upgrade costs necessary for the generation resource to satisfy grid reliability and deliverability requirements
3. Congestion costs - Potential for congestion costs will be assessed, as well as SDG&E's ability to hedge these costs.
4. Impacts on existing utility financial structure such as debt equivalence and/or the effect of FIN 46 may be considered in the evaluation of the overall effective cost of PPAs
5. Changes to SDG&E bundled customer's total GHG Emissions will also be valued. SDG&E will determine the forecasted change in total GHG emissions from adding the offer to SDG&E's portfolio. Portfolio GHG increases or reductions will be valued based on previous CPUC direction.

Qualitative factors used to differentiate offers include the following:

1. Brownfield vs. greenfield – the proposed location will be assessed to determine if the project is located at a brownfield or greenfield site.
2. Environmental stewardship – SDG&E will assess the project team's history and any special benefits of the specific offer.
3. Ability to advance schedule– The offer will be assessed for its ability to advance its schedule should SDG&E's requirements change
4. Financing plan– the Offer will be assessed as to the plan and likelihood of the project securing the necessary financing
5. Technology, major equipment manufacturers and operational flexibility. The evaluation will include an assessment of the proposed technology's commercial operating history, and the manufacturer's U.S. presence and experience.
6. The proposed facility will be evaluated from the perspective of maximizing the operational flexibility of generating assets available to SDG&E. This incorporates unit capabilities that include size, start-up time, load response, minimum up and down times.
7. Reliability
8. Development risk
9. Corporate capabilities and proven experience
10. Ability to meet schedule
11. Project team (environmental, engineering, equipment procurement, construction) – Project Team will be assessed on whether the Project Team has demonstrated experience with the specific technology and implementation plan they are proposing
12. Credit Risk

SDG&E requests that Respondents who believe their bids have any important qualitative benefits elaborate on them in their offer.

SDG&E will utilize the information provided on the Offer Response Forms to evaluate all offers. Respondents are responsible for the accuracy of all figures and calculations. Errors discovered during negotiations may impact Respondents' standing on the short-list.

8. Binding Offer Duration

All offers into this RFO are binding as of the submittal date and must remain binding, open and valid through SDG&E's offer evaluation, price negotiations, contract execution between SDG&E and the selected Respondent(s), and CPUC and FERC approval. No offer adjustments which increase costs shall be permitted after submission of Binding Offer.

9. Confidentiality

Except with the prior written consent of SDG&E, Respondents may not disclose (other than by attendance alone at any meeting to which more than one Respondent is invited by SDG&E) to any other Respondent or potential Respondent their participation in this RFO, and Respondents may not disclose, collaborate on, or discuss with any other Respondent, bidding strategies or the substance of offers, including without limitation the price or any other terms or conditions of any indicative or final offer.

SDG&E will use the higher of the same standard of care it uses with respect to its own proprietary or confidential information or a reasonable standard of care to prevent disclosure or unauthorized use of Respondent's confidential and proprietary information that is labeled as "proprietary and confidential" on the offer page on which the proprietary information appears (confidential information). Respondent shall also summarize the elements of the offer(s) it deems confidential. The summary must clearly identify whether or not price, project name, location, size, term of delivery, technology type (either collectively or individually) or any other term are to be considered confidential information. Confidential information may be made available on a "need to know" basis to SDG&E's directors, officers, employees, an independent third-party evaluator required by the CPUC, agents and advisors (representatives) for the purpose of evaluating Respondent's offer, but such representatives shall be required to observe the same care with respect to disclosure as SDG&E.

Notwithstanding the foregoing, SDG&E may disclose any of the confidential information to comply with any law, rule, or regulation or any order, decree, subpoena or ruling or other similar process of any court, securities exchange, control area operator, governmental agency or governmental or regulatory authority at any time even in the absence of a protective order, confidentiality agreement or non-disclosure agreement, as the case may be, without notification

to the Respondent and without liability or any responsibility of SDG&E to the Respondent.

It is expressly contemplated that materials submitted by a Respondent in connection with this RFO will be provided to the CPUC, its staff, and possibly to the CEC, its staff, SDG&E's Independent Evaluator (IE) and Procurement Review Group (PRG). SDG&E will seek confidential treatment in accordance with CPUC Decision 06-06-066 and any subsequent decision by the CPUC related to confidentiality, with respect to any Respondent confidential information submitted by SDG&E to the CPUC for the purposes of obtaining regulatory approval. SDG&E will also seek confidentiality protection from the CEC for Respondent's confidential information and will seek confidentiality and/or non-disclosure agreements with the PRG. SDG&E cannot, however, ensure that the CPUC or CEC will afford confidential treatment to a Respondent's confidential information or that confidentiality agreements or orders will be obtained from and/or honored by the PRG, CEC, or CPUC.

SDG&E, its representatives, Sempra Energy, and any of their subsidiaries disclaim any and all liability to a Respondent for damages of any kind resulting from disclosure of any of Respondent's information.

10. OTHER REQUIREMENTS

CALIFORNIA CLIMATE ACTION REGISTRY

In D.06-02-032, the CPUC directed SDG&E to include a provision in any power purchase agreement for non-renewable energy that requires the supplier to register and report its GHG emissions with the California Climate Action Registry (CCAR). More information about the CCAR is available at [California Climate Action Registry](#).

Pursuant to D.06-02-032, SDG&E will be required to include a provision in any tolling agreement that will require the supplier to register and report its GHG emissions with the CCAR. Specific registration requirements and reporting protocols with the CCAR will be established, and a method for assigning emissions values to supplies that are unregistered with the CCAR will also be developed.

For more information, see: <http://www.cpuc.ca.gov/proceedings/R0604009.htm>

FIN 46 Requirements

New Securities and Exchange Commission rules for reporting power purchase agreements may require SDG&E to collect and possibly consolidate financial information for the facility whose output is being purchased under long-term contractual arrangements. General guidelines include:

- a) determination of allocation of risk and benefits
- b) proportion of total project output being purchased by SDG&E
- c) proportion of expected project life being committed to SDG&E
- d) pricing provisions of contract; that is, whether the contract contains fixed long-term prices or pricing that varies over the term of the agreement based on market conditions or other factors

For any Agreements that meet the applicability criteria, SDG&E is obligated to obtain information from successful Respondents to determine whether or not consolidation is required. If SDG&E determines that consolidation is required, SDG&E shall require the following during every calendar quarter for the term of an Agreement:

- a) Complete financial statements and notes to financial statements, and financial schedules underlying the financial statements, all within 15 days of the end of each quarter.
- b) Access to records and personnel, so that SDG&E's independent auditor can conduct financial audits (in accordance with generally accepted auditing standards) and internal control audits (in accordance with Section 404 of the Sarbanes-Oxley Act of 2002).

Procurement Review Group

In D.02-08-071 (p. 24), the CPUC established the Procurement Review Group (PRG), whose members, subject to an appropriate non-disclosure agreement, would have the right to consult with and review the details of each utility's procurement plan, overall procurement strategy, contracts, and related matters. Since that time, the PRG process has been endorsed and continued in a variety of subsequent decisions, as it performs a valuable consultative role in the IOUs' procurement activities, including relating to the issuance and evaluation of RFOs and their results.⁷ Thus, from RFO language development to offer evaluation to contract negotiation, SDG&E will brief the PRG on a periodic basis during the entire process.

Respondents are hereby notified that revealing offer information to the PRG is required during PRG briefings in accordance with Section 11.0 Confidentiality. Respondents must clearly identify, as part of the offer, what type of information it considers to be confidential.

Independent Evaluator

In D.04-12-048, the Commission ordered, in certain instances, the use of Independent Evaluators (IE) in competitive solicitations. SDG&E will make use of an IE in this solicitation. All offer material produced in this solicitation will be available, under confidentiality provisions, to the IE. SDG&E in its sole discretion

⁷ See, e.g., D.02-10-062, D.03-12-062, and D.04-12-048.

may make available to its PRG each response to this RFO and may review the results of its evaluation and ranking of the proposals with the IE and PRG.

11. Credit Terms and Conditions

SDG&E has the unilateral right to evaluate and determine the ability of the Respondent to perform relative to this project. The shortlisted Respondents will be required to complete, execute, and submit a credit application. This form is available to Respondents on the RFO website. The application requests financial and other relevant information needed to demonstrate and confirm creditworthiness.

Upon execution of a mutually acceptable definitive agreement, the Respondent-Seller will be required to post security based on the credit requirements established by SDG&E. Category 2 and 3 products will be required to post Development Security for non-operational projects until commercial operation and Category 2 and 3 Products will post Operating Collateral upon attaining commercial operation, if the project is not operational at the time of contract execution, or upon the effective date of the contract, if the project is operational at the time of contract execution. Operating Collateral will remain in place for the life of the contract. Category 1 products will require Operating Capital for the life of the contract.

The table below provides a non-binding estimate of the range of security amounts that may be required per Product. These ranges are based on industry average credit ratings and current prevailing market conditions. The actual amounts will be determined separately for each shortlisted Respondent depending on the quality of submitted financial data and the specific bid characteristics and may vary from those provided below.

Product	Development Security	Operating Collateral
1	TBD	*xxx. \$/MWH
2	\$5/kW to \$15/kW	\$5 MM to \$15 MM per 50MW of capacity
3	\$15/kW to \$25/kW	\$15 MM to \$25 MM per 50MW of capacity

* To be calculated as: (Probability of Occurrence @ 99% confidence) x [ISO Energy Price Cap - (average of trading prices)] = Max unsecured credit exposure / MWH. In the event of non performance actual credit losses or replacement costs are to be accrued and secured in the form of a standing letter of credit.

All credit support arrangements (e.g., parent guarantee, performance bond, surety bond, subordinated security interest, letter of credit) must be negotiated

prior to contract execution. Model credit support documents will be provided to shortlisted Respondents as applicable.

12. Proposal Costs

SDG&E will not reimburse respondents for any of their expenses for developing responses hereto under any circumstances, regardless of whether the RFO process proceeds to a successful conclusion or is abandoned by SDG&E in its sole discretion.

13. Contingencies

1. CPUC Review and Approval. Any Agreements entered into by SDG&E and a selected Respondent will be subject to and contingent upon (1) the issuance by the CPUC of a decision acceptable to SDG&E, approving such agreements and that does not materially alter the commercial aspects of the agreements; (2) a finding by the CPUC that the payments under the agreements are reasonable; and (3) a finding that SDG&E is authorized to recover the full amount of its costs including any payments made to Respondent under any of such agreements from SDG&E's customers in rates through existing or future cost recovery mechanisms that may be developed or instituted by the CPUC. Such CP is subject to a limited waiver, at SDG&E's sole discretion, so that a Limited Notice to Proceed may be issued if deemed necessary to meet a May 31, 2010 online date.
2. All proposals and agreements for new projects in SDG&E's service territory shall be contingent upon completion of detailed interconnection and delivery studies, which shall determine the costs of any required transmission network upgrades reasonably necessary to reliably permit the delivery of energy from the Respondent's facility to SDG&E's load aggregation point(s). Network electric transmission upgrade costs and gas pipeline upgrades will be paid in accordance with applicable tariff rules.
3. All Agreements entered into by SDG&E and a selected Respondent providing for SDG&E's ownership and operation of such unit will be subject to and contingent upon the issuance of a Certificate of Public Convenience and Necessity by the CPUC if required and in a form deemed satisfactory to SDG&E at its sole discretion.
4. FERC Approval. In addition to the approvals required elsewhere in this RFO and the applicable agreement between the parties, SDG&E, in its sole discretion, may obtain and/or require bidder to obtain: (1) a FERC order, as may be required, accepting and/or authorizing any agreement(s) entered into hereunder, including without limitation the transfer of a generation facility, on terms that do not materially alter the commercial aspects of the agreement(s); and/or (2) a finding by the FERC that the rates, terms, and conditions are just and reasonable.

14. RESERVATION OF RIGHTS

SDG&E makes no guarantee that a contract award shall result from this RFO. SDG&E reserves the right at any time, at its sole discretion, to abandon this RFO process, to change the basis for evaluation of offers, to terminate further participation in this process by any party, to accept any offer or to enter into any definitive agreement, to evaluate the qualifications of any Respondent or the terms and conditions of any offer, or to reject any or all offer, all without notice and without assigning any reasons and without liability of Sempra Energy, SDG&E, or any of their subsidiaries, affiliates, or representatives to any Respondent. SDG&E shall have no obligation to consider any offer.

15. Supplemental Information

SDG&E reserves the right to request additional information from individual Respondents or to request all Respondents to submit supplemental materials in fulfillment of the content requirements of this RFO or to meet additional information needs of SDG&E. SDG&E also reserves the unilateral right to waive any technical or format requirements contained in the RFO.

16. WAIVER OF CLAIMS AND LIMITATION OF REMEDIES

By submitting an Offer, Respondent knowingly, voluntarily, and completely waives any rights under statute, regulation, state or federal constitution, or common law to assert any claim, complaint, or other challenge in any regulatory, judicial, or other forum, including without limitation, the CPUC, (except as expressly provided below), the FERC, the Superior Court of the State of California ("State Court") or any U.S. District Court ("Federal Court") concerning or related in any way to the RFO or any documents in the RFO including all exhibits, attachments, and appendices thereto ("Waived Claims"). Respondent further expressly acknowledges and consents that if it asserts any Waived Claim at the CPUC, FERC, State Court, or Federal Court, or otherwise in any forum, to the extent that Respondent's Offer has not already been disqualified, SDG&E is entitled to automatically disqualify such Offer from further consideration in the RFO or otherwise, and further, SDG&E may elect to terminate the RFO.

By submitting an Offer, Respondent further agrees that the sole forum in which Respondent may assert any challenge with respect to the conduct or results of the RFO is at the CPUC. Respondent further agrees that: (1) the sole means of challenging the conduct or results of the RFO is a complaint filed under Article 3, Complaints and Commission Investigations, of Title 20, Public Utilities and Energy, of the California Code of Regulations, (2) that the sole basis for any such protest shall be that SDG&E allegedly failed in a material respect to conduct the solicitation in accordance with the RFO; and (3) that the exclusive remedy available to Respondent in the case of such a protest shall be an order of the CPUC that SDG&E again conduct any portion of the solicitation that the CPUC determines was not previously conducted in accordance with the RFO or any

RFO documents (including exhibits, attachments, and appendices). Respondent expressly waives any and all other remedies, including, without limitation, compensatory and/or exemplary damages, restitution, injunctive relief, interest, costs and/or attorneys' fees. Unless SDG&E elects to do otherwise in its sole discretion, during the pendency of such a protest the RFO and any related regulatory proceedings related to the RFO will continue as if the protest had not been filed, unless the CPUC issues an order suspending the RFO or SDG&E has elected to terminate the RFO.

Respondent further acknowledges and agrees that if Respondent asserts any Waived Claim, SDG&E shall be entitled to seek immediate dismissal of Respondent's claim, complaint, or other challenge, with prejudice, by filing a motion to dismiss (or similar procedural device) supported by the language in this Section and that Respondent will not challenge or oppose such a request for dismissal. Respondent further acknowledges and agrees that if it asserts any Waived Claim, and if SDG&E successfully has that claim dismissed or transferred to the CPUC, Respondent shall pay SDG&E's full costs and expenses incurred in seeking such dismissal or transfer, including reasonable attorneys' fees. By submitting an Offer, Respondent acknowledges and agrees that it has submitted that Offer after consultation with its own independent legal counsel.

Respondent agrees to indemnify and hold SDG&E harmless from any and all claims by any other Respondent asserted in response to the assertion of any Waived Claim by Respondent or as a result of a Respondent's protest to a filing at the CPUC resulting from the RFO.

Except as expressly provided in the RFO documents, nothing herein, including Respondent's waiver of any Waived Claims as set forth above, shall in any way limit or otherwise affect the rights and remedies of SDG&E.

17. Attachments

The following tools for respondents to the RFO will be made available for download at the website for this RFO:

1. Credit Application
2. Draft Term Sheets/Contracts (To Be Developed)
3. Offer Response Forms (Respondents are encouraged to expand these forms for multiple facilities/sites. In addition, Respondents are encouraged to provide supplemental information to expand upon any unique capabilities to meet SDG&E's needs).

Addendum

Introduction to SDG&E: Background

San Diego Gas & Electric Company (SDG&E) provides electric service to approximately 1.3 million customers in San Diego County and the southern portion of Orange County. SDG&E also provides natural gas service to approximately 775,000 gas customers. The electric customer base comprises 89% residential and 11% commercial and industrial customers.

SDG&E's electric transmission network is comprised of 130 substations with approximately 884 miles of 69-kV, 265 miles of 138-kV, 349 miles of 230-kV, and 215 miles of 500-kV transmission lines. Local ("on system") generating resources are the Cabrillo plant (connected into SDG&E's grid at 138 kV and 230 kV), the South Bay plant (connected at 69 kV and 138 kV), the Palomar Energy Center (connected at 230 kV), a number of combustion turbine facilities located around the service area (connected at 69 kV), various Qualifying Facilities and renewable generation. Imported resources are received via the Miguel Substation as the delivery point for power flow on the Southwest Power Link, which is SDG&E's 500-kV transmission line that runs from Arizona to San Diego along the U.S./Mexico border, and via the SONGS 230-kV switchyard.

Figure 1 shows a simplified diagram of existing SDG&E service area and the electric transmission topology in San Diego County and the southern portion of Orange County. Planned or approved transmission facilities for the future (if any) are not shown on this map.

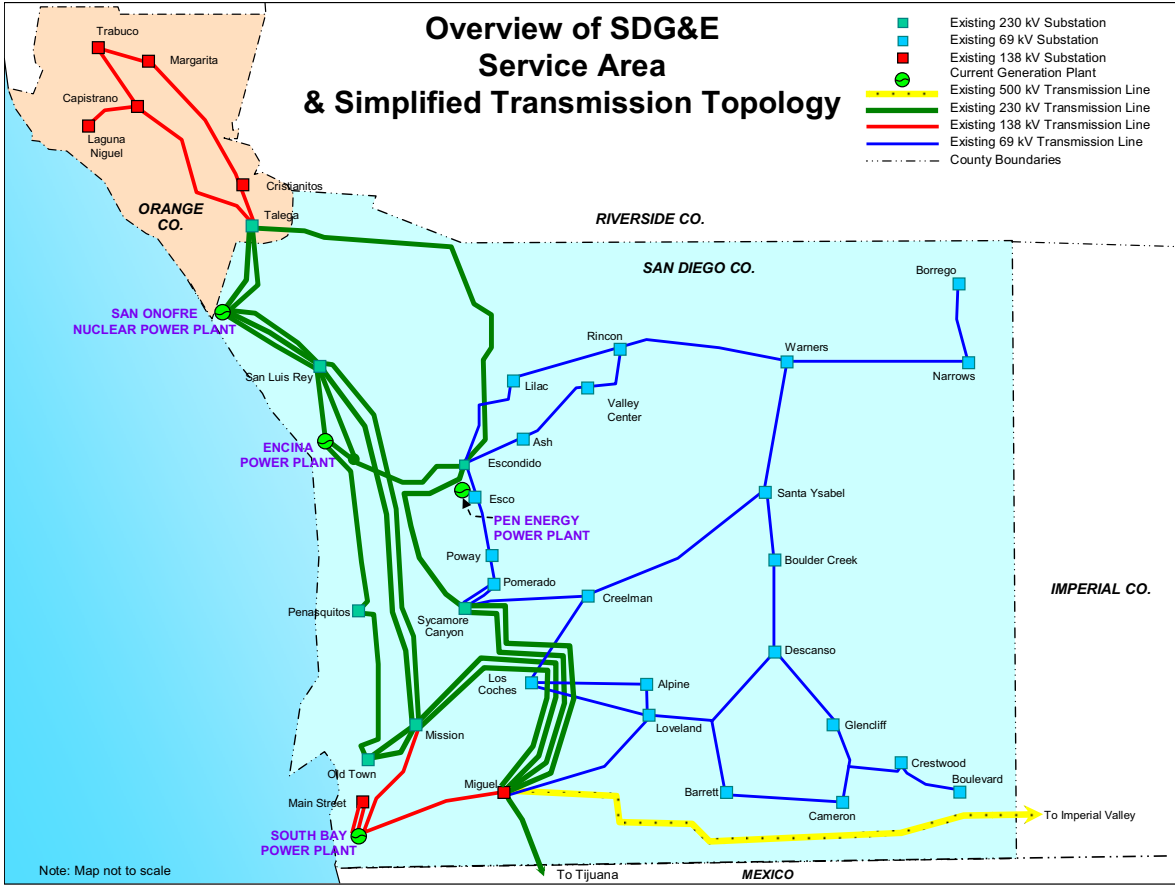


EXHIBIT 2

SETTLEMENT AGREEMENT

THIS SETTLEMENT AGREEMENT is made and entered into as of September 21, 2006 by and among, on the one hand, Sempra Energy, a California corporation (“Sempra Energy”), Southern California Gas Company, a California corporation (“SoCalGas”), San Diego Gas & Electric Company, a California corporation (“SDG&E”), all of whom collectively are sometimes hereafter referred to as the “Sempra Parties” and, on the other hand, the Attorney General of the State of California (“Attorney General”) and the Public Utilities Commission of the State of California (the “Commission” or “CPUC”). The Attorney General and the Commission shall hereafter be sometimes collectively referred to as the “Plaintiffs.” The Sempra Parties and the Plaintiffs shall hereafter be sometimes collectively referred to as the “Parties.”

1. RECITALS

1.1 Pursuant to California Public Utilities Code section 2101, the Commission is authorized to see that the provisions of the Constitution and statutes of this State affecting public utilities, the enforcement of which is not specifically vested in some other officer or tribunal, are obeyed and enforced and that alleged violations thereof are promptly prosecuted and penalties due the State are recovered and collected and to this end, it may sue in the name of the People of the State of California (“the People”). Upon the request of the Commission, the Attorney General shall institute and prosecute actions or proceedings for the enforcement of the provisions of the Constitution and the statutes of this State affecting public utilities and for the punishment of all violations thereof. The Attorney General believes that it also has independent authority to enforce section 2101.

1.2 Pursuant to Public Utilities Code section 2102, whenever the Commission is of the opinion that any public utility is failing or omitting or about to fail or omit to do anything required of it by law or by any order, decision, rule, direction or requirement of the Commission, or is doing anything or about to do anything, or permitting anything or about to permit anything to be done, in violation of law or of any order, decision, rule, direction or requirement of the Commission, it shall direct its General Counsel to commence an action or proceeding in the superior court in and for the County in which the cause or some part thereof arose for the purpose of having such violations or threatened violation stopped and prevented, either by mandamus or injunction; said action shall be brought in the name of the People of the State of California, by petition to such superior court alleging the violation or threatened violation complained of, and praying for appropriate relief by way of mandamus or injunction.

1.3 Pursuant to the foregoing authority, and at the request of the Commission’s General Counsel, the Attorney General on behalf of the Commission and the People filed a Complaint for Damages, Statutory Penalties and Injunctive Relief on November 21, 2005, in the Superior Court of California, County of San Diego (Case No. GIC 857224), titled *The People of the State of California ex rel. Bill Lockyer, Attorney General of the State of California, and the California Public Utilities Commission, Plaintiffs, v. Sempra Energy, a California corporation; San Diego Gas & Electric Company, a California corporation; Southern California Gas Company, a California corporation; and Does I – 50, Defendants*. In addition to the Public Utilities Code section 2101 cause of action (“Public Utilities Code Cause of Action”), the Complaint includes a cause of action under Business and Professions Code section 17200 et seq.

to remedy alleged unlawful and unfair business practices (“Unfair Business Practices Act Cause of Action”). For convenience, this action shall hereinafter be referred to as the “Curtailed Action.” The complaint prayed for relief in the form of fines and penalties, compensatory damages, exemplary damages, injunctive relief, including “divestiture by Sempra Energy of its unregulated affiliates” in addition to an award of costs, expenses and attorney’s fees. All of the aforementioned relief and remedies were prayed for on behalf of the People of the State of California.

1.4 On or about April 10, 2006, the Plaintiffs filed a First Amended Complaint for Damages, Statutory Penalties, and Injunctive Relief in the Curtailed Action including a prayer for relief identical to that set forth above. The First Amended Complaint realleges the Unfair Business Practices Act Cause of Action and the Public Utilities Code Cause of Action. The First Amended Complaint alleges, among other things, that the Sempra Parties, commencing at a point in time at least as early as January 1998, and continuing through at least as late as September 2002, engaged in an illegal course of conduct in making certain written and oral representations and other statements before the Commission that allegedly resulted in inadequate resource planning and system capability, culminating in periods of curtailment of natural gas service to certain SDG&E non-core customers in 2000 and 2001. These periods of curtailment are alleged to have caused injury and harm to California ratepayers in the form of higher rates for energy as well as damages resulting from diminished air quality and other damages. In so doing, the Sempra Parties are alleged to have violated various provisions of California’s Unfair Business Practices Act and the Public Utilities Code including, but not limited to, sections 2101, 2102, 2104, and 2105; acted in violation of the Commission's Standards of Conduct Between Affiliates, and acted in violation of certain restrictions on transactions between Sempra Energy affiliates enacted as part of the Commission's approval of the merger creating Sempra Energy. See Joint Application of Pacific Enterprises, etc., D. 98-03-073, Appendix B. Also included in the Curtailed Action are allegations that the Sempra Parties violated Rule 1 in the course of Investigation 00-11-002 filed November 2, 2000 before the Commission known as Order Instituting Investigation into the Adequacy of the Southern California Gas Company's and San Diego Gas & Electric Company's (SDG&E) Gas Transmission Systems to Serve The Present And Future Gas Requirements of SDG&E Core and Noncore Customers (otherwise known as the “Gas Transmission OII”), which concluded with the Commission's Decision 02-11-073, on November 21, 2002.

1.5 Pursuant to the Constitution and the Public Utilities Act, the Commission is authorized to do all things whether specifically designated in the Public Utilities Act or in addition thereto which are necessary and convenient in the exercise of its jurisdiction over public utilities, which authority includes not only administrative, but legislative and judicial powers. Pursuant to said authority, the Commission also initiated and has undertaken the following proceedings:

- (a) *Border OII.* The Commission issued Order Instituting Investigation (OII) No. 02-11-040 (the “Border OII”) on November 21, 2002, to investigate the gas market activities of SoCalGas, SDG&E, Southwest Gas, PG&E, and Southern California Edison and their impact on the gas price spikes experienced at the California border from March 2000 through May 2001.

(b) *Sempra Energy Affiliate OII*. The Commission issued Order Instituting Investigation (OII) No. 03-02-033 (the "Sempra Energy Affiliate OII") on February 27, 2003, regarding whether Sempra Energy, SDG&E, and SoCalGas had complied with statutes and Commission decisions pertaining to holding company systems and affiliate activities.

1.6 The Parties now desire to fully resolve the Curtailment Action brought by the Plaintiffs and to avoid the uncertainty caused by its pendency in addition to the substantial expense and cost resulting therefrom. The Sempra Parties represent that they are now entering into this settlement solely to secure their peace and to avoid the uncertainty of, and the attendant costs and expenses associated with further protracted litigation, proceedings and investigations on the terms and conditions herein after set forth. The Sempra Parties also represent that they are entering into this Settlement Agreement with the Plaintiffs to fully and finally resolve, compromise and conclude any and all claims by the Plaintiffs arising out of or giving rise to the Curtailment Action such that there is no further litigation or proceedings between them regarding the same.

1.7 The Sempra Parties deny the allegations of the original Complaint and First Amended Complaint in the Curtailment Action, and deny any and all liability or responsibility for the claims, causes of action, relief or remedies prayed for therein. The Sempra Parties further deny any allegations of wrongdoing set forth in the Border OII and Sempra Energy Affiliate OII. The Sempra Parties further contend that the filing and maintenance of the Curtailment Action violates the exclusive jurisdiction provisions of Public Utilities Code section 1759, among other jurisdictional defects. Nothing contained herein shall in any way be construed as, or constitute, an admission of fault, liability or responsibility on the part of the Released Parties, the Sempra Parties, or any of them and each of the Sempra Parties denies liability and responsibility and is entering into this Settlement Agreement for the reasons set forth above.

1.8 The Commission and the Attorney General are entering into this Settlement Agreement in the exercise of their police, statutory and regulatory power and for and on behalf of themselves and the People.

1.9 The Parties also acknowledge that this Settlement Agreement will provide to ratepayers and the People substantial future benefits, including making available additional supplies of energy at Commission-regulated rates which would not have been available in the absence of this Settlement Agreement. This Settlement Agreement will also provide the Commission with the benefit of additional reporting from the Sempra Parties concerning alternatives to proposals made to the Commission and the possible effect of those proposals on affiliates of the Sempra Parties. Accordingly, the Parties agree that a settlement of these matters is in their mutual interests, in the best interest of California ratepayers, and in the best interest of the People.

1.10 During the negotiation of this Settlement Agreement, the Sempra Parties and the Commission discussed and considered whether it would be beneficial for SDG&E ratepayers for SDG&E to have the option to obtain at book cost ownership of an approximately 480 MW gas-fired power (and associated electric transmission facilities) plant located in Boulder City, Nevada, hereinafter the "El Dorado Plant," owned and operated by El Dorado Energy LLC, a

subsidiary of Sempra Energy. The Sempra Parties and the Commission agree that an option to acquire the El Dorado Plant at book cost by SDG&E is in the best interests of SDG&E ratepayers.

1.11 The Sempra Parties and the Commission anticipate acquisition of the El Dorado Plant at book cost by SDG&E may be less costly than any other option that would be then available to SDG&E to obtain power to serve its customers, and thus acquisition of an option by SDG&E to acquire this plant at book cost would be of substantial benefit to SDG&E's ratepayers. Accordingly, this Settlement Agreement provides that SDG&E will obtain an option to acquire at book cost effective October 1, 2011 the Sempra Energy subsidiary that owns and operates the El Dorado Plant. After acquisition of this entity, SDG&E would promptly liquidate it and as a result SDG&E would directly own the El Dorado Plant. SDG&E's decision whether or not to exercise this option must be made within 45 days of the Commission's Phase II decision in the Long-Term Resource Plan Proceeding (R.06-02-013), and will be subject to review by the Commission. The original decision by the Commission whether or not SDG&E will acquire the El Dorado Plant must be made within nine months of the time SDG&E informs the Commission of its desire to exercise or not exercise the option but the original decision must be made before December 31, 2007. The Commission's time to issue its decision may be extended upon mutual agreement of the Sempra Parties and the Commission.

1.12 The Parties anticipate that acquisition by SDG&E of the El Dorado Plant will be subject to FERC approval, but that approval need not be sought until after SDG&E has decided to exercise the option to acquire the plant.

NOW, THEREFORE, in consideration of the foregoing, the mutual covenants contained herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, it is agreed between and among the Parties as follows:

2. EFFECTIVENESS, CONDITIONS AND ACKNOWLEDGEMENTS

2.1 Subject to the conditions precedent set forth in Paragraph 2.2 below, this Settlement Agreement shall be effective when each of the Parties has executed and delivered this Settlement Agreement and the Superior Court of California, County of San Diego, has approved this Agreement.

2.2 Except as otherwise provided in this Settlement Agreement, the following conditions precedent, must be fully and completely satisfied before the Sempra Parties are required to pay or provide any of the consideration specified in Paragraph 3.1:

(a) Within fifteen (15) business days after the Court approval set forth in Paragraph 2.1, the Attorney General shall file a request for dismissal, with prejudice, as to all claims in the Curtailment Action;

(b) Within fifteen (15) business days after the Court approval set forth in Paragraph 2.1, the Commission shall file a request for dismissal, without prejudice, as to all claims in the Curtailment Action;

(c) By 90 days after the effective date of the Settlement Agreement, the Commission must permanently and finally close, with prejudice, all phases of the Border OII and Sempra Energy Affiliate OII proceedings and determine that this closure will extinguish in any other Commission proceedings any possible refund liability or adjustment contingency tied specifically to the Border OII through the entry of duly authorized orders of the Commission, by lawful vote of a quorum of the Commission concluding and terminating said proceedings.

2.3 The Parties agree that:

(a) The Sempra Parties will not assert the release provisions in the January 4, 2006 *Continental Forge* Settlement Agreement in Commission proceedings, and are further limited by the commitment in Section 3.1(i), below;

(b) Nothing in this Settlement Agreement precludes the Plaintiffs from challenging the assertion by any party of the release provisions in the January 4, 2006 *Continental Forge* Settlement Agreement in any CPUC, FERC, judicial, or other proceeding (such as an arbitration) other than the *Continental Forge* litigation;

(c) The Commission will provide an opportunity for and consider any responses to requests to close all phases of the Border OII and the Sempra Energy Affiliate OII, and nothing in this Settlement Agreement, including Section 2.2(c), above, requires that the Commission close all phases of the Border OII and the Sempra Energy Affiliate OII; *provided, however*, that the permanent closure with prejudice of the Border OII and Sempra Energy Affiliate OII is a condition precedent for the obligation of the Sempra Parties to provide any of the consideration described herein, except with respect to that described in Paragraph 3.1(d);

(d) Time limitations for the Commission's decisions in Section 2.2(c), above, refer to the time to issue the Commission's original decision, and do not refer to the time necessary to issue a decision on applications for rehearing, if any;

(e) This Settlement Agreement and the conditions listed in Section 2.2, above, resolve disputes over past events, which are identified in the Curtailment Action and in Paragraph 1.5, above, and which were subject to the Commission's jurisdiction. To resolve these past disputes, the Settlement Agreement imposes obligations on each of the parties, including obligations on the Commission, to take certain actions in the near future. Except as to those matters set forth herein, nothing in this Settlement Agreement limits, waives or is with prejudice to the Commission's ongoing and future regulatory authority or jurisdiction. For example, the Settlement Agreement would prohibit the Commission from requiring the transfer of the El Dorado Plant to SDG&E without meeting the conditions in Section 2.2, above, such as dismissing with prejudice the Border OII and Sempra Energy Affiliate OII, but this would not limit the authority of the Commission to consider and adopt new rules or revised rules in the pending proceeding in R.05-10-030;

(f) The Parties agree that all time limits and time-related defenses, either in law or equity, including but not limited to statute of limitations and the doctrine of laches, are tolled with respect to the Commissions' claims in the Curtailment Action from the effective date of the Settlement Agreement. This tolling agreement will remain in effect until FERC approves the transfer in an order no longer subject to judicial review or until 60 days after the FERC issues a final order no longer subject to judicial review that fails to approve the transfer; this tolling agreement shall not revive any claims that were time-barred at law or in equity before the effective date of this Settlement Agreement. Solely in the event the Commission has a right to and does re-file the Public Utilities Code Cause of Action, the Commission and the Sempra Parties agree, to the extent practicable, they shall be put back in the procedural position they held in the Curtailment Action as of the effective date of this Agreement. In connection with such a re-filing, the Sempra Parties agree that they will not be entitled to demur to or file a motion to strike the Commission's Public Utilities Code Cause of Action so long as no new allegations are added to the cause of action as plead in the First Amended Complaint. In connection with such a re-filing, the Sempra Parties further agree that the Commission shall be entitled to the benefits of the December 1, 2003 tolling agreement between the Sempra Parties and the Attorney General that was previously judicially noticed by the Court in the Curtailment Action. In addition, nothing in this Settlement Agreement shall bar the Attorney General from representing the Commission in such an action; and

(g) The Sempra Parties, at their sole discretion, may waive in writing any of the conditions precedent in Paragraph 2.2.

2.4 In the event the transactions contemplated by the El Dorado Option Agreement, which agreement is as described in Section 3.1(e) and in Attachment 1 hereto, require approval by FERC but FERC fails to grant such approval, then Sempra Energy and its subsidiaries shall have no obligation to transfer the El Dorado Plant to SDG&E, and the Commission shall have the right to re-file the Public Utilities Code Cause of Action and shall have no obligation under Paragraphs 4.1 through 4.3 or Paragraph 4.5 concerning the claims in the Curtailment Action, but all other provisions of this Settlement Agreement shall remain in full force and effect.

3. CONSIDERATION

3.1 *Consideration by Sempra Parties.* To induce the Plaintiffs on behalf of themselves and the People to give the releases described in Paragraph 4 below, and to make the representations, warranties, covenants, and other agreements set forth herein, the Sempra Parties agree:

(a) In any application to the CPUC, or in any initial response to an OIR or OII, that proposes a new or changed service, product offering or capital project, SDG&E and SoCalGas will identify any affiliated company that might be affected by the application, OIR, or OII. The parties to this Agreement recognize that SDG&E and SoCalGas in some circumstances may not know whether an affiliated company is affected by an application due to the CPUC's affiliate transaction rules, but SDG&E and SoCalGas will be expected to use reasonable efforts to meet the requirement-to-identify,

described above. SoCalGas and SDG&E shall also identify any reasonable alternative to the proposal in the application, OIR, or OII that was presented to two or more officers of SDG&E and/or SoCalGas or any alternative presented by SDG&E and/or SoCalGas to senior officers of its parent company, but SDG&E and SoCalGas are not required to disclose litigation or settlement strategies. Any application seeking a Certificate of Public Convenience and Necessity satisfies this requirement to identify alternatives. Nothing in Paragraph 3.1(b) applies to:

1. General Rate cases,
2. any applications regarding electric or gas distribution level services, or
3. any capital project less than \$15 million.

Paragraph 3.1(a) of the Agreement is only enforceable by the Commission or the Attorney General. The obligations in Paragraph 3.1(a) of the Agreement shall commence on the effective date of this agreement and automatically terminate after ten years.

(b) SoCalGas and SDG&E will pay the Attorney General a total of two million dollars (\$2,000,000), with SoCalGas paying \$1,340,000 and SDG&E paying \$660,000, to cover certain attorneys' fees and costs incurred in connection with the investigation and litigation of the facts, circumstances, transactions, claims or allegations in the Curtailment Action;

(c) *Accounting.* With respect to any payments made under Paragraph 3.1(b) of this Settlement Agreement, the Parties acknowledge and agree that SoCalGas and SDG&E will be allowed to book such payments as a 100% above-the-line expense for Performance Based Ratemaking (PBR) earnings sharing purposes in the year the payment is made, but in no event shall this subparagraph of the Settlement Agreement be considered a precedent for any other case nor shall the Parties cite or refer to this subparagraph of the Settlement Agreement in any Commission proceeding as a precedent for any other matter.

(d) *Manner and Timing of Payment.* No later than thirty (30) business days after the condition precedent in Paragraph 2.2(a) is fully and completely satisfied, the payment contemplated by Paragraph 3.1(b) shall be made in immediately available funds in lawful currency of the United States of America to an account or account(s) designated in writing by the Attorney General to the Sempra Parties..

(e) *El Dorado Option Agreement.* SDG&E and Sempra Energy Power I ("SEP I") will execute and deliver the El Dorado Option Agreement attached hereto as Attachment 1. Consistent with the terms of the El Dorado Option Agreement, SDG&E agrees that by no later than 45 days after the Commission's Phase II decision in the Long-Term Resource Plan Proceeding (R.06-02-013), it will notify SEP I and the Commission of its desire to exercise or not exercise the El Dorado Option and will seek Commission approval of its election. SDG&E agrees that it will exercise or not exercise the El Dorado Option as the Commission may order, provided that if by nine months (but

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no later than December 31, 2007) after SDG&E notifies the Commission of its desire to exercise or not exercise that option, the Commission has not determined that SDG&E should exercise the El Dorado Option, then SEP I shall have no obligation to transfer the El Dorado Plant to SDG&E. The Commission and the Sempra Parties by mutual agreement may extend this deadline for Commission action.

(f) *El Dorado Plant Rate Treatment.* As a condition of the acquisition described in 3.1(e) above, the Commission hereby authorizes SDG&E to pass through in rates to its customers the cost of owning and operating the El Dorado Plant on a regulated basis, as described below:

1. A fixed annual revenue requirement in effect from the date of transfer (prorated for the remainder of the calendar year after the date of transfer), to cover:

a. Rate base (at book cost, currently estimated to be approximately \$180 million in October 2011);

b. Return on rate base;

c. Depreciation;

d. Taxes and fees (including 100% of other taxes with respect to the ownership and operation of the El Dorado Plant, including income and property taxes, fees for permits, and franchise fees other than those payable to the State of California; but provided that no taxes on the transfer of the plant shall be borne by ratepayers); and,

e. Non-fuel O&M expenses that do not vary with the amount of kwh generated and transmitted.

2. A variable cents/kwhr revenue requirement to cover non-fuel O&M expenses that vary with the amount of kwh generated (*e.g.*, water, major maintenance/overhauls, contingency for unplanned maintenance, and consumables). The amount of the variable cents/kwhr revenue requirement will be subject to revision by the Commission from time to time on a basis consistent with principles of this Settlement Agreement.

3. Fuel costs paid by SDG&E (delivered cost to the El Dorado Plant) on a recorded basis; and

4. Other costs approved by the Commission, if any.

The amount of the El Dorado revenue requirement will be subject to revisions by the Commission from time to time on a basis consistent with the principles used for establishment of the initial fixed annual revenue requirement described above, including adjustment of rate base upward for reasonable and prudent capital additions by SDG&E and downwards for accumulated depreciation.

SDG&E's revenue requirement with respect to the El Dorado Plant shall be grossed up for California franchise fees and uncollectibles as regularly adopted by the Commission for SDG&E's overall revenue requirement.

Prior to the close of the transfer of the El Dorado Plant, SDG&E will file an advice letter with the Commission to quantify SDG&E's revenue requirement associated with ownership and operation of the El Dorado Plant by SDG&E consistent with the terms of this Settlement Agreement and the Commission shall promptly approve that advice letter in a manner consistent with the terms of this Settlement Agreement.

The Commission hereby waives any rules it has adopted or may adopt with respect to transactions between Commission-regulated utilities and their affiliates to the extent necessary to implement the terms of this Settlement Agreement and the El Dorado Option Agreement (including deliveries of information by SEP I to SDG&E regarding El Dorado LLC, the El Dorado Plant, the separation and coordination of (i) the adjoining Solar project and (ii) the adjoining Copper Mountain power plant assets as detailed in Exhibit A to the El Dorado Option Agreement, and related matters).

(g) *\$0.10/MMBtu Discount.* For the two-year period Oct. 1, 2009, through Sept. 30, 2011, Sempra Energy agrees to cause an appropriate non-CPUC regulated subsidiary to pay to SDG&E \$236,793.75 per month (\$7,875.00 per day). This amount represents a compromise and is based on a discount of \$0.10/MMBtu (\$0.10 discount) on 78,750 MMBtu/day of re-gasified liquefied natural gas (LNG). The \$0.10 discount shall be for the benefit of the electricity ratepayers of SDG&E and used to offset the costs of the electricity procurement group for the benefit of ratepayers. The Plaintiffs acknowledge and understand that the Sempra Parties and certain affiliates ("Sempra Companies") have certain obligations under Attachment B to the January 4, 2006 *Continental Forge* Settlement, which was approved by the San Diego County Superior Court on June 14, 2006. One of these obligations is for the Sempra Companies to sell re-gasified LNG from the Energia Costa Azul facility to SoCalGas and SDG&E at a \$.02 discount to the California Border price for twenty one-year terms if, and only if, the Commission approves of such sales. The contractual rights of the Sempra Companies to purchase LNG (as of the January 4, 2006 settlement) are expected to begin in approximately September 2009. The Plaintiffs recognize that the Sempra Companies have proposed to fully meet their obligations under Attachment B. However, the Parties understand that the San Diego County Superior Court's June 29 Amended Ruling explicitly recognizes that the LNG discount and other structural relief provisions of the *Continental Forge* Settlement are subject to the authority and approval of the Commission, and that the Sempra Companies have an implied obligation to construe the settlement agreement in good faith so as not to abrogate the benefits to the ratepayers. Because the Commission has decided that it must approve the process under which SoCalGas and SDG&E may enter into re-gasified LNG contracts before they may enter into such contracts, the Commission hereby rejects the proposed sales arrangement under Attachment B at this time. The Commission has determined that delaying the start of any LNG sales under Attachment B to no earlier than October 1, 2011, will allow time for the Commission to approve the process for SoCalGas and SDG&E to procure re-gasified LNG (LNG Procurement Process) and for a competitive LNG market to

develop. The Parties agree that the LNG sales obligation of the Sempra Companies under Attachment B would not begin prior to October 1, 2011, and, depending upon how the Commission decides issues concerning the LNG Procurement Process, the Sempra Companies may have an LNG sales obligation consisting of a maximum of eighteen one-year terms (still subject Commission approval or rejection) thereafter. The Parties agree that the \$.10 discount will result in an economic benefit that both exceeds the value of the \$.02 discount in Attachment B for this two year period and fulfills the Sempra Companies' implied obligation not to abrogate the benefits of the *Continental Forge* Settlement to the ratepayers.

(h) *Acknowledgement.* The Parties understand and acknowledge that (a) all consideration payments made under Paragraph 3.1 represent payment for alleged damages, overcharges, restitution and/or attorneys' fees, and (b) no part of the consideration under this Agreement is made in settlement of an actual or potential liability for a fine or penalty (civil or criminal), in settlement of an actual or potential liability for punitive damages, or the cost of, or in lieu of the cost of, a tangible or intangible asset.

(i) *Assertion of Continental Forge Settlement in FERC Proceedings.* The Sempra Parties and the Commission agree that the Sempra Parties will not assert the *Continental Forge* Settlement or any provision thereof, or this Settlement Agreement as a bar or other limitation to any payment by any of the Sempra Parties as may be ordered by FERC or a reviewing court pertaining to (a) sales in the ISO and PX markets during the period May 1, 2000 - October 1, 2000, (b) sales in the ISO and PX markets during the period October 2, 2000 – June 20, 2001, and (c) bilateral sales of 30 days or less to the California Energy Resources Scheduling (CERS) division of the California Department of Water Resources during the period January 18, 2001 – June 20, 2001; provided, however, that the foregoing restriction on the assertion of the *Continental Forge* Settlement shall not extend to payments (if any) as may be ordered as to a particular item (i.e., items (a), (b) and (c)) where the cumulative value of the payments as to that item (before interest) exceeds the amount that is yielded by applying FERC's current market price mitigation formula ("MMCP methodology") to the transactions included in the item and provided further that the CPUC shall retain the right to dispute any asserted applicability of the *Continental Forge* Settlement to such excess values. By way of example, if the application of the MMCP methodology to the Sempra Parties' sales in the ISO and PX markets during the May 1, 2000 – October 1, 2000 period would yield required payments by the Sempra Companies (before interest) totaling \$75 million, the foregoing restriction on the assertion of the *Continental Forge* Settlement for that period would apply up to the \$75 million amount but not as to payments ordered in excess of that amount. The term "payment" or "payments" in this section includes a payment effected through an offset to a receivable. This paragraph does not impact the rights of the Attorney General one way or the other in any proceeding.

(j) The Sempra Parties and the Commission recognize that the *Continental Forge* Settlement includes price discounts and limitations on delivery point flexibility related to the contract between CDWR and Sempra Generation ("CDWR Contract"). The Parties agree that the fact that the *Continental Forge* Settlement was the result of

negotiations with plaintiffs representing a class of electricity ratepayers and subject to approval by the California Superior Court is not, in and of itself, relevant to any FERC determination in any remand of the CDWR Long-Term Contract Cases, and the Sempra Parties and Released Parties will not assert the *Continental Forge* Settlement or any provisions of this Settlement Agreement as a bar or other limitation to any payment by any of the Sempra Parties or Released Parties or changes in contract terms as may be ordered by FERC or a reviewing court pertaining to the CDWR Long-Term Contracts Cases (FERC Docket Nos. EL02-60-003 and EL02-62-003) or any appeals of orders from those proceedings or remands resulting from such appeals, in whatever dockets the remands may be considered; provided, however, the Sempra Parties and the Commission further agree that in any proceeding before FERC regarding a challenge to the lawfulness of the rates, terms and conditions of the CDWR Contract, including, but not limited to, any remand of the CDWR Long-Term Contract Cases, the Sempra Parties or Released Parties may assert the applicability and import of the price discounts and limitations on delivery point flexibility under the CDWR Contract contained in the *Continental Forge* Settlement and the CPUC shall retain its rights to challenge the CDWR Contract and seek any remedies for the periods of time before and after these price discounts and limitations on delivery point flexibility became effective in any such proceeding.

3.2 *Consideration by Plaintiffs.* To induce the Sempra Parties to enter into the Settlement Agreement, the Plaintiffs on behalf of themselves and the People agree to all of the terms and conditions contemplated by the Settlement Agreement.

4. **RELEASES, WAIVERS, RELATED AGREEMENTS AND DISMISSAL**

4.1 *Release by the Attorney General, Commission and the People Related to Curtailment Action.* With respect to all claims and proceedings of any type in any way arising from the facts, circumstances, transactions or allegations included in or encompassed by the factual allegations in the Curtailment Action, the Plaintiffs, on behalf of themselves, and on behalf of the People, hereby waive, release, and discharge and acquit the Sempra Parties and the entities listed in Attachment 2 (collectively, the "Released Parties"), as well as any past or present officer, director, agent, attorney, or employee of the Released Parties.

4.2 Without limiting the generality of the releases in Paragraph 4.1 and 4.3, the claims and matters released by Plaintiffs herein expressly include any violation of any Commission rule, order or statute regulating public utilities occurring in or relating to: the 1998 IB Tariff Application (A.98-07-005), and proceedings relating thereto; the Biennial Cost Allocation Proceedings (BCAP) instituted by both SDG&E and SoCalGas in October 1998; the decision of the Commission to allow SDG&E and SoCalGas to extend their pipeline system to include service to Rosarito; and any of the curtailment episodes described in the Curtailment Action and/or the Gas Transmission OII proceedings which culminated in Decision 02-11-073, dated November 21, 2002.

4.3 With respect to any demands, actions, causes of action, obligations, costs, attorneys' fees, expenses, damages, fines, penalties, proceedings, losses, claims, liabilities, restitution, equitable and injunctive relief or any other type or kind of relief or burden that in any way relate to or arise from the facts, circumstances, transactions, claims or allegations in the

Curtailment Action, the Attorney General, the Commission and the People, and each of them, expressly waive the benefits of any statutory provision or common law rule that provides, in sum or substance, that a release does not extend to claims that the settling claimant does not know or suspect to exist in their favor at the time of executing the release, which if known by them, would have materially affected their settlement with the other party. In particular, but without limitation, the Plaintiffs, and each of them, expressly understand the provisions of California Civil Code section 1542, which provides:

A general release does not extend to claims which the creditor does not know or suspect to exist in his or her favor at the time of executing the release, which if known by him or her must have materially affected his or her settlement with debtor.

The Plaintiffs, and each of them, agrees that (1) the provisions of California Civil Code Section 1542 are knowingly and voluntarily waived and relinquished, and (2) the provisions of all similar federal or state laws, rights, rules, or legal principles of any other jurisdiction, to the extent that they are found to be applicable herein, also are hereby knowingly and voluntarily waived and relinquished. Notwithstanding the foregoing waiver of California Civil Code Section 1542, the Parties acknowledge that the release as set forth in this Settlement Agreement are specific to the matters set forth in the releases and are not intended to create general releases as to any other claims, or potential claims, between the releasing and Released Semptra Parties.

4.4 *Effective Date for Releases.* For the Attorney General, the effective date for the releases in Paragraphs 4.1 through 4.3 is the date payment is made under Paragraph 3.1(b). For the Commission, the effective date for the releases in Paragraphs 4.1 through 4.3 and 4.5 is the first date upon which any of the following occur: (1) an order by the Commission that SDG&E should not exercise its option to acquire the El Dorado Plant pursuant to Paragraph 3.1(e); (2) the passing of the deadline for the Commission to issue an order deciding whether SDG&E should exercise its option to acquire the El Dorado Plant pursuant to Paragraph 3.1(e); or (3) the day upon which the FERC's approval of the transfer of the El Dorado Plant to SDG&E under the terms and conditions stated in Attachment 1 or otherwise acceptable to the all Parties becomes final and no longer subject to judicial review.

4.5 *Future Actions Barred.* The Parties understand that both direct and indirect breaches of the provisions of this Settlement Agreement are proscribed. Therefore, the Plaintiffs, and each of them, covenant that they will not institute or prosecute, directly or indirectly, any action or other proceeding based in whole or in part upon the facts, circumstances, transactions, claims or allegations in the actions and proceedings that, except as otherwise provided in this Settlement Agreement, they release here pursuant to this Settlement Agreement.

4.6 *Conversion of Dismissal of Curtailment Action to Dismissal with Prejudice.* The Commission's dismissal, without prejudice, under Paragraph 2.2(b) will convert to, be deemed as, and shall for all purposes be interpreted as a dismissal, with prejudice, at the first date upon which any of the following occur: (1) an order by the Commission that SDG&E should not exercise its option to acquire the El Dorado Plant pursuant to Paragraph 3.1(e); (2) the passing of the deadline for the Commission to issue an order deciding whether SDG&E should exercise its option to acquire the El Dorado Plant pursuant to Paragraph 3.1(e); or (3) the day upon which the

FERC's approval of the transfer of the El Dorado Plant to SDG&E under the terms and conditions stated in Attachment 1 or otherwise acceptable to the all Parties becomes final and no longer subject to judicial review.

4.7 *Release by Sempra Parties relating to prosecution of the Curtailment Action.* The Sempra Parties and Released Parties hereby waive, release, discharge and acquit the Attorney General and the Commission from any and all demands, actions, causes of action, obligations, costs, attorneys' fees, expenses, damages, fines, penalties, proceedings, losses, claims, liabilities, restitution, equitable and injunctive relief or any other type or kind of relief or burden, legal, administrative, or otherwise, and of whatsoever character, which they now own or hold, or at any time heretofore had, owned or held, that in any way relates to or arises from (i) the fact that Plaintiffs filed the Curtailment Action or (ii) the manner in which the Plaintiffs prosecuted the Curtailment Action.

4.8 *Limited to Curtailment Action.* Nothing in this Agreement shall restrict the ability of any Party from continuing to participate in any existing proceeding, or to bring or participate in any future proceeding, that does not include released claims against any of the Released Parties or any past or present officer, director, agent, attorney, or employee of the Released Parties.

5. **REPRESENTATIONS AND WARRANTIES**

5.1 *All Parties.* The Plaintiffs, and each of them, represent and warrant to the Sempra Parties, and each of them, and the Sempra Parties represent and warrant to the Plaintiffs, in each case as of the date hereof, as follows:

- (a) The recitals with respect to it set forth above are true and accurate in all respects;
- (b) It has the full power and authority to execute and deliver this Settlement Agreement in accordance with applicable law and to perform all transactions, duties and obligations set forth herein and therein;
- (c) It has taken all necessary actions duly and validly to authorize the execution and delivery of this Settlement Agreement and the performance of the transactions contemplated hereby;
- (d) It has authorized and directed its respective attorneys to have such papers executed and to take such other action as is necessary and appropriate to effectuate the terms of this Settlement Agreement;
- (e) It has duly and validly executed and delivered this Settlement Agreement;
- (f) This Settlement Agreement constitutes its legal, valid and binding obligation, enforceable against it in accordance with this Settlement Agreement's terms except as enforcement may be limited by applicable bankruptcy laws, insolvency, reorganization, moratorium and other laws affecting creditors' rights generally and except insofar as the availability of equitable remedies may be limited by applicable law.

(g) It has not sold, assigned, transferred, or encumbered, or otherwise disposed of, in whole or in part, voluntarily or involuntarily, by operation of law or otherwise, any claim of any nature whatsoever released or settled pursuant to this Settlement Agreement;

(h) No promise, inducement or agreement not expressed herein has been made in connection with this Settlement Agreement;

(i) To the extent that it deemed it necessary and desirable, it independently received appropriate, adequate, and competent technical, economic and legal and other advice with respect to this Settlement Agreement and has not relied upon any technician, economic, legal or other advice provided to it by any other Party with respect hereto;

(j) It is represented by competent counsel with respect to this Settlement Agreement, and all matters covered herein;

(k) It has been fully advised by said counsel with respect to its rights and obligations and with respect to the execution of this Settlement Agreement; and

(l) The execution and delivery of this Settlement Agreement by it, and the performance of its obligations hereunder, will not (i) violate any material law, statute, rule or regulation applicable to it, (ii) violate any order of any governmental authority applicable to it, or (iii) result in material default under any provision of any indenture, credit agreement, or other agreement relating to repayment of borrowed money or any guarantee of the foregoing to which such Party is a party.

6. NOTICE

6.1 All notices and other communications under the provisions of this Settlement Agreement shall be in writing and shall be deemed given if delivered personally, faxed (which is confirmed) or mailed by registered or certified mail (return receipt requested) to the Sempra Parties at the following addresses:

W. Davis Smith
Vice President & Associate General Counsel
Mail Location HQ18
Sempra Energy
101 Ash Street
San Diego, California 92101

6.2 All notices and other communications under the provisions of this Settlement Agreement shall be in writing and shall be deemed given if delivered personally, faxed (which is confirmed) or mailed by registered or certified mail (return receipt requested) to the Attorney General or the People at the following addresses:

Christopher S Crook
Office of Attorney General
1515 Clay St.

P.O. Box 70550
Oakland, CA 94612-0550

6.3 All notices and other communications under the provisions of this Settlement Agreement shall be in writing and shall be deemed given if delivered personally, faxed (which is confirmed) or mailed by registered or certified mail (return receipt requested) to the Commission at the following addresses:

Randolph Wu
General Counsel
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, California 94102

6.4 Each Party may change the individual and address for service of notices on it by proper written notice to the other Party.

7. GENERAL PROVISIONS

7.1 *Admissions and Use of the Settlement Agreement.* The Sempra Parties, and each of them, expressly deny any wrongdoing alleged in the Curtailment Action, the Border OII and the Sempra Energy Affiliate OII and do not admit or concede any actual or potential fault, wrongdoing or liability in connection with any facts, circumstances, transactions, claims or allegations that have been or could have been alleged against them therein. To the contrary, the Sempra Parties represent that this Settlement Agreement is reached to end the expense and uncertainty of the on-going litigation and proceedings. The Parties agree that the terms of this Settlement Agreement reflect a good-faith settlement of all Parties hereto, reached voluntarily after consultation with experienced legal counsel. Neither this Settlement Agreement nor the settlement contained herein, nor any act performed or document executed pursuant to or in furtherance of this Settlement Agreement or the settlement: (a) is or may be deemed to be or may be used as an admission of, or evidence of, the validity of the Curtailment Action, the Border OII or the Sempra Energy Affiliate OII, or of any wrongdoing or liability of any of the Sempra Parties or Released Parties; or (b) is or may be deemed to be or may be used as an admission of, or evidence of, any fault or omission of any of the Sempra Parties or Released Parties in any civil, criminal or administrative proceeding in any court, administrative agency or other tribunal. In no event shall the Settlement Agreement, any of its provisions or any negotiations, statements or court proceedings relating to them or the settlement contained herein in any way be construed as, offered as, received as, used as or deemed to be evidence of any kind in any action, or in any judicial, administrative, regulatory or other proceeding, except in a proceeding to enforce this Settlement Agreement or in a dispute among the Parties as to whether the terms of this Settlement Agreement are being followed. Without limiting the foregoing, this Settlement Agreement, the settlement contained herein, any related negotiations, statements and documents delivered hereunder, and any court and regulatory proceedings shall not be construed as, offered as, received as, used as or deemed to be evidence of or an admission or concession of any liability or wrongdoing whatsoever on the part of any Sempra Party, or as a waiver by any Sempra Party of any applicable argument or defense. The Parties and Released Parties may, however, use and file this Settlement Agreement and/or orders and judgments related hereto in

any other action that has been or may be brought against them in order to support a defense or counterclaim based on principles of *res judicata*, collateral estoppel, release, good-faith settlement, judgment bar or reduction or any theory of claim preclusion or issue preclusion or similar defense or counterclaim.

7.2 *Amendments.* No amendment of any provision of this Settlement Agreement shall be effective unless the same shall be in writing and signed by all Parties hereto affected by the amendment.

7.3 *Construction of Agreement.* The language of this Settlement Agreement shall be construed as a whole, according to its fair meaning and intent, and not strictly for or against any Party, regardless of who drafted or was principally responsible for drafting the Settlement Agreement or any specific terms or conditions hereof. This Settlement Agreement shall be deemed to have been drafted by all Parties, and no Party shall urge otherwise.

7.4 *Cooperation.* The Parties agree to cooperate to the extent necessary to effectuate and implement all terms and conditions of this Settlement Agreement and to exercise reasonable efforts to accomplish the terms and conditions of this Settlement Agreement. This cooperation shall include, without limitation, each Party, at its own expense, taking all necessary action to execute such instruments of conveyance, assignment, transfer and delivery, release and waiver as may be required to implement and consummate the terms of this Settlement Agreement; the provision of submissions, stipulations and other filings with courts and regulatory agencies; and the provision of such additional documents or taking of such other action as any Party may reasonably request to effectuate the terms of this Settlement Agreement. This cooperation shall also include the Commission's approval of the operational and rate changes set forth in Paragraph 3.1, the approvals and covenants set forth above, and approval of this Settlement Agreement and the transactions reflected herein, including the transactions reflected in Attachment 1 by lawful vote of a quorum of the Commission as official acts of the Commission and to forebear from taking any action inconsistent with this Settlement Agreement. The Commission shall adopt such decisions as it deems necessary to implement and carry out the provisions of this Settlement Agreement, and to cooperate with the Sempra Parties to obtain the benefits of this Settlement Agreement, to oppose any challenge or objection to this Settlement Agreement by any non-party to this Settlement Agreement, and to join with and support the Sempra Parties in obtaining any approvals from the FERC or other governmental entities needed to implement this Settlement Agreement and related agreements.

7.5 *Costs.* Except as otherwise provided herein, each Party shall bear its own costs and attorneys' fees in connection with the negotiation, execution and administration of this Settlement Agreement, as well as all costs and attorneys' fees incurred to date with respect to the claims and matters that are the subject of this Settlement Agreement.

7.6 *Counterparts.* This Settlement Agreement may be executed in multiple original and/or facsimile counterparts, each of which, when taken together, shall constitute a duplicate original, and each such duplicate original is equally admissible in evidence and shall be deemed to be one and the same instrument. This Settlement Agreement shall not take effect until each Party has signed a counterpart.

7.7 *Enforcement of Agreement.* This Settlement Agreement may be pleaded as a full and complete defense to any action filed in which a released claim is asserted. The Parties and their respective counsel may file this Settlement Agreement in any proceeding brought to enforce any of its terms or provisions or in a proceeding where there is a dispute among the Parties as to whether the terms of this Settlement Agreement are being followed. The Parties further agree that their respective duties and obligations hereunder may be specifically enforced through an action seeking equitable relief or a petition for writ of mandamus by the Party or Parties for whose benefit such duty or obligation is to be performed.

7.8 *Governing Law.* This Settlement Agreement shall be governed by and interpreted according to the laws of the state of California.

7.9 *Headings.* The headings in this Settlement Agreement are for convenience only. They in no way limit, alter or affect the meaning of this Settlement Agreement.

7.10 *Integration.* This Settlement Agreement constitutes the entire agreement among the Parties with respect to the subject matter hereof, and no representations, warranties or inducements have been made to any Party concerning this Settlement Agreement other than the representations, warranties and covenants contained and memorialized in such documents.

7.11 *Mistakes of Fact or Law.* In entering and making this Settlement Agreement, the Parties assume the risk of any mistake of fact or law. If the Parties, or any of them, should later discover that any fact they relied upon in entering this Settlement Agreement is not true, or that their understanding of the facts or law was incorrect, then the Parties shall not be entitled to seek rescission of this Settlement Agreement by reason thereof. This Settlement Agreement is intended to be final and binding upon the Parties regardless of any mistake of fact or law.

7.12 *Successors and Assigns; No Third-Party Beneficiaries.* This Settlement Agreement shall be binding upon and for the benefit of any of the Parties and their successors and assigns. Nothing in this Settlement Agreement shall be construed or interpreted to impart any rights or obligations to any third party (other than a permitted successor or assignee bound to this Settlement Agreement), except as specifically provided herein.

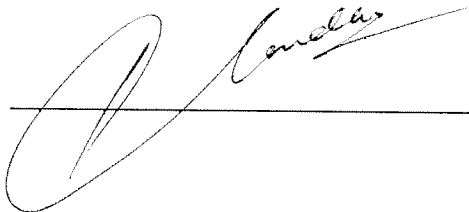
7.13 *Time of the Essence.* Time shall be of the essence for purposes of construing and enforcing this Settlement Agreement.

7.14 *No Waivers.* The failure of any Party hereto to enforce any condition or provision in this Settlement Agreement at any time shall not be construed as a waiver of that condition or provision unless such waiver is in writing and signed by the waiving Party, nor shall it forfeit any rights to future enforcement thereof. Any such waiver or consent shall be effective only in the specific instance and for the specific purpose for which given.

ACCEPTED AND AGREED:

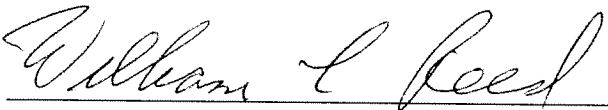
DATED: September 21, 2006

SEMPRA ENERGY

By: 

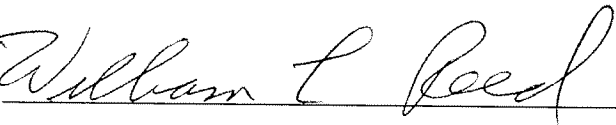
DATED: September 21, 2006

SOUTHERN CALIFORNIA GAS COMPANY

By: 

DATED: September 21, 2006

SAN DIEGO GAS & ELECTRIC COMPANY

By: 

DATED: September __, 2006

ATTORNEY GENERAL OF THE STATE OF CALIFORNIA ON BEHALF OF ITSELF AND THE PEOPLE OF THE STATE OF CALIFORNIA

By: _____

DATED: September __, 2006

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA ON BEHALF OF ITSELF AND THE PEOPLE OF THE STATE OF CALIFORNIA

By: _____

DATED: September __, 2006

SEMPRA ENERGY

By: _____

DATED: September __, 2006

SOUTHERN CALIFORNIA GAS COMPANY

By: _____

DATED: September __, 2006

SAN DIEGO GAS & ELECTRIC COMPANY

By: _____

DATED: September 21, 2006

ATTORNEY GENERAL OF THE STATE OF CALIFORNIA ON BEHALF OF ITSELF AND THE PEOPLE OF THE STATE OF CALIFORNIA

By: Ken Alty
SDAG

DATED: September 21, 2006

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA ON BEHALF OF ITSELF AND THE PEOPLE OF THE STATE OF CALIFORNIA

By: Paul L. Wu
General Counsel

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

**DECLARATION
OF MIKE McCLENAHAN**

I, Mike McClenahan, do declare as follows:

1. I am the Director of Procurement & Portfolio Design for San Diego Gas and Electric Company (“SDG&E). I am sponsoring testimony in support of SDG&E’s Application for Approval to exercise an option to purchase a power plant owned by El Dorado LLC, filed with the California Public Utilities Commission on August 8, 2007. Additionally, as Director of Procurement & Portfolio Design, I am thoroughly familiar with the facts and representations in this declaration and if called upon to testify I could and would testify to the following based upon personal knowledge.

2. I am providing this Declaration to demonstrate that the confidential information (“Protected Information”) being provided in this Testimony falls within the scope of data provided confidential treatment in the IOU Matrix (“Matrix”) attached to D.06-06-066 (the Phase I Confidentiality decision). Pursuant to the procedure set forth in the August 22, 2006 Ruling of ALJ Thomas (see p. 4) for “Prepared Testimony Served but Not Yet Offered in Evidence” in a formal proceeding, I am addressing each of the following five features of Ordering Paragraph 2 of D.06-06-066:

- that the material constitutes a particular type of data listed in the Matrix;
- the category or categories in the Matrix the data correspond to;
- that SDG&E is complying with the limitations on confidentiality specified in the Matrix for that type of data;
- that the information is not already public; and
- that the data cannot be aggregated, redacted, summarized, masked or otherwise protected in a way that allows partial disclosure.

3. The confidential information contained in the Testimony constitutes material, market sensitive, electric procurement-related information that is within the scope of Section

454.5(g) of the Public Utilities Code.¹ As such, the Protected Information provided by SDG&E is allowed confidential treatment in accordance with Appendix I – IOU Matrix in D.06-06-066.

4. Pages 5, 6 and 7 of the Testimony contain Protected Information under Matrix category VIII.A (Bid Information). This data is confidential until final contracts are submitted to the CPUC for approval, at which time certain high-level summary data may be made public.

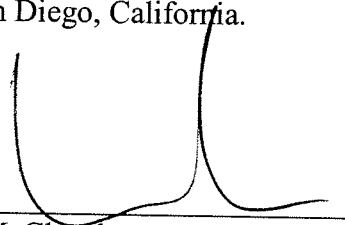
5. I am not aware of any instances where the Protected Information has been disclosed to the public. In conformance with the terms of its 2010-2012 RFO, SDG&E has kept proprietary bid information confidential by redacting any bidder name (other than “El Dorado”), and further provides only high level descriptions of key offer terms. To SDG&E’s knowledge, no party, including SDG&E, has publicly revealed any of the Protected Information.

6. SDG&E will comply with the limitations on confidentiality specified in the Matrix for the type of data that is provided herewith.

7. The Protected Information cannot be provided in a form that is further aggregated, partially redacted, summarized, masked or otherwise protected in a manner that would allow further disclosure of the data while still protecting confidential information.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed this 8th day of August, 2007, at San Diego, California.



Mike McClenahan
Director of Procurement & Portfolio Design
San Diego Gas & Electric Company

¹ In addition to the details addressed herein, SDG&E believes that the information being furnished in the Testimony is governed by Public Utilities Code Section 583 and General Order 66-C. Accordingly, SDG&E seeks confidential treatment of this data under those provisions as applicable.

Proceeding No.: A.07-08-
Exhibit No.: _____
Witness: Benjamin A. Montoya

**DIRECT TESTIMONY OF
BENJAMIN A. MONTOYA
SAN DIEGO GAS & ELECTRIC COMPANY**

*****redacted, public version*****

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

August 8, 2007

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**DIRECT TESTIMONY OF
BENJAMIN A. MONTOYA
SAN DIEGO GAS & ELECTRIC COMPANY**

I. INTRODUCTION

The purpose of my testimony is to describe SDG&E's need for the El Dorado plant. This testimony also describes how the energy value, ancillary services value, Greenhouse Gas ("GHG") impact and locational costs were calculated for the El Dorado plant and the conforming offer to which it was compared ("Competing Offer"). The values in this testimony were then provided to SDG&E witness Michael Calabrese and included with other costs in the total economic analysis supporting SDG&E's request for approval to exercise the option and acquire the El Dorado plant ("El Dorado Option").

II. CAPACITY NEED

The need for this plant is driven by the future energy and resource adequacy needs identified and justified by SDG&E in its 2007-2016 Long Term Procurement Plan ("LTPP").¹ The LTPP was filed in R.06-02-013 on December 11, 2006 and is currently under review by the Commission. The following testimony highlights the need for El Dorado as described in that case.

In the LTPP, SDG&E showed bundled customer needs for three different scenarios, Low, Base and High, mainly driven by different load growth scenarios. These scenarios also show the potential impact on resource needs in the San Diego service area with and without the Sunrise Powerlink, which is also currently under Commission review in a separate proceeding.

Finally, by way of summary and background, the need shown in this testimony is the resource need that remains after SDG&E has already reflected the Commission-adopted targets for energy efficiency and demand response. Also, SDG&E has already reflected a reduced need based on forecasted growth in distributed generation, including the California Solar Initiative. The three Low, Base and High scenarios that support this application as well as the LTPP were developed as follows:

¹ SDG&E 2007-2016 Long Term Procurement Plan: Volume I, pp. 169-174.

1 **Base Need Scenario:** The base need scenario is derived using a modified CEC load
2 forecast and the Commission-adopted goals for energy efficiency and demand response.
3 SDG&E assumes Direct Access (“DA”) load will remain at historical levels.

4 **High Need Scenario:** The high need scenario is derived using a combination of
5 assumptions that could lead to a higher resource requirement for SDG&E’s bundled
6 customers. SDG&E’s high case assumes 1% to 2% additional load growth in the first three
7 years of the forecast horizon, followed by a 0.25% to 0.50% growth adder thereafter. This
8 range is well within historical forecasting error. The high case also assumes a return of some
9 DA load to bundled load. It also assumes that the Otay Mesa power plant’s on-line date is
10 delayed one year to 2010.

11 **Low Need Scenario:** The low need scenario is derived using a combination of
12 assumptions that could lead to a lower resource requirement for SDG&E’s bundled customers.
13 Given that the base load forecast is conservatively low compared to recent growth rates,
14 SDG&E’s low case assumes more moderate reductions to overall load in the forecast horizon
15 and uses rates that are half of the high case. Assuming smaller reductions in load than
16 increases (low need scenario vs. high need scenario) is also consistent with the range of loads
17 included in the CEC forecast. Over a five-year period, the low case also assumes large
18 customers are allowed to return to DA over a five-year period. It also models potential load
19 loss if DA is re-opened to customers with load greater than or equal to 500 KV and these
20 customers leave over a five-year period. In addition, a load loss is phased in over a three-year
21 period to account for the possibility of CCA occurring over the 2008 – 2010 timeframe.

22 For each of the three scenarios, SDG&E has determined resource needs to meet the
23 requirements for its bundled customer load. Need is determined by subtracting all energy
24 efficiency and demand response programs, both committed and uncommitted, and existing
25 and planned supply resources from the forecasted load plus a 15% reserve margin. The need
26 grows substantially in 2010, when existing contracts terminate, and continues to get even
27 larger in 2012. SDG&E’s bundled customer peak need in each of the scenarios from 2010-
28 2016 is shown in Table 1 below. The values in this table are based on the Commission’s
29 minimum reserve margin of 15%. Since the Commission-approved reserve margin is actually
30 a range of 15-17%, the values in this table could be increased by about 80 MW and still be
31 within the Commission-approved range.

Table 1**Bundled Customer Need**

Scenario	2010	2011	2012	2013	2014	2015	2016
Low	634	895	1488	1457	1598	1629	1680
Base	1017	1345	2004	1989	2144	2186	2251
High	1350	1734	2451	2470	2643	2706	2792

Of the total bundled need identified in SDG&E's LTPP filing, SDG&E has filed for Commission approval (A.07-05-023) of two contracts to add 130 MW of new peaking capacity to be built in SDG&E's service area by 2008. A portion of this need, estimated to be about 100 - 350 MW over the 2010 to 2016 period will also be met with new renewable resources.

SDG&E also identified in the LTPP that a portion of need could come from off-system resources, and SDG&E would still be able to meet its local resource adequacy requirements. In 2012, if the Sunrise Powerlink is added, then 540 MW of this total need must be on system in the base case. If the Sunrise Powerlink is delayed until after 2012, then about 1,400 MW of the need has to be on system, still leaving room for off system resources.

The large increase in need between 2011 and 2012 is mainly driven by the end of the California Department of Water Resources contract with the Sunrise Power Plant ("Sunrise CDWR contract"). Under that contract, SDG&E has full rights to all the capacity, energy and ancillary services from a combined cycle plant of approximately 545 MW. In the LTPP, SDG&E showed a generic combined cycle plant being added in 2012 to replace the capacity and energy that SDG&E's customers had from the Sunrise CDWR contract. The Sunrise Power Plant is located in Kern County, California, and its power is scheduled through the ISO and delivered at ZP-26. Thus, the addition of the El Dorado plant represents a replacement of a similar off-system resource that SDG&E has used to meet its bundled customers' needs since SDG&E was allocated, for the purposes of operational administration, the Sunrise CDWR contract in 2003.

Additionally, since the LTPP was filed, the staff of the CEC has issued a draft revised demand forecast for 2008, which is 50 MW higher than the LTPP forecast on both the expected (50/50 forecast) load and on an adverse peak basis (90/10 forecast). By 2012, the CEC forecast is 100 MW higher, and it is over 200 MW higher by 2018. The recent CEC staff analysis can be accessed through the CEC's Web site at www.energy.ca.gov.

III. OPERATIONAL COSTS & BENEFITS

SDG&E compared the costs and benefits of various operational parameters between El Dorado and the Competing Offer. Following are descriptions of these comparisons for energy costs, ancillary services (AS) benefits, potential GHG costs and possible locational differences. In each of these categories, both El Dorado and the Competing Offer had very similar operational characteristics and the costs were very close between them. In the final analysis, the advantage that El Dorado has in portfolio energy costs may be negated by the potential costs associated with its locational differences. Additional sensitivity analysis was performed for locational differences, such as in the locational marginal price (“LMP”) differential and local resource adequacy value. The complete financial evaluation, including these operational costs, is provided in the testimony of Mr. Calabrese.

A. ENERGY BENEFITS

SDG&E compared the energy benefits to SDG&E’s customers of the El Dorado Option versus the Competing Offer. SDG&E used a production costing model (“the model”) to simulate dispatch and generate production costs for two resource portfolios: one that included the El Dorado plant and another that included the Competing Offer. These portfolios were modeled using assumptions that are consistent with the LTPP.

While the complete financial analysis included in the testimony of Mr. Calabrese evaluates a 25-year contract period, the model was used to generate the first 10 years of production costs, and these costs were then escalated for the remaining 15 years. In order to generate 10 years of production costs during the operational period of El Dorado and the Competing Offer, SDG&E extended the filed plan, which went through 2016, out to 2021.

Assumptions made to extend the plan were:

- Load for SDG&E’s bundled customers beyond 2016 was assumed to increase each year at the same growth rate as load was forecasted to increase between 2015 and 2016.
- Otay Mesa Generating Facility continued to serve SDG&E customers. This plant has a PPA with SDG&E through 2018, after which SDG&E has an option to buy the plant and Calpine has an option to sell the plant to SDG&E.
- Existing Qualified Facilities that have contracts that will expire in 2019 are assumed to be renewed and will provide power to SDG&E through 2021.

- 1 • Total energy from renewable power continues to increase until it is 33% of the
2 portfolio by 2020. The projected mix of renewable resource technologies in 2016
3 was maintained through 2021.

4 SDG&E also updated the forecast of natural gas and electric market prices as of June
5 1, 2007. The natural gas price forecast used to develop the cost projections was prepared
6 consistent with the Market Price Referent gas price forecast methodology adopted in
7 D.05-12-042. The near-term natural gas price forecast from 2007 – 2012 is based on the 22-
8 day trading average of NYMEX Henry Hub futures prices from May 1 to May 31, 2007.
9 Basis swaps trading contract settlement prices from NYMEX ClearPort were then added to the
10 Henry Hub futures prices to arrive at the natural gas price forecasts for all applicable price
11 points. This short-term natural gas price forecast was then blended with the long-term
12 forecast by using a three-year average from 2013 – 2015. The long-term forecast for years
13 2016 – 2021 is based on an average of forecasts from the CEC, Energy Information
14 Administration and private consultants. Only the portion of the forecast from 2012-2021 was
15 used for this analysis.

16 Market prices were also updated to be consistent with the gas price. The near-term
17 electric market price forecast from 2007 - 2009 is based on the average of on-peak and off-
18 peak NYMEX SP-15 futures prices from the same day's closing prices as that used for the
19 natural gas prices. SDG&E then used the relationship between the market and gas prices to
20 determine a market heat rate. Future years' market prices were then developed using the
21 forecasted natural gas price multiplied by the market heat rate. Only the portion of the
22 forecast from 2012-2021 was used in this analysis.

23 In order to determine the energy benefits, each of the offers' operating characteristics,
24 including heat rate and variable O&M, was individually added to SDG&E's portfolio of
25 resources used to serve its bundled customers. The portfolios were then run in the model to
26 determine the portfolio's total variable cost. SDG&E modeled each of the offers and found
27 that total energy costs were slightly lower with El Dorado than the Competing Offer; that is,
28 El Dorado provided greater energy benefits to bundled customers. This occurred since El
29 Dorado, [REDACTED]

30 [REDACTED] However, since this difference is not large, the units
31 operated very similarly. Energy costs were found to be about \$2 – \$6 million dollars a year
32 lower with El Dorado than the Competing Offer. Generally speaking, [REDACTED]

33 [REDACTED]

1 the fuel cost difference between the offers will not vary as market fuel prices vary (thus, no
2 sensitivities were done for this variable). The total variable costs of the resource portfolios
3 were provided to Mr. Calabrese for use in his financial model.

4 In the production costing model, the offers were modeled such that any time the offers
5 were not needed to meet SDG&E bundled load, the offers could sell power at wholesale, with
6 any margins (variable cost vs. sale price) credited back to SDG&E’s customers. This is how
7 SDG&E operates all of its resources consistent with Commission direction on least cost
8 dispatch principles. To make sure the offers were mainly being dispatched to meet SDG&E’s
9 customer loads and their value was not derived primarily from wholesale sales, SDG&E did a
10 second simulation where the offers were dispatched only to meet SDG&E’s bundled
11 customers’ needs. In this second case there was little difference in operation between the
12 offers. The difference in production costs between El Dorado and the Competing Offer
13 remained about the same.

14 **B. ANCILLARY SERVICES BENEFITS**

15 SDG&E also estimated the value of ancillary services to SDG&E’s customers from El
16 Dorado and the Competing Offer. This estimate is calculated by using the forecasted
17 operation for El Dorado and the Competing Offer from the production cost model output to
18 estimate the amount of regulation services the offers could sell. Using the average MW load
19 where the plant operated per year, each unit’s maximum and minimum capacities and each
20 unit’s ramp rates, the average annual Regulation Up (“Reg Up”) and Regulation Down (“Reg
21 Down”) availability was determined. The resulting annual ancillary services MWs available
22 were then multiplied by a forecast of annual ancillary services market prices to obtain an
23 annual ancillary services revenue value for both El Dorado and the Competing Offer. With
24 respect to El Dorado, the portfolio would also have additional peaking resources since El
25 Dorado was smaller than the Competing Offer. This additional peaking capacity would also
26 be available to provide ancillary services. Thus, we added the value of non-spinning reserves
27 from this peaking resource to the ancillary services from El Dorado.

28 This future market value for Reg Up, Reg Down and non-spin was forecasted by
29 estimating future prices for these ancillary services. These prices were computed [REDACTED]

30 [REDACTED]

31 [REDACTED]

32 [REDACTED]

1 El Dorado's ancillary services benefits were about \$1 million a year lower than the
2 Competing Offer on average. Since the value of ancillary services was very similar, no
3 sensitivities were performed for this variable. Although both El Dorado and the Competing
4 Offer produced similar levels of generation in their respective portfolios, the Competing Offer

5 [REDACTED]
6 [REDACTED]
7 [REDACTED] the ancillary services benefit of such a resource was not
8 included. These values were provided to Mr. Calabrese for use in the analysis.

9 C. GHG EMISSIONS IMPACT

10 SDG&E also quantified the change in potential GHG costs when each of the offers is
11 added to SDG&E's portfolio. The change in GHG emissions of each portfolio is a function of
12 energy output of each unit, a slight difference in heat rate, and the emissions of other SDG&E
13 resources displaced by the new unit's output. SDG&E used the results of the production cost
14 model to calculate the total GHG emissions from SDG&E's portfolio with each of the offers.
15 To determine the total GHG emissions, for most natural gas fired resources, SDG&E used
16 total quantity of natural gas fuel consumed multiplied by an emissions factor of 117
17 lbs/mmbtu. For QFs, an estimated factor of 639 lbs/MWhr was multiplied by the amount of
18 QF generation. For the single coal resource, Boardman, a factor of 205 lbs/mmbtu was used.
19 Market purchases and sales energy were multiplied by a weighted average emissions factor of
20 915 lbs/MWhr as representative of state-wide resources.

21 To value the GHG emissions, SDG&E used the values the Commission adopted in
22 D.04-12-048, which assigned a cost of \$8 per ton (\$2004). At a 5% escalation rate, this
23 equates to \$11.82 in 2012, and it was escalated at 5% annually thereafter. As with energy and
24 ancillary services, since the two plants are forecasted to operate very similarly and they have
25 very similar heat rates, there was no difference in the GHG costs between the offers. Since
26 the GHG costs were basically the same in each case, no sensitivities were done for this
27 variable. These values were provided to Mr. Calabrese for the total analysis.

28 D. LOCATIONAL ISSUES

29 SDG&E also examined issues related to El Dorado's location outside of SDG&E's
30 service territory versus the Competing Offer, which would be located in SDG&E's service
31 area. As described in the testimony of SDG&E witness Mike McClenahan, El Dorado is
32 located in Southern Nevada and is connected to SP-15 through the El Dorado substation.
33 SDG&E analyzed whether the implementation of MRTU and locational marginal prices will

1 impact the value of power from that location. To assess these costs, SDG&E estimated the
2 difference in the nodal prices between the location where El Dorado Power will be injected on
3 the grid and the San Diego Load Aggregation Point (“LAP”).² The difference between these
4 two values captures the potential cost difference between a plant located in Nevada versus a
5 plant located in San Diego.

6 To estimate LMP differences, SDG&E used results of the GridView market simulation
7 model, using the WECC database. GridView mimics the operation of an electric market by
8 dispatching units based on their production costs while taking into account the flow limits on
9 transmission lines and interfaces under normal conditions. The model was run with data for
10 2015 as a representative year.³ The LMP difference was compared for each hour of each year
11 and the difference weighted based on the expected delivery pattern of El Dorado. The
12 resulting average LMP differential was approximately \$██████████, and SDG&E multiplied this
13 amount by El Dorado’s annual energy production to produce an annual locational cost. Given
14 the projected annual energy, MRTU impacts could result in a cost of between \$8 million and
15 \$10 million per year.

16 Due to the uncertainty of the future MRTU market and the relationship of LMP prices,
17 SDG&E also considered an LMP differential sensitivity. The LMP differential in the base
18 scenario was increased by 50% and multiplied by El Dorado’s annual energy production. It
19 should be noted that SDG&E has the ability to mitigate these costs by optimizing dispatch
20 based on actual LMPs and utilizing CRRs to hedge against potential locational cost
21 differences. The results of this and other sensitivity analysis and their relative cost
22 significance to the base case scenario are discussed in the testimony of Mike Calabrese.

23 SDG&E also considered the potential contribution that the Competing Offer could
24 make toward local resource adequacy. In the LTPP, SDG&E identified a bundled local
25 resource need, assuming the Sunrise Powerlink is in-service by 2012, of 540 MW. A portion
26 of this need will be met by recently-signed peaking capacity contracts beginning in 2008,
27 which are currently before the Commission (A.07-05-023). The remainder of the need can
28 potentially be met with Product 2 contracts entered into as a result of the current RFO or with
29 existing resources in SDG&E’s service area, which would be contracted for in future RFOs.
30 However, since the Competing Offer’s proposed location is in San Diego, it could potentially

² The San Diego LAP consists of the LMPs weighted for all bus points within SDG&E’s service territory using approved CAISO allocation factors.

³ 2015 was used because the WECC database is only developed to specific years.

1 offset some of this local capacity requirement or contribute to a higher local resource
2 adequacy need if the Sunrise Powerlink’s in-service date is delayed beyond 2012.

3 It is unclear if, in the long run, SDG&E would be required to pay a premium for
4 resources that meet local versus system resource adequacy. In the base analysis, SDG&E did
5 not assign a premium. However, we have provided a sensitivity assuming local resources will
6 cost [REDACTED]

7 [REDACTED]

8 [REDACTED]

9 [REDACTED] To account for this potential cost, SDG&E multiplied a value of \$ [REDACTED]
10 by 480 MW and added this to the cost of El Dorado. The results of this sensitivity analysis are
11 discussed in the testimony of Mike Calabrese.

12 **IV. GHG EMISSIONS PERFORMANCE STANDARD (EPS) EVALUATION OF**
13 **EL DORADO**

14 D.07-01-039 set an interim GHG EPS for any new long-term commitments to baseload
15 generation. According to SDG&E’s modeling, El Dorado’s capacity factor is likely to exceed
16 the 60% capacity factor benchmark referred to in D.07-01-039. SDG&E applied the decision
17 as outlined in Attachment 7, Chart 2, to D.07-01-039.

18 El Dorado fits the category of “LSE Acquisition of New or Additional Ownership
19 Interest in Existing Baseload Powerplant Previously Owned by Others.” As Chart 2 of the
20 decision shows, because El Dorado has been in service since before June 30, 2007, and no
21 units have been added since that time, the plant is deemed EPS compliant.

22 Although the plant is deemed EPS compliant, SDG&E still calculated the forecasted
23 CO2 emissions per megawatt hour. Based on forecasted operation from SDG&E’s production
24 simulation model, the expected emissions would be less than 900 lbs/MWhr over the 2012 –
25 2021 timeframe. This amount is well below the EPS of 1100 lbs/MWhr. Thus, even if the
26 plant was not already deemed GHG compliant, it would pass the EPS recently adopted by the
27 Commission.

28 SDG&E also checked the Competing Offer for compliance with this standard. Based
29 on forecasted operation from SDG&E’s production simulation model, the expected emissions
30 would be less than [REDACTED] over the 2012 – 2021 timeframe. This amount is also below
31 the EPS.

32 This concludes my testimony.

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QUALIFICATIONS

My name is Benjamin A. Montoya. My business address is 8330 Century Park Court, San Diego, California, 92123.

I am employed by San Diego Gas & Electric Company as a Principal Resource Planner. My responsibilities mainly include electric resource planning. I have been employed by SDG&E since 1986, and have held a variety of positions in resource planning and gas planning, engineering and operations.

I have a BS in Engineering from the US Naval Academy and I am a registered professional engineer in Mechanical Engineering in California.

I have previously testified before this Commission.

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

**DECLARATION
OF BENJAMIN A. MONTOYA**

I, Benjamin Montoya, do declare as follows:

1. I am the Principal Resource Planner for San Diego Gas and Electric Company (“SDG&E”). I am sponsoring testimony in support of SDG&E’s Application for Approval to exercise an option to purchase a power plant owned by El Dorado LLC, filed with the California Public Utilities Commission on August 8, 2007. Additionally, as Principal Resource Planner, I am thoroughly familiar with the facts and representations in this declaration and if called upon to testify I could and would testify to the following based upon personal knowledge.

2. I am providing this Declaration to demonstrate that the confidential information (“Protected Information”) being provided in this Testimony falls within the scope of data provided confidential treatment in the IOU Matrix (“Matrix”) attached to D.06-06-066 (the Phase I Confidentiality decision). Pursuant to the procedure set forth in the August 22, 2006 Ruling of ALJ Thomas (see p. 4) for “Prepared Testimony Served but Not Yet Offered in Evidence” in a formal proceeding, I am addressing each of the following five features of Ordering Paragraph 2 of D.06-06-066:

- that the material constitutes a particular type of data listed in the Matrix;
- the category or categories in the Matrix the data correspond to;
- that SDG&E is complying with the limitations on confidentiality specified in the Matrix for that type of data;
- that the information is not already public; and
- that the data cannot be aggregated, redacted, summarized, masked or otherwise protected in a way that allows partial disclosure.

3. The confidential information contained in the Testimony constitutes material, market sensitive, electric procurement-related information that is within the scope of Section 454.5(g) of the Public Utilities Code.¹ As such, the Protected Information provided by SDG&E is allowed confidential treatment in accordance with Appendix I – IOU Matrix in D.06-06-066.

4. Pages BAM-5 through BAM-7, BAM-9 and BAM-10 of the Testimony contain Protected Information under Matrix category VIII.B (Specific Quantitative Analysis Involved in Scoring and Evaluation of Participating Bids). This data is confidential for three years after the winning bidders are selected, which SDG&E interprets to mean three years from the date of filing its Application.

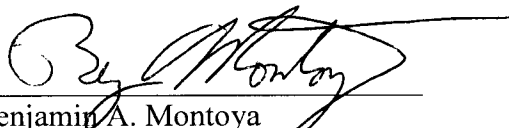
5. I am not aware of any instances where the Protected Information has been disclosed to the public.

6. SDG&E will comply with the limitations on confidentiality specified in the Matrix for the type of data that is provided herewith.

7. The Protected Information cannot be provided in a form that is aggregated, partially redacted, summarized, masked or otherwise protected in a manner that would allow partial disclosure of the data while still protecting confidential information.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed this 8th day of August, 2007, at San Diego, California.


Benjamin A. Montoya
Principal Resource Planner
San Diego Gas & Electric Company

¹ In addition to the details addressed herein, SDG&E believes that the information being furnished in the Testimony is governed by Public Utilities Code Section 583 and General Order 66-C. Accordingly, SDG&E seeks confidential treatment of this data under those provisions as applicable.

Proceeding No.: 07-08-_____
Exhibit No.: _____
Witness: Michael A. Calabrese

**DIRECT TESTIMONY
OF
MICHAEL A. CALABRESE
SAN DIEGO GAS & ELECTRIC COMPANY**

*****redacted, public version*****

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

August 8, 2007

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EXHIBIT I COMPARATIVE ANALYSIS OF EL DORADO AND COMPETING OFFER

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**DIRECT TESTIMONY OF
MICHAEL A. CALABRESE
SAN DIEGO GAS & ELECTRIC COMPANY**

I. INTRODUCTION

The purpose of my testimony is to provide a comprehensive assessment that shows why customers will benefit significantly from selection of the El Dorado bid proposal as compared with the only other conforming offer (“Competing Offer”). This assessment was conducted as a result of the 2010-2012 Supply Resources RFO (“2010-2012 RFO”), as outlined in the direct testimony of SDG&E witness Mike McClenahan. The economic analysis was based on comparisons between El Dorado and the Competing Offer and a range of costs as to what customers will ultimately be charged in future rates. The analysis focused on both capital and operating costs. Capital Costs included (1) capacity and fixed costs; (2) debt equivalency costs; (3) cost variations associated with plant size; and (4) transmission system upgrade cost differences. Operating costs included (1) system energy costs; (2) ancillary services benefits; (3) potential Greenhouse Gas (“GHG”) emissions costs; and (4) locational differences. The assumptions and methodology used in developing these cost comparisons were reviewed by an Independent Evaluator (“IE”). In addition, operating costs as defined above are explained in more detail in the direct testimony of SDG&E witness Benjamin Montoya.

The result of my analysis shows that SDG&E’s bundled customers are estimated to receive benefits of approximately \$243 million under an expected case on a net present value (“NPV”) basis over the 25-year analysis period by exercising the option to procure the El Dorado plant as compared to the Competing Offer. The components of the net savings to ratepayers are shown on Exhibit I, and are explained in more detail in Section II of this testimony. The analysis shows that the vast majority of the benefits are related to the capital cost components (i.e., being able to procure El Dorado at book value). Operating costs are very close between El Dorado and the Competing Offer, which would be expected since the plants are expected to operate in a similar manner. El Dorado may have slightly higher operating costs depending on the locational price differences, however, the capital cost benefits are expected to exceed any operational differences.

In order to test the robustness of the analysis, additional sensitivities were applied to both El Dorado and the Competing Offer that addressed (1) local resource adequacy; (2) locational

1 marginal price (“LMP”) differential; (3) transmission system upgrade costs; and (4) terminal
2 value. The results of my sensitivity analysis show that SDG&E’s bundled customers continue to
3 receive benefits estimated to range from [REDACTED] to as high as \$378 million on a NPV basis
4 over the 25-year analysis period by exercising the option to procure the El Dorado Plant as
5 compared to the Competing Offer. The sensitivity analysis is further explained in Section IV of
6 this testimony.

7 **II. COST BENEFIT RESULTS**

8 The modeling methodology used in this comparative analysis is consistent with the
9 approach used in SDG&E’s Grid Reliability RFP that resulted in a number of approved projects,
10 including the Palomar Plant, and in the Otay Mesa power purchase agreement (“PPA”)
11 Rehearing Proceeding (D.06-09-021). The analytic results presented in Exhibit I show total
12 estimated savings to ratepayers on a NPV basis. This analysis quantifies the overall cost impact
13 to ratepayers of adding either El Dorado or the Competing Offer to SDG&E’s bundled resource
14 portfolio. The El Dorado bid reflected the relevant terms of the Settlement Agreement and
15 Equity Purchase Option Agreement discussed in the Application in which SDG&E would
16 purchase the 480 MW plant at book cost effective October 1, 2011, which is currently estimated
17 by El Dorado to be \$189 million. A revenue requirement was calculated for the El Dorado plant
18 for the period 2012-2029, assuming a remaining book life of 18 years, and an SDG&E
19 authorized capital structure and rate of return of 8.23%. This revenue requirement represents a
20 total capacity charge that ratepayers would pay for the plant as a result of SDG&E ownership.

21 The analysis period was determined as a result of the Competing Offer, which proposed a
22 competing PPA that covered 25 years. In 2012, the remaining plant life of El Dorado will be 18
23 years (assuming an original in-service date of May 2000 and a plant life of 30 years) and will be
24 fully depreciated in year 2029. To account for the difference in lives, SDG&E introduced a
25 replacement plant at the beginning of year 2030 that would provide replacement energy for the
26 seven remaining years of the analysis period or until 2036. The replacement plant was estimated
27 to cost [REDACTED] in year 2030. A revenue requirement was calculated including O&M costs
28 for the remaining seven years to determine the capacity cost that would be charged to ratepayers
29 during that time period. Since the replacement plant had value beyond the seven years remaining
30 in the analysis period, it was necessary to calculate a terminal value that assumed the plant would
31 be theoretically sold in year 2036. Replacement cost new, less depreciation, less remaining book

1 value, was used to calculate a gain that is credited back to ratepayers in the last year of the
2 analysis and totaled [REDACTED]. This method of calculating terminal value (end effects) is
3 consistent with what has been previously presented in other cases before this Commission,
4 including the Grid Reliability RFP and the Otay PPA Rehearing Proceeding.

5 In addition to the capacity costs of El Dorado, a cost differential associated with plant
6 size was calculated. The cost differential associated with plant size [REDACTED]
7 [REDACTED] that is required to adjust for the fact that the capacity available from the Competing Offer
8 assumed a [REDACTED] facility, whereas El Dorado is an existing 480 MW facility. The difference in
9 the offers is mostly related to the peaking capacity of the plants. Thus, the differential of [REDACTED]
10 [REDACTED] was priced at a PPA cost of approximately [REDACTED] including debt equivalence. This
11 price represents an average of the PPA price provided by the Competing Offer combined with
12 the costs of new peaking capacity in San Diego from SDG&E's latest Product 2 offers. This
13 amount represents the cost of additional capacity required to make the El Dorado offer
14 comparable to the Competing Offer since the size of the offers was not equal.

15 The additional cost and benefit items of system energy costs, ancillary services benefits,
16 potential GHG emissions costs and locational differences were all calculated based on
17 production cost models through year 2021 and escalated at 2.5% thereafter. These factors are
18 explained in more detail in the testimony of Mr. Montoya. All cost and benefit items identified
19 for El Dorado were developed over the analysis period of 25 years (2012-2036), and discounted
20 back to year 2012 at a discount rate of 8.23%.¹

21 A similar analysis as described above was conducted for the Competing Offer. However,
22 the Competing Offer did not propose a power plant ownership option for SDG&E, but rather, a
23 25-year PPA for all rights to dispatch a [REDACTED] facility owned and operated by the Competing
24 Offer. The Competing Offer proposed a 25-year PPA beginning in April 2012 at a capacity cost
25 that includes cost of the plant and fixed operating and maintenance costs. The total capacity
26 charge calculated in the analysis includes the PPA cost over the 25-year period of 2012 through
27 2036, discounted back to year 2012 at a discount rate of 8.23%. Debt equivalence costs were
28 also included in the analysis for the Competing Offer, as explained in more detail in Section III

¹ Although SDG&E is expected to take ownership of El Dorado in early October 2011, the analysis assumes ownership begins on January 1, 2012. In addition, the Competing Offer submitted a PPA for 25 years beginning on April 1, 2012, but the analysis assumes PPA costs of 24 years and nine months. These items represent simplifying assumptions that were incorporated into the 25-year analysis period of 2012-2036.

1 below. In addition to the capacity and debt equivalence costs, the same types of costs and
2 benefits considered in the El Dorado analysis were included for the Competing Offer analysis for
3 comparative purposes, including system energy costs, potential GHG emissions costs, ancillary
4 services benefits and locational costs. These costs (excluding capacity and debt equivalence
5 costs) are described further in the testimony of Mr. Montoya. The cost differential associated
6 with plant size was not included for the Competing Offer since it is the larger plant. All cost and
7 benefit items identified for the Competing Offer were developed over the analysis period of 25
8 years (mid-year 2012-2036) and discounted back to year 2012 at a discount rate of 8.23%.

9 The analysis provided in this testimony also includes assumed capital costs associated
10 with upgrading the transmission system to make the Competing Offer fully deliverable. The
11 Competing Offer requires the construction of a new plant, and transmission system upgrades
12 may be required to make the plant fully deliverable to SDG&E's customers, as explained in more
13 detail by Mr. McClenahan. SDG&E did not receive a CAISO System Impact Study for the
14 Competing Offer and thus made an assumption for this analysis that costs would be similar to the
15 cost for integrating the Palomar combined cycle plant, or roughly \$20 million. As described in
16 Section IV, SDG&E also ran a sensitivity assuming \$0 transmission costs. If transmission costs
17 were higher than \$20 million, such higher costs would represent further improvement in the
18 economics of the El Dorado option versus the Competing Offer. A revenue requirement was
19 calculated for the transmission upgrades for the period 2012-2036, assuming a book life of 50
20 years, and an SDG&E-authorized Federal Energy Regulatory Commission capital structure and
21 rate of return of 7.81%. The annual revenue requirements over the 25-year analysis period were
22 then discounted back to 2012 at the SDG&E authorized rate of return of 8.23%.

23 In summary, when comparing the overall cost impact to ratepayers of adding either El
24 Dorado or the Competing Offer to SDG&E's bundled resource portfolio, the total net savings to
25 ratepayers from the El Dorado bid is estimated to be \$243 million on a total NPV basis as shown
26 in column (d) of Exhibit 1 of this testimony. The sensitivity analysis noted above also shows a
27 range of estimated benefits from [REDACTED] to as high as \$378 million on a NPV basis over the
28 25-year analysis period.

29 **III. FINANCING, DEBT EQUIVALENCE**

30 Debt equivalence costs were calculated for the Competing Offer PPA bid and for the
31 hypothetical PPA (used to calculate the cost differential associated with plant size for the El

1 Dorado bid) using the methodology adopted by the Commission in D.04-12-048. The
2 Commission-adopted risk factor of 20% was applied to the NPV of the remaining capacity
3 payments over the 25-year PPA period to determine the additional debt resulting from entering
4 into the PPA. By adding equity in an amount equal to 50% of the additional debt and reducing
5 debt by the same amount, SDG&E calculated a revenue requirement associated with rebalancing
6 its capital structure. This methodology is consistent with that used in the Otay PPA Rehearing
7 Proceeding.

8 **IV. SENSITIVITIES**

9 In order to test the robustness of the analysis that customers would receive benefits by
10 exercising the option to procure the El Dorado Plant as identified in the base case, additional
11 sensitivities were performed around certain inputs that could have the biggest impacts on the
12 expected benefits. As explained in more detail below, sensitivities were applied to the analysis
13 in the area of local resource adequacy, LMP differential, transmission system upgrade costs and
14 terminal value.

15 **A. Local Resource Adequacy**

16 Since El Dorado is not located in San Diego, there is a potential increased cost in order to
17 meet SDG&E's local resource adequacy needs as explained in more detail in the direct testimony
18 of Mr. Montoya. This potential increased cost was calculated by using an estimate of \$ [REDACTED]
19 [REDACTED] multiplied by the plant capacity of 480 megawatts over the 25-year analysis period of
20 2012-2036. The annual stream of costs was discounted back to year 2012 at the SDG&E
21 authorized ROR of 8.23%. These additional costs attributed to El Dorado are estimated to
22 reduce the total net benefits associated with El Dorado in the base case down to [REDACTED] on
23 a NPV basis.

24 **B. LMP Costs**

25 An additional sensitivity was conducted assuming an increase in LMP costs as explained
26 in more detail in the testimony of Mr. Montoya. The incremental costs are attributed to El
27 Dorado and were quantified on an annual basis over the 25-year analysis period of 2012-2036.
28 The annual costs were discounted back to year 2012 at the SDG&E-authorized rate of return of
29 8.23%. Since these costs are incrementally attributable to El Dorado only, they reduce the total
30 net benefits associated with El Dorado down to \$192 million on a NPV basis.

1 **C. Transmission System Upgrade Costs**

2 An additional sensitivity was conducted assuming that the Competing Offer **did not**
3 require any transmission system upgrades in order to make its new plant fully deliverable to
4 SDG&E customers as stated in Section II of this testimony. If this were the case, the total net
5 benefits associated with El Dorado would be reduced to approximately \$220 million on a NPV
6 basis.

7 **D. Terminal Value**

8 As stated in Section II of this testimony, SDG&E introduced a replacement plant for El
9 Dorado in year 2029 since seven years remained in the analysis period after El Dorado was fully
10 depreciated. The base case assumed a replacement plant would operate for seven years and then
11 would be theoretically sold at the end of the analysis period at a gain that would be credited back
12 to ratepayers. A sensitivity was conducted assuming that El Dorado would continue to operate
13 after year 2029 and that a replacement plant would not be necessary. This sensitivity analysis
14 produces additional benefits to El Dorado and increases the total net benefits to customers to
15 \$378 million on a NPV basis.

16 In summary, four sensitivities were prepared in an effort to measure the robustness of the
17 analysis used to recommend that SDG&E procure El Dorado. Based on the sensitivities
18 described above, SDG&E's bundled customers continue to receive benefits ranging from [REDACTED]
19 [REDACTED] to as high as \$378 million on a NPV basis over the 25-year analysis period by exercising
20 the option to procure the El Dorado Plant as compared to the Competing Offer.

21 **V. COST RECOVERY FRAMEWORK**

22 **A. Fixed Revenue Requirement**

23 In D.04-12-048 (Finding of Fact No. 67), the Commission authorized the utilities to
24 utilize the Non-Fuel Generation Balancing Account ("NGBA") to record the authorized O&M
25 and capital-related non-fuel revenue requirements associated with new turnkey / utility owned
26 generation plants. As of the date El Dorado ownership is assumed by SDG&E (expected to be
27 early October 2011), the monthly fixed revenue requirement should be recorded in the NGBA
28 for recovery through SDG&E's commodity rates (Schedule EECC-Electric Energy Commodity
29 Cost). This fixed revenue requirement should be recorded monthly to the NGBA and be
30 balanced against billed revenues received from the rate component of Schedule EECC set to
31 recover fixed El Dorado costs. For 2011, the year in which El Dorado is scheduled to go into

1 service, the forecasted 2011 revenue requirement will be included in SDG&E's annual NGBA
2 advice letter filing. However, prior to the in-service date of El Dorado, SDG&E will file an
3 advice letter to identify the final El Dorado fixed monthly revenue requirement to be recorded to
4 the NGBA.

5 Commodity rates that include the El Dorado authorized fixed revenue requirement may
6 lead to recorded revenues that are higher or lower than the authorized revenues due to higher or
7 lower than expected customer sales. Such over collections or under collections of the El Dorado
8 authorized fixed revenue requirement will be recorded in the NGBA. For each calendar year
9 following the in-service date, the El Dorado NGBA balance will be included in SDG&E's annual
10 NGBA advice letter filing (filed in the 4th quarter) and annual consolidated electric rate change
11 filing (filed in December) to be recovered in commodity rates effective January 1 of the
12 following year.

13 **B. Variable O&M and Non-Fuel Costs**

14 The Commission should approve a variable O&M rate to recover the El Dorado variable
15 O&M non-fuel costs at the time the monthly fixed revenue requirement is approved. SDG&E
16 would propose a variable O&M rate per MWhr of generated output from the plant based on the
17 estimated costs required to operate and maintain El Dorado. The authorized variable O&M non-
18 fuel costs, equal to the authorized variable O&M rate times the MWhr generated, will be
19 recorded monthly to the NGBA.

20 Commodity rates based on recovery of the El Dorado projected variable O&M non-fuel
21 costs may lead to recorded revenues that are higher or lower than the authorized revenues due to
22 higher or lower than expected customer sales and/or higher or lower than expected generation
23 output from El Dorado. Such over collections or under collections of the El Dorado variable
24 O&M non-fuel costs will be recorded in the NGBA. For each calendar year following the in-
25 service date, the El Dorado NGBA balance and the following year's projected variable O&M
26 non-fuel costs based on the adopted variable O&M rate and estimated generation output will be
27 included in SDG&E's annual NGBA advice letter filing (filed in the 4th quarter) and annual
28 consolidated electric rate change filing (filed in December) to be recovered in commodity rates
29 effective January 1 of the following year.

1 **C. Fuel Costs**

2 El Dorado fuel costs will be recorded in the Energy Resource Recovery Account
3 (“ERRA”) for recovery through commodity rates. In the ERRA, actual fuel costs are compared
4 with billed revenues with the balance (under- or over-collection) being amortized in commodity
5 rates the following year. For 2011, the year in which El Dorado is scheduled to become an
6 SDG&E plant, the forecasted fuel costs will be included in the annual ERRA forecasted revenue
7 requirement application. In subsequent years, the El Dorado ERRA balance and following
8 year’s forecasted fuel costs will be included in SDG&E’s annual ERRA forecasted revenue
9 requirement application (filed in the 4th quarter).

10 This concludes my testimony.

1 **VI. QUALIFICATIONS**

2 My name is Michael A. Calabrese. I am employed with Southern California Gas
3 Company. I am currently Manager – Regulatory Case Financial in the Finance Department and
4 am responsible for the calculation of revenue requirements for specific cases or projects filed
5 before the CPUC. In addition I am also responsible for conducting financial analysis and project
6 evaluations requiring the use of and the development of various revenue requirement models. I
7 have held this position since June 2005.

8 I received a Bachelor of Science degree in Accounting and Management (double major)
9 from California State University, Northridge, in 1981. I am a Certified Public Accountant and a
10 member of the American Institute of Certified Public Accountants and the California Society of
11 Certified Public Accountants. I continue to maintain my license with practice rights by adhering
12 to continuing professional education requirements. I began my employment in June 1981 in the
13 Internal Audit Department of Pacific Lighting Corporation, then parent company of SoCalGas.
14 In 1982, I joined Pacific Interstate Company, a regulated subsidiary of Pacific Lighting
15 Corporation, and held various positions of increasing responsibility, including Supervisor of
16 Fixed Asset Accounting, Budgeting and Payroll. In February 1994, I joined SoCalGas as a
17 Senior Depreciation Analyst in support of the company's General Rate Case. Later in 1995, I
18 rejoined the Internal Audit Department until transferring to the Business Planning Department of
19 SoCalGas in 1998 where I held the position of Principal Business Analyst until being promoted
20 to my current position.

Exhibit I

**Comparative Analysis of El Dorado
and Competing Offer**

San Diego Gas & Electric
 Comparative Analysis of El Dorado & Competing Offer
 Years 2012 – 2036

APPENDIX I

NPV in Millions \$ (a)	With Sales of Excess Power		
	El Dorado (b)	The "Offer" (c)	Difference Cost (Savings) (d)
<u>Capital Related Costs</u>			
Capacity Costs	\$529		
Debt Equivalence Costs	\$0	\$87	(\$87)
Megawatt Differential Costs		\$0	
Transmission System Upgrade Costs	\$0	\$23	(\$23)
Subtotal Capital Costs			(\$316)
<u>Operating Related Costs</u>			
System Energy Costs			(\$48)
Ancillary Service Benefits			\$17
GHG Emission Costs			\$0
Locational Costs			\$103
Subtotal Operating Costs			\$72
Total NPV 2012\$			(\$243)

Note:

The analysis for this appendix attempts to capture the overall cost impact of adding each of the offers to SDG&E bundled customer portfolio.

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

**DECLARATION
OF MICHAEL A. CALABRESE**

I, Michael Calabrese, do declare as follows:

1. I am the Regulatory Case Financial Manager for Southern California Gas Company. I am sponsoring testimony in support of SDG&E's Application for Approval to exercise an option to purchase a power plant owned by El Dorado LLC, filed with the California Public Utilities Commission on August 8, 2007. Additionally, as Regulatory Case Financial Manager, I am thoroughly familiar with the facts and representations in this declaration and if called upon to testify I could and would testify to the following based upon personal knowledge.

2. I am providing this Declaration to demonstrate that the confidential information ("Protected Information") being provided in this Testimony falls within the scope of data provided confidential treatment in the IOU Matrix ("Matrix") attached to D.06-06-066 (the Phase I Confidentiality decision). Pursuant to the procedure set forth in the August 22, 2006 Ruling of ALJ Thomas (see p. 4) for "Prepared Testimony Served but Not Yet Offered in Evidence" in a formal proceeding, I am addressing each of the following five features of Ordering Paragraph 2 of D.06-06-066:

- that the material constitutes a particular type of data listed in the Matrix;
- the category or categories in the Matrix the data correspond to;
- that SDG&E is complying with the limitations on confidentiality specified in the Matrix for that type of data;
- that the information is not already public; and
- that the data cannot be aggregated, redacted, summarized, masked or otherwise protected in a way that allows partial disclosure.

3. The confidential information contained in the Testimony constitutes material, market sensitive, electric procurement-related information that is within the scope of Section 454.5(g) of the Public Utilities Code.¹ As such, the Protected Information provided by SDG&E is allowed confidential treatment in accordance with Appendix I – IOU Matrix in D.06-06-066.

4. Pages MAC-2 through MAC-6, and Exhibit 1 contain Protected Information under Matrix category VIII.B (Specific Quantitative Analysis Involved in Scoring and Evaluation of Participating Bids). This data is confidential for three years after the winning bidders are selected, which SDG&E interprets to mean three years from the date of filing its Application.

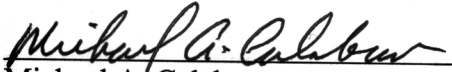
5. I am not aware of any instances where the Protected Information has been disclosed to the public.

6. SDG&E will comply with the limitations on confidentiality specified in the Matrix for the type of data that is provided herewith.

7. The Protected Information cannot be provided in a form that is aggregated, partially redacted, summarized, masked or otherwise protected in a manner that would allow further disclosure of the data while still protecting confidential information.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed this 8th day of August, 2007, at San Diego, California.


Michael A. Calabrese
Financial Planning Project Manager
San Diego Gas & Electric Company

¹ In addition to the details addressed herein, SDG&E believes that the information being furnished in the Testimony is governed by Public Utilities Code Section 583 and General Order 66-C. Accordingly, SDG&E seeks confidential treatment of this data under those provisions as applicable.