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APPENDIX 9

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Public Version

Independent Evaluator's Report – Purchase of the CalPeak El Cajon Energy Facility and SDG&E's June 9, 2009 RFO for Demand Response and Supply Resources

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I. INTRODUCTION

San Diego Gas & Electric Company (SDG&E) is requesting authority to exercise its purchase option to acquire the CalPeak El Cajon Energy Facility (ECEF). ECEF is an existing peaking power plant located on SDG&E's property at its El Cajon substation. In order to evaluate whether or not to exercise the purchase option available to SDG&E under the terms of its 2001 land lease to the ECEF, SDG&E has compared the costs of an ECEF purchase with the expected costs of a Power Purchase Agreement (PPA) with this facility and with the costs of offers received in SDG&E's Request for Offers (RFO) for Demand Response (DR) and Supply Resources, issued on June 9, 2009.[1]

In particular, the ECEF meets the requirements for Product 5 solicited in the RFO. Product 5 offers were received from existing generators capable of providing local Resource Adequacy for a 10-year term.[2] Hence, the ECEF purchase costs have been compared with the costs of all Product 5 offers.

In its role as the Independent Evaluator (IE) for the 2009 RFO, Van Horn Consulting (VHC) has prepared this public report, as well as a Confidential Addendum. These documents evaluate SDG&E's proposed purchase of the ECEF in the context of the offers for supply resources that were received in response to the 2009 Supply RFO.

The IE review process resulted from a series of California Public Utilities Commission (CPUC or Commission) rulings and decisions affecting California's Investor-owned Utilities (IOUs). 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

[1] Request for Offers for Demand Response and Supply Resources, June 9, 2009. SDG&E requires these resources to support reliability within its service territory, supply energy to bundled customers and meet other portfolio needs including Resource Adequacy (RA) requirements.

[2] For this product, SDG&E requires flexible resources that can provide regulation during the morning and evening ramps and/or units that can be started and shut down as needed.

affiliate. Decision 07-12-052, Conclusion of Law, item 24, states "IEs are valuable to the procurement process and we direct the IOUs to utilize IEs according to the parameters established in this decision and in D.04-12-048." On page 140, the Decision also states: "Further, given that IOUs may not know with certainty whether or not it or its affiliate will bid on a particular solicitation, the Commission requires that an IE be utilized for all competitive RFOs[3] that seek products of more than three months in duration."[4] Under the decisions cited above, the role of the IE is to assist the utility in RFO design and observe the utility's procurement, evaluation and contract negotiation processes, in order to provide an opinion concerning "fairness." In addition to the CPUC's requirements, the Federal Energy Regulatory Commission (FERC) requires an IE to prevent a bias and to avoid preferences favoring the selection of affiliate offers over offers from other participants.[5]

In 2008, the CPUC ruled that: "parties are to use the attached templates for the purposes specified on the templates: The IEs are to use the IE templates, either the short form or the long form, when preparing their reports on the utilities' RFOs, and the utilities are to use the contract approval template when submitting a request to the Commission for approval of a resource contract. These templates are to be used for the purposes specified until further notice."[6]

For the Short Form and the Long Form templates, the CPUC requires that:

1. "This short form template should be used for transactions that do not require submission of an application for CPUC approval, including those transactions that are documented in the IOU's Quarterly Compliance Report (QCR) and/or are submitted to the Commission for approval via advice letter."
2. "This template should be used whenever an Independent Evaluator submits a report on the outcome of an IOU RFO bid process for review by the California Public Utilities Commission. This long form template should be used for transactions that require submission of an application for CPUC approval."

In its RFO, SDG&E requested for supply offers for products some of which require the Short Form template and others the Long Form. These products are described in Section II of this report.

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[3] Competitive RFOs include those issued to satisfy service area needs and to provide specific supply-side resources not covered by the Commission's Energy Efficiency (EE) and Demand Response (DR) programs.
[4] This requirement creates uniformity between the contract length for which an IOU must consult its Procurement Review Group (PRG) and the IE process.
[5] 108 FERC ¶61,081 (2004): "Opinion and Order … Announcing New Guidelines for Evaluating Section 203 Affiliate Transactions." VHC is not aware of any additional CPUC requirements for the IE review of Demand-Side Management programs acquired via an RFO process.
[6] "Administrative Law Judge's Ruling Issuing Templates For Independent Evaluator Reports And Contract Approval Requests," Rulemaking 06-02-013, dated May 8, 2008.

SDG&E's selection of offers for some products are necessarily dependent on its selection of offers for other products. For this reason and for ease in preparing and reading this IE report, VHC has used the Long Form template for all products, rather than the Short Form template for some products and the Long Form template for other products.[7] The Long Form template addresses all the questions that are in the Short Form template but in greater detail. VHC also provides additional comments and observations regarding SDG&E's solicitation, evaluation and contracting process that may not be required by the IE Template questions, but that VHC believes are relevant.

The application for which this IE report is being submitted is for the approval of SDG&E's purchase of the CalPeak ECEF. However, SDG&E's selection of short-listed offers in the 2009 RFO and its Least-Cost, Best-Fit (LCBF) evaluation included all the Supply Products, including the CalPeak ECEF. The LCBF evaluation considered how sequential combinations would make-up an LCBF portfolio. Therefore, although the focus of this Public IE Report is on the purchase of the ECEF, this report and its Confidential Addendum address this purchase in the context of the RFO and the Product 5 evaluations. Because a number of the contracts for the short-listed offers in the RFO are now being negotiated, this Public Report does not discuss the details of SDG&E's evaluations and negotiations for individual contracts.

This public report does not contain confidential and/or privileged materials. However, the Addendum provides confidential information, for which review and access are restricted, subject to PUC Sections 454.5(g), 583, D.06-06-066, and General Order (GO) 66-C.

II. BACKGROUND

A. Products in the 2009 Supply RFO

In its RFO, SDG&E sought short-term and long-term supply resources, local resources, as well as resources outside SDG&E's service territory. It requested both existing and new generation, as shown in Table 1 below. Information on requirements, such as the minimum capacity, capacity factors and heat rates is also included in Table 1.

During the evaluation of offers for the 2009 Supply RFO, SDG&E also evaluated two non-conforming offers, as well as several conforming bilateral offers, which SDG&E had received earlier. These bilateral offers were from existing facilities and conformed to the RFOs requirements for Product 5 offers from existing units. The Confidential Addendum provides additional detail regarding these offers.

[7] This IE Report uses the CPUC's Long Form template dated November 9, 2010.

Table 1. Products Requested in the 2009 RFO

Product #	Type	Short-term or Long-term	Local or Outside	Term, years	Minimum Offer, MW	Delivery Start	Other
1	DR	Short	Local	3	1	2012	Ability to respond within 10 minutes. Targeted toward non-residential customers with demand >100kW. Under a Direct Load Control program and be curtailable between 12:00 p.m. and 6:00 p.m.
2	New Gen (Toll)	Long	Local	20	100	2010-2014	Min C.F. 30%. Availability 98%. Anticipated HR <=10,500 Btu/kWh. Capable of regulation. Additional value for quick start. Requires Offer contain pricing & option for black start.
3	Existing Gen (Toll)	Short	Local	1 or 2	400	2010/11	Capable of regulation. Started/Shut down as needed. Additional value for quick start. Requires Offer contain pricing & option for black start.
4	Existing Gen (Toll)	Short	Outside	2	200	2010	Capable of regulation. Started/Shut down as needed. Additional value for quick start.
5	Existing Gen (Toll)	Long	Local	10	400	2012	Supply from a unit utilizing OTC will be offered a contract with SDG&E that consists of a 2-year transaction with the possibility to extend for eight 1-year options. Capable of regulation. Started/Shut down as needed. Additional value for quick start.
6	New or Existing Gen (Toll)	Long	Outside	10	200	2012	Supply from a unit utilizing OTC will be offered a contract with SDG&E that consists of a 2-year transaction with the possibility to extend for eight 1-year options. Additional value for quick start.
7A	Firm LD Energy	Short	Local & Outside	2 or 4	200	2010/12	3rd Q 6 x 16 on-peak. Refreshing prices allowed once.
7B	RA	Short	Local & Outside	2 or 4	200	2010/12	3rd Q or full year.

B. SDG&E's Local RA Zone

There is a possibility that there will be a new Greater San Diego/Imperial Valley local Resource Adequacy (RA) zone, after the Sunrise Powerlink goes into operation. Sunrise Powerlink is expected to begin deliveries of energy to San Diego in 2012. SDG&E's existing local RA area and the potential new local RA areas are depicted in Figure 1 below. SDG&E informed bidders that this decision will be made by the California Independent System Operator (CAISO), but as of November 30, 2010, no changes have been made to SDG&E's local area boundaries. Since the current local RA zone would be fully incorporated into the broader local area, any RA resources located in the current zone will contribute to meeting RA requirements, whether or not an enlarged zone is created. SDG&E further informed bidders that they must perform their own market research and directed them to the CAISO's study and preliminary statements.[8]

Generation facilities in SDG&E's local RA zones are more limited than those outside the local RA zone. As a result, offer prices for supplies in SDG&E's local RA zone are generally higher than offer prices for system supplies outside the local RA zone. If the CAISO creates the new Greater San Diego /Imperial Valley local RA zone, the supplies available to SDG&E to meet RA in this new zone would increase. Furthermore, prices for offers that become local RA resources, but were not previously qualified as local RA, may increase. SDG&E is closely monitoring the situation to avoid the potential for stranded capacity and to ensure that the most economically attractive offers are selected, if and when the new zone is established.

C. SDG&E's Local and System RA Needs

SDG&E's request to purchase the ECEF unit is not for the purpose of meeting the CPUC's authorization to procure new generation resources. Rather, this purchase of an existing local generating facility will enable SDG&E to continue to meet its bundled customers' local and system RA requirements.

Since issuing its RFO in June 2009, SDG&E has updated its Need values for both local and system resources. As discussed in SDG&E's application, SDG&E's bundled customers have a need for local and system resources for all years through 2020, as shown in Table 2. The local Need decreases in 2013, when the Sunrise Powerlink is forecasted to be in service and fully counted by the CAISO in reducing the Need for local resources.[9] Both local and system Need will continue to grow in later years, as load continues to grow.

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[8] These are available at http://www.caiso.com/1f42/1f42d6e628ce0.html and http://www.caiso.com/20ad/20ad77d04d70.pdf

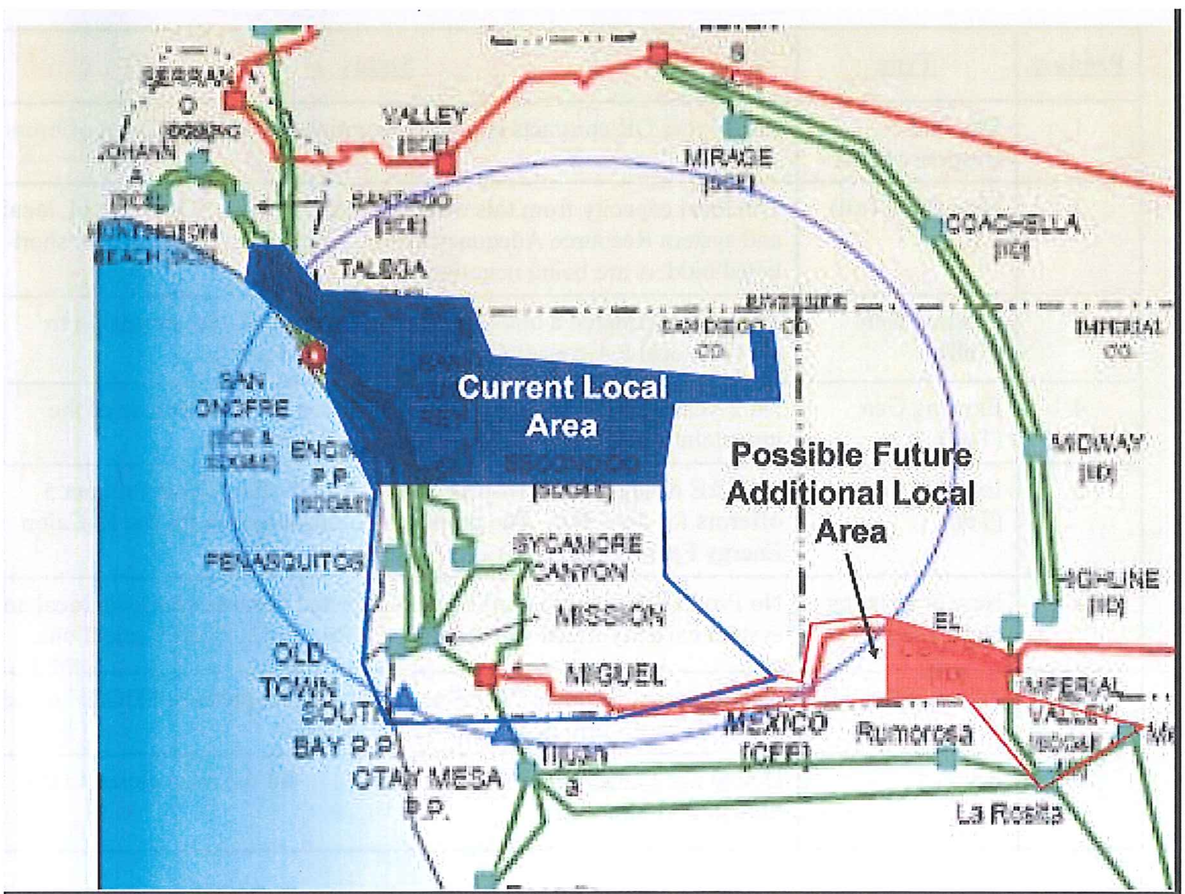
[9] The Sunrise Powerlink is currently projected to be put into service in 2012. However, for planning purposes, SDG&E assumes that its updated local RA needs in 2012 will still be based on the Sunrise Powerlink not being in service, since local RA needs are determined by October of the prior year, and the Sunrise transmission line will still be under construction in October 2011.

Table 2. SDG&E's Updated Bundled Customer RA Need (MW)

	2012	2013	2014	2015	2016	2017	2018	2019	2020
Local RA	953	138	195	245	300	360	420	485	639
System RA	1,639	1,697	1,868	1,929	1,993	2,061	2,163	2,240	2,412

VHC has reviewed estimates of SDG&E's system need, as this need has changed during 2009 and 2010. Further information is presented in the Confidential Addendum.

Figure 1. SDG&E's Existing and Possibly New Local Capacity Areas



III. SUMMARY

A. RFO Results to Date

SDG&E selected for short-listing and negotiation a number of offers for the 2009 RFO products. Although this report focuses on the purchase of the CalPeak ECEF, it also indicates the status of all the RFO Products, as shown in Table 1. Table 3 provides a brief summary of the status of each of the products SDG&E solicited in its 2009 All-Source RFO.

Table 3. Current Status of 2009 RFO Products

Product	Type	Status
1	Demand Response (DR)	Three-year DR contracts are being negotiated with short-listed offerors.
2	New Gen (Toll)	The local capacity from this offer is needed to meet SDG&E grid, local and system Resource Adequacy needs. Long-term contracts with short-listed bidders are being negotiated.
3	Existing Gen (Toll)	SDG&E negotiated a one-year contract and a one-year extension to provide local RA capacity needed in 2010 and 2011.
4	Existing Gen (Toll)	No 2-year Product 4, non-local offers were selected, because of the uncertainty with SDG&E's open system RA position.
5	Existing Gen (Toll)	SDG&E is negotiating 10-year contracts with short-listed Product 5 offerors for local RA. The proposed purchase option for the El Cajon Energy Facility (ECEF) is compared to these offers.
6	New or Existing Gen (Toll)	No Product 6, non-local offers were selected because changing local and system capacity needs were met by the Product 2, 3 and 5 selections.
7A	Firm LD Energy	No 2 or 4-year Product 7A offers were selected, because SDG&E opted to use its short-term hedging program instead.
7B	RA	Due to need uncertainty, SDG&E elected to fill the need closer to the time period of need.

Product 1 requested 3-year contracts to provide Demand Response reductions that would be made available on 10-minutes notice. SDG&E is negotiating contracts with the short-listed Offerors.

Product 2 requested new, tolling generation located in SDG&E's Local System area for a 20-year contract duration.[10] SDG&E is now negotiating contracts with the short-listed Offerors.

For Product 3, SDG&E executed a one-year tolling agreement to meet 2010 Local RA needs and agreed to an extension to cover 2011.[11] The tolling contracts executed under Product 3 give SDG&E the ability to satisfy both local and system needs.

All three of the Product 4 offers were less attractive than the Product 7B offers to which they were compared. In addition, the amount of System RA needed was uncertain, due to the uncertainty surrounding South Bay's designation as a Reliability Must-Run (RMR) unit by the CAISO. Thus, no Product 4 offers were selected. SDG&E also elected not to execute any Product 6 offers, since the short-listed Product 2 and 5 offers, which are needed to address the uncertainty of the local RA situation, would satisfy much of SDG&E's system RA needs.

Product 5 is for tolling agreements for supply from existing generators providing local Resource Adequacy for a 10-year term, starting in 2012. For this product, SDG&E requires flexible resources that are capable of providing regulation during the morning and evening ramps and/or units that can be started and shut down as needed. Supply offered from a unit utilizing Once Through Cooling (OTC) could be offered a contract consisting of an initial 2-year term with the possibility to extend the contract with up to eight one-year contracts.

CalPeak's El Cajon combustion turbine (CT) unit is located at SDG&E's El Cajon substation within SDG&E's Eastern O&M Center and is subject to a 10-year lease with SDG&E that expires on October 31, 2011. The land lease agreement grants SDG&E the option to purchase the plant at the end of the lease agreement.[12] SDG&E has chosen to exercise this option, because the ECEF purchase will meet the requirements of Product 5 and be considerably less expensive than a PPA would be.

After the receipt of RFO offers in August 2009, SDG&E determined that it did not need to contract for Product 6 (New or Existing, Long-term, System RA) to satisfy its changing system Resource Adequacy (RA) needs. This decision was made because the short-listed

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[10] Product 2 is for new, local tolling generation for 20 or more years, starting in 2010 to 2014. Units must be capable of operating at greater than a minimum of 30% annual capacity factor and be capable of regulation at a heat rate <10,500 Btu/kWh.

[11] The contract with NRG is referred to as Cabrillo Power I, LLC for units at the Encina plant.

[12] The land lease with CalPeak grants SDG&E the right to buy the El Cajon unit on an "as is" basis at the "fair market value" of the gas turbine, the generator and the electrical/control unit only, less the cost to restore the site to its pre-existing condition.

Product 5 offers (Existing, Long-term, Local RA) could satisfy SDG&E's System RA requirements at a lower cost.[13]

During 2009 and 2010, SDG&E assessed the indexed power market and concluded that this market is currently deep and liquid. As a result, SDG&E decided not to accept any Product 7A offers (Firm, short-term, Liquidated Damages energy). Instead, SDG&E intends to accomplish its price hedging via other resources, such as natural gas and Renewable Portfolio Standard (RPS) resources.

Product 7B could provide a supply resource that contributes at the margin, based on SDG&E's load/generation balance. However, reductions in estimated system need and the availability of adequate RA capacity from Products 2, 3 and 5 led SDG&E not to procure any short-term RA from Product 7B.

The remainder of this public IE report focuses on SDG&E's purchase option for the ECEF. The Confidential Addendum provides additional discussion of the specific RFO offers and confidential issues regarding this multi-product RFO.

B. Review of SDG&E's Evaluation of the ECEF Purchase

After completing the Product 5 short-list evaluation and determining a purchase price, SDG&E analyzed the cost-effectiveness of the purchase option for ECEF.

1. SDG&E's Revenue Requirements Analysis

   SDG&E calculated a levelized price to ratepayers for the prospective El Cajon purchase using a revenue requirements approach over the 15-year book life for this existing plant. The revenue requirement is based on a total capital cost that included the purchase price agreed by the parties, based on Burns and McDonnell Engineering's asset valuation, according to the terms of the lease. Additional necessary capital costs were assumed for the following items:

   - acquisition of a spare parts inventory, primarily for the dry low-NOx burner,
   - remote control telecommunications upgrades (including software) and integration with SDG&E's Palomar control center,
   - CT Generator Controls and Continuous Emissions Monitoring System Upgrades,

[13] However, SDG&E recognized that if the negotiations for Product 5 contracts were not successful, it would have to determine how to satisfy any unfilled gaps in its RA needs.

- safety and security enhancements,
- painting, rust removal, and corrosion abatement,
- other transaction costs for appraisals, due diligence, transfer of permits, legal, and closing fees, and costs for
- training, staffing, and tools purchases.

The total capitalized cost was depreciated over a 15-year remaining plant life with the estimated decommissioning and environmental restoration costs collected evenly across the 15-year book life.

Fixed O&M costs for the revenue requirements analysis of the ECEF purchase were comprised of fully loaded salaries for three additional O&M technicians plus non-labor expenses, including maintenance, minor repairs, chemicals, water treatment, facility consumables, and one vehicle, escalated annually.

FERC accounting standards set the CT book life at 25 years. Since SDG&E would take ownership of the unit ten years after it went into service, SDG&E's ownership of ECEF would have a 15-year remaining book life. The levelized ownership cost of ECEF to customers is calculated based on SDG&E purchasing the CalPeak El Cajon CT facility with 15 years remaining book life. At the end of the 15-year period, the plant is assumed to have no remaining economic value and to be disassembled.[14] When including energy benefits, the evaluation price by which the ECEF can be compared to the Product 5 PPA offers was reduced. Numerical values for these calculations are summarized in Section IV. L. of the Confidential Addendum.

In order to compare the shortlisted Product 5 PPA offers with the purchase option over the 15-year period, SDG&E analyzed three different end-effect scenarios for the PPAs, which extended the 10-year Product 5 offers out over the 15-year period beginning January 1, 2012:

- <u>Replace the PPA with New Plant Method</u>: SDG&E enters into a 10-year PPA agreement with one or more of the 10-year term Product 5 PPA offers. Then, when the PPA expires after 10 years, SDG&E pays for a new facility

[14] Due to its low operating hours SDG&E expects the economic life of ECEF to exceed the 15-year book value. However, in this case setting the economic life to 15 years is the most conservative assumption.

for 5 years. At the end of this 5-year period the new plant is sold at its inflation-adjusted book value.[15]

- Replace the PPA with New PPA Method: SDG&E enters into a 10-year PPA agreement with one or more of the Product 5 PPA offers. At expiration, SDG&E begins a 5-year PPA for the same facility. This method assumes the 5-year PPA continues at the same price as the 10-year PPA.
- O&M Cost Replacement PPA Method: Similar to the Replacement PPA method except the 5-year PPA price is equal to an estimate of the fixed O&M cost only.[16]

The results show that the purchase of the ECEF is the lowest-cost option, when compared to all the Product 5 offers. The only lower scenario value is for one of the potential PPAs, if only O&M costs are assumed to set the price for the 5 year period after the 10-year PPA finishes. Since SDG&E's Need exceeds the MW of the unit that was assumed to be priced at this very unlikely low-cost scenario value, the ECEF is the low-cost option for SDG&E's customers.

If SDG&E concludes the El Cajon purchase according to the terms of its 2001 land lease with CalPeak, under the replacement PPA methods, ratepayers would be better off under the ECEF purchase option relative to all of the Product 5 offers. The "Replace with New Plant Method," which has previously been used in analysis before the Commission, also shows that the ECEF option is the best choice for ratepayers. The "Replace with New PPA Method" shows the ECEF option would be on-par with the low-cost scenario PPA for one offer but would beat the other offers by a large margin, even under this low-cost scenario.

In all cases, SDG&E assumed the ECEF plant would be removed at the end of the book life at a cost. Although that the plant is likely to have value beyond the book life, a zero or negative salvage value is a more conservative approach for reaching a decision whether or not to purchase the plant.

2. Selected Queries Regarding the Analysis

For the "Replace with New Plant" method, which assumes SDG&E ownership of a new plant for the last 5 years of the valuation period, SDG&E calculated the revenue requirements during the last 5 years and applied a credit of the plant's market value at the end of the 5-year period. The market value was derived by escalating the assumed plant

[15] This method has been put before the commission in A.08-06-017 (Application of San Diego Gas & Electric Company (U902E) for Expedited Approval of the Miramar Energy Facility II Project), SDG&E's Miramar Energy Facility I project approved in D.04-06-011, and the Otay Mesa contract approved in D.06-02-031 and D.06-09-021

[16] Albeit highly unrealistic, the O&M cost replacement PPA method is intended to show how the ECEF purchase would compare to a fully-depreciated plant for which SDG&E would pay O&M costs only.

investment and deducting the "economic depreciation" (straight line with a 25-year life). The gain on sale was calculated by subtracting the book value of the plant from the market value.

VHC asked:

- First, for tax purposes in the revenue requirements calculations, did SDG&E assume accelerated depreciation?
- Second, how will the gain on sale be taxed and should not the tax on the gain be included? What normalization assumptions were applied?

SDG&E explained that the following accounting treatment was used: 15-year book life, 15-year 150% declining balance/straight line (db/sl) with federal tax life, 20 year 200% db/sl with state tax life, and -4% salvage value. The CT facility is considered CPUC jurisdictional and, thus, the accelerated state tax depreciation flows through to customers, while federal taxes remain normalized. The Gain on Sale as calculated is consistent with the methodology employed by SDG&E in previous filings: Otay Mesa PPA rehearing transmission cost component, the Palomar Utility-Owned-Generation (UOG) comparison to an alternative PPA, and the El Dorado proceeding. An extra 4% in depreciation is recovered to collect for future site remediation, restoration, and environmental cleanup upon the facility's retirement.

VHC suggested that in comparing the UOG option with a PPA, SDG&E should look at cases assuming debt equivalence (DE) for the PPAs under Options 2 and 3. SDG&E explained that CPUC Decision 08-11-008 rules out the use of DE in UOG versus PPA evaluations (pg. 15). Hence, Debt Equivalence cannot be applied in situations in which PPAs and UOG respond to the same solicitation.

VHC worked with SDG&E to refine other assumptions and calculations. However, these refinements did not affect the conclusion that the ECEF purchase would be cost customers less than the Product 5 PPAs.

In addition, the ECEF is likely to provide benefits to customers well beyond the 15-year period. Even if the major components need replacement, there is substantial value in keeping a site at which a new turbine generator could be installed.

Overall, VHC concurs with SDG&E that the purchase of the ECEF should provide significant savings to SDG&E ratepayers. Further discussion of the independent engineering study, the revenue requirements methodology and SDG&E's evaluation are presented in Section IV. L. of the Confidential Addendum to this report.

C. VHC Recommendations

With respect to SDG&E's Application for approval of the purchase of the ECEF, VHC finds that:

1. SDG&E has conducted a fair and competitive RFO process.

2. There were no intentional or unintentional biases to unfairly select particular product types or specific offers.[17]

3. SDG&E's evaluations demonstrate that the ECEF purchase will have lower costs than a PPA with this facility and lower costs than the competitive Product 5 PPA offers that are now under negotiation.

4. SDG&E used reasonable selection criteria to minimize costs and risks to its customers and to construct an LCBF portfolio.

Because the favorable price of the purchase option for the El Cajon Energy Facility offers substantial benefits to ratepayers, VHC recommends that the Commission approve the ECEF purchase by SDG&E.

With respect to SDG&E's future supply RFOs, VHC will provide additional recommendations for the improvement of RFO processes and for SDG&E's evaluation of particular RFO Products, when SDG&E files applications for approval of the RFO contracts. Overall, VHC recommends that:

1. SDG&E review whether the time taken for evaluation of offers, short-listing, contract negotiations and contract execution can be shortened. Additional documentation of procedures prior to issuing an RFO and completion of evaluation models prior to receiving offers may help to shorten the time required.

   Offers for this RFO were received in August 2009, and short-listing was finished in October and November 2009. In general, RFO short-listing and contract negotiation processes can be difficult and time-consuming, sometimes taking years to complete, because issues and contracts may have to be resolved in sequence, and because there are many uncertainties outside of SDG&E and counterparties' control.

2. SDG&E carry out post-RFO "Lessons Learned" reviews with RFO team members and the IE to consider how its RFO processes could be improved and accelerated.

[17] Although there were offers from affiliates, there were no affiliate offers for Product 5 and no affiliate offers were awarded contracts.

For example, "Lessons Learned" could discuss how to implement improvements, such as:

- Better documentation of the evaluation processes and models. Documentation would facilitate model review, validation and transfer, when members of the evaluation team change, and
- Enhanced communication among management and negotiators about specific objectives and particular wording of the negotiated terms and conditions in contracts for each Product, as the contracts are revised. Better communication might facilitate solutions that would be more readily agreed to by different counterparties and, thus, reduce the time needed to negotiate contracts.

IV. VHC RESPONSES TO QUESTIONS IN THE LONG FORM TEMPLATE

VHC's responses to the Commission's Long Form Template Questions are given below. Responses to some questions reference VHC's Confidential Addendum.

A. Role of the Independent Evaluator (IE)

1. Describe key IE roles – IEs provide an independent evaluation of the IOU's bid evaluation and selection process and help inform the CPUC and the Procurement Review Group (PRG) about the process by addressing the following questions:

a. Did the IOU conduct adequate outreach to potential bidders and did its outreach activities result in an adequately robust solicitation to promote competition?

VHC began its role as IE for SDG&E on March 11, 2009, by reviewing and commenting on a draft of the RFO. The RFO was posted on the SDG&E 2009 Supply RFO web site on June 9, 2009. SDG&E also issued a press release, which was picked-up by some trade publications, and contacted likely bidders using a list of 900 e-mail addresses.

SDG&E posted four sets of questions and answers on its RFO and on July 8, 2009, held a Pre-Bid Conference to which potential bidders were invited. Andy Van Horn, the IE, attended this meeting. Fifty-six attendees signed in at the Pre-Bid Conference. Some potential bidders had more than one representative present.

In response to the RFO, SDG&E received responses from a sufficient number of Offerors to indicate that the RFO was competitive. (Details are given in the Confidential

Addendum.)

As expected, there were a limited number of bids for Product 1 (DR) and for Product 3 (Existing local, short-term resources) and Product 5 (Existing local, long term resources). Several additional conforming bilateral offers were submitted prior to the RFO due date and were evaluated along with the other Product 5 offers. For the other Products, several bidders submitted multiple bids and some submitted options with differing terms from an individual generating facility. Although there were several offers from an SDG&E affiliate, none of those offers were for Product 5, and none resulted in a contract for any product.

Taking into consideration SDG&E's limited geographic area and the fact that there are relatively few existing local generating facilities, the number of responses is reasonable and sufficient to promote competition. VHC believes that SDG&E conducted adequate outreach for its Supply Products 2 to 7.

For additional information on outreach to potential bidders, see section III of the Confidential Addendum.

b. Were the IOU's bid evaluation methodology and selection process designed fairly?

SDG&E evaluated its Product 1 (DR) offers separately from the supply bids. VHC concurs that the evaluation of DR offers independent from the evaluation of supply options is warranted, because supply and demand-response economic analyses cannot be compared directly, and the CPUC has developed specific methods for DR. DR products have different benefits depending on the perspective used (participant, rate impact, program administrator and total resource cost). Furthermore, the capacity values used for the assessment of DR bids, as required under CPUC guidelines, may differ from the capacity values used in supply-side evaluations.

SDG&E selected its short-list of supply offers for years 2010 and 2011 (Product 2, new, local, long-term; Product 3, existing, short-term, local; Product 4, existing, outside, short-term; and Products 7A, Firm LD Energy, and 7B, RA, short-term, local and outside), separately from its evaluation of supply options for years 2012 and beyond.

SDG&E analyzed offers for the later years using the following steps:

- New local generation (Product 2, long-term),

- Existing Long-term local generation local generation (Product 5, long-term), and local and outside firm LD Energy (Product 7A, short-term) and RA (Product 7B, short-term), and
- New or existing long-term outside generation (Product 6).

VHC finds it reasonable to first determine the lowest-cost combination of offers that would meet SDG&E's local and system short-term needs and then select offers for later years. This approach allowed SDG&E to compare both short-term and long-term offers to meet its needs for years 2011 and 2012. This was also necessary in order to have agreements in place for 2010 and 2011.

At its Pre-Bid Conference, SDG&E informed bidders that it would use the following three-level evaluation process for selecting supply offers for Products 2 through 7B.

Level I: Conformance Check

SDG&E checked to ensure that each offer met minimum criteria, as specified for each Product type. The following minimum RFO criteria were checked:

- New or existing capacity resource,
- Contract term and start date,
- Black start operation,
- Local or system RA capacity, and
- 100% deliverable RA capacity.

Level II: Develop Short-List

The short-list was established by evaluation and analysis using pre-established quantitative and qualitative criteria. SDG&E ranked the offers using levelized benefit-adjusted costs. Offers were compared for each Product before offers among Products were compared.

The impacts due to differences in start dates and lengths of contracts were accounted for in the economic evaluation in order to establish the short-list. The energy benefits of offers were included as part of SDG&E's Level II analysis.

The number of offers included in the short-list for each product was sufficient to meet a multiple of SDG&E's anticipated capacity needs. As a result, potentially competitive offers were not excluded from the short-lists.

Level III: Modeling/ Detailed Analysis

Short-listed offers were modeled by applying SDG&E's production cost model to evaluate how the offers would perform as part of SDG&E's portfolio.

The results from the production cost modeling combined with spreadsheet analyses took into account both benefit and cost factors, including capacity, energy, greenhouse gas emissions, ancillary services, transmission, congestion and debt equivalence. Not all factors would be analyzed or quantified if there was no difference in that factor between the offers for that Product. Offers to meet SDG&E's needs for years 2010 and 2011 were evaluated prior to offers for later years. Then, SDG&E selected the cost-effective offers that could meet its local area RA requirements before selecting offers that could meet its system RA needs. SDG&E also used qualitative measures, such as site control, to differentiate among offers with similar quantitative values.

SDG&E's analysis sought to optimize the selection of short-term and long-term offers, taking into account the value of flexible operations (e.g., ramping and quick start and stop). The selection of offers was also influenced by other factors, such as uncertainties resulting from the retirement of generating facilities that currently rely on once-through cooling (OTC) and from the possibility of project delays.

In its RFO SDG&E reserved "the right to evaluate non-conforming Offers and may request additional data from Respondents to bring non-conforming Offers into conformance." Prior to the RFO, SDG&E had been in negotiations regarding several power plants. Conforming offers were submitted prior to the RFO and then evaluated along with the offers submitted on the RFO due date. Non-conforming offers were also considered, but ultimately were evaluated separately and rejected.

Based on our review and detailed examination that included checking the methods and separate spreadsheet evaluations, VHC concludes that SDG&E's evaluation methodology and selection process were designed and executed fairly.

See the Confidential Addendum for additional information.

c. Were the IOU's bid evaluation and selection process, and the negotiation of specific contracts, administered fairly?

VHC reviewed SDG&E's key assumptions, economic analysis calculations, the results of its production simulation modeling, its spreadsheets for calculation of collateral and levelized costs, and the selection of its short-lists. VHC also joined in telephone calls for the negotiations of individual contracts with bidders. SDG&E regularly documented the status of negotiations in a weekly Project Status Matrix, which VHC reviewed and commented upon. In some cases, VHC requested re-analysis of offers, including Least-Cost, Best-Fit (LCBF) analysis, to determine the sensitivity of the rankings. In other cases, VHC performed its own calculations to test results.

VHC believes that SDG&E's bid evaluation and selection process, and the negotiation of specific contracts were administered fairly.

For more discussion of contract negotiations, please see the Confidential Addendum.

d. Did the IOU make reasonable and consistent choices regarding which bids were rejected, which were short-listed and which were brought to the CPUC for approval?

It is VHC's opinion that SDG&E made reasonable and consistent choices regarding bids which were rejected, which were short-listed and which were brought to the CPUC for approval. Key criteria, including each offer's levelized benefit-adjusted costs and the balance among negotiated contract terms and conditions, were applied consistently to determine the contracts to be brought to the CPUC for approval.

2. Describe IE oversight activities (i.e., attended negotiation meetings, reviewed Request for Proposals materials, attended pre-bid conference, evaluated proposals and/or reviewed evaluation process and results, etc.) and reporting/consultation with CPUC, PRG and others.

VHC team members reviewed and commented on a draft of the RFO in March 2009. Andy Van Horn attended the Pre-Bid Conference, held on July 8, 2009. He reviewed four sets of questions and answers to queries by potential bidders, which were initially prepared by SDG&E and then posted on SDG&E's web site. He was on-site the day of the initial receipt and processing of the bids, which were delivered electronically on August 10, 2009. He confirmed that all affiliate bids arrived before the deadline and maintained a copy of the offers for later corroboration.

During the bid evaluation period, VHC conducted interviews on-site and held phone conversations with SDG&E personnel, 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 also modified some of SDG&E's assumptions to test and validate the economic evaluations and cost-effectiveness results.

VHC recommended that SDG&E develop a weekly Project Status Matrix to track negotiations for each product and worked with SDG&E on its content. VHC regularly reviewed the updated Project Status Matrix. VHC reviewed all emails and participated in all calls with affiliates during the evaluation and negotiation process.

During the negotiation process VHC reviewed draft contracts, including mark-ups, and offered corrections and comments on particular sections when warranted.

In addition, VHC participated in Procurement Review Group (PRG) meetings throughout 2009 and 2010. VHC made presentations at a number of these meetings, including September, October and November, 2009 and March and August 2010.

3. Any other relevant information not asked above but that may serve to make future RFOs more transparent to parties.

See VHC's Recommendations in section III B. of this report and also in section IX of the Confidential Addendum. VHC will make its specific recommendations regarding improvements for future RFOs, when SDG&E files applications for approval of the contracts that result from the 2009 Demand Response and Supply Resources RFO.

B. How did the IOU conduct outreach to bidders and was the solicitation robust?

For additional information on outreach to potential bidders, see section III of the Confidential Addendum.

1. Describe the IOU outreach to potential bidders (e.g., sufficient publicity, emails to expected interested firms)

See Response to A.1.a.

2. Identify principles used to determine adequate robustness of solicitation (e.g., number of proposals submitted, number of MWhs associated with submitted proposals)

See Response to A.1.a. For each Supply Product SDG&E determined that the number of MW offered was sufficient to construct a short-list with offers that summed to a multiple of the MW needed.

3. Did the IOU do adequate outreach? If not, explain in what ways it was deficient.

See Response to A.1.a. For all the Products, except Product 1, Demand Response, the number of offers was robust. For Demand Response, partly because the number of potential offerors is limited, there was a limited number of offers.

4. Was the solicitation adequately robust?

Yes. See Response to A.1.a.

It is VHC's judgment that the number of responses to this RFO for the requested products was reasonable and met expectations for this solicitation. The offers received have resulted in competitive prices for these Products.

5. Did the IOUs seek feedback about the bidding/bid evaluation process from bidders after the solicitation was complete?

Since the RFO process in ongoing, this will be addressed in our future IE reports regarding Products from the RFO.

6. Was the outreach sufficient and materials clear such that the bids received meet the needs the solicitation was intending to fill?

SDG&E received bids for all products in its RFO. After bids were evaluated, SDG&E determined at this time that it did not need offers for Products 6 (New or existing, long term, system) and 7A (Firm LD energy, short-term, local and system) and Product 7B (RA, short-term, local and outside). SDG&E received a sufficient number of bids to create robust short-lists and to select and negotiate competitive contracts.

7. Any other information relevant to outreach to bidders and robust solicitation not asked above but important to the IOU's process.

Because a number of bids were mutually exclusive, unless SDG&E sees benefits from receiving a very large number of bids from a single entity, for its next RFO it should consider placing a limit on the number of bids an Offeror can submit for a particular product.

It has also been suggested that holding an additional pre-bid conference outside of the San Diego area might increase the number of offers. For example, for its 2010 Renewables RFO, SDG&E hosted two pre-bid conferences. One of them was in the Imperial Valley, which has the potential for small solar, geothermal and biomass projects. However, in VHC's opinion holding two or more pre-bid conferences in different locations for an RFO for conventional supplies would probably not increase the number of bids.

C. Was the IOU's methodology for bid evaluation and selection designed fairly?

1. Identify the principles you used to evaluate the IOU's bid evaluation methodology, including the following (at a minimum):

a. Is the IOU bid evaluation based on those criteria specified in the bid documents? In cases where bid evaluation goes beyond the criteria specified in the bid documents, the IE should note the criteria and comment on the evaluation process. Do the IOU bid documents clearly define the type and characteristics of products desired and what information the bidder should provide to ensure that the utility can conduct its evaluation?

The RFO documents defined the type and characteristics of each of the products desired, as well as the criteria on which SDG&E based its evaluation. The RFO specified, by product, the type of offer (i.e., DR, new or existing generation, Firm LD energy, and RA), location within or outside SDG&E's service area, the delivery start date, the term for the offer as well as other requirements (e.g., capacity factor and regulation capability).

In its RFO, SDG&E listed the following qualitative factors to differentiate among offers with similar benefit-adjusted costs:

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. Financing plan – the Offer will be assessed as to the plan and likelihood of the project securing the necessary financing.
4. 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.
5. Operational flexibility of generating assets available to SDG&E. This factor incorporates unit capabilities that include size, start-up time, ramping response, minimum up and down times.
6. Development risk – consideration will be given to site control, regulatory and other risks as appropriate that could diminish the viability of the project.
7. Corporate capabilities and proven experience.
8. Ability to meet schedule.

9. Project team (environmental, engineering, equipment procurement, construction) – the Project team was assessed to determine whether it had demonstrated experience with the specific technology and implementation plan they proposed.
10. Credit Risk.

At the Pre-Bid Conference, SDG&E informed bidders that it would reject offers which were deemed to have unreasonably low or high offers.

All forms and documents necessary to submit offers were posted on the 2009 RFO web site. Potential bidders were provided the opportunity to ask questions about the RFO. Four sets of questions and answers were prepared by SDG&E, then reviewed and modified by VHC and then posted on the website.
Potential bidders were invited to the Pre-Bid Conference at which SDG&E made presentations addressing:

- Anti-trust guidelines,
- Procurement oversight,
- Bid evaluation approach,
- Other RFO requirements (i.e., collateral, RFO milestones and schedule), and
- Communications.

Bidders were informed that SDG&E would check that the offers met the minimum criteria specified in the RFO, and that SDG&E reserved the right to consider non-conforming offers and would contact bidders for clarification to clear non-conforming conditions. SDG&E explained how it would evaluate offers to develop short-lists and its approach to conducting more detailed analysis of those bids on the short-lists.

See the response to Long Form Topic A.1.b above for further clarification of SDG&E's evaluation methodology and selection process.

VHC believes that SDG&E's communications and presentations concerning its evaluation process were consistent with the approach it used to select offers and that all potential bidders were given adequate opportunity to ask questions about SDG&E's methodologies. Overall, SDG&E's bid documents defined the type and characteristics of products desired and indicated the information the bidder needed to provide in order for SDG&E to conduct its evaluation.

b. Does the methodology identify how qualitative and quantitative measures were considered and were consistent with an overall metric?

SDG&E informed bidders of its methodology, discussed in Response to Topic A.1.b above. SDG&E's explanation of its methodology identified both qualitative and quantitative measures, as well as the overall metric, levelized benefit-adjusted costs. Once offers were determined to conform to the requested Product requirements, the primary metric for short-listing was the cost metric. Quantitative measures were primarily considered during the negotiations.

c. Are there differences in the evaluation method for different technologies that cannot be explained in a technology-neutral manner (e.g. evaluation metric should be ability to ramp 10 MW/minute rather than, must be a hydro storage facility)?

Product 1 (DR) offers were evaluated separately from Products 2 through 7B, the supply offers. Because there are specific CPUC criteria for DR, DR offers were not directly compared to supply-side offers. This is partly because different perspectives and mandated cost-effectiveness tests lead to different comparisons of the attractiveness of DR offers compared to supply-side offers.

There were differences in requirements by product for the supply offers as shown in Table 1. For each of Products 2 through 7B, there was no difference in the evaluation methods applied across different technologies. Of course, certain technologies were likely to provide better capabilities for meeting each different Product's requirements, which were specified in a technology-neutral manner.

d. Was the bid evaluation methodology consistent with CPUC direction?

Yes. SDG&E used the appropriate cost-effectiveness tests for the DR offers. SDG&E also performed its selection process to find the appropriate ranking of offers within its selection for individual Products 1-7 and to construct an LCBF combination of supply offers in accord with CPUC direction.

2. Describe the IOU's Least Cost Best Fit (LCBF) methodology (or alternatively include IOU's own description).

For Product 1(DR), SDG&E used the CPUC's adopted cost-effectiveness tests, and supplemented this analysis with a matrix scoring system shown in Appendix B of the Confidential Addendum.

The steps in SDG&E's LCBF analysis for Supply Products 2 to 7 are described here and in section IV. A.1.b. SDG&E analyzed its supply options for years 2010 and 2011 (Product 2, new, local, long-term; Product 3, existing, short-term, local; Product 4, existing, outside, short-term; and Products 7A and 7B, Firm LD Energy and RA, short-term, local and outside), separately from its evaluation of supply options for years 2012 and beyond.

For the later years (2012 – on) SDG&E used the following sequence to determine its LCBF needs for:

1. New local generation (Product 2, long-term),
2. Existing local generation (Product 5, long-term),
3. Local and outside firm LD Energy (Product 7A, short-term) and RA (Product 7B, short-term), and
4. New or existing long-term outside generation (Product 6).

A sequential process was applied, based on the timing or need for each given Product. SDG&E first analyzed those Products with the most constraints, proceeding to those Products with the least constraints. All Products were then evaluated based on the costs and benefits which each Offer would provide as part of SDG&E's portfolio.

The short-list evaluations were largely conducted using particular sets of assumptions and components embedded in several spreadsheet models. VHC reviewed and critiqued a number of assumptions and methods, as indicated in the Confidential Addendum. Among the areas reviewed by VHC for the RFO product evaluations were the:

- Discount Rate,
- Collateral Requirements and SDG&E's Calculation Methodology,
- Debt Caps and debt/equity ratio caps,
- Valuation Metrics,
- Capacity Values,
- Energy Values,
- Ancillary Services Values and Methodology,
- GHG Price/Adder, and
- Other assumptions.

Each offer was initially ranked by Product by applying SDG&E's Level 2 Screening methodology. SDG&E used its screening process to rank the list of offers. The top-ranked offers from the screening process were then evaluated based on SDG&E's Level 3 analysis, which used a production cost model to determine the energy benefits, when the offer was added to SDG&E's bundled customers' portfolio. Level 3 analysis also included transmission interconnection costs and ancillary service benefits. Various combinations of RFO contracts were tested using the framework described in the Confidential Addendum to determine the LCBF portfolio.

VHC tested the sensitivity of potential short-listed choices to several key uncertainties, as indicated in the Confidential Addendum. Overall, SDG&E's LCBF portfolio balanced uncertainties imposed by the Sunrise Transmission Link, OTC retirements, timing of economic recovery, re-emergence of Direct Access and potential delays or cancellations of resources.

Based on our review, VHC determined that the Level 2 screening was appropriate for creating the short-list and that the Level 3 Production Cost Modeling, as part of the portfolio evaluation, has resulted in an appropriate LCBF selection of offers from this RFO.

For future RFOs, VHC recommends that SDG&E conduct expanded LCBF analyses to further evaluate the effects of key uncertainties in facility and offer on-line dates, demand growth, fuel prices, GHG regulations and other market conditions.

VHC's confidential comments on particular areas are provided in sections IV. A through IV. K. of the Confidential Addendum.

3. Did the IOU bid evaluation criteria change after the bids were received? Explain the rationale for the changes.

SDG&E's basic bid evaluation criteria remained the same during the evaluation process. The cost and benefit calculations were refined and corrected as needed, and assumptions were updated during the year following the receipt of bids, while negotiations were conducted with the short-listed parties.

4. Using the principles in #1, evaluate the strengths and weaknesses of the IOU's LCBF methodology:

a. How did the IOU methodology compare to other methodologies used in other solicitations, to the extent that the IE can make such comparisons?

For this solicitation SDG&E used an evaluation approach similar to the approach taken in its prior All Source RFO in 2007. However, the specific models used were either newer versions or replacements for models applied previously.

For the short-term offers, SDG&E optimizes its selection, in order to find the lowest levelized costs with benefits, and makes other adjustments to normalize the lifetimes for the comparison of different offers. SDG&E then examines various combinations of offers it judges to be feasible, in order to find the combination that meets its local and system needs at the lowest costs.

SDG&E negotiates the contract terms and conditions after the short-listed contracts are selected. It periodically adjusts its LCBF combinations as negotiations proceed to account for changing Need and changes to other assumptions, such as changes in contract terms and conditions.

VHC believes that SDG&E's methodology has yielded an appropriate LCBF selection of offers and an LCBF portfolio.

b. Did the methodology have a bias against any technology, operating characteristic, location, etc.?

No. The analysis to rank offers the costs (including locational costs) and benefits of individual bids and the Level 3 LCBF analysis was not biased. Transmission information from CAISO system impact studies was not uniformly available nor uniformly applicable, which could affect the ranking of some offers. However, the short-list selection for each Product was sufficiently broad to avoid bias in the selection of short-listed offers.

c. Discuss the role of "portfolio fit" in LCBF in this solicitation's methodology.

See Responses to A.1.b and C.2 above.

d. Discuss any issues of transmission-related cost (or benefit) impacts and estimates. What procedures did the utility have in place for acquiring all appropriate transmissions information, subject to constraints imposed by FERC's Standards of Conduct?

Transmission was not an issue for the selection of Product 5 offers or for comparison with the purchase of the ECEF, since all the units are currently operating and the ECEF is on an existing site in the local RA zone.

e. How were the evaluation criteria weighted and was the weighting appropriate?

VHC believes that SDG&E used reasonable criteria to rank offers in its preliminary screening analysis. For the supply-side offers, the economic evaluations were based on the costs and benefits of the offers over the relevant time periods. Subjective parameters were not included in the ranking of offers for the short-list nor were they included in the ranking for the final selection of offers after the production cost modeling. Subjective factors were considered during the negotiations to assess the likelihood that individual developers would be successful in meeting the negotiated terms and conditions and to bargain for various improvements to the offers.

f. What future LCBF improvements would you recommend?

Supply Products

VHC believes that SDG&E's production simulation modeling provides reasonable estimates of the energy benefits from offers. However, the model does not co-optimize the dispatch of resources to maximize and energy and ancillary services values. VHC believes the SDG&E process to estimate the energy and ancillary benefits from new offers is uniformly applied and reasonable. Nevertheless, VHC recommends that SDG&E continue to examine the calculation of ancillary services benefits for offers in future RFOs.

In particular, SDG&E should examine more recent ancillary services settlement prices for various existing units, as well as CAISO's more recent "Market Redesign and Technology Upgrade" (MRTU) prices. This would ensure that estimates of current A/S prices match actual settlement results. VHC also recommends that SDG&E evaluate whether ancillary services prices are likely to increase in future years, as the proportion of renewable resources increases. The escalation of A/S benefits should be estimated in light of the large amount of non-dispatchable and/or intermittent renewables coming on line, which will most likely increase the need and price for A/S. It will also be useful for SDG&E to continue to review the relationships of CAISO A/S prices with market energy, capacity and fuel prices.

VHC will make further recommendations regarding LCBF improvements in its IE reports concerning the contracts resulting from this RFO.

5. Describe how the IOU sought brownfield/repowering development opportunities.

Brownfield development is not Applicable for Product 5 from existing resources.

Over all the supply products, SDG&E sought offers from both existing and new generation.

6. Did the IOU consider contract viability?

SDG&E did not incorporate quantitative measures to assess contract viability in its initial rankings of supply offers. However, SDG&E did make judgments on the trade-offs among terms and conditions of contracts and considered the capabilities of each developer and proposed project to satisfy the conditions precedent and to deliver as contracted. Viability is not a major issue for Product 5, since all the projects are currently operating.

7. Any other information relevant to bid evaluation and selection not requested above but important in evaluation of the IOU's methodology.

For purposes of comparing the purchase option with a potential PPA, it is the 5-year period following a potential 10-year PPA that poses the largest uncertainty for the valuation. VHC believes that SDG&E's analysis of the ECEF has adequately examined the cost-effectiveness of the purchase by evaluating several different options for the last 5-year period of its remaining 15-year book life. These options all demonstrate that the purchase is more cost-effective than a PPA would be.

D. Was the LCBF evaluation process fairly administered?

1. Identify the principles you used to assess the fairness of the LCBF evaluation process, including the following (at a minimum):

a. What qualitative and quantitative factors were used to evaluate bids?

SDG&E used a levelized benefit-adjusted cost ($ per kW-year) to rank supply offers. This metric takes into account the contract price for capacity, energy benefits, ancillary services benefits, transmission costs and greenhouse gas costs.[18] To derive the costs and benefits for the supply products, SDG&E used its Level II and Level III quantitative analysis results. SDG&E short-listed offers using its Level II analysis. Then the Level III analysis modeled portfolios of short-listed supply offers. The final analysis also incorporated debt equivalence costs. SDG&E assessed contract terms and conditions reached through negotiations, in order to make its final selection of offers.

SDG&E did not need to use qualitative factors in the ranking and selection of supply offers for short-listing, although some qualitative factors, such as site control, were considered

[18] CPUC Decision 07-12-052, p 152 states: "All resources within an RFO should be compared against one another on a consistent, LCBF basis using the GHG adder to increase the costs of fossil resources…." The Commission also indicated that the methodology and assumptions used in making GHG calculations for LTPP should comport with the direction given in AB 32 and SB 1368. (Ibid, p. 232.)

during contract negotiations. (The qualitative factors that SDG&E informed bidders that it might consider in the selection of offers are listed in response to question A.1.b above.) VHC concurs that qualitative factors did not need to be applied for short-listing and would not have changed the ranking and initial selection of offers on the short-list.

b. If applicable, were affiliate bids treated the same as non-affiliate bids?

Yes. VHC performed a detailed review of the assumptions used and the analysis of the affiliate offers. VHC found that there was no preferential treatment or bias in the evaluation of the affiliate bids.

c. Were bidder questions answered fairly and consistently and the answers made available to all?

Four sets of questions and answers were posted on SDG&E's RFO web site. Potential bidders asked questions at the Pre-Bid Conference and via email. After review of draft answers by VHC, SDG&E posted the answers. SDG&E answered questions fairly and consistently, and the answers were available to all.

d. Did the utility ask for "clarifications" from bidders, and what was the effect, if any, of these clarifications?

During negotiations with short-listed offerors, SDG&E and bidders clarified various contract terms and conditions by exchanging draft contract mark-ups. The effects of these clarifications enabled the negotiations to resolve issues and proceed toward final contracts.

e. Were economic evaluations consistent across bids?

The economic evaluation for Product 1 (DR) was performed differently from the economic evaluation for the supply bids. SDG&E used a consistent approach to analyze its supply offers for Products 2 through 7B.

f. Was there a reasonable justification for any fixed parameters that enter into the methodology (e.g., RMR values; GHG metrics, etc.)?

Yes. There are a host assumptions and parameters used for the various evaluations done by SDG&E. These assumptions include values for avoided capacity costs, ancillary services, Greenhouse Gas costs, transmission system upgrade costs, energy losses, natural gas and electric market prices, and inflation and discount rates. Accepted information and data sources were used to calculate parameters used in the evaluation. In addition, SDG&E performed sensitivity analyses on some key variables.

Key assumptions and calculations are discussed in section IV of the Confidential Addendum.

2. Describe the IE methodology used to evaluate administration of IOU LCBF process.

VHC had numerous discussions with the SDG&E personnel responsible for the LCBF process regarding the specific methods used to estimate parameters and to calculate costs and benefits for the Level I, II and III analyses. VHC reviewed and critiqued numerous spreadsheets applied by SDG&E, developed our own calculations, made spreadsheet modifications and checks of variables of interest, and performed sensitivity analyses using different assumptions.

3. How did the IOU identify non-conforming bids? Did the utility identify the terms that deviate from the utility RFO for each bid, and was a quantitative and qualitative assessment of the cost or value of those deviations performed? Were non-conforming bids treated fairly and consistently? Was there a pre-established, consistently applied criteria to determine what issues of conformance would result in rejection and which were subject to negotiation?

No offers for Product 5 were non-conforming, and all bids were treated consistently.

4. For those parts of the process conducted by the utility, how were the parameters and inputs used and were they reasonable? What quality controls were in place?

SDG&E conducted the evaluations to short-list offers and to select offers. VHC reviewed the selection of supply offers and reviewed results of the analyses. The parameters and inputs used were reasonable and unbiased for the selection. Parameters and inputs were also consistent with those used by SDG&E for other internal studies. Quality control was conducted primarily through SDG&E's own review of modeling inputs and results with VHC checking the reasonableness of results and the spreadsheets used to calculate costs and benefits. VHC's further review provided additional checks for quality control, especially of the various spreadsheet models' logic, calculations, inputs and results.

5. For those parts of the process outsourced to either the IE or a third party, what information/data did the utility communicate to that party and what controls did the utility exercise over the quality or specifics of the outsourced analysis?

SDG&E evaluated the purchase of existing facilities, as an alternative to power purchase agreements with one bidder. For determining the market value of the ECEF, SDG&E and CalPeak jointly agreed to outsource work to an independent engineering firm to estimate certain costs. For further discussion of the outsourced work, see sections II. E. and IV. L. of the Confidential Addendum.

In its review of SDG&E's short-lists and selection of final offers, VHC carried out additional calculations to investigate different assumptions and confirm the validity of the comparisons and selections.

6. Did the utility follow its transmission analysis procedures and include in its evaluation and selection process all appropriate transmission information that it could reasonably develop or acquire, subject to the constraints imposed by FERC's Standards of Conduct?

Transmission analysis was not required for the evaluation of Product 5 offers.

7. Beyond any quantitative analysis, describe all additional criteria or analysis used in creating its short list. (e.g. Did the IOU take into consideration supplier concentration risk?)

See Response in section C.1. of this report and section IV of the Confidential Addendum. Supplier concentration risk was not considered to be a problem.

8. Results analysis

a. Describe the IE, PRG, Energy Division and IOU discussion regarding the LCBF evaluation process. Please note any areas of disagreement between the IE and the IOU, if applicable.

i. Discuss any problems and solutions.

Supply Products. For the supply products, VHC raised issues associated with capacity values, natural gas and electricity prices and energy credits, ancillary service prices, congestion costs, transmission upgrade costs, the greenhouse gas cost adder, collateral requirements, subordinated security, contract terms and language, including the capacity payment formula, a credit risk adder, and other issues arising during specific negotiations. Issues relevant to Product 5 are discussed in the Confidential Addendum.

ii. Identify specific bids if appropriate.

Issues applicable to Products 2 and 5 are discussed in Section E. 2. below.

iii. Did the IOU make reasonable and justifiable decisions to exclude, short-list and/or execute contracts with projects? If the IE conducted a separate bid ranking and selection process and it differed from the IOU's outcome, explain process and any differences in results.

SDG&E made reasonable and justifiable decisions. VHC also requested and performed sensitivity analyses with different sets of assumptions and concluded that the selection of the bids was reasonable. VHC focused on marginal Offers to determine whether or not such offers should make the short-list for negotiations.

iv. What actions were taken by the IOU to rectify any deficiencies associated with rejected bids?

No actions were needed.

b. Was the overall evaluation fairly administered?

Yes.

c. Based on the IE's prior experience, how does this solicitation compare to other solicitations (to the extent the IE can describe these solicitations subject to confidentiality agreements)?

i. If applicable, how did this solicitation compare to others by the same IOU?

The supply RFO procedures and framework were similar to previous RFOs. In contrast to its 2007 All Source RFO, SDG&E abandoned attempts to disguise the identity of the Offeror in bids submitted by an affiliate, because the location and other characteristics of such bids essentially revealed the identity of the affiliate bidder to the evaluation team. VHC monitored the evaluations to assure that the affiliate bids were treated in an equivalent manner when compared to other bids for the same Product and without bias or preference.

ii. How did the process and the results compare to that of other IOUs in different jurisdictions?

No specific comparisons have been made.

9. Any other information relevant to the fair administration of the LCBF evaluation not asked above but important to the IOU's methodology.

See Response in section C. 7. VHC recommends that SDG&E conduct expanded LCBF analyses to further evaluate the effects of key uncertainties in facility and offer on-line dates, demand growth, fuel prices, GHG regulations and other market conditions. For RFOs with multiple products, SDG&E should consider implementing a more robust optimization approach to further define the LCBF combination of contracts in the selected portfolio.

E. Discussion of project-specific negotiations

1. Identify the methodology the IE used to evaluate negotiations.

Andy Van Horn participated in all calls with affiliate bidders, as well as numerous calls between SDG&E and counterparties. He recommended the preparation of a Project Status Matrix to track negotiations and regularly reviewed the Project Status Matrix. He also reviewed contract mark-ups as they evolved and discussed changes to contracts for individual offers during conference calls and in discussions with individual negotiators.

In its approach to evaluating negotiations, VHC's primary concern was to ensure fairness to all counterparties. Goals of VHC's oversight were to determine that counterparties understood the contract terms and conditions and were given appropriate opportunities to improve their offers. VHC monitored negotiations selectively, as needed, to determine that all counterparties were offered equivalent contracts, subject to appropriate trade-offs unique to each offer and counterparty. VHC's reviews of contract mark-ups focused on the clarity of the contract language, particularly for new areas, and on areas where counterparties or SDG&E had questions or issues.

2. Using the above principles, evaluate the project-specific negotiations. Highlight any issues of interest/concern including unique terms and conditions.

Issues discussed during the negotiations for Product 5 and ECEF contracts are listed below. Additional issues relevant to the negotiations for other Products will be discussed in the corresponding IE reports for those Products.[19]

1. **Commercial operation and retirement dates.** Many uncertainties affect the COD for RFO offers, including potential delays in permitting and the need for SDG&E to satisfy changing RA requirements. Because Product 5, starting in 2012, involves offers from existing generating units with DWR contracts, the Product 5 PPA agreements, as well as the ECEF purchase, need to be coordinated with the expiration dates of the CalPeak ECEF land lease with SDG&E, which expires October 31, 2011, and with several DWR contracts that expire on January 1, 2012.

2. **Monthly capacity payments, variable O&M and start-up charges, associated energy and ancillary services, and RA penalties/adjustments.** The workings and outcomes of the monthly capacity payment formula and the effects of different minimum equivalent availability and reliability measurement and adjustment factors that would trigger adjustments to payments or assign a penalty were negotiated, along with payments for variable O&M, start-up, associated energy and ancillary services.

3. **Unit operation, capacity ratings, heat rates, number of starts and dispatch.** The measurement of unit characteristics, including capacity and guaranteed heat rates, were issues that required agreement. Dispatchability, ramp rates, quick start and black start were also requirements for some Products. Contract ambient conditions and capacity pricing needed to be brought inline, so total annual capacity payments would be consistent with where they were negotiated to be.

4. **Pricing.** Prices were negotiated initially based on the RFO offers. In addition to the capacity price, elements of some tolling contracts included escalation indices for O&M costs or pro-rata sharing of costs for station power, for example. Before the collateral requirement amounts were reduced, SDG&E requested and received several revised pricing offers that depended on the amount of collateral required. Final prices were traded-off against other contract terms and conditions.

5. **Charges for emissions of greenhouse gases (GHG).** Given the need to comply with California's AB 32 legislation and California Air Resources Board (CARB) regulations, counterparties needed to understand the new contract language addressing GHG emissions allowance and compliance costs and liabilities. Although there were no significant deviations in the individual contract terms regarding GHG costs and compliance, counterparties expressed varying views and

[19] These issues are also described in section VI of the Confidential Addendum.

opinions. SDG&E modified the contract language to acknowledge that it will "reimburse Seller for newly imposed taxes, charges, or fees for Greenhouse Gas ("GHG Charges") attributable to Buyer's dispatch of the Project," while limiting its responsibility for charges. SDG&E also required that allowances, credits or revenues received by the Seller be allocated to mitigate the GHG Charges paid by SDG&E. Because this was a new area for contracts, VHC's reviews of contract mark-ups focused on the clarity of the contract language and on the methodology outlined therein. For resources that will receive contracts as a result of their selection in the 2009 RFO, the contract provisions negotiated with each successful Offeror explicitly indicate the responsibilities for compliance with applicable GHG permits and regulations.

Given that each contract is unique and that trade-offs are negotiated among various contract terms and conditions, VHC believes that SDG&E's negotiations with all counterparties have been conducted fairly and that counterparties were given appropriate opportunities to present and improve their offers.

3. Was similar information/options made available to other bidders when appropriate, (i.e., if a bidder was told to reduce its price, was the same information made available to others?)

All bidders were offered the opportunity to offer revised prices along with updated collateral amounts that would meet SDG&E's new, lower collateral requirements, which were reduced after the receipt of RFO offers. The revised collateral amounts primarily affected Product 2 (20-year contracts for new, local generation) and will be discussed in a Product-specific IE report for those contracts. SDG&E's collateral requirements were not an issue for the ECEF purchase.

4. Describe and explain any differences of opinion between the IE and utility. If resolved, describe the reasonableness of the outcome.

During the course of the evaluations, VHC reviewed and questioned the values used for various parameters and calculations. The choices made by SDG&E were reasonable, as were the results of the evaluations.

5. Any other information relevant to negotiations not asked above but important to understanding the IOU's process.

There are many considerations that SDG&E must balance in its negotiations. Maintaining RA, while accommodating the retirement of South Bay and uncertainties in RMR, keeping the flexibility of the Encina units, factoring in OTC retirements, Sunrise Powerlink's readiness, changes in projected demand, understanding the impacts of proposed site and on-line date changes for offered plants, keeping existing units under contract and keeping the negotiations moving forward were all factors affecting SDG&E's negotiation process.

F. Code of Conduct

1. Describe the design and implementation of the required Code of Conduct used by the IOU to prevent sharing of sensitive information between staff working with developers who submitted UOG bids and staff who create the bid evaluation criteria and select winning bids.

There were no UOG bids submitted to the RFO. Hence, no special separation was needed

2. Describe any violation(s) of that code.

Not Applicable.

3. Alternatively, provide an explanation of why this requirement is not applicable to this RFO.

There were no UOG bids in this RFO.

As part of an existing lease agreement with the CalPeak El Cajon Energy Facility, a power plant sited on land leased from SDG&E, SDG&E evaluated the purchase costs of this facility in comparison to signing a Product 5 PPA with CalPeak or with other parties. As described in SDG&E's Application to purchase the ECEF, the valuation of the facility was prescribed by the terms of the 2001 land lease to be a market price, which was determined by an independent engineering firm, not by SDG&E's evaluation team. The sales price was constrained, because of the lease agreement and the independent valuation of the facilities.

G. Affiliate Bids and UOG Ownership Proposals (if applicable)

1. Describe other safeguards and methodologies implemented by the IOU, including those stipulated in Commission decisions (e.g. D.04-12-048 and D.07-12-052) for head-to-head competition between utility ownership and independent ownership bids, to ensure that affiliate and UOG bids were analyzed and considered on as comparable a basis as possible to other bids, that any negotiations with such bids' proponents were conducted as comparably as possible to negotiations with other proponents, and that the utility's final selections in such cases did not favor an affiliate or UOG bid.

No affiliate bids were shortlisted for Product 5, and no UOG bids were received.

The ECEF purchase option was compared to PPA offers for Product 5 using the same methodology used to evaluate the Product 5 shortlisted offers. VHC reviewed these analyses, including the ECEF revenue requirements calculations, to ensure that the ECEF purchase was analyzed and considered on the same basis as Product 5 PPA offers. In addition, the market valuation of the facility components was conducted by an independent engineering firm to ensure the offer was fairly priced in accord with the terms of the 2001 land lease.

2. Describe compliance with the safeguards.

Andy Van Horn, the IE, was on-site when the electronic bids were received from offerors and received an electronic copy of the offers, including those from affiliates. Subsequently, he monitored all communications between the affiliates and SDG&E, including emails, meetings and conference calls. The evaluation criteria and models applied to the affiliate offers were the same as applied to the other bids for these products. For further discussion see section VII of the Confidential Addendum.

3. If a utility selected a bid from an affiliate or a bid that would result in utility asset ownerships, explain and analyze whether the IOU's selection of such bid(s) was appropriate.

SDG&E evaluated the purchase costs of the ECEF in comparison to signing a Product 5 PPA with CalPeak and with other Product 5 Offerors. The valuation of this facility was prescribed by the terms of the lease to be a market price, which was determined by an engineering firm, not by SDG&E's evaluation team.

H. Does (do) the contract(s) merit CPUC approval? Is the contract reasonably priced and does it reflect a functioning market?

1. Provide discussion and observation for each category and describe the project's ranking relative to other bids from the solicitation; and from an overall market perspective.

a. Contract Price, including cost adders (transmission, credit, etc.)

The all-in purchase price of the ECEF should result in substantial savings to SDG&E customers compared to the other Product 5 offers. See the Confidential Addendum for additional information.

b. Portfolio Fit

The ECEF will help SDG&E satisfy its near and long-term needs for resources to meet its local Resource Adequacy requirements.

c. Project Viability

The ECEF project is viable, since it is currently operating, and no factors have been identified that would prevent it from operating for the remaining book life.

i. Technology

For Product 5 (long term, local), all offers were based on existing gas-fired resources. Therefore, technology risk was not considered in the short-listing of these offers.

ii. Bidder Experience (financing, construction, operation)

The ECEF is currently operating and after purchase would be owned and operated by SDG&E.

iii. Credit and Collateral

The ECEF is currently operating and after purchase would be owned and operated by SDG&E.

iv. Permitting, site control and other site-related matters

The ECEF is currently operating and after purchase would be owned and operated by SDG&E.

v. Fuel status

Fuel status was not a distinguishing issue, since these are tolling agreements where SDG&E will purchase the natural gas for each contracted facility.

vi. Transmission upgrades

The ECEF is currently operating and will not require transmission upgrades.

d. Any other relevant factors

VHC is not aware of any significant factors not mentioned in this report or the Confidential Addendum that would be expected to change SDG&E's decision to purchase the ECEF and to execute PPAs for the Product 5 offers now being negotiated.

2. Based on the complete bid process:

a. Does (Do) the IOU contract(s) reflect a functioning market?

Yes. The 2009 RFO was competitive and the Product 5 offers are competitive. The purchase option was the result of a land lease term that was negotiated almost 10 years ago. The offers for Product 5 reflected a range of prices and terms. Moreover, there are a limited number of potential bidders with existing plants that could offer Product 5, due to the capacity constraints that exist in the San Diego Local RA zone. VHC believes that the ECEF purchase contract and the Product 5 negotiations now in progress reflect a functioning market.

b. Is (Are) the IOU contract(s) the best overall offer(s) received by the IOU?

Yes. SDG&E has selected an appropriate combination of offers from its 2009 RFO to make up a LCBF portfolio. The Product 5 contracts will be an important component of that portfolio, and the Product 5 PPA contracts now being negotiated are the best overall Product 5 PPA offers received by SDG&E. The ECEF purchase will provide similar benefits to those PPAs at a lower cost than the Product 5 PPA offers.

3. Is the contract a reasonable method of achieving the need identified in the RFO?

Yes, the purchase will provide a reasonable method to achieve the need identified in the RFO for existing generation supplying local RA capacity.

4. If the contract does not directly reflect a product solicited and bid in an RFO, is the contract superior to the bids received on the products solicited in the RFO? Explain.

The purchase directly satisfies the solicitation for Product 5. Hence, this question does not apply.

5. Based on your analysis of the RFO bids and the bid process, does the contract merit Commission approval? Explain.

Yes. Based on VHC's review and analysis of the RFO bids and SDG&E's bid process, VHC finds that SDG&E has conducted a fair and unbiased RFO process, resulting in competitive Product 5 offers. SDG&E has conducted an analysis that shows that exercising the ECEF purchase option would result in lower costs than just selecting the short-listed PPA bids from the RFO.

Based on the information provided to us, VHC believes that the purchase of the ECEF will contribute to SDG&E's LCBF portfolio of supply contracts.

Therefore, VHC recommends that the Commission approve the purchase contract.

I. Was the RFO acceptable?

1. Over all, was the RFO conducted in a fair and competitive process, free of real or perceived conflicts of interest?

VHC concludes that SDG&E has run a fair and competitive solicitation for 2009 RFO Products 1 through 7B, resulting in appropriate short-lists and reasonable negotiated contracts. VHC believes that the RFO was free of conflicts of interest.

2. Based on the complete bid process should some component(s) be changed to ensure future RFOs are fairer or provide a more efficient, lower cost option?

Based on the complete bid process, there are no changes related specifically to the selection of Product 5 offers or their comparison with the ECEF purchase option. VHC's specific recommendations to improve future RFOs will be presented in IE reports related to the RFO contracts, when they are submitted for approval.

3. Any other relevant information.

No.