Application No: A.11-05-xxx
Exhibit No.: ______________

Application of San Diego Gas & Electric Company (U 902 E) for Authority to Enter into Purchase Power Tolling Agreements with Escondido Energy Center, Pio Pico Energy Center and Quail Brush Power.

Application 11-05-____
(Filed May 19, 2011)

**PREPARED DIRECT TESTIMONY OF
SAN DIEGO GAS & ELECTRIC COMPANY
IN SUPPORT OF APPLICATION FOR AUTHORITY
TO ENTER INTO PURCHASE POWER AGREEMENTS WITH ESCONDIDO
ENERGY CENTER, PIO PICO ENERGY CENTER AND QUAIL BRUSH POWER**

PUBLIC VERSION

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

May 19, 2011

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SB_GT&S_0707261

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PART ONE
Summary of Approval Request

(Witness: Robert Anderson)

I. INTRODUCTION

San Diego Gas & Electric Company ("SDG&E") requests authority from the California Public Utilities Commission ("CPUC" or "Commission") to enter into three long-term Power Purchase Tolling Agreements ("PPTAs") that would add a total of approximately 450 MW of needed local capacity to SDG&E's service area. As discussed in this testimony, SDG&E executed PPTAs with the following non-utility entities: Pio Pico Energy Center ("Pio Pico"), 305 MW; Wellhead's Escondido Energy Center ("EEC"), 45 MW; and Quail Brush Generation Project ("Quail Brush"), 100 MW. These PPTAs will provide approximately 450 MW of additional capacity from three new, efficient, natural gas generating facilities that will be located in SDG&E's service territory. These resources are being procured pursuant to the Commission's directives in SDG&E's 2006 Commission-approved long-term procurement plan ("LTPP").[1]

SDG&E respectfully requests approval of these three contracts no later than February 9, 2012 (or at the first Commission meeting thereafter) to meet various contractual obligations discussed herein and to ensure that SDG&E will have adequate resources on-line to be able to serve the current and anticipated needs for electricity of all of the customers in SDG&E's service area.

II. BACKGROUND

The three PPTAs presented for approval in this Application arose from SDG&E's LTPP decisions and the ensuing 2009 Request For Offers ("RFO"), the design and outcome of which is discussed in detail below in Part Two, Sections II and III. Of the 530 MW of new capacity the

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[1] D.07-12-052 at 114-115, as amended by D.08-11-008 at 25-26.

LTPP decisions authorize SDG&E to procure, the PPTAs that are proposed for approval in this Application would add approximately 450 MW of new capacity. While the three PPTAs are described more fully in Part Two, Section III.E, below, the key aspects of the three PPTAs are described briefly as follows:

<u>Escondido Energy Center ("EEC")</u>

The EEC is a gas-fired 45 MW repowering of an existing facility and includes the installation of a new single unit simple-cycle peaking generation facility powered by a new General Electric LM-6000 combustion turbine unit which replaces a vintage gas turbine-generator. This facility will be located in SDG&E's service territory, in Escondido, on the same location as Wellhead's existing generation facility. The Expected Initial Delivery Date is July 1, 2012, except that this date is extended on a day-for-day basis for each day that Commission approval is after July 1, 2011. The PPTA has a duration of 25 years. There are no incremental transmission impacts associated with the power delivered under this PPTA.

<u>Pio Pico Energy Center ("Pio Pico")</u>

The Pio Pico PPTA is for approximately 305 MW of fast-start, highly efficient, simple cycle, gas-fired generation. This facility is located in SDG&E's service territory on previously disturbed land adjacent to the Otay Mesa combined cycle power plant. The Expected Initial Delivery Date is May 27, 2014 and is expected to provide power for 20 years. The transmission impacts are unknown at this time but are expected to be known in August 2011, at which time the California Independent System Operator's ("CAISO's") Phase 2 cluster study will be released.

Quail Brush Energy Project ("Quail Brush")

The Quail Brush PPTA will provide approximately 100 MW of gas-fired generation that will be located in SDG&E's service territory near the Sycamore Canyon Landfill. The Expected Initial Delivery Date is June 1, 2014 and is expected to provide power for 20 years. The transmission impacts are unknown at this time but are expected to be known in August 2011, at which time the CAISO's Phase 2 cluster study will be released.

These three PPTAs are needed to ensure there is adequate capacity in SDG&E's service area for all customers, both bundled and direct access, to meet local resource adequacy ("RA") needs. Additionally, the new, locally sourced, long-term generation will help to mitigate the effects of intermittency, facilitate the retirement of aging and Once Through Cooling ("OTC") generation resources, and will comply with Greenhouse Gas ("GHG") requirements specified in D.07-01-039.

III. CONSISTENCY WITH APPROVED RESOURCE NEED

As discussed more fully in Part Two below, the three PPTAs represented in this Application are fully consistent with and responsive to the portfolio needs outlined in SDG&E's Commission-approved 2006 LTPP.[2] The 2006 LTPP identified a need for SDG&E to procure up to 530 MW of new, local generation (also known as "Product 2" resources) by 2015 to meet local and system RA requirements.[3] The Commission directed SDG&E to take into account the implementation of the Sunrise Powerlink transmission project and to increase the stated resource need to account for the retirement of any generation resources that were not already factored in

2 SDG&E's LTPP was approved with modification in D.07-12-052. SDG&E filed its Conformed 2006 LTPP on April 18, 2008 (Advice Letter 1983-E).

3 D.08-11-008 at 38, Ordering Paragraph 1.d ("We authorize SDG&E to procure a total of up to 530 MW of new local capacity that was conditionally authorized in D.07-12-052 and require that applications for this procurement be supported by updates of the status and projected on-line date of the Sunrise Powerlink project.").

that determination.[4] SDG&E also considered the need for these units based on updated information including the California Energy Commission's ("CEC's") most recent demand forecast as well as the CAISO's current Net Qualified Capacity ("NQC") resource ratings. Based on SDG&E's comprehensive analysis, SDG&E's resource need, as adjusted for the Sunrise Powerlink, additional retirements, and complete procurement activities, appears in detail in Section I.B.2, below. SDG&E's demonstrated resource need warrants the Commission's approval of the three PPTAs that comprise this Application.

The Commission also emphasized to SDG&E its obligation to undertake advanced planning to meet the Commission-approved RA objectives in the necessary time frame. In D.09-01-008, the Commission stated:

> We carefully reviewed and considered IEP and WPTF's comments and although we are approving MEF II, we are also admonishing SDG&E to have adequate procedures in place to ensure that they do not again find themselves in a reliability crisis without sufficient time to follow the procurement protocols in D.07-12-052.[5]

Mindful of these comments specific to SDG&E's procurement activities, SDG&E has executed the three subject PPTAs and submits them with sufficient lead time to allow for Commission review and for unforeseen yet possible adjustments to SDG&E's resource portfolio. SDG&E finds it imperative that the Commission act promptly, to allow ample time for construction of the facilities, and to avoid a circumstance where SDG&E has to explore yet further options to manage the uncertainties regarding whether and when the PPTAs proposed in the instant Application will be approved.

The EEC, Pio Pico, and Quail Brush PPTAs are each local, new generation facilities that meet the Commission's previously stated requirements. The deployment of these new units will

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[4] D.07-12-052 at 278, Finding of Fact 50.
[5] D.09-01-008 at 18.

enable the retirement of OTC and other vintage generation. Thus, these PPTAs are needed to provide adequate resources to meet the long-term electricity needs of the San Diego service territory. The approval of the capacity represented by these PPTAs does not exceed the Commission's authorization for SDG&E to procure new generation resources.

In addition, SDG&E's LTPP identifies a need for quick start units that can be used to support intermittent renewable resources and to provide reliable capacity at times of peak load. In D.07-12-052, the Commission expressly directed SDG&E to procure such resources to further the State's goals of reducing GHG emissions:

> To support the types and needs we anticipate in a GHG constrained portfolio, we require SDG&E to procure dispatchable ramping resources that can be used to adjust for the morning and evening ramps created by the intermittent types of renewable resources.[6]

Each of the three subject contracts are for environmentally friendly, quick start generation units utilizing the most advanced and efficient gas-fired technologies. They also provide the starting and/or ramping capabilities required by the Commission to accommodate sudden changes in resources or load. Further, these generation facilities provide flexibility that will help to mitigate the effects of intermittency associated with the increased deployment of renewable generation. In addition, each of these facilities will provide reliable capacity during periods of peak load.

IV. COST ALLOCATION DISCUSSION

After the issuance of SDG&E's June 2009 RFO, the California Legislature passed Senate Bill ("SB") 695 in October 2009.[7] Among other things, SB 695 requires that the costs and benefits of new generation resources, such as the PPTAs that are at issue in this proceeding, must be allocated to all benefiting customers in the electric corporation distribution service area on a

[6] D.07-12-052 at 111-112.
[7] SB 695 added P.U. Code § 365.1(c).

non-bypassable basis. The Commission opened Rulemaking (R.) 10-05-006 to establish whether the Commission's existing Cost Allocation Mechanism ("CAM")[8] is consistent with the provisions of SB 695, and in particular, "to ensure that the customers to whom the net costs and benefits of capacity are allocated are not required to pay for the costs of electricity they do not consume."[9]

On May 5, 2011, the Commission issued D.11-05-005 in R.10-05-006 which affirmed, without modification, the Commission's prior determinations that "benefiting customers subject to the CAM consist of all bundled service customers, direct access customers, and community aggregation customers."[10] The Decision further makes clear, as the statute requires, that "the allocation of the net capacity costs of contracts with third parties shall be allowed for the terms of those contracts."[11] As noted immediately below, while the Decision does not resolve all issues related to the CAM,[12] under Public Utilities Code ("P.U. Code") § 365.1(c)(2)(A), the Commission shall "ensure that…in the situation of a contract with a third party," such as with the subject PPTAs, "the net capacity costs of those generation resources are allocated on a fully nonbypassable basis…" to the categories of customers noted above.

This Application is consistent with SB 695, existing Commission precedent on the treatment of other new resources, and the newly adopted Decision. SDG&E believes the costs associated with PPTAs comprising this Application must utilize a CAM for the duration of those PPTAs. SDG&E's CAM proposal is fully described in Section VII.B, below, and calls for the adoption of a non-bypassable Local Generation Charge ("LGC") to implement the CAM

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8 The Commission adopted a CAM policy in D.06-07-029, and later modified it in D.07-11-051 and D.11-05-005.
9 P.U. Code § 365.1(c)(2)(C).
10 D.11-05-005 at 7.
11 *Id*. at 14.
12 CAM-related questions reserved for a further proceeding appear at D.11-05-005 at 16-17. The Decision makes other determinations that are not directly applicable to the instant Application.

requirements. Therefore, along with the Commission's approval of the three PPTAs, SDG&E also is seeking at this time the Commission approval of SDG&E's proposal to use a non-bypassable CAM with these contracts, for the duration of the contracts, as part of SDG&E's cost recovery and ratemaking proposal.

Of particular note, D.11-05-005 identified a number of issues regarding the full implementation of SB 695 that will be resolved in additional phases of that proceeding or in other proceedings. SDG&E supports the use of a separate proceeding to resolve those issues, including the method or methods that will be allowed to be used to determine the net capacity costs associated with the PPTAs. In general, the net capacity costs of this additional generating capacity equal the total contract costs less market revenues. Thus, although SDG&E is seeking as part of this Application the Commission's determination that the PPTAs are subject to the CAM, SDG&E is not proposing at this time a specific method to determine the net capacity costs, but will wait for the anticipated, next proceeding to make a final determination for the process SDG&E must follow to calculate the net capacity costs. Once the methodology for calculating the net capacity costs is established, SDG&E will then apply it to these PPTAs to arrive at the LGC that will implement the CAM.

In Part Two, below, this Testimony follows the format of the Commission-approved "RFO Solicitation Contract Approval Request" template.

PART TWO
RFO Solicitation Contract Approval Request
(RFO Template)

I. BACKGROUND

A. Commission Decision/Directive Under Which the RFO Is Being Performed (Witness: Robert Anderson)

SDG&E's 2009 RFO arose from (1) the forecasted need for new local resources approved in SDG&E's 2006 LTPP that was approved by the Commission in D.07-12-052 and amended in D.08-11-008; (2) SDG&E's bundled customers' local RA need; and (3) SDG&E's bundled customers' system RA need. The three PPTAs submitted in this Application were executed to fulfill the need for new local resources.

B. Reference the New Generation Authorization in the IOU's Current LTPP and Provide a Summary (Witness: Robert Anderson)

The Commission approved SDG&E's current LTPP in D.07-12-052, which was affirmed and updated in D.08-11-008. Those Orders authorized SDG&E to procure up to 530 MW of new, local generation by 2015. The need for new local generation is driven by whether or not there will be enough resources physically located in the San Diego load pocket for all load serving entities to meet the local RA requirement in SDG&E's distribution service area. In determining this need, the Commission required SDG&E to update the Commission on the status of the Sunrise Powerlink transmission project (*see* Section (a) below). The Commission also noted in approving the need that such need can be increased to account for additional retiring resources that were not included in the retirement assumptions leading to the approved need (*see* Section (b) below).[13] A summary of the need, adjustments to the need based on the Sunrise

[13] D.07-12-052 at 278, Finding of Fact 50.

Powerlink, expected plant retirements, and completed resource procurement projects are included in Section I.B.2.

(a) Addition of the Sunrise Powerlink

Regarding the update on the Sunrise Powerlink as requested in the LTPP decisions, the Sunrise Powerlink was approved by the Commission in D.08-12-058, as revised in D.09-07-024. In July 2010, the U.S. Forest Service ("USFS") issued its decision approving the Sunrise Powerlink on USFS land.[14] In October 2010, the USFS issued a subsequent decision upholding its July 2010 decision in its entirety and rejecting all appeals.[15] Construction of non-transmission line activities, including substation upgrades and construction preparation areas, began in September 2010. Construction of the Sunrise Powerlink transmission line began in the fourth quarter of 2010, and the transmission line is expected to be in service in the Summer of 2012. For planning purposes, SDG&E expects that the Sunrise Powerlink's capacity will reduce the need for local resources by 1000 MW in 2013.

(b) Expected Unit Retirements

In determining the need for this Application, SDG&E considered the expected retirement of certain generation resources in addition to those that were included in the 2006 LTPP need assessment. First, SDG&E has assumed that the Cabrillo II combustion turbines, with a total capacity of 188 MW, will be retired when their current land leases expire on December 31, 2013. These units, which were built between 1968 and 1972, have heat rates of about 15,000 Btu/kWh

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[14] USFS Record of Decision issued July 9, 2010: http://www fs fed.us/r5/cleveland/projects/sunrise-powerlink/fs-rod-july-09-2010.pdf . For further information please see: http://www.fs.fed.us/r5/cleveland/projects/sunrise-powerlink/index.shtml.

[15] USFS News Release Upholding Sunrise Decision issued October 15, 2010: http://www.sdge.com/sunrisepowerlink/docs/usfs_sunrise_pressrelease.pdf . Additionally, the Bureau of Land Management approved the project on January 20, 2009: http://www.blm.gov/pgdata/etc/medialib/blm/ca/pdf/elcentro/nepa/2007/eis.Par.9361.File.dat/ROD-SunrisePowerlinkJan2009.pdf.

and have very limited operating hours (less than 877 hours per year). The San Diego Air Pollution Control District ("APCD") recently imposed additional restrictions on the use of these units. For example, in 2010, the APCD passed a new regulation that limits the operation of these units on forecasted high ozone days. Thus, it is prudent for SDG&E to factor in the retirement of these older units in conjunction with the deployment of the new units.

Secondly, given the equipment's 1970s vintage, Wellhead (the new owner) has decided to continue with the previous owner's plans to repower the former 35.5 MW[16] MMC Energy/RAMCO-Escondido generating facility. The new EEC referenced in this Application is intended to replace this older existing unit, and thus for planning purposes, SDG&E has added the existing plant capacity to the local resource retirement list.

Third, subsequent to the Commission's resource need determination for SDG&E, the State Water Resources Control Board adopted an OTC policy that is intended to phase out or greatly reduce the use of coastal and estuarine waters for power plant cooling.[17] This regulation policy dictated that the Encina Power Plant (960 MW) must meet this new obligation by December 31, 2017. Accordingly, SDG&E believes it is prudent, if not necessary, to plan for Encina's existing capacity to be retired in anticipation of this date. For this Application, SDG&E recommends that the Commission assess not only SDG&E's need in 2015 but also through 2018 on the reasonable assumption that the Encina Power Plant will be retired in full at the end of 2017. SDG&E assumes the retirement of Encina units 1, 2 and 3, representing a total of 320 MW by 2013, with the remaining capacity to be retired in 2017.

[16] 2011 CAISO NQC.
[17] State Water Resources Control Board Resolution No. 2010-0020 adopted on May 4, 2010: http://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2010/rs2010_0020.pdf. Specifically, Attachment 1 for OTC Policy: http://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/docs/cwa316may2010/otcpolicy_final050410.pdf.

A summary of SDG&E's resource need as adjusted for the Sunrise Powerlink, additional retirements, and completed procurement is shown in Section I.B.2, below.

1. List all procurement already completed under that authorization (if any) (Witness: Robert Anderson)

Subsequent to the Commission's approval in D.08-11-008 of SDG&E's resource need, SDG&E has added 246 MW of new generation in its service area towards that need. Specifically, SDG&E has added the combustion turbine peaking facilities of J-Power Orange Grove (99 MW), Wellhead El Cajon (48 MW), and SDG&E's Miramar II (48 MW).

2. Demonstrates that the total authorization will not be exceeded with the contracts included in the request (Witness: Robert Anderson)

The table below summarizes SDG&E's resource need based on D.07-12-052 and D.08-11-008 and adjusted as indicated in that decision for subsequent developments addressed in those decisions.

	Break-down of 2006 LTPP Remaining Need by 2015	Megawatts	
	Approved Need (2015)	530	
(+)	New retirements not assumed in need:		
	Wellhead Escondido	35	
	Cabrillo II Peakers (2013)	188	
	Encina (2013-2017)	320	960
(=)	**Adjusted Need**	**1,073**	**1,713**
(-)	Completed procurement & transmission:		
	Orange Grove (2010)	(100)	
	Wellhead El Cajon (2010)	(48)	
	Miramar II (2009)	(48)	
	Sunrise Powerlink (2013)	(1,000)	
(=)	**Remaining Need**	**(123)**	**517**

In this Application, consistent with the Commission's authorization, SDG&E is seeking to add approximately 450 MW of new capacity.

C. Describe Any Changes in the Assumptions Used to Support the LTPP Authorization and Their Impact on the Need for These Contracts (e.g., are Significantly More Demand-Side or Renewable Resources Coming On-Line than Forecast, Resulting in a Lower Need for Conventional Generation than was Calculated in the LTPP?) (Witness: Robert Anderson)

Following the Commission's approval of SDG&E's resource need in its 2006 LTPP, a number of the assumptions used to determine that need have changed. Thus, to fully support these additions SDG&E looked at the local grid need based on updated data. Once again, this is the need for the total amount of resources to be located in SDG&E's service area that would be available for the benefit of all customers, not just SDG&E's bundled customers.

In reassessing the need for system resources, SDG&E updated the need based on revised assumptions for both load and resources. SDG&E considered the CEC's latest forecast, produced in late 2009,[18] as well as updates to all resources including using the CAISO current NQC resource ratings.[19] The grid reliability need is the amount of resources needed to meet a summer peak day load that is expected to occur once every 10 years after the largest generating unit and the largest transmission line is out of service. The table below assumes that the proposed resources in this filing will not count towards the Local Capacity Reliability requirement until the year after those resources are in service.[20]

As Table 2 (below) shows, with the resources additions that are proposed in this Application, the SDG&E load pocket will have sufficient resources to meet total local RA needs

[18] California Energy Demand 2010-2020 Commission-Adopted Forecast adopted on December 16, 2009: http://www.energy.ca.gov/2009publications/CEC-200-2009-012/CEC-200-2009-012-CMF.PDF.

[19] 2011 Final NQC Report as posted on the CAISO web site at: http://www.caiso.com/276a/276a8c14493a0.xls. It should be noted that the NQC ratings for some resources change annually and thus a units NQC rating in future years may be higher or lower than the ones used in this analysis.

[20] This assumption takes into account the timing of the resource adequacy showing. The local resource adequacy requirement is the same for all months of the year. Thus a unit that does not come on-line until May or June of a given year would not meet the requirement in the previous month of the year.

for all customers. It also shows that sufficient resources would exist to allow for the full retirement of the Encina Power Plant prior to the end of 2017, the date at which it would need to meet the State's new OTC policy. Or in other words, the Encina Power Plant would not be able to fully retire without these additions.

Table 2

	2012	2013	2014	2015	2106	2017	2018	2019	2020
Minimum Grid Reliability Need	2,989	2,062	2,121	2,182	2,224	2,262	2,304	2,357	2,416
Existing Local Resources	3064	3064	3064	3064	3064	3064	3064	3064	3064
Demand Response	158	196	205	208	210	212	214	217	219
Retirements	35	35	543	543	543	543	1183	1183	1183
New Generation Additions (current Application)		45	45	450	450	450	450	450	450
Total Net Local Resources	3,184	3,268	2,769	3,176	3,178	3,181	2,543	2,545	2,548
Resource Over Minimum Need	195	1,206	648	994	954	918	238	188	132

As shown in Table 2, moving ahead with these additions will result in SDG&E's service area having sufficient resources for all load serving entities, both those that serve bundled customers and those that serve direct access customers, to access the capacity necessary to meet their local RA requirements.

D. Other Information Not Requested Above, But Relevant to the Origin of the RFO (Witness: Robert Anderson)

In considering this Application, SDG&E believes it is prudent for the Commission to consider a number of factors in addition to the pure resource need calculation shown above.

One of these factors is past Commission direction on the need to plan in advance for these resources. In D.07-12-052, the Commission noted that "recent experience suggests that the time required to develop and carry out competitive long-term RFOs, then finance, permit and construct new generation resources – including a cushion to account for unanticipated delays – requires that these procurement decisions be made up to seven years in advance of when the resources are needed."[21] The Commission provided further direction in D.09-01-008. In that Decision the Commission stated:

> We carefully reviewed and considered IEP and WPTF's comments and although we are approving MEF II, we are also admonishing SDG&E to have adequate procedures in place to ensure that they do not again find themselves in a reliability crisis without sufficient time to follow the procurement protocols set forth in D.07-12-052.[22]

To address the Commission's clear directive to avoid "just in time" resource additions, SDG&E's submits for approval the subject PPTAs with enough of a lead time to manage possible delays. Additionally, with forward planning, should any one or more of these units not reach commercial operation, SDG&E then would have greater opportunity to identify and explore options that follow the preferred Commission methods. SDG&E believes it is not only prudent but essential to proceed with the three PPTAs in this Application even though some may argue that they are a year or two in advance of the latest possible date and in an amount above the minimum need. To the contrary, this "cushion" is necessary to safeguard against the type of "reliability crisis" the Commission seeks to avoid, which could otherwise occur in the event of delays for the new units, possible cancellation of planned new generation additions, changes in load forecast, and other unpredictable and currently unforeseeable changes in circumstances or events.

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[21] D.07-12-052 at 21.
[22] D.09-01-008 at 18.

To provide additional perspective, the PPTAs presented in this Application are based on the 2006 LTPP which was ruled on at the end of 2008; the majority of the capacity is not expected to be on-line until 2014, almost an eight-year lead time (from 2006 to 2014). While some of this lead time is due to other contracting priorities, it is still reasonable to assume up to six or seven years from the approval of an LTPP that authorizes a need for new generation to the units being on-line. Thus, waiting until the current LTPP process is completed may result in no new operating units until 2018, which is later than the amount of time needed to allow for the shutdown of Encina should it be required due to the OTC regulations.

There is also no guarantee that the units being proposed in this Application will be completed in the time currently anticipated. Despite parties' best efforts, delays can and do arise in the development of new generation in California. As an example, the last new units approved for the SDG&E area, Wellhead El Cajon and J-Power Orange Grove, were forecasted to be on-line by the summer of 2008 at the time the contracts were filed with the Commission. However, <u>both</u> projects ran into licensing and/or siting issues and did not go on-line until summer of 2010, two years later than planned.

In addition, the need for these units is based on a peak load forecast that grows at only a 1.1% annual growth rate for the years between 2011 and 2020. This would factor in load growth after all energy efficiency and growth in behind-the-meter resources such as rooftop photovoltaics ("PV"). This assumption is very low in comparison to past peak load growth. Looking at the average growth rate for the ten-year periods ending in 2000 through 2010, the historical ten-year growth has been about 2%, or twice as high as the forecast used to calculate the need here. Moreover, there was only one ten-year period, the period ending in 2001, that load growth averaged only 1.1%, which was mainly driven by substantial load decreases due to the energy crisis in 2000 and 2001. However, looking at ten-year periods does not present the whole story. If we look at growth over 5-year periods also for the periods ending in 2000 through 2010, the growth rate also averages 2%. But we also see that growth does not occur in a steady pattern. We have seen 5-year growth rates as high as 5.5% (for period ending in 2006) down to -0.3% (for the period ending in 2001). Given that the Commission expects reliability to be met in every year, not just on average, and we are currently escalating the loads from the low point in an economic cycle, the load growth shown here is very conservative. Therefore, given these variations in load growth, and for the other reasons noted above, planning with some cushion above the load growth would represent a prudent and necessary way to move forward.

Thus, SDG&E recommends that the Commission consider this Application, not based on a single absolute set of numbers, but rather in light of the totality and range of needs described herein. The three PPTAs associated with these new units are a unique opportunity for additional generation capacity to provide for local reliability and the addition of new capacity with lower heat rates, quicker starting capability, and greater operational flexibility that will be needed to integrate increasing levels of renewable energy into the grid.

II. RFO DESIGN PROCESS (WITNESS: ROBERT ANDERSON)

A. Describe the Factors and Considerations that Contributed to the Structure of the RFO (Witness: Robert Anderson)

SDG&E began the design of the 2009 RFO soon after approval of the 2006 LTPP filing. In the 2009 RFO, SDG&E sought both short-term (2010 and 2011) and long-term (2012 and beyond) resources to meet the new generation authorization, the bundled customer local RA obligation and the bundled customers' system RA obligations that resulted from the approved LTPP. The RFO package is attached to this Application as Appendix 1.

B. List the Specific Product Requirements Identified in the LTPP and/or Bid Documents, and Explain the Need for the Selected Resource(s) – Particularly With Respect to How the Selected Resources Are Consistent with the Renewable and/or GHG-Reduction Goals of the Utility (or of the Service Area-Wide Resource Mix) (Witness: Robert Anderson)

SDG&E's 2009 RFO contained the following description of the specific products sought:

Scope of Supply

San Diego Gas & Electric Company (SDG&E) is issuing this Request for Offers (RFO) for demand response and 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. All resources that can meet the obligations set forth below are welcome to bid their offers into this RFO (Offer(s)); however, all renewable resources are strongly encouraged to participate in a separate renewables-only solicitation, which SDG&E issues annually. SDG&E anticipates this RFO will produce contracts from respondents (Respondent(s)) as indicated below:

	Local Resources		Resources Outside SDG&E	
	Short Term	Long Term	Short Term	Long Term
Product 1: Demand Response	Term:			
	3 years			
	Delivery Starts:			
	2012			

Product 2:				
New Generation		Term:		
		20 years		
		Delivery Starts:		
		2010 - 2014		
Product 3:				
Existing Resources	Term:			
	1 year / 2 years			
	Delivery Starts:			
	2010 or 2011			
Product 4:				
Existing Resources			Term:	
			2 years	
			Delivery Starts:	
			2010	
Product 5:				
Existing Resources		Term:		
		10 years		
		Delivery Starts:		
		2012		
Product 6:				
New or Existing Resources				Term:
				10 years
				Delivery Starts:
				2012
Product 7a:				
Firm LD Energy	Term:			
	2 years / 4 years			
	Delivery Starts:			
	2010 or 2012			
Product 7b:				
Resource Adequacy	Term:			
	2 years / 4 years			
	Delivery Starts:			
	2010 or 2012			

General characteristics of each product are described below. SDG&E anticipated that all Offers received would provide a menu of resources from which it can select to fulfill its short- and long-term needs. The capacities listed are not a guarantee of purchase amounts for each product, but rather estimates of potential volumes. The final purchase amounts of each product will depend on factors including evolving resource planning considerations, prices offered for each product, the number of Offers received for each product type and potential overlap in product characteristics from various Offers.

Product 1 - Demand Response

SDG&E seeks Demand Response products for a three year term. Initial load reduction will commence on May 1st 2012. This product must be a means of reducing an end-use customer's demand and/or energy usage during a demand response event, must be for at least 1.0 MW in the aggregate and be within SDG&E's service territory. The demand and/or energy reduction must be measureable. 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 Offer Requirements of this solicitation.

Product 2 - New Local Generation Projects, online in 2010 – 2014

SDG&E seeks a minimum of 100 MW of peaking or intermediate-class resources as new construction or expansion projects within SDG&E's territory. Any resulting contract will be a tolling agreement with a term of 20 years and on-line dates of May 1 or October 1 in 2010, 2011, 2012, 2013 or 2014. The 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 local area as currently defined by the California Independent System Operator ("CAISO") such that the unit supports SDG&E's Local RA requirement. Units located within CAISO's proposed expanded local area for SDG&E (see Addendum) should submit Offers in other products of this solicitation. Products offered in this category shall be capable of operating under all permits at annual capacity factors of a minimum of 30% with an availability of 98%. It is anticipated that heat rates will be no higher than 10,500 btu/kWh. 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. In addition, SDG&E will include the additional value provided from projects that can provide quick start operations in the ranking of Offers. SDG&E also requires that each Offer contain pricing for, and an option to provide, black start capability.

Product 3 - Existing Local Resources, delivering in 2010 and/or 2011

SDG&E seeks a minimum of 400 MW of existing resources currently operating within SDG&E's territory for deliveries in 2010 and 2011. Any resulting contract will be a tolling agreement with a term of up to 2 years with a start date of January 1, 2010, or a 1 year term with a start date of January 1, 2010 or January 1, 2011. Offers for this product must be existing generation capacity that is currently recognized by the CAISO as counting towards SDG&E's service area Local Capacity Requirement. Respondents must provide Offers for deliveries in both 2010 and 2011 and pricing may differ between the years. However, SDG&E may at its discretion contract with the Respondent for either or both years. 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. In addition, SDG&E will include the additional value provided from projects that can provide quick start operations in the ranking of Offers. SDG&E also requires that each Offer contain pricing for, and an option to provide, black start capability.

Product 4 - Existing Regional Resources, delivering in 2010 and 2011

SDG&E seeks a minimum of 200 MW of existing resources currently operating outside of SDG&E's territory. Any resulting contract will be a tolling agreement with a term of 2 years starting on January 1, 2010. This product must deliver into CAISO's SP-15. 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 started and shut down as needed. In addition, SDG&E will include the additional value provided from projects that can provide quick start operations in the ranking of Offers.

Product 5 - Existing Local Resources, delivering in 2012-2021

SDG&E seeks a minimum of 400 MW of existing resources currently operating within SDG&E's territory. Any resulting contract will be a tolling agreement with a term of 10 years and a start date of January 1, 2012 to qualify. Offers for this product must be existing generation 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 local area as currently defined by the California Independent System Operator ("CAISO") such that the unit supports SDG&E's Local RA requirement. Units located within CAISO's proposed expanded local area for SDG&E (see Addendum) should submit Offers in other products of this solicitation. In consideration of California State Once through Cooling (OTC) goals and pending Water Board rules, any Offer for 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. OTC offers shall not include proposals for upgrades or retrofits of OTC facilities. The decision to exercise the option will be based upon future rules governing OTC or SDG&E's sole discretion given its portfolio need. 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. In addition, SDG&E will include the additional value provided from projects that can provide quick start operations in the ranking of Offers. SDG&E also requires that each Offer contain pricing for, and an option to provide, black start capability.

Product 6 - All-Source Regional Resources, 2012-2021

SDG&E seeks minimum of 200 MW of new construction, expansion, or existing resources currently operating outside of SDG&E's territory. Any resulting contract will be a tolling agreement with a term of 10 years and deliveries will begin on May 1, 2012. This product must deliver into CAISO's SP-15. For this product, SDG&E requires flexible resources that are capable of providing regulation during the morning and evening ramps and shutting down at night. In addition, SDG&E will include the additional value provided from projects that can provide quick start operations in the ranking of Offers. In consideration of California State Once through Cooling (OTC) goals and pending Water Board rules, any Offer for supply from a unit located in California 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. OTC offers shall not include proposals for upgrades or retrofits of OTC facilities. The decision to exercise the option will be based upon future rules governing OTC or SDG&E's sole discretion given its portfolio need. If the CAISO expands SDG&E's Local RA area as described in the addendum, SDG&E could, at its sole discretion, evaluate Product 6 Offers that are located within the expanded area as if it were a Product 5 Offer.

Product 7 - Firm Liquidated Damages (LD) Energy and/or Resource Adequacy

SDG&E seeks a minimum of 200 MW of Firm LD Energy and/or Resource Adequacy Purchases. Resources may be within or outside of SDG&E service area.

Product 7a: Third Quarter, 6x16, on-peak Firm LD energy products conforming to Schedule C of the Western States Power Pool. Any resulting agreement will be an EEI agreement for short-term, block power purchases. Respondents may provide Offers for the following delivery periods: 1) for deliveries in 2010 and 2011 and/or 2) deliveries in 2012 and 2013. If a Respondent provides Offers for both options, SDG&E may at its discretion contract with the Respondent for either or both options. Resources outside of SDG&E must deliver to SP-15. For Product 7a, SDG&E will shortlist projects within the timeframes indicated in the schedule in Section 3 of this RFO.

Refreshed pricing of shortlisted Offers will be allowed only once and by the date indicated in the schedule. Respondents are cautioned that if refreshed prices exceed the competitive range, the Offer may be rejected.

Product 7b: Respondents shall Offer System Resource Adequacy (and local if within the SDG&E Local Area). Any resulting agreement will be a WSPP agreement for Resource Adequacy. Respondents may provide Offers for the following delivery periods: 1) for deliveries in 2010 and 2011 [Q3 or full year] and/or 2) deliveries in 2012 and 2013 [Q3 or full year]. If a Respondent provides Offers for both options, SDG&E may at its discretion contract with the Respondent for either or both options.

Respondents may provide Offers for a single product and term or a combination of Offers, providing SDG&E with flexibility to match Offers and fill its required energy and capacity needs.

For products seeking new or expanded generation resources, the Respondent shall be responsible for development, permitting, financing, and construction of any required facilities. 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.

To address concerns associated with climate change, the solicitation document states that suppliers must comply with the Commission's GHG Emissions Performance Standard as adopted in R.06-04-009. For resources that receive contracts as a result of their selection in the 2009 RFO, the contract provisions negotiated with each successful Bidder explicitly set forth the responsibilities for compliance with applicable GHG permits and regulations.

SDG&E did not specifically solicit renewable offers in this RFO since renewable resources are procured on an annual basis through a separate Commission-approved renewables-only RFO. It should be noted, however, that SDG&E's 2009 RFO did not prohibit any qualifying renewable resource from bidding to fill the identified need.

C. Describe How the PRG, IE, and ED Were Included in the RFO Design Process (Witness: Robert Anderson)

During the design stage of the 2009 RFO, SDG&E also consulted with its Procurement Review Group ("PRG"), worked with its Independent Evaluator ("IE") and exchanged multiple drafts with the Commission's Energy Division ("ED") to ensure that the solicitation was open, designed without bias and likely to garner a robust response from the market, and that it captured ED concerns regarding treatment of OTC resources. SDG&E introduced its plan to issue an RFO seeking demand response and supply resources to the PRG on March 19, 2009. During this meeting SDG&E presented its portfolio need, its procurement strategy, the scope of the solicitation and preliminary RFO schedule. A draft RFO was provided in advance of the meeting for PRG review. At a subsequent PRG meetings held on August 20, 2009, September 25, 2009, October 23, 2009, November 20, 2009, January 15, 2010, March 19, 2010, April 16, 2010, August 20, 2010, September 17, 2010, November 19, 2010, December 17, 2010, January 21, 2011, February 18, 2011, March 18, 2011, and April 15, 2011, SDG&E provided updates on the solicitation process.[23] Discussions during these meetings were wide-ranging and included matters such as SDG&E's evolving need, the selection criteria, ranking of each bid, proposed and final shortlists, negotiation status, and specific terms within power purchase agreements ("PPAs").

SDG&E enlisted the IE's assistance to design the solicitation and procurement strategy months in advance of RFO issuance. SDG&E worked with the IE to resolve issues identified by him prior to launching the RFO. The IE reported his findings regarding the overall process, fairness of the evaluation method, short listing rationale and other contractual considerations to the PRG at five PRG meetings. He continues to monitor the process, providing input during

[23] *See* Confidential Appendix 8.

contract negotiations. Finally, in the weeks prior to issuance, SDG&E exchanged drafts of the contracts with ED staff to ensure that staff's concerns were adequately addressed.

D. Describe the Original Solicitation Documents and Any Subsequent Revisions that Were Communicated to All Potential Bidders (Witness: Robert Anderson)

The solicitation document issued in this RFO and made available on the solicitation website is included in this filing as Appendix 1. The major sections in the RFO document include : (1) a description of the products sought in the RFO; (2) a timeline of the solicitation process; (3) an RFO-specific website address, as well as an email address to be used to communicate with SDG&E regarding the RFO; (4) a list of the required RFO response forms to be used to communicate offers to SDG&E (and instructions on how to obtain the forms); (5) a list of specific requirements applicable to all respondents in the RFO; (6) an outline of the evaluation criteria to be used by SDG&E to select from among the offers received; (7) a description of credit criteria; (8) a description of the confidentiality provisions applicable to responses; and (9) a list of the contingencies that would impact SDG&E's acceptance of any offer.

SDG&E posted, as part of the RFO package, draft contracts that parties could comment on and submit as part of their bid package. The drafts provided bidders with a clear view of SDG&E's requirements in any commercial arrangement that resulted from the RFO.

SDG&E issued the RFO on June 9, 2009 and offers were due August 10, 2009. Prior to the deadline for submitting offers, SDG&E had in place a process to allow potential bidders to submit clarifying questions to SDG&E to assist them in preparing bids. All of these questions were answered by SDG&E and every question, with its accompanying response, was posted on the public RFO website for the benefit of all participants. SDG&E held a pre-bid conference on

July 8, 2009. Attendance was not a prerequisite for submitting an offer. All conference materials, including a list of all questions and answers exchanged during the conference were posted on the solicitation website.[24] All answers posted on the website were reviewed by the IE prior to posting.

E. Summarize the solicitation outreach effort (Witness: Robert Anderson)

On June 9, 2009, SDG&E issued its 2009 RFO to the market. In order to achieve its goals of robust competition and maximum participation, SDG&E (i) issued a press release that was run by major trade publications; (ii) conducted a direct mailing (via e-mail to nearly 800 industry contacts) to a list of likely interested parties; (iii) placed a notice of the RFO on its website; and (iv) posted all relevant documents on that website for access by any interested party. The July 8, 2009 pre-bid conference attracted over 50 participants with interests ranging across all Products.

III. DETAILED DESCRIPTION OF BID SELECTION PROCESS

The following section describes the evaluation and selection process for Product 2 resources.

A. List and Briefly Describe All Bids Received in a matrix that Ranks Bids and Clearly Demonstrates Who "Winners" are (Witness: Robert Anderson)

Confidential Appendix 2 attached to this Application includes (1) a matrix of the Product 2 bids ranked by screening analysis results, (2) the shortlisted bids ranked by production cost modeling results, and (3) final ranking of negotiated contracts.

B. Categorize Rejected or Withdrawn Bids, and Describe Efforts Made to Rectify Non-Conforming Bids (Witness: Robert Anderson)

SDG&E did not receive any non-conforming bids for Product 2.

[24] http://www.sdge.com/rfo/supplyresource/index.shtml.

C. Describe Quantitative and Qualitative Criteria Used to Evaluate Bids (Witnesses: Robert Anderson)

The specifics surrounding the bid evaluation criteria used in the ranking and selection of offers received in this RFO are included as Confidential Appendix 3. An overview description of these criteria was included in the solicitation documents issued to the market.

D. Describe the Bid Evaluation Methodology, Including Least-Cost Best-Fit Evaluation (Witnesses: Robert Anderson)

The evaluation of bids began with screening for conformance with the RFO. Bids were screened by arranging their features and supporting information in a database. This allowed easy identification of the bids if they did not conform due to missing information or because one or more features of the bid were inconsistent with the parameters set forth in SDG&E's RFO.

The bids were evaluated by ranking then on a levelized dollars per kilowatt-year ($/kW-yr) basis. The annual capacity charges and operating and maintenance ("O&M") costs for each offer, over the contract period, were discounted using SDG&E's weighted average cost of capital to obtain a net present value ("NPV"). This total present value was levelized over a common period and the resulting value was divided by the capacity of the bid to obtain a levelized price expressed in $/kW-yr.[25] Levelized energy benefits, ancillary service revenues and transmission upgrade costs were also included to rank projects. All offers submitted for this product were for in-basin generation, which eliminated the need to calculate congestion costs since there has been very little price differential between nodes historically.

The evaluation was carried out in a number of steps. First, all Product 2 conforming bids were run through a screening model to rank the bids. The screening model accounted for capacity costs, fixed and variable O&M costs, and potential energy cost savings based on the

[25] Capacity values used in the evaluation were based on the bidders proposed capacity value which may not be equal to the CAISO NQC.

terms and conditions proposed by the bidders. The result of this analysis, which ranked the best bid from each unique project, is shown in Table 2-1 in Confidential Appendix 2. This screening analysis allowed SDG&E to rank bids and reduce the offers to a short list.

The shortlisted offers were then inputted into a production costing model which dispatched the units from their proposed on-line date through 2020. The production cost modeling refined the potential energy benefits by including all operating characteristics such as start-up costs and starting and shut down limits. In order to evaluate all contracts over the same period, energy savings after the model period were escalated through the end of the evaluation period. Ancillary service benefits were derived by calculating the potential for ancillary service sales given the energy dispatch and the unit's capabilities. Given the technologies offered, the ancillary services that were valued were non-spin reserves and regulation up and down.

Preliminary transmission upgrade costs on just the SDG&E system were estimated for each project in isolation based on SDG&E's knowledge of its system. These costs were not based on interconnection studies such as the one the CAISO will conduct.

The shortlisted offers were then re-ranked using the updated energy benefits, ancillary service benefits and preliminary transmission costs. These results are shown in Table 2-2 in Confidential Appendix 2.

The pricing comparison of the final negotiated contracts is shown in Table 2-3 in Confidential Appendix 2.

E. Summarize the Selected Offer(s), Including the Following:

There are three selected offers in this Application, 1) Escondido Energy Center, 2) Pio Pico Energy Center, and 3) Quail Brush Generation Project. Each selected offer is summarized separately.

- **<u>Selected Offer #1: Escondido Energy Center (Witness: Tom Saile)</u>**

The selected offer is a PPTA as follows:

1. Name (identify unit or project)

The project is referred to as the Escondido Energy Center (EEC).

2. Counterparty

The PPTA counterparty (Seller) is Escondido Energy Center, LLC, a Delaware limited liability company that is part of the same Wellhead organization which has been active in the California power industry for over 25-years.

3. Description of technology

The EEC is a 45 MW repowering of an existing facility and includes the installation of a new single unit simple-cycle peaking generation facility powered by a new General Electric LM-6000 combustion turbine unit which replaces a Pratt & Whitney Power Systems ("PWPS") Model FT4 gas turbine-generator.

4. MW and MWh

EEC's anticipated capacity is 45 MW when corrected to contract conditions. EEC's annual energy delivery is contingent upon grid reliability needs and market price. The PPTA provides for the unit to operate up to [redacted] EEC can be dispatched from a "cold" idle state to full load within 10 minutes.

5. Location

EEC is located on the south side of Hwy 78 in Escondido just west of I-15. The site address is 1968 Don Lee Place, Escondido, CA. It is electrically located within SDG&E's service area.

6. On-line date

The contractual Expected Initial Delivery Date for EEC is July 1, 2012 except that this date is extended on a day-for-day basis for each day that Commission approval is after July 1, 2011.

7. Contract Term

The EEC PPTA delivery term expires on December 31st of the year in which the 25th anniversary of the initial delivery date occurs.

8. Transmission impacts of project (deliverability issues, needed upgrades, cost of upgrades, contingency factors, etc.)

Since the EEC is a repowering of an existing project of comparable size that currently provides full deliverability it is anticipated that full resource adequacy will be supplied from the new unit. A switchyard with 69 kV output voltage connects the facility to the SDG&E Escondido Substation via underground lines. There are no incremental transmission impacts or costs associated with the contemplated PPTA.

9. Cost info (e.g., capacity payments, total cost, NPV, etc.)

Cost Item	Contract Amount
Capacity Payment	[redacted]
Fixed O&M [redacted]	[redacted]
Variable O&M [redacted]	[redacted]
Start-up Cost [redacted]	[redacted]
Start-up Cost [redacted]	[redacted]
[redacted]	

10. Environmental costs / attributes

The EEC is equipped with an integrated water injection system to lower NOx emissions. The facility utilizes a CO catalyst and aqueous ammonia in combination with a selective reduction catalyst ("SCR") for NOx control. Water for turbine inlet fogging is utilized for capacity augmentation. Inlet fogging mitigates power loss due to ambient temperatures. The water is purified via portable demineralizer units on site. Rain water that impacts potentially oily surfaces such as equipment skids is collected and discharged to a below grade storage tank for disposal via truck.

11. Greenhouse gas profile

A description of the conformance of this unit to current Commission policy on GHG is included in Section IV.D. CO_2 emissions are approximately 0.55 MT CO_2/MWh.[26] Although run hours are dictated by the CAISO to meet day-ahead or hour-ahead need, typical peaking facilities of this type operate at less than 10% annual capacity factors. At a 10% capacity factor, annual CO_2-equivalent emissions would be 22,000 Metric tons which is below the 25,000 metric tons per year threshold that the California Air Resources Board ("CARB") has established for requiring GHG allowances, and thus no GHG allowances/credits are anticipated to be needed for this facility.

12. Assignment of regulatory risk

The previous owner was granted an "Authority To Construct" from the local air pollution control district on July 2, 2008 and the facility will be constructed with a selective catalytic reduction system to minimize NOx and CO emissions. Beyond that and Commission approval of the PPTA, being a repowering of an existing facility, the only remaining approvals would involve routine local permitting. *See* Section 13 of the contract for more details.

13. Terms for contract termination

The EEC contract may be terminated by either party if the following conditions precedent are not satisfied or waived [redacted]

[26] GHG emissions are calculated using 117 lbs CO_2/MMBtu of natural gas combusted and 2204.6 lbs/metric ton.

[redacted]

14. Whether or not and under what circumstances renegotiation of contract terms will be permitted (per and/or in addition to any renegotiation provisions stipulated in the bid documents)

The EEC PPTA has multiple delineated circumstances where renegotiation of specific contract terms may occur. The key circumstances are:

[redacted]

- **<u>Selected Offer #2: Pio Pico Energy Center (Witness: Maurene Bishop)</u>**

The selected offer is a PPTA as follows:

1. Name (identify unit or project)

The name of the project is the Pio Pico Energy Center ("Pio Pico").

2. Counterparty

The counterparty is the Pio Pico Energy Center, LLC, a Delaware limited liability company (Seller), which is owned by Energy Investors Funds ("EIF") Pio Pico, LLC, which in turn is a member of the United States Power Fund III, L.P., and for which its general partner is the EIF US Power III, LLC. All of these entities are affiliates of EIF. EIF's fund affiliates have invested in over 100 electric generation and transmission projects since being formed in 1987.

3. Description of technology

The Pio Pico project is a fast-start, highly efficient, simple cycle, 300 MW power plant consisting of three natural gas-fired GE LMS 100 combustion turbines, equipped with intercooler, selective catalytic reduction units, gas compressors, instrumentation and controls, partial dry cooling and all necessary auxiliary equipment.

4. MW and MWh

The Pio Pico Expected Contract Capacity as stated in the PPTA is 304.8 MW. The actual Contract Capacity will be demonstrated by a Commercial Operation Test and adjusted to Contract Conditions prior to the Commercial Operations Date. Pio Pico's annual energy delivery is contingent upon grid reliability needs and market price. The PPTA provides for each of the three units to run up to [redacted] Pio Pico can be dispatched from "cold" to full load within 10 minutes. The units will be capable of being placed on automatic generation control with load following capability of 50% to 100% load.

5. Location

Pio Pico will be located on previously disturbed private land, adjacent to the Otay Mesa combined cycle power plant in San Diego County. Pio Pico has site control under an option to lease.

6. On-line date

Pio Pico's "Expected Initial Delivery Date" for all three units is May 27, 2014.

7. Contract Term

Pio Pico's contract term also known as the "Delivery Period" commences on the Initial Delivery Date and continues to the last day of the year in which the 20th anniversary of the Initial Delivery Date occurs.

8. Transmission impacts of project (deliverability issues, needed upgrades, cost of upgrades, contingency factors, etc.)

The point of interconnection for Pio Pico is anticipated to be at the 230 kV Otay Mesa switchyard, as to be more fully described in the Large Generator Interconnection Agreement between the parties. The transmission impacts are unknown at this time, but will be better understood at the issuance of the Phase 2 study, expected to be released in August 2011 with the actual costs based on the remaining participants in the study. As discussed in Section 13 below, it is a condition precedent that the interconnection costs that SDG&E would be required to fund as set forth in the Phase 2 interconnection study for the project not exceed [redacted]. Once interconnected, the project will provide full deliverability and thus able to supply full resource adequacy.

9. Cost info (e.g., capacity payments, total cost, NPV, etc.)

Cost Item	Contract Amount
Capacity Payment	[redacted]
Fixed O&M [redacted]	[redacted]
Variable O&M [redacted]	[redacted]
Start-up Cost [redacted]	[redacted]

10. Environmental costs / attributes

The facility will utilize a CO catalyst and aqueous ammonia in combination with a selective reduction catalyst (SCR) for NOx control. Dry low NOx is not currently available for the GE LMS100 machines. Demineralized water is utilized for direct injection to minimize NOx emissions. The water is purified via portable reverse osmosis units on site. The facility is designed to utilize recycled water from the Otay Water District. Rainwater that impacts potentially oily surfaces such as equipment skids is collected and discharged to an above-ground storage tank for disposal via truck. The sewer connection will be made to the existing sewer infrastructure located adjacent to the site. These are new units whose design and environmental impacts have been previously approved and are currently operating in the State of California.

A Phase 1 Environmental Site Assessment was completed prior to filing the Application for Certification and is part of the CEC permit approval process. Pio Pico's CEC Application for Construction 11-AFC-01 has been found to be data adequate.

11. Greenhouse gas profile

A description of the conformance of this project to current Commission policy on GHG is included in Section IV.D. CO_2 emissions are approximately 0.50 MT CO_2/MWh. Normal operation of the facility is unknown. Run hours are dictated by the CAISO to meet day-ahead or hour-ahead need. The proposed air permit filed with CEC has a limit of 4,000 hours annually of operations. GHG allowances/credits are anticipated to be needed for this facility.

12. Assignment of regulatory risk

The AFC was filed with the CEC on February 9, 2011 as 11-AFC-01. The main regulatory risk that Pio Pico and SDG&E face is mandates for tighter environmental compliance.

13. Terms for contract termination

Pio Pico's contract may be terminated if the following conditions precedent are not satisfied or waived: [redacted]

14. Whether or not and under what circumstances renegotiation of contract terms will be permitted (per and/or in addition to any renegotiation provisions stipulated in the bid documents)

The Pio Pico PPTA has delineated circumstances where renegotiation of specific contract terms may occur if needed:

[redacted]

• **<u>Selected Offer #3: Quail Brush Generation Project (Witness: Brad Mantz)</u>**

The selected offer is a PPTA as follows:

1. Name (identify unit or project)

The project is called the Quail Brush Generation Project ("Quail Brush").

2. Counterparty

The PPTA counterparty (Seller) is Quail Brush Genco LLC which is a Delaware limited liability company which is wholly owned by Cogentrix Energy LLC, which is a wholly owned subsidiary of Goldman Sachs.

Cogentrix in February 2011 bought out the ownership of the original developer ENPEX Corporation and in March 2011 officially changed the project's name.

3. Description of technology

Quail Brush is a new 100 MW peaker that will be powered by eleven 9.1 MW - Wartsila 20V34SG reciprocating natural gas-fired engines.

4. MW and MWh

The facility's anticipated capacity is 99.8 MW when corrected to contract conditions. Annual energy delivery is contingent upon grid reliability needs and market price. The PPTA provides for the project to operate up to [redacted]. Quail Brush can be dispatched from "cold" to full load within 10 minutes. Each unit will be capable of being placed on automatic generation control with load following capability of 50% to 100% load.

5. Location

Quail Brush is located on previously disturbed private land adjacent to and south of the existing Sycamore Canyon Landfill. The project is just North of Hwy 52, several miles east of Interstate 15. The project is located within the San Diego City limits and electrically it is located within SDG&E's local area.

6. On-line date

The contractual Expected Initial Delivery Date for the unit is June 1, 2014.

7. Contract Term

The Quail Brush PPTA delivery term expires on December 31 of the year in which the 20th anniversary of the initial delivery date occurs.

8. Transmission impacts of project (deliverability issues, needed upgrades, cost of upgrades, contingency factors, etc.)

The point of interconnection for Quail Brush is anticipated to be a new switchyard on the 230 kV Sycamore Mission transmission line, as will be more fully described in the Large Generator Interconnection Agreement between the parties. The transmission impacts are unknown at this time, but will be better understood at the issuance of the CAISO's Phase 2 study, expected to be released in August 2011 with the actual costs based on the remaining participants in the study. As discussed in Section 13 below, there is a condition precedent that the interconnection costs which SDG&E would be required to fund as set forth in the Phase 2 interconnection study for the project do not exceed [redacted]. Once interconnected, the project will provide full deliverability and thus able to supply full resource adequacy.

9. Cost info (e.g., capacity payments, total cost, NPV, etc.)

Cost Item	Contract Amount
Capacity Payment	[redacted]
Fixed O&M [redacted]	[redacted]
Variable O&M [redacted]	[redacted]
Start-up Cost	[redacted]

10. Environmental costs / attributes

The facility will utilize a CO catalyst and aqueous ammonia in combination with a selective reduction catalyst (SCR) for NOx control. The Wartsila engines that are being used on the project employ a closed loop cooling system and do not consume process water for cooling. The generation equipment will be contained inside a building and outside contamination by oils will be almost nonexistent. These are new units whose design and environmental impacts have been previously approved. Similar units are operating in the State of California.

11. Greenhouse gas profile

A description of the conformance of this unit to current Commission policy on GHG is included in Section IV.D. CO2 emissions are approximately .50 MT of CO2/MWh. Normal operation of the facility is unknown. Run hours are dictated by the CAISO to meet day-ahead or hour-ahead need. GHG allowances/credits are anticipated to be needed for this facility.

12. Assignment of regulatory risk

The main regulatory risk that Quail Brush faces is new mandates for tighter environmental compliance. *See* Section 13 of the contract for more details.

13. Terms for contract termination

The Quail Brush contract may be terminated by either party if the following conditions precedent are not satisfied or waived: [redacted]

14. Whether or not and under what circumstances renegotiation of contract terms will be permitted (per and/or in addition to any renegotiation provisions stipulated in the bid documents)

The Quail Brush PPTA has several delineated circumstances where renegotiation of specific contract terms may occur:

[redacted]

F. Provide Other Information Relevant to the Bidding and Selection Process (e.g., Mutually Exclusive Bids) (Witness: Robert Anderson)

None.

IV. CONSISTENCY WITH COMMISSION DECISIONS

The purpose of this section is to identify how the RFO process complies with procurement-related Commission decisions. Where applicable, specific citations to Commission decisions should be provided. At a minimum, this section should describe:

A. Whether the Solicitation and Bid Selection were Consistent with the IOU's LTPP and Solicitation Protocol:

1. Identify the Commission decision that approved the IOU's LTPP and explain with specific citations how the IOU adhered to Commission guidelines for conducting RFOs (Witness: Robert Anderson)

SDG&E's 2006 LTPP was approved with modifications in D.07-12-052 and further updated in D.08-11-008. SDG&E filed its Conformed 2006 LTPP on April 18, 2008.[27] A

[27] Advice Letter 1983-E.

description of the process utilized by SDG&E in conducting competitive solicitations is contained in its Commission-approved 2006 LTPP (at Section II.A). SDG&E's 2009 RFO was compliant with the process set forth in its Commission-approved Plan.

The subsequent adoption of SB 695 and the Commission proposed decision on its implementation has required SDG&E to vary from its 2006 LTPP. A key element of SB 695 has removed the utilities' election as to whether certain resources will or will not be subject to a CAM. Under the approved 2006 LTPP, the utility could make that election. Given this change in law, which occurred after SDG&E issued the RFO, SDG&E is seeking a Commission finding that these resources are being added for the benefit of all customers and thus are subject to CAM treatment.

2. Evaluate how the bid evaluation process was consistent with the approved IOU LTPP (Witness: Robert Anderson)

SDG&E's 2006 LTPP included bid evaluation guidelines that were approved as part of those plans. SDG&E's conduct and consistency with its procurement plans are subject to review by its PRG and IE. Both have been kept informed regarding the RFO and with the progress of SDG&E's negotiations.[28]

3. Explain how the Selected Offer(s) conform to the IOU's portfolio needs, including least-cost/best-fit evaluation (Witness: Robert Anderson)

SDG&E's approved 2006 LTPP outlines the new resources needs. The plan identified the need for quick start natural gas-fired resources to back up renewable resources. D.07-12-052, in fact, directed SDG&E to procure such resources:

> To support the types of needs we anticipate in a GHG constrained portfolio, we require SDG&E to procure dispatchable ramping

[28] *See* Confidential Appendix 8.

resources that can be used to adjust for the morning and evening ramps created by the intermittent types of renewable resources.[29]

EEC, Pio Pico, and Quail Brush all meet this requirement. These units are quick start and thus can be used to meet sudden changes in loads or resources and to provide reliable capacity at time of peak loads.

4. Discuss/explain any discrepancies/ambiguities between the LTPP requirements and this RFO (Witness: Robert Anderson)

The selected contracts are fully consistent with the resource need in SDG&E's LTPP.

B. Robustness of RFO Solicitation (Witness: Robert Anderson)

The 2009 Supply Resources RFO solicitation received 244 bids from 30 different counterparties. 37 of these bids from 10 different counterparties were for New Local Generation ("Product 2").

The total capacity of conforming unique project bids received for Product 2 was well in excess of anticipated need for new local generation. This was deemed sufficiently robust to proceed with further evaluation of Product 2 offers.

C. Confirm Consistency with EAP Loading Order. Specifically, Reference the IOU's Process for Ensuring that Renewables, EE, DR, and/or DG Did Not Exist at Cost Effective Prices and/or Could Not Perform as Needed for the Specific Product Requested. Identify Any Significant Changes in the Cost or Functionality of Higher Loading Order Resources that have Reduced the Need for Conventional Resources that was Calculated in the LTPP (Witness: Robert Anderson)

SDG&E's energy planning focuses first on energy efficiency, demand response and renewable power prior to adding any gas-fired generation. One area of focus in the Commission's review of SDG&E's 2006 LTPP was on ensuring that the planned actions are consistent with State policies and that SDG&E's plan recognizes the Energy Action Plan ("EAP") loading order and maximizes preferred resources, while optimizing least cost/best fit

[29] D. 07-12-057 at 115.

and maintaining reliability. Even after planning for these resources, SDG&E has determined that there will be a need for additional capacity to meet all customers' needs.

While SDG&E did not specifically solicit renewable resources in this RFO, as explained above, SDG&E's 2009 RFO did not prohibit any qualifying renewable resource from bidding to fill the identified need.

D. Selected Offer(s)' Compliance with the Commission's GHG Emission Performance Standard and Consistency with the IOU's Overall GHG Reduction Objectives (Witness: Robert Anderson)

In D.07-01-039, the Commission adopted standards that set limits on the GHG emissions profiles of long-term contracts entered into by investor owned utilities ("IOUs"). Under these standards, a long-term commitment by a load-serving entity to take power from a power plant must demonstrate compliance with the Emissions Performance Standard ("EPS") if the power plant is a baseload facility (with an estimated annual capacity factor greater than 60%) or if the power plant is designed to augment the output or extend the operating life of an existing baseload or non-baseload plant.[30] The PPTAs involved with this Application comply with D.07-01-039. The facilities are all peaking power projects (with estimated annual capacity factors far less than 60%), and this Application is not designed or intended to augment the output or extend the operating life of an existing baseload power plant.

E. Selected Offer(s)' Impact on Transmission

- **<u>Selected Offer #1: Escondido Energy Center (EEC) (Witness: Tom Saile)</u>**

Since the EEC is a repowering of an existing facility with an existing interconnection agreement, no incremental interconnection facilities or upgrades are required for this project.

[30] D.07-01-039 at 7.

- **<u>Selected Offer #2: Pio Pico Center (Witness: Maurene Bishop) & Selected Offer #3: Quail Brush Power Project (Witness: Brad Mantz)</u>**

The transmission impacts for both of these projects are unknown at this time, but will be better understood at the issuance of the CAISO's Phase 2 study, expected to be released in August 2011. As was discussed in the description of each contact, there is a condition precedent in each contract that the interconnection costs which SDG&E would be required to fund as set forth in the Phase 2 interconnection study for the projects do not exceed specific limits.

F. Affiliate Bids and UOG Ownership Proposals (if Applicable)

1. Describe the design and implementation of any 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, including any violation(s) of that code (Witness: Robert Anderson)

The RFO did not request, nor did SDG&E receive any utility owned generation ("UOG") bids for Product 2.

2. Describe other safeguards and methodologies implemented by the IOU, including those stipulated in Commission decisions 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 (Witness: Robert Anderson)

There were no UOG or affiliate bids placed in the RFO for Product 2.

3. Describe the compliance of the RFO process with these safeguards (Witness: Robert Anderson)

See response IV.F.1 above.

4. If a utility selected a bid from an affiliate or a bid that would result in utility asset ownership, explain and analyze whether the utility's selection of such bid(s) was preferable from the ratepayers' perspective (Witness: Robert Anderson)

There were no UOG or affiliate bids placed in the RFO for Product 2.

G. Qualitative Factors that the IOU Considered in its Evaluation and Selection of Bid(s):

1. Project viability (including technology or counterparty concerns)

- **Selected Offer #1: Escondido Energy Center (EEC) (Witness: Tom Saile)**

A PPTA with the EEC is particularly attractive because (i) the developer, Wellhead, has been actively involved in the California independent power industry for over 25 years and has several successful power plants to its credit, (ii) it utilizes a combustion turbine that is well known and trusted in the utility industry – the GE LM6000, and (iii) the developer has current experience operating power plants based on this same technology. Additionally, the project already received its "Authority To Construct" back in 2008, since the previous owners had begun the repowering process for this site. At this point, Wellhead is waiting only for Commission approval of the PPTA before proceeding with construction.

- **Selected Offer #2: Pio Pico Center (Witness: Maurene Bishop)**

The Pio Pico project is highly viable based upon the experience of the owner and operator. Having completed the development, permitting and construction of the Panoche 400 MW power plant located in Fresno County, utilizing the same technology, APEX and EIF have unique insights into the costs and requirements for such an endeavor.

- **<u>Selected Offer #3: Quail Brush Power Project (Witness: Brad Mantz)</u>**

The Quail Brush Generation Project is highly viable based upon the experience of the owners and operators. Cogentrix Energy is a subsidiary of Goldman Sachs and owns and operates more than 17 projects in the United States, including SEGS I & II in California.

2. Resource diversity (Witness: Robert Anderson)

SDG&E's LTPP describes a portfolio of resources, each of which meets one or more specific requirements. There is no single resource that, by itself, is suited to meet all portfolio needs. Therefore, SDG&E procures a variety of capacity resources. The EEC project replaces a smaller existing unit which has a higher heat rate and an uncertain operating future being a 40-year old unit. Both the Pio Pico and Quail Brush projects add new technologies which provide both the quick start attribute of the smaller peakers and the ability to regulate output. In the case of Pio Pico each unit can operate from approximately 50% to 100% capacity; and in the case of Quail Brush, with its eleven separate units, the project can operate between approximately 5% to 100% of the total output capability. Thus, they will add flexibility to the overall fleet of resources. Also, given Pio Pico and Quail Brush's units' lower than average heat rate of about 9,000 Btu/kWh, between the two projects they are more efficient than the existing peaker fleet.

3. Greenfield versus brownfield (including repowering) environmental impacts/benefits

- **<u>Selected Offer #1: Escondido Energy Center (EEC) (Witness: Tom Saile)</u>**

There are several key benefits associated with the Escondido Energy Center repowering at an existing site (i) requisite power plant infrastructure, such as the natural gas connection and transmission interconnection, is already in place, (ii) the operation of a power plant has been integrated into the community over the last ten years, and (iii) the new combustion turbine will have significantly lower emissions than its predecessor.

- **Selected Offer #2: Pio Pico Center (Witness: Maurene Bishop)**

Pio Pico will be located on previously disturbed private land, adjacent to the Otay Mesa combined cycle power plant in San Diego County near the United States and Mexico border. Pio Pico has site control under an option to lease. Access to natural gas and an existing 230 kV transmission line is adjacent to the property. The new units are state-of-the-art peakers with up-to-date air emissions controls.

- **Selected Offer #3: Quail Brush Power Project (Witness: Brad Mantz)**

The Quail Brush project has several benefits: (1) it is located on previously disturbed private land, and (2) it does not utilize water for cooling. Also, the Wartsila generator package allows great flexibility (5 % to 100% load) and utilizes state-of-the-art engine and emissions technology that has been previously permitted and is operating in California.

4. Environmental/economic justice (Witness: Robert Anderson)

As discussed in Section IV.D, these facilities will meet the Commission's current rules regarding the mitigation of GHG. The quick start capability of these facilities is consistent with the type of unit characteristics which the Commission has found to be desirable to facilitate the addition of progressively increasing amounts of intermittent resources, which must be integrated into the power grid.

5. Other qualitative factors considered (Witness: Robert Anderson)

No other qualitative factors were considered.

H. List and Explain Any Significant Negotiated Revisions to the RFO Solicitation Package that were Agreed to By the IOU and Individual Counterparties. Include an Explanation (and supporting analysis) of Why the Negotiated Revisions Did not Sufficiently Alter the Nature of the Product to Warrant Revisions to or a Re-Issuance of the RFO Bid Documents to All Bidders (i.e., Confirm that the Changes Would Not Have Resulted in a Different Bid Selection had All Parties been Afforded the Opportunity to Bid a Similarly Nonconforming Product). (Witness: Robert Anderson)

There were no significant revisions that altered the nature of the product or would require rebidding. SDG&E worked closely with its IE during contract negotiations to ensure that any negotiated changes were being fairly applied.

V. OUTSIDE PARTICIPATION AND FEEDBACK

A. PRG Participation:

1. Describe all RFO-related information distributed to the PRG (Witness: Robert Anderson)

Meeting dates are provided in Section V.A.2. The material from each meeting, including SDG&E presentations and IE reports, is included as Confidential Appendix 8.

2. Summarize the PRG's participation in the RFO design, bid evaluation, and bid selection process (Witness: Robert Anderson)

SDG&E met with its PRG on seventeen occasions during which the subject of the solicitation was discussed. At the March 19, 2009 meeting, SDG&E discussed the upcoming 2009 RFO. At the August 20, 2009 and October 23, 2009 meetings, SDG&E presented raw bid data from the RFO. At the August 20, 2009, September 25, 2009 and October 23, 2009 meetings, SDG&E presented analysis of the offers received. At the October 23, 2009, November 20, 2009 and January 15, 2010 meetings, SDG&E presented preliminary and final shortlists, and discussed its reasoning for selection of the shortlisted projects. At the March 19, 2010, April 16, 2010 and November 19, 2010 meetings, SDG&E discussed the status of negotiations with the shortlisted projects. On November 19, 2010, SDG&E presented the final cost values to the PRG.

Updates to the status of the selected projects were presented at the December 17, 2010, January 21, 2011, February 18, 2011, March 18, 2011, and April 15, 2011 meetings. Additionally, SDG&E convened a CAM PRG meeting on March 18, 2011 to brief the newly formed CAM PRG that SDG&E believed these projects meet the requirements of the Commission[31] for projects needed to meet local reliability needs. Thus, SDG&E would be seeking cost recovery from all benefiting customers consistent with the requirements of SB 695.

B. IE Participation:

1. Cite CPUC decisions requiring the use of an IE and their applicability to this RFO (Witness: Robert Anderson)

The Commission's decisions requiring the use of an IE and their applicability to this RFO are set forth in D.04-12-048 and D.07-12-052. In D.04-12-048, the Commission eliminated its prior ban on affiliate transactions, but imposed a requirement that any solicitation that involved a bid from an IOU affiliate must employ an IE to monitor the solicitation, bids and evaluation process, in order to ensure the fairness of the process. In D.07-12-052, the Commission confirmed its requirement regarding the use of IEs and further refined the IE selection process by, for example, requiring the development of a pool of qualified IEs and creating a pro forma IE retention agreement. The Commission also confirmed that IE costs, as part of the procurement process, are recoverable through Energy Resource Recovery Account ("ERRA").

2. Summarize the IE participation in the RFO development, bid solicitation, and bid selection processes (Witness: Robert Anderson)

Prior to SDG&E launching its 2009 RFO solicitation, SDG&E consulted with its IE, Dr. Andy Van Horn, concerning the need for capacity resources and the overall design of the RFO and procurement process. Dr. Van Horn was informed about and consulted on scheduling and milestones and reviewed the RFO drafts. He discussed the steps of the bid processing and

[31] D.07-12-052 at 280, Finding of Fact 58; *Id*. at 294, Conclusion of Law 23; *Id*. at 301, Ordering Paragraph 8.

evaluation protocol and the evaluation spreadsheet template itself. Regular consultations between the IE and SDG&E's staff occurred, during which the IE offered feedback and recommendations throughout the design and implementation stages. He offered revisions to the template, which SDG&E implemented. He was on-site in San Diego for the bidders' conference and, later, for the receipt of the offers. The IE reviewed SDG&E's responses to questions from potential bidders. He also reviewed SDG&E's bid processing and met with processing team members on the day bids were received.

The IE and his associates reviewed SDG&E's bid evaluation spreadsheet models, as well as other information, and commented on the evaluation methods and procedures throughout the process. Dr. Van Horn reviewed the initial short list selection of offers and potential contract terms. He selectively participated in numerous conference calls with bidders after the short list was announced. He also prepared summary briefings for discussions with the PRG and answered questions from PRG members during meetings which covered this RFO. More complete details of the IE's participation and oversight of this RFO and his recommendations are contained in the attached IE report.

3. Attach the IE's report on the solicitation (Witness: Robert Anderson)

The Public Report of the Independent Evaluator: Product 2 -- SDG&E's June 9, 2009 RFO for Demand Response and Supply Resources and its Confidential Addendum, dated May 18, 2011, provide the IE's review and monitoring of the Product 2 solicitation, evaluations, negotiations and contracts, as well as the status of other 2009 RFO products. These reports are attached as Appendix 9.

4. Present and explain the IE costs for the RFO (Witness: Robert Anderson)

The invoiced total to date for time spent by the IE on the Product 2 RFO design, review and monitoring of evaluations, shortlisting, negotiations, contracts and reporting is approximately [redacted]

C. Provide any Other Information Relevant to Outside Participation and Feedback that is Important to Evaluation of the RFO Process (Witness: Robert Anderson)

During the period between issuance of the 2009 RFO and the deadline for submittal of offers to SDG&E, an e-mail box was provided to potential bidders to allow them to ask questions and to seek clarification regarding the RFO documents, products sought, requirements for offers or any other area where clarification or assistance was required. SDG&E provided responses to all questions and posted all responses on the RFO website, so that all participants would benefit from the response, thus ensuring that all participants had equal knowledge of the requirements of the RFO. The IE reviewed each of the questions and responses before posting.

VI. CONTINGENCIES AND MILESTONES

Identify any contractual obligations that will impact the schedule for Commission approval (termination clauses, transmission upgrades, etc.). Also describe any milestones and uncertainties regarding technology, regulatory permitting, and on-line date risk.

- **Escondido Energy Center** **(Witness: Tom Saile)**

EEC Critical Milestones[32]	**Target Date**
[redacted]	[redacted]
Achievement of Initial Delivery Date	7/1/2012

- **Pio Pico Energy Center (Witness: Maurene Bishop)**

Pio Pico Critical Milestones	**Target Date**
[redacted]	[redacted]
Achievement of Initial Delivery Date	5/27/ 2014

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[32] The EEC PPTA has an in-service date that is two years sooner (2012) than the other two PPTAs in this Application. However, there is a provision in the EEC contract that extends the Expected Initial Delivery Date on a day-for-day basis for each day that the Commission's non-appealable approval occurs after July 1, 2011. The milestones shown identify key project milestones leading to the planned July 1, 2012 in-service date.

- **<u>Quail Brush Power Project (Witness: Brad Mantz)</u>**

<u>Quail Brush Critical Milestone</u>	**<u>Target Date</u>**
[redacted]	[redacted]
Achievement of Initial Delivery Date	6/1/2014

VII. RATE RECOVERY (WITNESS: G. SHIMANSKY)

In this section, SDG&E proposes mechanism for recovering in rates the costs associated with the three PPTAs for local generation. Further, this section proposes a new two-way Balancing Account to record the benefits and costs of these contracts for new generation, proposes a new rate component that implements the statutory requirements of SB 695,[33] and summarizes the effects that the Commission's guidance related to debt equivalence and Financial Accounts Standards Board ("FASB") Interpretation No. 46(R) ("FIN 46(R)") would have on these PPTAs.

A. Request for new "Local Generation Balancing Account" (LGBA)

SDG&E is requesting a new, two-way, interest-bearing balancing account mechanism (Local Generation Balancing Account, or "LGBA"), effective upon approval of the earlier of this Application or one or more of the PPTAs. The establishment of this balancing account is needed to record the benefits and costs of PPTAs, including those proposed in this Application as well as

[33] P.U. Code § 365.1(c)(2)(A).

SDG&E-owned peaker power generation units associated with new generation resources. SDG&E proposes to create a new sub-account in the LGBA corresponding to each new generation resource.

Disposition of the LGBA balance will be addressed in SDG&E's ERRA proceeding or in a separate application. SDG&E proposes that the LGBA be applied to all benefitting customers in SDG&E's distribution service area–-- on an equal kilowatt per hour basis by customer class.

B. Request for new rate component (Witness: Cynthia Fang)

Pursuant to D.08-09-012 and D.11-05-005, SDG&E proposes implementation of the Local Generation Charge ("LGC") for recovery of new generation costs pursuant to D.06-07-029. As discussed above in Part One, Section IV, D.06-07-029 adopted a CAM that allows for the costs and benefits of new generation to be shared by all benefiting customers, and SB 695 requires that the net capacity costs of resources, such as subject PPTAs, that are needed to meet the system or local are reliability needs, are to be allocated to all benefiting customers on a non-bypassable basis. Consistent with this guidance, SDG&E proposes the LGC as a non-bypassable charge applicable to benefiting customers defined as all bundled service, Direct Access ("DA") and Community Choice Aggregation ("CCA") customers.

Consistent with D.06-07-029, SDG&E proposes that the LGC be recovered as a per kilowatt hour charge developed by allocating the applicable annual revenue requirement, the total annual contract costs net of the market revenues,[34] among all customer classes based on the 12-month coincident peak ("12 CP") demand methodology, including bundled, DA and CCA customers, and then dividing the resulting customer class revenue by current authorized sales by customer class. SDG&E proposes to include the LGC in tariffs as a component of the Utility

[34] The market revenues will be determined by whatever method the Commission establishes in its implementation of SB 695.

Distribution Company ("UDC") charge, which is applicable to bundled service, DA and CCA customers. The applicable revenue requirement is based on the net cost of capacity, determined as a net of the total cost of the contract minus the energy revenues associated with dispatch of the total contract. Pursuant to D.08-09-012, the LGC is identified separately and is not included as a component of the Cost Responsibility Surcharge ("CRS"). Accordingly, in the Commission's Order regarding this Application, SDG&E also requests the Commission's approval of the LGC for the three PPTAs.

C. Impacts on financial ratios and Rating Agency analysis (Witness: Greg Shimansky)

Background on Rating Agency analysis - Rating agencies include long-term fixed financial obligations, such as PPTAs, in their credit risk analysis. These obligations are considered to be equivalent to debt and treated as additional debt during their financial ratio assessment. Standard & Poors ("S&P") views the following three ratios, Funds From Operation ("FFO") to Debt, FFO to Interest Expense, and Debt to Capitalization, as the critical components of a utility's credit profile. Debt equivalence negatively impacts all three ratios. Unless mitigated, a PPTA would negatively impact SDG&E's credit profile, as it would degrade credit ratios.

Commission rulings on debt equivalence - In D.04-12-048, the Commission adopted a modified version of the S&P approach for calculating debt equivalence, and ordered that the impacts of debt equivalence should be addressed in the utilities' Cost of Capital Proceedings. SDG&E was granted an equity rebalancing revenue requirement, subject to cost caps, for the Otay Mesa Energy Center ("OMEC") as per a settlement agreement with the Division of Ratepayer Advocates ("DRA"), The Utility Reform Network ("TURN"), and Utility Consumers Action Network ("UCAN"). However, in the subsequent SDG&E Cost of Capital decision

(D.07-12-049), the Commission denied an automatic equity rebalancing mechanism for future PPTAs but instead "will consider this on a prospective basis."[35]

In accordance with that direction, SDG&E intends to seek relief from costs associated with FIN 46 (R) consolidation and debt equivalence issues, as applicable to these PPTAs in this filing, through its next Cost of Capital proceeding. Therefore, while SDG&E does not seek to recover these costs in this application, SDG&E seeks the Commission's confirmation that these costs can be fully considered in SDG&E's next Cost of Capital proceeding.

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[35] D.07-12-049 at 39.

VIII. WITNESS QUALIFICATIONS

A. QUALIFICATIONS OF ROBERT B. ANDERSON

My name is Robert B. Anderson. My business address is 8330 Century Park Court, San Diego, California, 92123.

I am employed by San Diego Gas & Electric Company as Director - Resource Planning. My responsibilities mainly include electric resource planning. I have been employed by SDG&E since 1980, and have held a variety of positions in resource planning, corporate planning, power plant management, and gas planning and operations.

I have a BS in Mechanical Engineering and a MBA - Finance. I am a registered professional engineer in Mechanical Engineering in California.

I have previously testified before this Commission.

B. QUALIFICATIONS OF GREG SHIMANSKY

My name is Greg Shimansky. I am employed by San Diego Gas & Electric Company (SDG&E), as the Regulatory Accounts Manager in the Financial Analysis Department. My business address is 8330 Century Park Court, San Diego, California 92123. My current responsibilities include managing the process for the development, implementation, and analysis of regulatory balancing and memorandum accounts. I assumed my current position in July 2010.

I have been employed with SDG&E and Sempra Energy since June 30, 2003. In addition to my current position in Regulatory Affairs, I served as Financial Planning Manager for Sempra Energy and was responsible for the completion of the 5-year financial plan and accompanying analysis. I held that role from June 2009 through April 2010. From August 2008 to June 2009, I was the Regulatory Reporting Manager in charge of the monthly close and reporting of revenues, cost of goods sold and balancing accounts. Further, I was responsible for the filing of financial data as required to the CPUC and FERC – such as FERC form 1 reports. From June 2003 through August 2008, I worked for SDG&E in the Utility planning department working my way up to Financial Planning Manager in charge of yearly outlooks, the 5-year forecast, monthly actual variance reporting, and ad hoc analysis.

I received a Bachelor of Science degree in Economics from the University of California, Los Angeles in June 1993. I also received a Master of Science in Management, with concentrations in Finance and Marketing, from Purdue University in May 1998.

I have not previously testified before this Commission.

C. QUALIFICATIONS OF CYNTHIA S. FANG

My name is Cynthia Fang and my business address is 8330 Century Park Court, San Diego, California 92123. I am the Electric Rates Manager in the Strategic Analysis and Pricing Department of San Diego Gas & Electric (SDG&E). My primary responsibilities include the development of cost-of-service studies, determination of revenue allocation and electric rate design methods, analysis of ratemaking theories, and preparation of various regulatory filings. I began work at SDG&E in May 2006 as a Regulatory Economic Advisor and have held positions of increasing responsibility in the Electric Rate Design group. Prior to joining SDG&E, I was employed by the Minnesota Department of Commerce, Energy Division, as a Public Utilities Rates Analyst from 2003 through May 2006.

In 1993, I graduated from the University of California at Berkeley with a Bachelor of Science in Political Economics of Natural Resources. I also attended the University of Minnesota, where I completed all coursework required for a Ph.D. in Applied Economics.

I have previously submitted testimony before the CPUC and the Federal Energy Regulatory Commission ("FERC") regarding SDG&E's electric rate design and other regulatory proceedings. In addition, I have previously submitted testimony and testified before the Minnesota Public Utilities Commission on numerous rate and policy issues applicable to electric and natural gas utilities.

I have previously testified before this Commission.

D. QUALIFICATIONS OF THOMAS C. SAILE

My name is Thomas C. Saile. My business address is 8315 Century Park Court, San Diego, California, 92123.

Since 2008, I have been employed by San Diego Gas & Electric Company in my current position of Energy Contracts Originator. My responsibilities mainly include negotiating power purchase agreements with counterparties for both conventional & renewable resources.

For over 25-years I have been involved in the utility/energy industry, early-on in technical roles involving power generation and then moving into customer-facing business development positions. At one point I was NERC-Certified as a System Reliability Coordinator. During my career I have also held positions with Delmarva Power, Southern Company, and Progress Energy.

My Bachelor's Degree is in Electrical Engineering from Villanova University, and I also hold a Master in Business Administration from the University of Delaware. Formerly, I was a registered Professional Engineer in Electrical Engineering with the State of Delaware.

While I have not previously testified before this Commission, I have testified before public utility commissions in other states.

E. QUALIFICATIONS OF MAURENE BISHOP

My name is F. Maurene Bishop. I am employed by San Diego Gas & Electric Company (SDG&E), as an Energy Contract Originator in the Electric & Gas Procurement Contracts department. My business address is 8330 Century Park Court, San Diego, California 92123. My current responsibilities include negotiating power purchase agreements for the acquisition of new conventional and renewable resources for SDG&E.

I assumed my current position in March 2008 when I accepted a position with SDG&E. In addition to my current position for SDG&E, I previously held the title of Power Purchase Contracts Administrator for Hawaiian Electric Company, from which I retired in January 2008, and PacifiCorp, (previously known as Pacific Power & Light Co.) as Manager of Wholesale Sales, Manager of Resource Acquisition, and Manager of Land. My entire career has been in the electric utility industry. I have front office as well as back office experience in the negotiation and administration of power purchase and sales contracts, including conventional generation from gas, oil, and coal fired plants, and renewable resources, and for contract administration of those agreements. Since joining SDG&E, I personally negotiated several new renewable Power Purchase Agreements, drafted the Advice Letters, which were later approved, and negotiated one amendment to a conventional Power Purchase Tolling Agreement which was later approved by Application.

I have a Juris Doctor (Law Degree) from Golden Gate University School of Law, located in San Francisco, and a Bachelors of Arts degree in Psychology, from the University of California, Los Angeles. I am an inactive member of the State Bar of California.

I have not previously testified before this Commission.

F. QUALIFICATIONS OF E BRADFORD MANTZ

My name is Brad Mantz. I am employed by San Diego Gas & Electric Company (SDG&E), as an Energy Contracts Originator in the Electric and Fuels Procurement Department. My business address is 8315 Century Park Court, San Diego, California 92123.

I have been employed with SDG&E since September 20, 2010. And hold the position of Energy Contracts Originator. My responsibilities mainly include negotiating power purchase agreements with counterparties for both conventional & renewable resources.

I have been involved in the utility/energy industry for over 30 years in various levels of including production, operations, trading, risk management, origination, development, management and contract negotiations. I have previously worked for several companies in various roles of increased responsibility; the most notable are British Petroleum, The Williams Companies, Sempra Energy Solutions, Sumitomo and now SDG&E. My background includes oil, gas, electricity, renewables and LNG.

I received a Bachelors of Arts in Business with emphasis in Petroleum Land Management and Marketing, with a minor in Geology from the University of Texas at Austin, Austin, Texas in August 1980.

While I have not previously testified before this Commission, I have testified before utility Commissions in other states.

EXHIBIT A

CONFIDENTIALITY DECLARATIONS

BEFORE THE PUBLIC UTILITIES
COMMISSION OF THE STATE OF CALIFORNIA

DECLARATION OF ROBERT B. ANDERSON
REGARDING CONFIDENTIALITY OF CERTAIN DATA

I, Robert B. Anderson, do declare as follows:

1. I am Director – Resource Planning for San Diego Gas & Electric Company ("SDG&E"). I have reviewed the Prepared Direct Testimony of San Diego Gas & Electric Company in Support of Application for Authority to Enter into Purchase Power Tolling Agreements with Escondido Energy Center, Pio Pico Energy Center and Quail Brush Power submitted concurrently herewith ("Testimony"). In addition, I am personally 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 my personal knowledge and/or belief.

2. I hereby provide this Declaration in accordance with D.06-06-066, *et seq.*, to demonstrate that the confidential information ("Protected Information") provided in the Testimony submitted concurrently herewith (described below), associated with the Request for Offers ("RFO") design and selection process, falls within the scope of data protected as confidential pursuant to the IOU Matrix attached to the Commission's confidentiality decision, D.06-06-066 (the "IOU Matrix") and/or under relevant statutory provisions.[36]

[36] The Matrix is derived from the statutory protections extended to non-public market sensitive and trade secret information. (*See* D.06-06-066, *mimeo*, note 1, Ordering Paragraph 1). The Commission is obligated to act in a manner consistent with applicable law. The analysis of protection afforded under the Matrix must always produce a result that is consistent with the relevant underlying statutes; if information is eligible for statutory protection, it must be protected under the Matrix. (*See Southern California Edison Co. v. Public Utilities Comm.* 2000 Cal. App. LEXIS 995, *38-39) Thus, by claiming applicability of the Matrix, SDG&E relies upon and simultaneously claims the protection of applicable statutory provisions including, but not limited to, Public Utilities Code §§ 454.5(g) and 583, Govt. Code § 6254(k) and General Order 66-C.

3. In D.06-06-066, the Commission adopted rules governing confidentiality of certain categories of electric procurement data submitted to the Commission by investor owned utilities ("IOUs") and energy service providers ("ESPs"). The Commission established two matrices – one applicable to IOUs, the other to ESPs – setting forth categories and sub-categories of data and providing a confidentiality designation for each.[37]

4. To the extent information matches a Matrix category, it is entitled to the protection the Matrix provides for that category of information. In addition, the Commission has made clear that information must be protected where "it matches a Matrix category exactly . . . *or consists of information from which that information may be easily derived*."[38] In order to claim the protection afforded by the relevant Matrix, the party seeking confidential treatment must establish:

1) That the material it is submitting constitutes a particular type of data listed in the Matrix,

2) Which category or categories in the Matrix the data correspond to,

3) That it is complying with the limitations on confidentiality specified in the Matrix for that type of data,

4) That the information is not already public, and

5) That the data cannot be aggregated, redacted, summarized, masked or otherwise protected in a way that allows partial disclosure.[39]

[37] *See*, D.06-06-066, as amended by D.07-05-032, *mimeo*, Appendices 1 and 2.
[38] *See*, *Administrative Law Judge's Ruling on San Diego Gas & Electric Company's April 3, 2007 Motion to File Data Under Seal*, issued May 4, 2007 in R.06-05-027, p. 2 (emphasis added).
[39] D.06-06-066, as amended by D.07-05-032, *mimeo*, p. 81, Ordering Paragraph 2.

5. The Protected Information, consisting of the information described below, is protected pursuant to the following Matrix categories:

Description of Data	Matrix Category	Period of Confidentiality
Invoiced Total for IE Services related to RFO (Part Two, Section V.B.4)	VII.B	3 years
Specific quantitative analysis involved in scoring and evaluation of participating bids (Appendix 2, Appendix 3)	VIII.B	3 years
PRG Presentations; Portions of IE Report (Appendix 8,9)	VII.G; VIII.A VIII.B	3 years

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

7. I am not aware of any instance of public disclosure of the Protected Information.

8. The Protected Information cannot be provided in a form that is further aggregated, redacted, or summarized and still provide the level of detail requested and expected by the Commission.

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

Executed this 18th day of May, 2011, at San Diego, California.

ROBERT B. ANDERSON
DIRECTOR - RESOURCE PLANNING

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

DECLARATION OF THOMAS C. SAILE REGARDING CONFIDENTIALITY OF CERTAIN DATA

I, Thomas C. Saile, do declare as follows:

1. I am an Energy Contracts Originator in the Procurement and Portfolio Design Department for San Diego Gas & Electric Company ("SDG&E"). I have reviewed the Prepared Direct Testimony of San Diego Gas & Electric Company in Support of Application for Authority to Enter into Purchase Power Tolling Agreements with Escondido Energy Center, Pio Pico Energy Center and Quail Brush Power submitted concurrently herewith ("Testimony"). In addition, I am personally 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 my personal knowledge and/or belief.

2. I hereby provide this Declaration in accordance with D.06-06-066, *et seq.*, to demonstrate that the confidential information ("Protected Information") provided in the Testimony submitted concurrently herewith (described below), associated with Selected Offer #1, Escondido Energy Center, falls within the scope of data protected as confidential pursuant to the IOU Matrix attached to the Commission's confidentiality decision, D.06-06-066 (the "IOU Matrix") and/or under relevant statutory provisions.[40/]

[40/] The Matrix is derived from the statutory protections extended to non-public market sensitive and trade secret information. (*See* D.06-06-066, *mimeo*, note 1, Ordering Paragraph 1). The Commission is obligated to act in a manner consistent with applicable law. The analysis of protection afforded under the Matrix must always produce a result that is consistent with the relevant underlying statutes; if information is eligible for statutory protection, it must be protected under the Matrix. (*See Southern California Edison Co. v. Public Utilities Comm.* 2000 Cal. App. LEXIS 995, *38-39) Thus, by claiming applicability of the Matrix, SDG&E relies upon and simultaneously claims the protection of applicable statutory provisions including, but not limited to, Public Utilities Code §§ 454.5(g) and 583, Govt. Code § 6254(k) and General Order 66-C.

3. In D.06-06-066, the Commission adopted rules governing confidentiality of certain categories of electric procurement data submitted to the Commission by investor owned utilities ("IOUs") and energy service providers ("ESPs"). The Commission established two matrices – one applicable to IOUs, the other to ESPs – setting forth categories and sub-categories of data and providing a confidentiality designation for each.[41/]

4. To the extent information matches a Matrix category, it is entitled to the protection the Matrix provides for that category of information. In addition, the Commission has made clear that information must be protected where "it matches a Matrix category exactly . . . *or consists of information from which that information may be easily derived*."[42/] In order to claim the protection afforded by the relevant Matrix, the party seeking confidential treatment must establish:

1) That the material it is submitting constitutes a particular type of data listed in the Matrix,
2) Which category or categories in the Matrix the data correspond to,
3) That it is complying with the limitations on confidentiality specified in the Matrix for that type of data,
4) That the information is not already public, and
5) That the data cannot be aggregated, redacted, summarized, masked or otherwise protected in a way that allows partial disclosure.[43/]

[41/] *See*, D.06-06-066, as amended by D.07-05-032, *mimeo*, Appendices 1 and 2.
[42/] *See*, *Administrative Law Judge's Ruling on San Diego Gas & Electric Company's April 3, 2007 Motion to File Data Under Seal*, issued May 4, 2007 in R.06-05-027, p. 2 (emphasis added).
[43/] D.06-06-066, as amended by D.07-05-032, *mimeo*, p. 81, Ordering Paragraph 2.

CONFIDENTIAL PURSUANT TO P.U. CODE SECTIONS 583, 454.5(g), GO 66-C, D.06-06-066 and D.08-04-023

5. The Protected Information, consisting of the information described below, is protected pursuant to the following Matrix categories:

Description of Data	Matrix Category	Period of Confidentiality
EEC Power Purchase Tolling Agreement Terms & Conditions Regarding: Operating Hours- III E, Selected Offer 1, Section 4 Pricing- III E, Selected Offer 1, Section 9 Termination- III E, Selected Offer 1, Section 13 Renegotiation- III E, Selected Offer 1, Section 14 Milestones- VI, EEC Critical Milestones Contract- Appendix 6	VII.B	3 years

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

7. I am not aware of any instance of public disclosure of the Protected Information.

8. The Protected Information cannot be provided in a form that is further aggregated, redacted, or summarized and still provide the level of detail requested and expected by the Commission.

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

Executed this 18th day of May, 2011, at San Diego, California.

THOMAS C. SAILE
ENERGY CONTRACTS ORIGINATOR

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

DECLARATION OF F. MAURENE BISHOP REGARDING CONFIDENTIALITY OF CERTAIN DATA

I, F. Maurene Bishop, do declare as follows:

1. I am an Energy Contracts Originator in the Procurement and Portfolio Design Department for San Diego Gas & Electric Company ("SDG&E"). I have reviewed the Prepared Direct Testimony of San Diego Gas & Electric Company in Support of Application for Authority to Enter into Purchase Power Tolling Agreements with Escondido Energy Center, Pio Pico Energy Center and Quail Brush Power submitted concurrently herewith ("Testimony"). In addition, I am personally 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 my personal knowledge and/or belief.

2. I hereby provide this Declaration in accordance with D.06-06-066, *et seq.*, to demonstrate that the confidential information ("Protected Information") provided in the Testimony submitted concurrently herewith (described below), associated with Selected Offer #2, Pio Pico Energy Center, falls within the scope of data protected as confidential pursuant to the IOU Matrix attached to the Commission's confidentiality decision, D.06-06-066 (the "IOU Matrix") and/or under relevant statutory provisions.[44/]

[44/] The Matrix is derived from the statutory protections extended to non-public market sensitive and trade secret information. (*See* D.06-06-066, *mimeo*, note 1, Ordering Paragraph 1). The Commission is obligated to act in a manner consistent with applicable law. The analysis of protection afforded under the Matrix must always produce a result that is consistent with the relevant underlying statutes; if information is eligible for statutory protection, it must be protected under the Matrix. (*See Southern California Edison Co. v. Public Utilities Comm.* 2000 Cal. App. LEXIS 995, *38-39) Thus, by claiming applicability of the Matrix, SDG&E relies upon and simultaneously claims the protection of applicable statutory provisions including, but not limited to, Public Utilities Code §§ 454.5(g) and 583, Govt. Code § 6254(k) and General Order 66-C.

3. In D.06-06-066, the Commission adopted rules governing confidentiality of certain categories of electric procurement data submitted to the Commission by investor owned utilities ("IOUs") and energy service providers ("ESPs"). The Commission established two matrices – one applicable to IOUs, the other to ESPs – setting forth categories and sub-categories of data and providing a confidentiality designation for each.[45/]

4. To the extent information matches a Matrix category, it is entitled to the protection the Matrix provides for that category of information. In addition, the Commission has made clear that information must be protected where "it matches a Matrix category exactly . . . *or consists of information from which that information may be easily derived.*"[46/] In order to claim the protection afforded by the relevant Matrix, the party seeking confidential treatment must establish:

1) That the material it is submitting constitutes a particular type of data listed in the Matrix,

2) Which category or categories in the Matrix the data correspond to,

3) That it is complying with the limitations on confidentiality specified in the Matrix for that type of data,

4) That the information is not already public, and

5) That the data cannot be aggregated, redacted, summarized, masked or otherwise protected in a way that allows partial disclosure.[47/]

[45/] *See*, D.06-06-066, as amended by D.07-05-032, *mimeo*, Appendices 1 and 2.

[46/] *See*, *Administrative Law Judge's Ruling on San Diego Gas & Electric Company's April 3, 2007 Motion to File Data Under Seal*, issued May 4, 2007 in R.06-05-027, p. 2 (emphasis added).

[47/] D.06-06-066, as amended by D.07-05-032, *mimeo*, p. 81, Ordering Paragraph 2.

5. The Protected Information, consisting of the information described below, is protected pursuant to the following Matrix categories:

Description of Data	**Matrix Category**	**Period of Confidentiality**
Pio Pico Power Purchase Tolling Agreement <u>Terms & Conditions Regarding</u>: <u>Operating Hours</u>- III E, Selected Offer 2, Section 4 <u>Transmission</u>- III E, Selected Offer 2, Section 8 <u>Pricing</u>- III E, Selected Offer 2, Section 9 <u>Termination</u>- III E, Selected Offer 2, Section 13 <u>Renegotiation</u>- III E, Selected Offer 2, Section 14 <u>Milestones</u>- VI, Pio Pico Critical Milestones <u>Contract</u>- Appendix 5	VII.B	3 years

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

7. I am not aware of any instance of public disclosure of the Protected Information.

8. The Protected Information cannot be provided in a form that is further aggregated, redacted, or summarized and still provide the level of detail requested and expected by the Commission.

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

Executed this 18th day of May, 2011, at San Diego, California.

F. MAURENE BISHOP
ENERGY CONTRACTS ORIGINATOR

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

DECLARATION OF E BRADFORD MANTZ REGARDING CONFIDENTIALITY OF CERTAIN DATA

I, E Bradford Mantz, do declare as follows:

1. I am an Energy Contracts Originator in the Procurement and Portfolio Design Department for San Diego Gas & Electric Company ("SDG&E"). I have reviewed the Prepared Direct Testimony of San Diego Gas & Electric Company in Support of Application for Authority to Enter into Purchase Power Tolling Agreements with Escondido Energy Center, Pio Pico Energy Center and Quail Brush Power submitted concurrently herewith ("Testimony"). In addition, I am personally 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 my personal knowledge and/or belief.

2. I hereby provide this Declaration in accordance with D.06-06-066, *et seq.*, to demonstrate that the confidential information ("Protected Information") provided in the Testimony submitted concurrently herewith (described below), associated with Selected Offer #3, Quail Brush Power, falls within the scope of data protected as confidential pursuant to the IOU Matrix attached to the Commission's confidentiality decision, D.06-06-066 (the "IOU Matrix") and/or under relevant statutory provisions.[48/]

[48/] The Matrix is derived from the statutory protections extended to non-public market sensitive and trade secret information. (*See* D.06-06-066, *mimeo*, note 1, Ordering Paragraph 1). The Commission is obligated to act in a manner consistent with applicable law. The analysis of protection afforded under the Matrix must always produce a result that is consistent with the relevant underlying statutes; if information is eligible for statutory protection, it must be protected under the Matrix. (*See Southern California Edison Co. v. Public Utilities Comm.* 2000 Cal. App. LEXIS 995, *38-39) Thus, by claiming applicability of the Matrix, SDG&E relies upon and simultaneously claims the protection of applicable statutory provisions including, but not limited to, Public Utilities Code §§ 454.5(g) and 583, Govt. Code § 6254(k) and General Order 66-C.

3. In D.06-06-066, the Commission adopted rules governing confidentiality of certain categories of electric procurement data submitted to the Commission by investor owned utilities ("IOUs") and energy service providers ("ESPs"). The Commission established two matrices – one applicable to IOUs, the other to ESPs – setting forth categories and sub-categories of data and providing a confidentiality designation for each.[49/]

4. To the extent information matches a Matrix category, it is entitled to the protection the Matrix provides for that category of information. In addition, the Commission has made clear that information must be protected where "it matches a Matrix category exactly . . . *or consists of information from which that information may be easily derived*."[50/] In order to claim the protection afforded by the relevant Matrix, the party seeking confidential treatment must establish:

1) That the material it is submitting constitutes a particular type of data listed in the Matrix,

2) Which category or categories in the Matrix the data correspond to,

3) That it is complying with the limitations on confidentiality specified in the Matrix for that type of data,

4) That the information is not already public, and

5) That the data cannot be aggregated, redacted, summarized, masked or otherwise protected in a way that allows partial disclosure.[51/]

[49/] *See*, D.06-06-066, as amended by D.07-05-032, *mimeo*, Appendices 1 and 2.

[50/] *See*, *Administrative Law Judge's Ruling on San Diego Gas & Electric Company's April 3, 2007 Motion to File Data Under Seal*, issued May 4, 2007 in R.06-05-027, p. 2 (emphasis added).

[51/] D.06-06-066, as amended by D.07-05-032, *mimeo*, p. 81, Ordering Paragraph 2.

5. The Protected Information, consisting of the information described below, is protected pursuant to the following Matrix categories:

Description of Data	Matrix Category	Period of Confidentiality
Quail Brush Power Purchase Tolling Agreement <u>Terms & Conditions Regarding</u>: <u>Operating Hours</u>- III E, Selected Offer 3, Section 4 <u>Transmission</u>- III E, Selected Offer 3, Section 8 <u>Pricing</u>- III E, Selected Offer 3, Section 9 <u>Termination</u>- III E, Selected Offer 3, Section 13 <u>Renegotiation</u>- III E, Selected Offer 3, Section 14 <u>Milestones</u>- VI, Quail Brush Critical Milestones <u>Contract</u>- Appendix 7	VII.B	3 years

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

7. I am not aware of any instance of public disclosure of the Protected Information.

8. The Protected Information cannot be provided in a form that is further aggregated, redacted, or summarized and still provide the level of detail requested and expected by the Commission.

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

Executed this 18th day of May, 2011, at San Diego, California.

E. BRADFORD MANTZ
ENERGY CONTRACTS ORIGINATOR

APPENDIX 1

REQUEST FOR OFFERS
for
DEMAND RESPONSE
and
SUPPLY RESOURCES

June 9, 2009

San Diego Gas & Electric Company
Electric and Gas Procurement Department
8315 Century Park Court,
San Diego, CA 92123-1593

1. Scope of Supply[1]

San Diego Gas & Electric Company (SDG&E) is issuing this Request for Offers (RFO) for demand response and 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. All resources that can meet the obligations set forth below are welcome to bid their offers into this RFO (Offer(s)); however, all renewable resources are strongly encouraged to participate in a separate renewables-only solicitation, which SDG&E issues annually[2]. SDG&E anticipates this RFO will produce contracts from respondents (Respondent(s)) as indicated below:

	Local Resources		Resources Outside SDG&E	
	Short-Term	Long-Term	Short Term	Long Term
Product 1: Demand Response	Term: 3 years Delivery Starts: 2012			
Product 2: New Generation		Term: 20 years Delivery Starts: 2010 - 2014		
Product 3: Existing Resources	Term: 1 year / 2 years Delivery Starts: 2010 or 2011			
Product 4: Existing Resources			Term: 2 years Delivery Starts: 2010	
Product 5: Existing Resources		Term: 10 years Delivery Starts: 2012		
Product 6: New or Existing Resources				Term: 10 years Delivery Starts: 2012
Product 7a: Firm LD Energy Product 7b: Resource Adequacy	Term: 2 years / 4 years Delivery Starts: 2010 or 2012		Term: 2 years / 4 years Delivery Starts: 2010 or 2012	

1 Amounts requested in each product category may vary based upon CAISO determinations on RMR, local zone definition, unit retirement, and the quantity selected in other product categories.

2 To be notified of pending Renewable-only solicitations, please email contact information to RenewableRFO@semprautilities.com.

General characteristics of each product are described below. SDG&E anticipates that all Offers received will provide SDG&E with a menu of resources from which it can select to fulfill its short- and long-term needs. The capacities listed are not a guarantee of purchase amounts for each product, but rather estimates of potential volumes. The final purchase amounts will depend on factors including evolving resource planning considerations, the number of Offers received for each product type and potential overlap in product characteristics from various Offers. Offered prices for Products 1 through 6 and 7b are valid and binding upon the Respondent until contract execution; there will be no opportunities to refresh Offer prices. There will be one opportunity to refresh Offer prices for Product 7a as indicated in the schedule on Section 3 RFO Schedule. Tolling products 2-6 will include supply of all capacity attributes including Resource Adequacy and Ancillary Services if available.

Product 1 - Demand Response
SDG&E seeks Demand Response products for a three year term. Initial load reduction will commence on May 1st 2012. This product must be a means of reducing an end-use customer's demand and/or energy usage during a demand response event, must be for at least 1.0 MW in the aggregate and be within SDG&E's service territory. The demand and/or energy reduction must be measureable. 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 Offer Requirements of this solicitation.

Product 2 - New Local[3] Generation Projects, online in 2010 - 2014.
SDG&E seeks a minimum of 100 MW of peaking or intermediate-class resources as new construction or expansion projects within SDG&E's territory. Any resulting contract will be a tolling agreement with a term of 20 years and online dates of May 1- or October 1 in either 2010, 2011, 2012, 2013 or 2014. The 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 local area as currently defined by the California Independent System Operator ("CAISO") such that the unit supports SDG&E's Local RA requirement. Units located within CAISO's proposed expanded local area for SDG&E (see Addendum) should submit Offers in other products of this solicitation. Products offered in this category shall be capable of operating under all permits at annual capacity factors of a minimum of 30%with an availability of -98%. It is anticipated that heat rates will be no higher than 10,500 btu/kWh. 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. In addition, SDG&E will include the additional value provided from projects that can provide quick start operations[4] in the ranking of Offers. SDG&E also requires that each Offer contain pricing for, and an option to provide, black start capability.

Product 3 - Existing Local Resources, delivering in 2010 and/or 2011
SDG&E seeks a minimum of 400 MW of existing resources currently operating within SDG&E's territory for deliveries in 2010 and 2011. Any resulting contract will be a tolling agreement with a term of up to 2 years with a start date of January 1, 2010, or a 1 year term with a start date of January 1, 2010 or January 1, 2011. Offers for this product must be existing generation capacity that is currently recognized by the CAISO as counting towards SDG&E's service area Local Capacity Requirement. Respondents must provide Offers for deliveries in both 2010 and 2011 and pricing may differ between the years. However, SDG&E may at its discretion contract with the Respondent for

[3] "Local" for purposes of satisfying Resource Adequacy, is defined by the CAISO and generally described in the Addendum below.
[4] Respondents will specify resource ramp-up rates and other operating characteristics within the offer forms.

either or both years. 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. In addition, SDG&E will include the additional value provided from projects that can provide quick start operations[5] in the ranking of Offers. SDG&E also requires that each Offer contain pricing for, and an option to provide, black start capability.

Product 4 - Existing Regional Resources, delivering in 2010 and 2011
SDG&E seeks a minimum of 200 MW of existing resources currently operating outside of SDG&E's territory. Any resulting contract will be a tolling agreement with a term of 2 years starting on January 1, 2010. This product must deliver into CAISO's SP-15. 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 started and shut down as needed. In addition, SDG&E will include the additional value provided from projects that can provide quick start operations[5] in the ranking of Offers.

Product 5 - Existing Local Resources, delivering in 2012-2021
SDG&E seeks a minimum of 400 MW of existing resources currently operating within SDG&E's territory. Any resulting contract will be a tolling agreement with a term of 10 years and a start date of January 1, 2012 to qualify. Offers for this product must be existing generation 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 local area as currently defined by the California Independent System Operator ("CAISO") such that the unit supports SDG&E's Local RA requirement. Units located within CAISO's proposed expanded local area for SDG&E (see Addendum) should submit Offers in other products of this solicitation. In consideration of California State Once Through Cooling (OTC) goals and pending Water Board rules, any Offer for 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. OTC offers shall not include proposals for upgrades or retrofits of OTC facilities. The decision to exercise the option will be based upon future rules[6] governing OTC or SDG&E's sole discretion given its portfolio need. 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. In addition, SDG&E will include the additional value provided from projects that can provide quick start operations[5] in the ranking of Offers. SDG&E also requires that each Offer contain pricing for, and an option to provide, black start capability.

Product 6 - All-Source Regional Resources, 2012-2021
SDG&E seeks minimum of 200 MW of new construction, expansion, or existing resources currently operating outside of SDG&E's territory. Any resulting contract will be a tolling agreement with a term of 10 years and deliveries will begin on May 1, 2012. This product must deliver into CAISO's SP-15. For this product, SDG&E requires flexible resources that are capable of providing regulation during the morning and evening ramps and shutting down at night. In addition, SDG&E will include the

[5] Respondents will specify resource ramp-up rates and other operating characteristics within the offer forms.

[6] From the California State Water Resources Control Board website: *The State Water Board staff is working on a draft statewide policy to implement section 316 (b) of the Clean Water Act that controls the harmful effects of once-through cooling water intake structures on marine and estuarine life. Since 1972, the Clean Water Act has required, in Section 316 (b), that the location, design, construction, and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental impacts. The projected release date for a draft Substitute Environmental Document is the end of the summer.* For additional information, please visit: http://www.swrcb.ca.gov/water_issues/programs/npdes/cwa316.shtml

additional value provided from projects that can provide quick start operations[6] in the ranking of Offers. In consideration of California State Once Through Cooling (OTC) goals and pending Water Board rules, any Offer for supply from a unit located in California 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. OTC offers shall not include proposals for upgrades or retrofits of OTC facilities. The decision to exercise the option will be based upon future rules[6] governing OTC or SDG&E's sole discretion given its portfolio need. If the CAISO expands SDG&E's Local RA area as described in the addendum, SDG&E could, at its sole discretion, evaluate Product 6 Offers that are located within the expanded area as if it were a Product 5 Offer.

Product 7 Firm Liquidated Damages (LD) Energy and/or Resource Adequacy
SDG&E seeks a minimum of 200 MW of Firm LD Energy and/or Resource Adequacy Purchases. Resources may be within or outside of SDG&E service area.

Product 7a: Third Quarter, 6x16, on-peak Firm LD energy products conforming to Schedule C of the Western States Power Pool. Any resulting agreement will be an EEI agreement for short-term, block power purchases. Respondents may provide Offers for the following delivery periods: 1) for deliveries in 2010 and 2011 and/or 2) deliveries in 2012 and 2013. If a Respondent provides Offers for both options, SDG&E may at its discretion contract with the Respondent for either or both options. Resources outside of SDG&E must deliver to SP-15. For Product 7a, SDG&E will shortlist projects within the timeframes indicated in the schedule in Section 3 of this RFO. Refreshed pricing of shortlisted Offers will be allowed only once and by the date indicated in the schedule. Respondents are caution that if refreshed prices exceed the competitive range, the Offer may be rejected.

Product 7b: Respondents shall Offer System Resource Adequacy (and local if within the SDG&E Local Area). Any resulting agreement will be a WSPP agreement for Resource Adequacy. Respondents may provide Offers for the following delivery periods: 1) for deliveries in 2010 and 2011 [Q3 or full year] and/or 2) deliveries in 2012 and 2013 [Q3 or full year]. If a Respondent provides Offers for both options, SDG&E may at its discretion contract with the Respondent for either or both options.

Respondents may provide Offers for a single product and term or a combination of Offers, providing SDG&E with flexibility to match Offers and fill its required energy and capacity needs.
For products seeking new or expanded generation resources, the Respondent shall be responsible for development, permitting, financing, and construction of any required facilities. 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.

2. RFO Website and Communication

The website for this solicitation is http://www.sdge.com/2009SupplyResourcesRFO/ . All forms and documents necessary to submit Offers are available for download at the RFO Website. Respondents will also submit Offers electronically via this website. (See RFO Section 4.0 RFO Response for additional information.) Please check the website periodically as SDG&E will post all solicitation announcements, including scheduling changes or RFO amendments at this website.

All questions or other communications regarding this RFO should be submitted via e-mail to the RFO's mailbox: rfo@semprautilities.com. All questions and answers will be posted anonymously at the RFO Website. SDG&E will not accept questions or comments in any other form, except during the bidders' conference.

3. RFO Schedule

SDG&E will host a pre-bid conference on the date and time indicated below. Participation in the pre-bid conference is NOT mandatory in order to submit an Offer. Any party interested in attending this pre-bid conference should download the Pre-Bid Conference Registration Form from the RFO Website and email the form to rfo@semprautilities.com. Details on the exact location of the pre-bid conference will be posted on the RFO Website as soon as it is available.

SDG&E reserves the right to revise this schedule at SDG&E's sole discretion and will post such changes on the RFO Website. Respondents are responsible for accessing the RFO website for updated schedules and possible amendments to the RFO or the solicitation process. 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.

#	MILESTONE	DATE
1	**RFO Issued**	**June 9, 2009**
2	DEADLINE TO REGISTER for PRE-BID CONFERENCE Those intending to bid must register to receive a username/password in order to upload electronic Offers.	June 25, 2009
3	Pre-Bid Conference at 10:00am in San Diego, CA	July 8, 2009
4	DEADLINE TO SUBMIT QUESTIONS Question submittal cut-off date.	July 27, 2009
5	DEADLINE TO REGISTER Those intending to bid must register to receive a username/password in order to upload electronic Offers.	August 5, 2009
6	**CLOSING DATE: Offers uploaded and received by noon** (San Diego local prevailing time)	**August 10, 2009**
7	Hard-copies of Offers must be received at SDG&E's offices	August 12, 2009
8	Product 3 and Product 7a: Shortlisting, negotiation and contract execution	Within 3 months after closing date
9	Products 1, 2, 4, 5, 6, 7b: Shortlisted Bidders notified / Negotiation commences	3 months after closing date
10	~~Products 1, 2, 4, 5, 6, 7b:~~ Deadline to refresh Product 7a offered pricing.	No later than 2 months after shortlist notification
11	Products 1, 2, 4, 5, 6, 7b: Contracts Executed	Approx. 3 – 9 months after shortlisting
12	Products 1, 2, 4, 5, 6, 7b: Contracts filed with CPUC	Approx. 1 - 2 months after contract execution
13	Products 1, 2, 4, 5, 6, 7b: CPUC approves contracts	Typically 6 - 9 months after contract filing (but could be longer)

4. RFO Response

Any party interested in submitting an Offer must fill-out and email to rfo@semprautilities.com the RFO Registration Form (available from the RFO Website). SDG&E will process the form and provide the interested party instructions necessary to upload Offers, a username/password combination and access to the offer upload link (see below).

SDG&E **requires** that all Offers submitted pursuant to this RFO contain at a minimum, the items listed below. All forms and documents referenced below are available on the RFO Website.

a) the information requested in the Submittal Forms using the forms provided. The forms should be submitted in editable electronic form for efficient processing by SDG&E.
b) Respondents must redline comments on the pro forma agreement applicable to the Offer. In order to evaluate Offers against each other in each Product class, SDG&E urges that Respondents develop their Offers using existing Terms and Conditions of the pro forma agreements. Substantial, material mark-ups may result in an Offer being deemed non-conforming.
c) Credit. Respondent's Offer **must include** a completed credit application (available on the RFO website).
d) Respondents to products seeking new or expanded generating resources, must submit 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.

All Offers must be uploaded to SDG&E via the RFO Website by the date and time indicated in the schedule above. One original hardcopy 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 the date indicated in the schedule. Contents of the electronic Offer submittal and the original hardcopy signed Offer shall be identical. Any conflicts between the information set forth in an electronic Offer 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
Attn: Supply Resource RFO
8315 Century Park Court, CP 21D
San Diego, CA 92123-1548

5. Project Timeline

Respondents must demonstrate that they have or are in process of getting all necessary permits (including air and building permits), site control, engineering designs and transmission interconnection studies. Sufficient documentation must be provided to evidence that the project can come online by the proposed date.

6. Offer Requirements

1. The Respondent shall be 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 and in accordance with 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. 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.

4. Respondent must identify all necessary emissions offsets and the associated costs which will be incorporated into their Offer. All Offers must comply with all existing air quality laws and be compliant with the CPUC Emissions Performance Standards (as adopted in R.06-04-009) on GHG.

5. For all products where the resulting contract will be tolling agreements, 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.

6. 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 tolling agreements. 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.

7. For new development, 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 online date of no later than that deadline dates stated in the Product descriptions.

8. For Product 1 Demand Response, the minimum criteria are indicated below.

    a. Offers must meet Resource Adequacy requirements for Demand Response as set forth by the CPUC in D.05-10-042.
    b. Offers should be for three (3) year Demand Response product Offer to provide load reduction beginning May 1, in 2012.
    c. Ability to fully respond to an event notification within 10 minutes.
    d. Load must be curtailable between 12:00 PM and 6:00 PM.

e. Offers must conform with all CAISO requirements for Demand Response Resources[7], including but not limited to Metering and Telemetry requirements, as may be updated from time to time.
f. Offers must comply with the policy guidance of the Energy Action Plan I and II and be in alignment with California's Demand Response Vision for the Future.[8]
g. Offers must be for load not yet committed to other programs.
h. Offered loads must be curtailable under a Direct Load Control (DLC) program.
i. Offered loads must have an average monthly maximum greater than 100kW for at least three (3) of the most current twelve (12) months.
j. Offers must be targeted toward nonresidential customers with a minimum demand of 100kW. Offers targeted at residential and/or small business customers with demands <100kW will not be considered.

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.[9]

Alternative Offers may be submitted. At SDG&E discretion, alternative Offers may be evaluated and considered. If alternative Offers are submitted, please clearly state (identify) the alternative Offers.

Please note that any resultant contract will include provisions for:
a. A Non-Performance penalty for capacity load reduction shall be applied. For example, a non-performance calculation may be similar as SDG&E's Capacity Bidding Program CBP. Refer to SDG&E' Schedule CBP - Capacity Bidding Program, Special Condition 6 in http://www.sdge.com/regulatory/elec_misc.shtml
b. A Non-Performance penalty for load reduction during an event shall be applied. Energy load reduction shortfall during an event shall be considered non-performance and an adjustment will be required in order to compensate for any failure of the contractor to deliver committed load reductions. For example, a non-performance calculation may be similar as SDG&E's Capacity Bidding Program CBP Schedule.

At the request of SDG&E, the selected Respondent will be required to provide the following documents during contract negotiations:
a. Audited financial statements, including balance sheet, statement of cash flows, and income, for 2007 and 2008; OR
b. Complete income tax returns for 2007 and 2008.

7. Binding Offer Evaluation

SDG&E anticipates evaluating Offers for different Products on different timelines. In general, supply offers for 2010-2011 delivery dates will be evaluated first. Supply Offers for 2012 – on delivery dates will be evaluated second. 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 items listed below.

[7] http://www.caiso.com/1893/1893e350393b0.html
[8] California Demand Response: A Vision for the Future. D. 03-06-032, Appendix A.
[9] D.06-11-049 (mimeo at pp.57-58) discusses the Commission's policy regarding back-up generation options.

SDG&E reserve the right to evaluate non-conforming Offers and may request additional data from Respondents to bring non-conforming Offers into conformance.

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 new generation resource to satisfy grid reliability and deliverability requirements for new capacity.

3. Congestion costs - Potential for SDG&E incurred congestion costs will be assessed, as well as SDG&E's ability to hedge these costs.

4. Impacts on existing SDG&E financial structure, such as debt equivalence and/or the effect of FIN 46, may be considered in the evaluation process.

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.

In accordance with CPUC D.07-12-052 preference will be given to procurement that will encourage the retirement of aging plants, particularly inefficient facilities with once-through cooling, by providing, at minimum, qualitative preference to Offers involving repowering of these units or Offers for new facilities at locations in or near the load pockets in which these units are located." (p.113) and further "IOUs are to consider repowered or replacement options presented in a RFO….. before they choose options developed on Greenfield sites, or make a showing that justifies their decision not to do so (p.229).

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. 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. 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.

6. Development risk – consideration will be given to 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) – Project team will be assessed on whether the project team has demonstrated experience with the specific technology and implementation plan they are proposing.

10. Credit Risk

Portfolios of Offers that are short listed based on qualitative and quantitative criteria will be analyzed using production cost modeling. Offers for local capacity will be analyzed and ranked first until the combined capacity of the short listed Offers meets local need requirements. The remaining Offers will then be evaluated and ranked to meet the remaining system need.

SDG&E requests that Respondents who believe their Offers 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 (with the exception of Product 7 as noted elsewhere in this document) 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 any required 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

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 and Independent Evaluator

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.[10] 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.

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 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 will be required to post collateral based on the credit requirements established by SDG&E. For new development, Respondents will be required to post development collateral until commercial operation has been met. Collateral will be required during delivery periods for new and existing projects.

The table below presents the collateral amounts (cash or letter of credit) required for each product type should a contract be executed and depending on quantity. All Offers must include the cost of collateral in the amount required below in their Offer price.

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

Product	Collateral per 50 MW ($mm)
Product 1*	1.7
Product 2	25.6
Product 3	5.5
Product 4	5.5
Product 5	25.6
Product 6	25.6
Product 7a (delivery years)	
2010-2013*	16.2
2010-2011*	7.3
2012-2013*	8.9
Product 7b (delivery years)	
2010-2013*	1.0
2010-2011*	0.4
2012-2013*	0.5
	** Collateral per 10MW*

Credit support amounts shall not be deemed a limitation of liability. Model credit support documents will be provided to shortlisted Respondents as applicable.

Under no circumstance will SDG&E post collateral for any resultant contract.

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 agreement entered into by SDG&E and a selected Respondent for Products 1, 2, 5 and 6 will be subject to and contingent upon (at a minimum) (1) the issuance by the CPUC of a final 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.
2. 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 Respondent to obtain: (1) a FERC order, as may be required, accepting and/or

authorizing any agreement(s) entered into hereunder, including without limitation, 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

SDG&E will not reimburse Respondents for their expenses under any circumstances, regardless of whether the RFO process proceeds to a successful conclusion or is abandoned by SDG&E at its sole discretion without any resultant contract executed for any of the products.

SDG&E reserves the right to disregard a non-conforming Offer or waive requirements for any product and shortlist a non-conforming Offer.

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 are available for download at the RFO Website:

1. The RFO

2. Technical Bid Forms (the form applicable to the product being offered is required)
   - Product 1
   - Product 2
   - Product 3
   - Product 4
   - Product 5
   - Product 6
   - Product 7a
   - Product 7b

3. Proforma Agreements – Respondents must include as part of the Offer redline comments to the applicable proforma agreement.
   - Tolling Agreement (required for Products 2, 3, 4, 5, 6)
   - EEI Firm LD Agreement (required for Product 7a)
   - WSPP RA Agreement (required for Product 7b)

4. Credit Application (required for all Products)

5. DBE Subcontracting Commitment And Reporting Requirements Form (required for Product 1)

6. Participation Summary (required for all Products except Product 1)

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. Major ("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), the Otay Mesa plant (expected online in fall of 2009), 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. [11] Planned or approved transmission facilities for the future (if any) are not shown on this map. Upon completion of the Sunrise Powerlink (expected in 2012), the California ISO has proposed that it may expand their defined local area for SDG&E's transmission system. If the local area is expanded, there will be additional facilities and areas that will be considered local to the SDG&E transmission area.

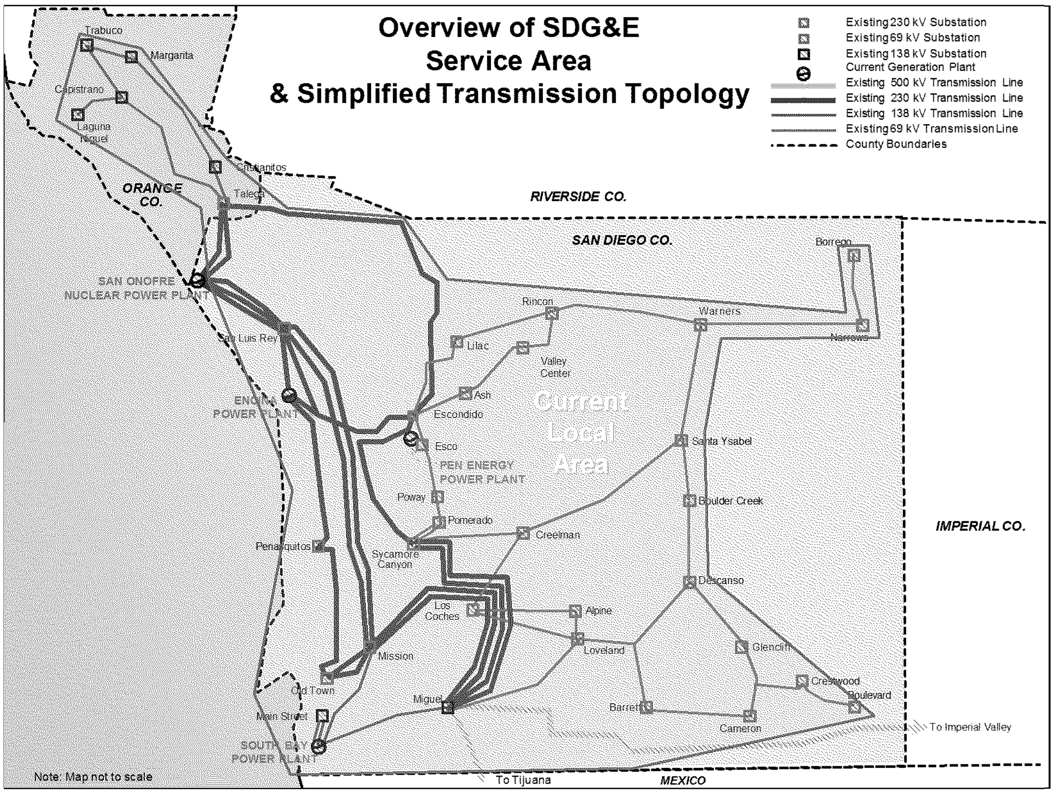
Local Capacity Requirements are set by the California Independent System Operator ("CAISO") each year for the following year. Areas of Local Resource Adequacy correspond to the areas of Local Capacity Requirements as described in the 2010 Local Capacity Area Technical Study ("Technical Study" or "LCR Study"). This study is performed to identify specific areas within the CAISO Controlled Grid that have local reliability needs and to determine the minimum generation capacity (MW) that would be required to satisfy these local reliability requirements, while enforcing generation deliverability status and Maximum Import Capability for all common mode contingencies as defined by CAISO.[12]

The future area of Local Resource Adequacy has been projected by SDG&E based upon the 2011-13 Local Capacity Technical Analysis Report and Study Results published by CAISO on December 29. 2008 (http://www.caiso.com/20ad/20ad77d04d70.pdf).

11 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.

12 2010 Local Capacity Technical Analysis, Final Report and Study Results . California Independent System Operator, May 1, 2009.

Figure 1. Current SDG&E Local Area



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APPENDIX 2

The Entire Appendix 2 is CONFIDENTIAL

APPENDIX 3

The Entire Appendix 3 is CONFIDENTIAL

APPENDIX 4

Appendix 4

Contract Summaries:

Escondido Energy Center
Pio Pico Energy Center
Quail Brush Genco

CONTRACT SUMMARY

Counterparty: Escondido Energy Center, LLC

Resource Type: Natural gas-fired, simple-cycle, quick start peaking turbine

Location: On the site of an existing power plant on the south side of Hwy 78 in Escondido just west of I-15.

Expected Deliveries: The expected facility capacity as stated in the Power Purchase Tolling Agreement is 45 MW. Annual energy delivery is contingent upon grid reliability needs and market price. The PPTA provides for the unit to operate up to 2600 hours per year.

Delivery Point: SDG&E's adjacent Escondido Substation

Length of Contract: 25 years.

Online Date: The planned online date is July 1, 2012.

CONTRACT SUMMARY

Counterparty: Pio Pico Energy Center, LLC

Resource Type: Natural gas-fired, simple cycle, quick start peaking turbines

Location: Private land, previously disturbed, adjacent to the Otay Mesa combined cycle power plant in San Diego County.

Expected Deliveries: Expected Contract Capacity as stated in the Power Purchase Tolling Agreement is 304.8 MW. Annual energy delivery is contingent upon grid reliability needs and market price. The PPTA provides for each of the three units to run up to 4,000 hours per year.

Delivery Point: Interconnection facilities at the 230 kV Otay Mesa switchyard

Length of Contract: 20 years

Online Date: The planned online date is May 27th, 2014.

CONTRACT SUMMARY

Counterparty: Quail Brush Genco LLC

Resource Type: Reciprocating natural gas-fired engines that are quick start peaking units

Location: Quail Brush is located on private land adjacent to and south of the existing Sycamore Canyon Landfill. The project is just North of Hwy 52 several miles east of Interstate 15.

Expected Deliveries: The facility's anticipated capacity as stated in the Power Purchase Tolling Agreement is100 MW. Annual energy delivery is contingent upon grid reliability needs and market price. The PPTA provides for the unit to operate up to 3800 hours per year.

Delivery Point: The project will be connected by a new 230kV switchyard into SDG&E's existing Sycamore Canyon-Mission 230kV transmission line.

Length of Contract: 20 years.

Online Date: The planned online date is June 1, 2014.

APPENDIX 5

The Entire Appendix 5 is CONFIDENTIAL

APPENDIX 6

The Entire Appendix 6 is CONFIDENTIAL

APPENDIX 7

The Entire Appendix 7 is CONFIDENTIAL

APPENDIX 8

The Entire Appendix 8 is CONFIDENTIAL

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APPENDIX 9

Note that the Entire Addendum is

CONFIDENTIAL

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Public Version

Independent Evaluator's Report – Product 2: New Local Generation and SDG&E's June 9, 2009 RFO for Demand Response and Supply Resources

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May 18, 2011

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I. INTRODUCTION

San Diego Gas & Electric Company (SDG&E) is requesting authority to enter into three long-term power purchase tolling agreements (PPTAs) that would add a total of approximately 450 MW of needed local capacity to SDG&E's existing portfolio of resources. These three PPTAs resulted from offers that were received for Product 2, new long-term local capacity, in SDG&E's Request for Offers (RFO) for Demand Response (DR) and Supply Resources, issued on June 9, 2009.[1] Three contracts have been negotiated with the following non-utility entities: EIF's Apex Pio Pico Energy Center, 305 MW; Wellhead's Escondido Energy Center, 45 MW; and Goldman Sachs/Cogentrix's Quail Brush Generation Project, 100 MW.

SDG&E's need for new local generation is determined by the need for sufficient resources that are physically located in the San Diego load pocket and are capable of meeting local Resource Adequacy (RA) requirements for all load serving entities (LSEs). This need also accommodates the additional retiring resources that were not included in SDG&E's 2006 Long Term Procurement Plan (LTPP) retirement assumptions.

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 PPTAs for Product 2 in the context of the offers for supply resources that were received in response to the 2009 Supply RFO. Hence, our report discusses the current status of all products in the 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

[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.

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. 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[2] that seek products of more than three months in duration."[3] 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.[4]

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."[5]

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 supply offers for some products which require the Short Form template and others the Long Form. These products are described in Section II of this report.

[2] 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.
[3] This requirement creates uniformity between the contract length for which an IOU must consult its Procurement Review Group (PRG) and the IE process.
[4] 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.
[5] "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.[6] 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 contracts solicited for Product 2. 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. 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 Product 2 contracts, this report and its Confidential Addendum address the RFO and the evaluations as an integrated whole.

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.

[6] 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 additional 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 March 2011, 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.[7]

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 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.

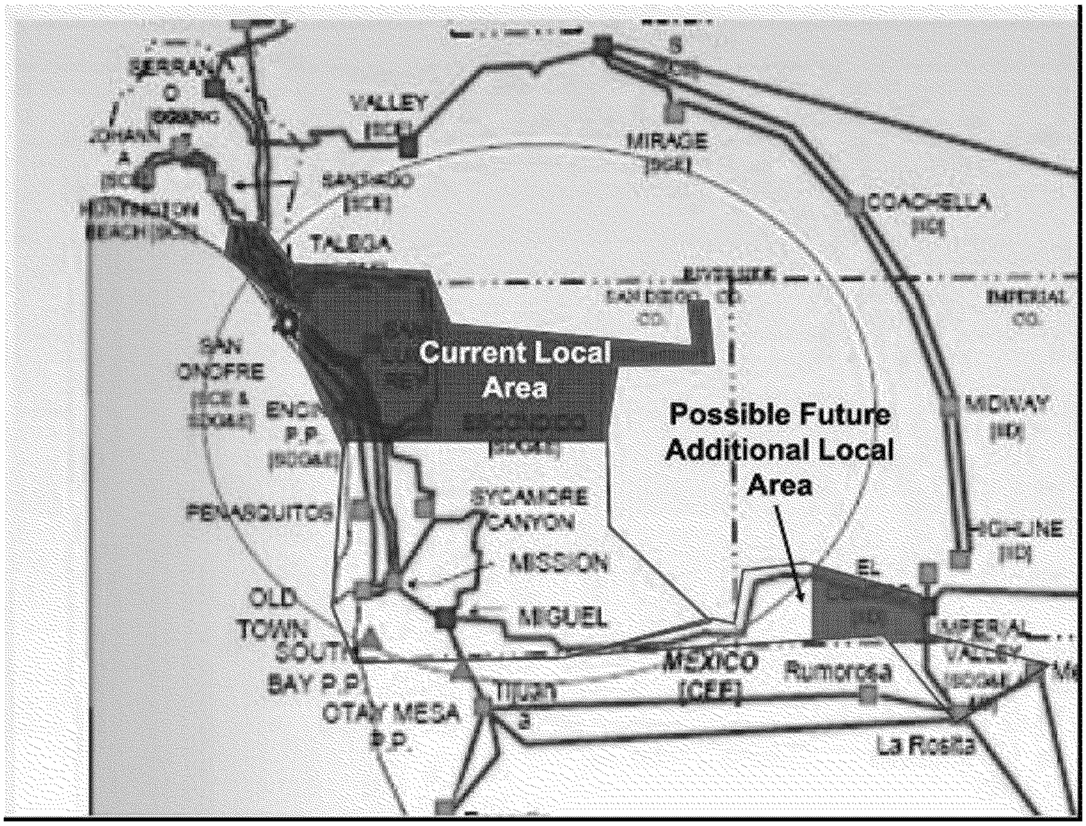
C. SDG&E's Local and System RA Needs

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. 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.[8] Local Need will continue to grow in later years, as load continues to grow.

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

[8] 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.

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



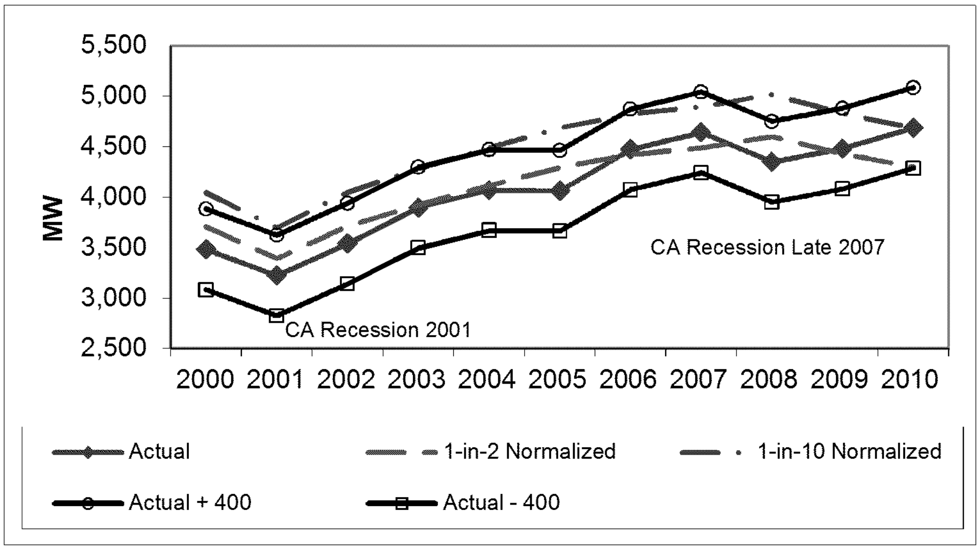
VHC has reviewed estimates of SDG&E's system need, as this need has changed during 2009 and 2010. Further information is presented in the Confidential Addendum.

VHC also reviewed data on SDG&E's peak loads for the period 2000 to 2010. Figure 2 below shows:

- Actual Peak loads,
- Peak loads normalized for 1-in-2 and 1-in-10 weather years, and
- Actual peak loads plus 400 MW and minus 400 MW.

The results show that SDG&E's peak loads can decline or increase significantly from one year to the next. In both 2001 and in 2007, years in which California had economic recessions, the peak loads were significantly lower than the peak load for the year prior to the recession. In some other years, loads increased by much more than the average for the 11-year period. For all years, except 2010, actual peak loads are relatively close to the values for loads normalized for 1-in-2 weather years and below values normalized for 1-in-10 weather years. In 2010, actual loads are almost 400 MW above and approximately equal to the loads normalized for 1-in-2 weather and 1-in-10 weather years, respectively.

Figure 2. SDG&E's Peak Loads 2000 to 2010



Other factors that SDG&E has accounted for in estimating its need for new capacity include:

- The Once Through Cooling (OTC) policy adopted by the state Water Resources Control Board to phase out or greatly reduce the use of coastal and estuarine waters for power plant cooling.[9] The Encina Power Plant (960 MW) must meet this relatively new obligation by December 31, 2017. Hence, to estimate need, SDG&E now assumes the retirement of Encina units 1, 2 and 3, or a total of 320 MW by 2013, with the remaining Encina capacity to be retired in 2017.
- Revised assumptions for load and resources, such as the CEC's forecast, produced in late 2010,[10] as well as updates to all resources including using the CAISO current Net Qualifying Capacity (NQC) resource ratings.[11] VHC notes that 2010 forecasts are below the CEC's 2009 Integrated Energy Policy Report's demand forecast.[12]

[9] The policy was issued on May 4, 2010 and is available at: http://www.wecc.biz/committees/BOD/TEPPC/TAS/08192010/Lists/Minutes/1/CA_OTCRetirement_TEPPC2020Basecase2010_08_18.pdf

[10] The report is available at http://www.energy.ca.gov/2010publications/CEC-200-2010-011/CEC-200-2010-011-SD.PDF

[11] 2011 Final Net Qualifying Capacity (NQC) Report as posted on the CAISO web site at: http://www.caiso.com/276a/276a8c14493a0.xls

[12] CEC-200-2011-002-CTF, Miguel Garcia-Cerrutti, Tom Gorin, Chris Kavalec, and Lynn Marshall. Revised Short-Term (2011-2012) Peak Demand Forecast Committee Final Report. California Energy

However, if the California economy recovers more rapidly from the recession or if demand response and distributed generation programs are not as successful as assumed, actual demand could exceed the CEC's forecasts.

- Future uncertainties and unanticipated events, including delays or cancellation of planned facilities, premature retirements or extended outages, natural disasters, such as fires and earthquakes, terrorism or sabotage. While SDG&E's planning does not accommodate all the ways that additional power plants may be needed earlier than presently anticipated, VHC believes it is prudent for SDG&E to maintain a modest surplus of capacity rather than a deficit.
- The need to provide a generation resource mix capable of integrating increasing amounts of renewable energy into the grid from intermittent generation technologies. The Product 2 resources will add new capacity with lower heat rates, quicker starting capabilities and greater operational flexibility.

Based on consideration of these factors, VHC concurs with SDG&E that the Product 2 resources being evaluated here are needed to satisfy local Resource Adequacy and prudent planning criteria. Moreover, without their addition, the retirement of the Encina OTC generating units would most likely lead to insufficient local RA capacity.

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 Product 2 contracts, it also indicates the status of all the RFO Products, as shown in Table 1. Table 2 provides a brief summary of the status of each of the products SDG&E solicited in its 2009 All-Source RFO.

Commission, Electricity Supply Analysis Division. CEC-200-2011-002-CTF. pp 13-16.

Table 2. Current Status of 2009 RFO Products

Product	Type	Status
1	Demand Response (DR)	Negotiations for three-year DR contracts with short-listed offerors have been halted, awaiting CPUC direction.
2	New Local Gen (Toll)	The local capacity from this offer is needed to meet SDG&E grid reliability needs. A portion will be allocated to SDG&E to meet its bundled customers' local and system resource adequacy (RA) needs. Long-term contracts with three short-listed bidders have been signed and are being submitted to the Commission for approval in this application. The cumulative amount of capacity selected from Product 2 offers is 450 MW.
3	Existing Local Gen 2010 - 11 (Toll)	SDG&E negotiated a one-year contract and a one-year extension with NRG Encina for 964 MW to provide local RA capacity needed in 2010 and 2011.
4	Existing System Gen 2010 - 11 (Toll)	No two-year Product 4, non-local offers were selected, because of the uncertainty with SDG&E's open system RA position.
5	Existing Local Gen 2012 – on (Toll)	SDG&E is completing its negotiations of 10-year contracts with short-listed Product 5 offerors for local RA.
6	New or Existing Gen 2012- on (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 2010 - 2012	No 2 or 4-year Product 7A offers were selected, because SDG&E opted to use its short-term hedging program instead.
7B	RA 2010 - 2012	Due to need uncertainty, SDG&E elected to fill remaining RA need closer to the time period of the identified need.

Product 1 requested 3-year contracts to provide Demand Response reductions to be made available on 10-minute notice. Although SDG&E suspended negotiations for the second time in April 2011, it plans to resume negotiations after receiving additional direction from the Commission.

Product 2 requested new, tolling generation located in SDG&E's Local System area for a 20-year contract duration.[13] In this application, SDG&E is submitting the three contracts negotiated with the short-listed Offerors for CPUC approval.

[13] 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.

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.[14] 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 2010 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. As of April 2011, final contract negotiations are being completed for Product 5 offers.

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.[15] The land lease agreement grants SDG&E the option to purchase the plant at the end of the lease agreement.[16] SDG&E has chosen to exercise this option, because the ECEF purchase meets the requirements of Product 5 and will be considerably less expensive than a PPA would be. SDG&E filed its Application (U 902 E) for the Authority to Acquire the CalPeak El Cajon Energy Facility (ECEF) with the CPUC on January 5, 2011.

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

[14] The contract with NRG is referred to as Cabrillo Power I, LLC for units at the Encina plant.
[15] CalPeak's ECEF is a 52 MW Combustion Turbine (CT) peaking facility currently under contract with the DWR, expiring at the end of 2011. All its associated energy, capacity, and ancillary services products are assigned to SDG&E.
[16] 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.[17]
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 offers.

The remainder of this public IE report focuses on SDG&E's Product 2 RFO offers, their evaluation, negotiation and contracts. The Confidential Addendum provides additional discussion of the specific RFO offers and confidential issues regarding this multi-product RFO.

B. Review of Product 2

The three long-term power purchase tolling agreements (PPTAs) described here resulted from 37 offers in response to the Product 2 solicitation.[18] Contracts were negotiated with the following non-utility entities: Energy Investors Funds' (EIF) Apex Pio Pico Energy Center, 305 MW; Wellhead's Escondido Energy Center, 45 MW; and Goldman Sachs/Cogentrix's Quail Brush Generation Project, 100 MW.

General characteristics of these offers are:

EIF Apex Pio Pico (305 MW)

- Planned COD May 2014,
- 3 General Electric LMS 100PA turbines in simple cycle configuration,
- After a site change from Chula Vista, the project will be located between the Otay Mesa and Miguel substations on 12 acres of private land adjacent to the Otay Mesa power plant,

[17] 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.
[18] Product 2 is for new, local tolling generation for 20 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. Additional value was considered for quick start capability with pricing and an option for black start was required, in order to satisfy Product 2 specifications.

- A new Application for Certification (AFC) was needed with a change in site. The new AFC was filed February 9, 2011 with the CEC and has been found to be data adequate.
- The contract was executed on February 2, 2011.

San Diego Community Power Project/Enpex/Cogentrix/Quail Brush Power Project (100 MW)

- Planned COD June 2014,
- Cogentrix (owned by Goldman Sachs) bought out ENPEX Corporation's ownership of the project on February 8, 2011,
- 11 Wartsila 20V34SG reciprocating gas-fired engines, 9.1 MW each,[19]
- Located on private land adjacent to and south of the Sycamore Canyon landfill inside the City of San Diego, accessing the Sycamore substation.
- Interconnection flexibility to either the Miguel-Sycamore line as offered or to the Sycamore-Mission line.
- Will apply for CEC AFC.

Wellhead Escondido (45 MW)

- This is an existing 35 MW CT that will be re-powered to 45 MW.
- Offered COD June 2011, now July 2012, in order to maintain SDG&E's near-term RA by delaying the proposed repower of the existing 35 MW plant to 2012,
- 1 GE LM 6000PC turbine in simple cycle configuration, and
- Located in Escondido on the south side of Hwy 78 just West of I-15, near Palomar. The existing unit has operated on this site for about 10 years and will replace the existing MMC equipment, a 35 MW FT4).

Wellhead Escondido's original Interconnection Agreement can be used as long as the unit's capacity does not exceed 50 MW. The original RFO offer was for the re-power to meet a Commercial Operation Date (COD) of June 2011. During negotiations this date was delayed to July 2012, in order to enable the existing 35 MW unit to remain in operation, while facilitating the shutdown of South Bay, which occurred at the end of 2010. However, meeting the July 2012 COD will require a timely decision by the CPUC to approve this contract.

A contract to cover continued July-December 2010 operation was executed June 1, 2010, and a dispatch option to enable real-time market calls on the Escondido unit was added on July 13, 2010. A contract for 2011 RA capacity and a 2011 Dispatch Option was expected to be

[19] Because SDG&E had requested a reduction in the project size to 100 MW, Cogentrix proposed changes in technology and offered to build either a GE LMS 100 (one 100 MW unit) or a GE LM 6000 (2 units at 50 MW each) or Wartsila reciprocating gas-fired engines (11 units at 9.1 MW each). The Wartsila offer was the lowest-priced and was evaluated and selected.

executed, at the same time as the 25-year Product 2 PPA for the re-powered Wellhead unit, which was executed on February 25, 2011.[20]

Other competitive Product 2 offers were received in August 2009. However, these offers were determined to be less competitive in cost, primarily because Apex had a better position in the CAISO transmission queue than these offers that were similarly located and would not need significant transmission upgrades. The additional costs of transmission upgrades rendered these otherwise competitive offers too high in price. Other Product 2 offers with higher bid-ranking costs were also judged to be non-competitive and were not shortlisted.

Throughout 2009 and most of 2010, SDG&E's procurement group and the project developers relied on their own estimates of transmission upgrade costs. However, when the CAISO released the results of its Cluster 2 Phase I Interconnection transmission study in November 2010, the parties were quite concerned, because CAISO's estimated upgrade costs were many times higher than other estimates. The CAISO's estimated costs of transmission upgrades were based on the need to provide sufficient transmission capacity for <u>all</u> projects in the Phase I queue and were characterized as "worst-case" maximum costs. This assumption, among others, arguably increased the CAISO's Cluster 2 Phase I estimated costs well above costs that had been reasonably expected. In addition to transmission upgrades in SDG&E's service territory, the CAISO's Phase I analysis would also require additional upgrades in SCE's service territory. As of April 2011, project developers, this IE and SDG&E continue to believe the estimated Phase I costs are unrealistically high. See section IV. F of the Confidential Addendum for additional discussion of this issue.

SDG&E also shortlisted one competitively-priced offer and continued negotiations with this counterparty for over a year. As it turned out, the offeror did not have adequate site control. After reaching agreement on many other aspects of the potential contract, SDG&E terminated negotiations when the offeror was unable to demonstrate that it had a site for the project. *Given the protracted nature of the negotiations, VHC believes that a greater degree of due diligence by both the offeror and SDG&E should have clarified the status of the offeror's lack of site control at an earlier date.*

C. VHC Recommendations

With respect to SDG&E's Application for approval of these three Product 2 contracts, VHC finds that

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

[20] The RFO requested a delivery period of 20 years for Product 2 offers. Wellhead extended its original 20-year offer to 25 years. The delivery period for the other Product 2 offers remains at 20 years.

2. There were no intentional or unintentional biases to unfairly select particular product types or specific offers.[21]

3. SDG&E's evaluations demonstrate that these contracts have lower bid-ranking costs than the other offers received for Product 2.

4. SDG&E used reasonable selection criteria to minimize costs and risks to its customers and to construct a Least Cost – Best Fit (LCBF) portfolio.

5. These three contracts are being entered into in order to meet the CPUC's direction to add new generation and to ensure that adequate capacity exists so that all LSE's can meet local grid reliability criteria. Applying the Cost Allocation Mechanism will be beneficial to SDG&E's bundled customers, since they will not be required to bear the entire cost of this new generation.

For the foregoing reasons, and because these contracts meet the requirements for Product 2, are competitively priced and will provide local RA, energy and ancillary services to customers, VHC recommends that the Commission approve all three contracts.

With respect to SDG&E's future supply RFOs, 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. 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

[21] Although there were offers from affiliates, no affiliate offers were awarded contracts.

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.

3. SDG&E consider a longer time window for soliciting short-term offers in future RFOs. Nevertheless, VHC finds that the rationale to include short-term contracts for one or two years starting in 2010 or 2011 was reasonable for this RFO, because of the major uncertainties that could thereby be resolved by 2012. Short-term contracts with durations longer than two years may provide increased flexibility for later start dates of new long-term contracts. Then, again, SDG&E always has the option to have another RFO to obtain additional short-term contracts
4. SDG&E develop an approach to analyzing congestion costs to apply, when it receives more than one attractive offer at locations that would contribute to congestion.
5. SDG&E review the marginal costs for capacity from bids to its RFO for possible consideration as proxy values for years not included in the contract period for use in its economic evaluation of offers.
6. SDG&E examine its Ancillary Services (A/S) price forecasts and compare the forecasts with the A/S revenues it currently receives. VHC also suggests that SDG&E further analyze A/S prices under various scenarios that incorporate the development of resources that lack operational flexibility.
7. The CPUC and SDG&E work with the CAISO to improve the process, input assumptions and timeliness of CAISO's studies of transmission interconnection and network upgrade costs.
8. 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.
9. SDG&E consider implementing a more robust optimization approach for determining the selected combination of contracts in the LCBF portfolio for RFOs with multiple products.
10. SDG&E consider soliciting fewer Products in future RFOs.
11. SDG&E consider placing a limit on the number of bids one offeror can submit for a specific product, unless SDG&E sees benefits from receiving a very large number of bids from a single entity, as was the case for Product 7B.
12. SDG&E review historical data on contract defaults to determine if such data might be useful in setting collateral requirements.
13. SDG&E consider further refinements to its determination of collateral requirements. After RFO offers were submitted, SDG&E revised its methodology for calculating the collateral needed from offerors, thereby reducing its requested RFO collateral

requirements. SDG&E should continue to refine its methodology for calculating collateral needs in future RFOs.

14. SDG&E provide additional information to bidders on collateral required, including different requirements for the three time periods that are now being applied in the negotiated contracts. (For this RFO, SDG&E specified collateral requirements that varied by product and credit rating of the Seller, but were not differentiated by the periods for development, for satisfaction of Conditions Precedent up to the delivery date, and for the delivery period.)

15. SDG&E develop a quantitative method to include a credit-risk adder in its short-list evaluation of offers. Doing so would provide a quantitative measure to distinguish offers with varying collateral amounts or offers providing lower quality collateral. The use of a credit-adder would not preclude taking into account other factors and trade-offs during the contract negotiations.

16. SDG&E confirm and re-affirm during the shortlisting and negotiation process that offerors have adequate site control to build their projects.

17. SDG&E institute the following changes for its next RFO in its outreach to potential Demand Response (DR) bidders:

    - Identify DR firms not on SDG&E's current list of 900 email addresses used for its 2009 RFO,
    - Expand coverage of the press release for the contracts resulting from this RFO and for announcing the next RFO. The 2009 press release was picked up by MW Daily and California Energy Markets,
    - Interview those DR attendees at the pre-bid conference that did not submit bids,
    - "Color code" or otherwise highlight the DR portion of SDG&E's website RFO materials, since most of the products being solicited are supply-side rather than demand-side, and
    - Provide additional descriptions of the CAISO's Proxy Demand Resource bidding program.

IV. 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 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 also read and reviewed draft contract provisions and commented on them, as it judged necessary.

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, 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, 2010 and 2011 to date. VHC made presentations at a number of these meetings, including September, October and November 2009, March, August and December 2010, and January 2011.

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 C. of this report and also in section IX of the Confidential Addendum. It would make future RFOs more transparent to parties, if SDG&E provided additional information on the collateral required, including the different requirements for the three time periods that are now being applied in the contracts resulting from this RFO. (For this RFO, SDG&E specified collateral requirements that varied by product and credit rating of the Seller, but were not differentiated for different time periods. The three periods with different collateral requirements that apply to Product 2 are the pre-construction period, the construction period and the delivery period.

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

See our answers below and our response to A.1.a. 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. See VHC's Recommendations in section III C. of this report to improve outreach to potential DR bidders.

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?

Not to VHC's knowledge.

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 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.

VHC suggests that an eleventh item be added to this list: 11. Confirmation of Site Control, *in order to increase the awareness of various factors affecting the likelihood that the project can be built on the offered site.*

At the Pre-Bid Conference, SDG&E also 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.

As noted in the Recommendations, VHC believes that additional information regarding collateral requirements could have been supplied to bidders. Since offers were submitted in this RFO, SDG&E has changed its collateral requirements.

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,
- Transmission Upgrade Costs
- 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 and to counterparties dropped from further negotiations.

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. The CAISO's current Cluster analysis approach, which can significantly over-estimate transmission upgrade costs, has the potential to delay or derail projects that may not, in fact, require costly upgrades. Nevertheless, 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?

In its evaluation of offers, SDG&E included estimated costs for transmission interconnection and network upgrades for new resources by applying an annual charge based on the estimated capital expenditures for interconnection and network upgrades. SDG&E is aware of potential transmission constraints and lines where new generators might have to pay significantly higher upgrade costs, if and when currently available transmission capability is exceeded by other new plants that may precede the selected RFO projects in the CAISO queue.

There was no need to assess the costs of transmission upgrades for offers from operating plants, such as the Product 5 offers. However, the estimated costs of transmission upgrades were important for distinguishing among the Product 2 offers for new facilities. SDG&E applied its own estimates of transmission upgrade costs in its determination of the shortlisted offers in 2009.

Results from the CAISO Cluster 2 Phase 1 transmission interconnection study were released on November 15, 2010, more than a year after RFO shortlists were developed, but before the completion of negotiations.[22] The maximum costs of the Phase I study transmission upgrades were estimated to be very much higher for Apex Pio Pico, including network upgrades in SDG&E's service territory and in SCE's territory, and for Cogentrix/Enpex's 200 MW project before its reduction in size to 100 MW, also including upgrades in SCE's territory. (Since Wellhead Escondido is a

[22] CAISO, Cluster 2 Phase 1 Cluster Interconnection Study, Group Report for SDG&E Area. November 15, 2010.

repower of an existing project there is no upgrade or interconnection issue, if the plant's capacity remains below 50 MW.)

If imposed, these Phase I costs and the time to construct all the upgrades would render these Product 2 projects uneconomic. Based on a number of analyses commissioned by Apex Pio Pico, Apex has made public its concerns regarding the CAISO Cluster 2 Phase 1 Interconnection Study. Its concerns include the following:

- The CAISO study combines fully dispatchable local generation that is needed to provide local In-Basin reliability with Renewable Portfolio Standard ("RPS") intermittent resources outside the local area. The inclusion of Imperial Valley resources within Cluster 2 has led to excessive upgrades being allocated to reliability-needed facilities, such as the EIF Apex Pio Pico project;
- The deliverability study does not match generation to load with a realistic dispatch;
- The deliverability study's projection of substantial exports of Local Capacity out of the San Diego area to SCE creates an artificial need for large "backbone" transmission network upgrades linking San Diego and SCE, in order to accommodate the assumed exports;
- The percentage cost allocation of individual network upgrades in the Phase 1 study to Apex Pio Pico appears excessive relative to the percentage allocation to RPS-driven facilities in the Cluster study (e.g., two to four times as high). This may be driven by combining reliability-driven In-Basin generation with RPS intermittent generation in remote locations within a single Cluster, and
- The inclusion of all projects in the queue, both currently proposed along with previous serial projects, in the CAISO system impact studies has resulted in the transmission model using available transmission system capacity for projects that are not imminent. By including projects that are not making progress towards completion, but remain in the CAISO queue, unneeded network upgrades were projected. The estimated costs for these excess upgrades were then allocated to other facilities.

Neither SDG&E, the project developers nor this IE believes the Phase 1 network upgrade cost estimates are realistic. If the actual transmission upgrade costs reasonably attributable to either of these two projects are even close to the Phase 1 estimates, these projects most likely will not be cost-effective or able to be built on schedule.[23]

[23] In its August 2010 comments to the CAISO regarding possible changes to CAISO interconnection procedures, SDG&E stated: "...the Phase I study results will continue to provide misinformation to the IC [Interconnection Customer], the financial institutions working with the ICs to finance the project, and to the

The Phase 2 Cluster study is now in progress. In order to participate and retain their queue positions, EIF Apex and Cogentrix Quail Brush made deposits on February 11, 2011. The results of the Phase 2 study will be highly dependent on the assumptions, particularly the number of Cluster 2 projects that remain in the queue.

Because the upgrade costs will remain uncertain for some time, and to protect ratepayers and keep the final prices below the prices of non-shortlisted offers, SDG&E, Apex and Cogentrix negotiated Conditions Precedent that limit the maximum recoverable network transmission upgrade costs in each contract. These and the other CPs should enable the Commission to approve these contracts knowing that the transmission upgrade costs are capped. However, the CPs do not fix a CAISO study process that may significantly delay and/or contribute to the cancellation of desirable projects.

VHC recommends that both the CPUC and SDG&E work with the CAISO to improve the accuracy and timeliness of CAISO's studies of transmission interconnection and network upgrade costs.

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

PTO's [Participating Transmission Owner's] procurement department. SDG&E believes this is a disservice to the developers." SDG&E stakeholder comments to the CAISO re: Small and Large Generator Interconnection Procedures Draft Final Proposal and Meeting. August 4, 2010.

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.

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

Over all the supply products, SDG&E sought offers from both existing and new generation, located at brownfield and new sites. The Wellhead Escondido repowering project is an example.

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.

After more than a year of negotiations with one shortlisted offeror, it was determined that the offeror did not have site control, and the negotiations were terminated. As recommended above, VHC suggests that SDG&E confirm and re-affirm during the shortlisting and negotiation process that offerors have adequate site control to build their projects.

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

VHC believes that SDG&E has significantly improved its methodologies for estimating credit and collateral risks and requirements, as discussed in the

Confidential Addendum. By adopting new elements of its methodology SDG&E has reduced its collateral requirements significantly below the amounts requested in the RFO. These reductions will not only enable prices to be lower than they otherwise would be, providing potentially significant savings to ratepayers over the life of long-term contracts, but will give developers additional flexibility and reduce their need for financing.

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. 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.) 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 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 the selected 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, market capacity costs, ancillary services, Greenhouse Gas costs, transmission system network 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 and VHC 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?

All bids were treated consistently. SDG&E received one non-conforming bid for Product 5. SDG&E evaluated two other non-conforming offers, as well as several conforming bilateral offers, which had been received earlier. These bilateral offers were from existing facilities and conformed to the RFOs requirements for Product 5 offers from existing units.

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, methods, 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?

For Product 5, 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 El Cajon Energy Facility (ECEF), SDG&E and CalPeak jointly agreed to outsource work to an independent engineering firm to estimate certain site-specific costs. SDG&E also out-sourced a review of one Product 2 bid to determine if the project costs, as initially bid, were reasonable.

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?

For Product 2 SDG&E performed its own estimates for each project, subject to the confidentiality of information required by FERC. Transmission analysis was not required for the evaluation of Product 5 offers. Although CAISO study results were not available for all offerors, SDG&E was able to estimate location specific costs that, in some cases, were dependent on the CAISO queue position of the offeror. Transmission upgrade costs were an important distinguishing factor between several Product 2 offers, as discussed in the Confidential Addendum.

During the course of the RFO, SDG&E's procurement group utilized the transmission information and studies made available to it.

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.

Discussions among the above parties regarding the LCBF process were limited. However, VHC discussed the LCBF process with SDG&E throughout the RFO.

The following were areas that were discussed as part of the overall evaluation and comparison of RFO offers.

Demand Response Products.

The cost-effectiveness tests for DR were updated by the Commission in late 2010, and have been applied by SDG&E. Qualitative criteria for future evaluations should also consider the level of competition and potential saturation in each DR market, as well as the issues indicated below.

Companies providing DR services operate under different business models. VHC believes the following areas are most relevant to comparing future DR offers:

- Measurement of customer baseline loads,
- Calculation and validation of customer responses,
- Robustness and adaptability of hardware and data systems
    - Use of proprietary hardware vs.
    - Outsourced hardware and systems,
- Marketing approaches to capture customers –
    - In-house vs. referral partners
    - California experience and success,
- Assessment of market segments, market share and potential for market saturation,
- Interfaces between the scheduling coordinator and bidder,
- Adaptability to changes in MRTU and CAISO Proxy Demand Resource and ancillary services,
- Cost structure, split of revenues with customers and contractual arrangements between bidder, customers and venture capital,
- Payment schedules and penalties,

- Financial backing and sustainability of DR firms,

In addition to the CPUC cost-effectiveness tests and the ranking process, SDG&E sought answers to the following questions during year-long negotiations and contracting:

- What will be the FERC-approved requirements for the CAISO Proxy Demand Response program under MRTU?
- If and when SDG&E's Product 1 contracts go live, will each Offeror's Direct Load Control program from this RFO be compatible with the CAISO's Proxy Demand Resource (PDR) program?
- Will PDR program reductions be additional to reductions under other DR programs?
- Is each Offeror committed to adapting to the CAISO requirements?
- What are each Offeror's plans for maintaining compliance with CAISO programs?
- If the proposed Product 1 programs are not compatible, how should SDG&E proceed?

LCBF considerations are necessarily different for DR products than for supply products. Hence, SDG&E has from time to time sought Commission guidance regarding its DR negotiations.

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 2 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?

For Product 1 (DR), SDG&E included the ability to respond in 10 minutes in this RFO. VHC is not aware of this requirement in prior solicitations.

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 other 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 related to the Product 2, 3 and Product 5 contract negotiations included:

1. **Commercial operation and retirement dates.** This was an important issue for all Product 2 offers to build new facilities.[24] In general, this is an important issue for all contracts and for the development of an LCBF portfolio.

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.

[24] Since Product 5 offers are all existing operating plants, start and end dates are certain.

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 starting from the RFO offer prices. 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. 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 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 and requiring 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.

6. **Collateral requirements.** Collateral protects ratepayers from contract under-performance and from default of counterparties. However, high collateral requirements can also lead to higher-priced offers, since counterparties take their costs for posting collateral into account in making their offers. In the RFO SDG&E requested collateral amounts that were considered by unrated offerors and their financers to be very high. By analyzing the risk of default, SDG&E was able to significantly lower its collateral requirements below the value originally requested for unrated entities. (See section IV G of the Confidential Addendum for additional discussion.)

7. **Subordinated Security and First Priority Interest requirements and the need to keep Seller's debt ratio below a maximum percent.** For additional protection, SDG&E negotiated a subordinated security and first priority interest in the generating

facility for Product 2 contracts. SDG&E insisted that the Seller's debt/equity ratio be kept below a limit or placed a debt cap on the contract, which was amortized over the delivery term. (See section IV K of the Confidential Addendum for additional discussion.)

8. **Metering requirements.** CAISO has a requirement to separately ID and meter each generating unit at a plant, in order to dispatch each unit individually. This was an issue for the Apex Pio Pico plant. This issue was resolved in a conference call with CAISO, where Apex and the CAISO agreed to install three commercial CAISO low-side meters. Calculation of transformer losses and auxiliary loads was also an issue with Apex.

9. **Gas transportation.** Since the supply contracts are primarily tolling arrangements where SDG&E buys the natural gas fuel and schedules unit generation, the primary contract concerns were about defining the responsibilities and boundaries for taking title to the natural gas.

10. **Sarbanes-Oxley (SOx) and the need to consolidate PPA obligations on the balance sheet under FIN 46.** At the beginning of the negotiation process, conflicting opinions were initially obtained by SDG&E and Sellers from accounting firms regarding the effect of high Seller debt/equity ratios on the need to consolidate PPA obligations on SDG&E's balance sheet. Maximum debt/equity ratios, as well as the specific items to be included in the Seller's debt calculations over time, were the subjects of negotiations with Apex Pio Pico and CPV North City. Debt caps amortized over the delivery period were negotiated with Wellhead Escondido and with Cogentrix Quail Brush. The expected generation under a PPA was considered to be a potential yardstick or possible bright-line test to determine whether or not SDG&E has sufficient control over the operations of the unit to require consolidation of the contract obligations on its balance sheet. Some discussion indicated that contracts with generators with annual capacity factors below about 10 percent would not be required to be consolidated, even though SDG&E controls the scheduling and dispatch of the generating units.

11. **Conditions Precedent for Network Transmission Upgrades & Other Milestones**

    As discussed on pages 28-30 and in section IV. F. of the Confidential Addendum, the costs of network upgrades are presently uncertain. In order to limit the cost-recovery, Conditions Precedent were negotiated that limit the maximum recoverable network transmission upgrade costs for the EIF Apex Pio Pico and Cogentrix Quail Brush projects.

    Other typical Conditions Precedent addressed the timing of key milestones, such as:

    a. CPUC approval of the contract

b. Electrical interconnection (including limits on network upgrade costs),
c. Execution of the Large Generator Interconnection Agreement,
d. Acquisition of all necessary permits and approvals,
e. Satisfaction of all Conditions Precedent and no pending or threatened legal proceedings.

Because Product 3 and 5 contracts are for existing units issues 6 to 11 above were not sources of major concern in those negotiations. For all the supply PPAs, final pricing was subject to adjustments to the other contract terms.

With respect to issue 1, the timing of the eventual retirement of various individual generating units will affect the need for new RA capacity between 2012 and 2018.

Offers for this RFO were received in August 2009, and short-listing was largely completed in October and November 2009. These negotiations have taken longer to bring to fruition than is ideal. Although many issues had to be resolved in sequence and negotiations were affected by external events, regulatory changes and market uncertainties, VHC recommends that contract processes be accelerated, wherever possible, by improved cross- communication of revisions to common terms and conditions and other relevant data to be provided to each contract negotiator.

The lengthy negotiations notwithstanding, given that each contract is unique and that trade-offs must be negotiated among various contract terms and conditions, VHC believes that SDG&E's negotiations with all counterparties were 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 have reduced the prices ultimately negotiated below what they would have been if the higher collateral amounts had been required.

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.

After review, VHC believed that the collateral amounts requested in the RFO were too high and raised this issue with SDG&E on a number of occasions. As described elsewhere in this report and the Confidential Addendum:

- The collateral offered by counterparties in their original RFO base offers did not meet SDG&E's requirement, as stated in the RFO for unrated entities.
- Most bidders were unrated counterparties with little or no credit history, resulting in their relatively high collateral requirements.
- Several counterparties subsequently offered higher capacity prices to meet the high collateral requirements.
- Higher capacity prices reflect the cost to secure additional collateral, because the cost of funds tends to be higher for unrated or highly-leveraged entities, in order to compensate for increased risk.
- Insufficient collateral exposes ratepayers to higher replacement costs in the event of counterparty default.

After the submission of bids, SDG&E changed its methodology for calculating risks of default and associated collateral requirements and was able to lower its requirements. SDG&E also assessed the value of holding a Subordinated Security Interest, which influenced the collateral requirement in some cases.

Because Offerors will have reduced financing needs, they can offer lower-priced contracts if they post less collateral, saving ratepayers substantial dollars over the life of the contracts in comparison to the situation where SDG&E's original RFO collateral requirement would have been posted by offerors. VHC believes this was a reasonable outcome that will lead to lower collateral requirements in future RFOs.

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, dealing with uncertainty in network transmission upgrade costs, 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 Utility-owned Generation (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 the ECEF 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, its 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.[25] The sales price was constrained, because of the lease agreement and the independent valuation of the facilities.

[25] SDG&E filed an Application (U 902 E) for the Authority to Acquire the CalPeak El Cajon Energy Facility (ECEF) with the CPUC on January 5, 2011.

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 2 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 independent 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 contract prices for the completed Product 2 contracts are competitive and would result in savings to SDG&E customers compared to the other Product 2 offers. Conditions Precedent in the contracts offer protection to ratepayers that costs will not exceed maximum amounts. For example, Conditions Precedent limit the maximum recoverable amounts for transmission upgrades for Product 2 facilities located on new sites. See the Confidential Addendum for additional information.

b. Portfolio Fit

The Product 2 contracts will help SDG&E satisfy its near and long-term needs for resources to meet its Local Resource Adequacy requirements.

c. Project Viability

The Wellhead Escondido brownfield repowering project is viable, since it is currently operating and no factors have been identified that would prevent it from repowering with a known technology. The Apex and Cogentrix project developers have also taken the required steps to ensure that their greenfield projects proceed toward completion.

i. Technology

For Product 2 (new, long term, local), the Wellhead Escondido Energy Center repowering will use a General Electric LM6000PC turbine, and the Apex Pio Pico Energy Center will install three GE LMS100PS turbines. Both are well-suited turbines for this purpose. Although the LMS100 is a relatively new model, both turbines have similar characteristics and exhibit similar risks.

The Cogentrix Quail Brush Generation Project will install 11 Wartsila 20V34SG gas-fired reciprocating engines. These engines offer stable output, load following flexibility and high efficiency. Worldwide Wartsila has more than 600 gas-fired power plants with more than 1600 generator sets. SDG&E's engineers examined the Wartsila technology, before SDG&E selected Cogentrix/Enpex offer. Because they are reciprocating engines the NOx and PM10 emission rates are higher than for conventional turbines and this technology may have a greater permitting risk. However, because the original offer for the site was for 200 MW, Cogentrix believes that the emissions will meet applicable regulations.

ii. Bidder Experience (financing, construction, operation)

Developer experience was one of the qualitative factors in SDG&E's final decision to determine which Product 2 offerors to select for contracts. However, all of the offers that ended up in final negotiations had experienced bidders. Thus, bidder experience was not a driving factor during the negotiations.

iii. Credit and Collateral

Each Product 2 offeror has satisfied SDG&E's credit and risk criteria and will provide the required collateral.

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

The Wellhead developer owns the site on which the existing plant operates. Both EIF Apex Pio Pico and Cogentrix have their sites under option. Wellhead is subject to local permitting, while Apex filed a new Application for Certification with the CEC on February 9, 2011, and has received notice that its Application is data adequate. Cogentrix is preparing its CEC AFC to be filed soon. Site changes between August 2009 and late 2010 were taken into account in deciding to pick these three offers.

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 Wellhead facility is currently operating and will not require transmission upgrades if it remains under 50 MW. As discussed previously, the costs of network transmission upgrades for EIF Apex and Cogentrix/Enpex are uncertain. The maximum recoverable costs for both projects are limited by Conditions Precedent in each contract. EIF Apex Pio Pico, located near the Otay Mesa power plant, will utilize the available transmission capacity south of the Miguel substation. This means that other offers that would rely on the same transmission line would have to pay substantially more for upgrades, rendering them uncompetitive. Transmission upgrade costs were also important for calculating the levelized, benefit-adjusted costs and ranking the short-listed offers.

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 put forward these three Power Purchase Tolling Agreements (PPTAs) for Commission approval.

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 2 offers are competitive. The offers for Product 2 reflected a range of prices and terms and technologies. Moreover, there were a robust number of bids. VHC believes that the resulting PPTAs 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 2 contracts will be an important component of that portfolio, and the Product 2 PPTAs contracts are the best overall Product 2 offers received by SDG&E.

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

Yes, these contracts will provide a reasonable method to achieve the need identified in the RFO for new 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 2. 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 2 offers.

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

For the foregoing reasons, and because these contracts meet the requirements for Product 2, are competitively priced and will provide local RA, energy and ancillary services to customers, VHC recommends that the Commission approve all three contracts.

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 2 offers or their comparison with offers for other Products. In general, SDG&E's new, revised method of calculating collateral requirements should yield a more efficient, lower cost result in future RFOs.

Several of VHC's specific recommendations, given in section III. C. of this report, are intended to enhance the efficacy of the evaluation process. Other recommendations will, perhaps, help speed up negotiations.

3. Any other relevant information.

No.

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Confidential Addendum

Independent Evaluator's Confidential Addendum – Product 2: New Local Generation and SDG&E's June 9, 2009 RFO for Demand Response and Supply Resources

THE ENTIRE ADDENDUM IS CONFIDENTIAL

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