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Witness: Sally Chen
Date: May 30, 2014

SAN DIEGO GAS & ELECTRIC COMPANY

PREPARED DIRECT TESTIMONY OF

SALLY CHEN

REDACTED AND PUBLIC

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

May 30, 2014

SDGE

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PREPARED DIRECT TESTIMONY OF

SALLY CHEN

ON BEHALF OF SDG&E

I. INTRODUCTION

The purpose of my testimony is to describe the expenses that are recorded in San Diego Gas & Electric Company's ("SDG&E's") Energy Resource Recovery Account ("ERRA") and Transition Cost Balancing Account ("TCBA") for the record period of January 1, 2013 through December 31, 2013. In addition, my testimony will explain SDG&E's contract administration activities during the record period associated with SDG&E's Power Purchase Agreements ("PPAs").

II. DESCRIPTION OF EXPENSES

The expenses recorded in ERRA and TCBA for the record period are summarized in Attachment A and Attachment B of the Direct Testimony of SDG&E witness Sheri Miller. These expenses are recorded in compliance with California Public Utilities Commission ("CPUC" or "Commission") Decision ("D.") 02-12-074.

A. Load ISO Charges

This category included the California Independent System Operator ("CAISO") payments and charges to SDG&E as the Scheduling Coordinator ("SC") for load, Congestion Revenue Rights ("CRR"), SDG&E's load Grid Management Charges ("GMC"), Day-Ahead and Real-Time Market load activities, and load imbalance energy.

B. Supply ISO Revenues

This category captured the CAISO payments and charges to SDG&E as the SC for its supply resources, including inter-SC trades, Day-Ahead and Real-Time Market activities, and their imbalance energy charges and revenues.

C. Contract Costs (non-Competition Transition Charge ("CTC"))

This category captured the expenses for renewable PPAs, SDG&E tolling agreements with Otay Mesa Energy Center, LLC ("OMEC"); El Cajon Energy, LLC ("ECEC"); and Orange Grove Energy, LP ("OGE"), and Olivenhain-Hodges Pump Storage Facility ("Hodges"); and other bilateral contracts. The costs include capacity, energy, fuel, transportation costs, and indirect cost of Green House Gas cost associated with the PPAs. Also included in this category are revenues and expenses for real-time bilateral purchases and sales, contract-related CAISO revenue or payment adjustments (as revised from time-to-time), any revenues for contract damages or awards, broker fees, and other miscellaneous service fees.

D. Contract Costs (CTC up to market)

In accordance with D.02-12-074, this category captured expenses recorded in ERRA up to the market benchmark value of the Portland General Electric Boardman ("PGE Boardman") and the Qualifying Facility ("QF") PPAs. In D.11-12-018, the responsibility of calculating the benchmark changed from the Energy Division to SDG&E. SDG&E calculated a benchmark of 4.947 ¢/kWh in 2013. The market value expenses for PGE Boardman and the QFs were calculated by multiplying the purchased kWh by the effective market benchmark. This category also includes indirect Green House Gas ("GHG") costs associated with the PPAs.[1] Any expenses above the benchmark were recorded in the TCBA pursuant to Assembly Bill ("AB") 1890. The 2013 activity in SDG&E's TCBA is described in more detail in Attachment B of the testimony of SDG&E witness Sheri Miller.

E. Generation Fuel

In accordance with Commission Resolutions E-3953 and E-3988, D.09-01-008, and D.07-11-046, the monthly recorded fuel and transportation expenses for the following facilities were recorded in ERRA: Miramar Energy Facility I ("MEF I"), Miramar Energy Facility II ("MEF II")

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[1] Please refer to Sheri Millers' testimony at SSM-3 for further discussion of indirect GHG costs.

(collectively, MEF I and II are known as "Miramar"), Palomar Energy Center ("Palomar"), Cuyamaca Peak Energy Center ("Cuyamaca"), Desert Star Energy Center ("Desert Star") and the J&D Labs Fuel Cell ("Vista").

This category also captures the monthly expenses recorded for the nuclear fuel expenses for Units 2 and 3 for San Onofre Nuclear Generating Station ("SONGS"). These expenses consisted of Southern California Edison ("SCE") allocated station load costs and carrying costs on the outstanding fuel balance.

F. Other ISO Related Costs

Included in this category are: revenues and charges associated with transmission losses, ancillary services, and real-time energy in SDG&E's role as a SC for the California Department of Water Resources ("CDWR") allocated contracts with Whitewater Hill Wind and Whitewater Cabazon Wind, according to a March 13, 2009 Assigned Commissioner's Ruling,[2] adopting changes to the Investor-Owned Utilities' ("IOUs") operation and administration of allocated CDWR contracts. This also included SDG&E's share of imbalance charges, grid management charges, and Participating Intermittent Resource Program ("PIRP") charges.[3]

G. Hedging Costs & Financial Transactions

This expense category captured the monthly expenses for hedging generation fuel and QF energy expenses.

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[2] In preparation for MRTU, on February 13, 2009, in Rulemaking ("R.") 06-07-010, the IOUs filed a joint motion describing operation and administrative changes under MRTU agreed to with CDWR. On March 13, 2009 an Assigned Commissioner's Ruling was issued agreeing to these changes. This included inclusion of expenses in ERRA that previously had been included in CDWR's annual revenue requirement.

[3] The charges relate to costs allocated to SDG&E on a pass through basis from SCE related to SONGS during 2013.

H. Rebalancing Costs related to OMEC/Calpine

SDG&E recorded the monthly rebalancing costs associated with the Revised OMEC power purchase agreement in compliance with D.06-09-021.[4]

III. CONTRACT ADMINISTRATION

The Settlements and Administration ("SA") section within SDG&E's Electric and Fuel Procurement department is responsible for administering all of the active PPAs. During the record period, SDG&E's electricity portfolio consisted of Utility Electric Generation ("UEG"), bilateral contracts with conventional and renewable power plants, and two wind projects under contract with CDWR. The UEG portion of the portfolio is comprised of SDG&E's 100% ownership of the Miramar Energy Facilities (96 MW), 100% ownership of the Cuyamaca Energy Center (47 MW), 100% ownership of the Palomar Energy Center (560 MW), and 100% ownership of the Desert Star Energy Center (485 MW). SDG&E's bilateral agreements included 12 QFs (234 MW), PGE Boardman (85 MW), OMEC (602 MW), ECEC (47 MW) and OGE (97 MW), Lake Hodges Pump Storage Facility (40 MW) and 44 renewable projects of wind, biogas, biomass, geothermal and solar (2,235 MW). During the record period, the SA section also provided limited administrative support to CDWR for two allocated contracts.

A. Contract Administration Routine Tasks

Below are the tasks SA performs on a routine basis to ensure compliance with contract terms and regulatory requirements.

1. Kick-Off Meetings

Before a new project reaches its Commercial Operating Date ("COD"), SA conducts a kick-off meeting with the new counterparty to introduce staff, review the scheduling communication

[4] *See also*, D.11-07-041, Ordering Paragraph ("OP") 2.

protocols, and discussing the invoicing and settlement procedures. The purpose of the meeting is to ensure a smooth transition from construction phase to operation.

2. Invoice Verification

For all non-QF contracts, the Sellers issue monthly invoices to SDG&E. Based on contract terms, and the daily communication records, the SA staff verifies the details of the invoices, including, but not limited to: prices and quantity of energy delivered or scheduled, verification of excused outages, prices of capacity, time of delivery factors, index prices, number of startups, and validity of any adjustments in the invoice. The SA staff follows the complete payment process to verify it is done in a timely manner according to the contract.

If there are any disputes over the historical settlements, the SA staff is responsible for coordinating, investigating, and making corrections if necessary in a timely manner in accordance with terms and conditions of the contract and applicable utility and CAISO tariffs.

3. Western Renewable Energy Generation Information ("WREGIS") Administration

Starting in 2007, as part of the Renewable Portfolio Standard ("RPS") compliance effort, the California Energy Commission ("CEC"), Western Governors' Association and Western Electricity Coordinating Council ("WECC") jointly launched implementation of WREGIS, which tracks renewable energy generation from units that register in the system using verifiable data and creates renewable energy certificates ("RECs") for this generation. In 2008, SDG&E became an account holder and qualified reporting entity within WREGIS, and worked with the renewable counterparties to register each facility into the system. SDG&E began reporting renewable generation from these facilities through WREGIS starting on May 1, 2008. During the record period, SA staff diligently monitored and administrated the accounts.

4. Active Monitoring

Most of the PPAs require Contract Administrators to monitor and track generation to ensure Sellers' compliance with the contract terms through the life of the contracts. It includes, but is not limited to: generation, insurance, credit requirements and status, and compliance with regulatory and reporting requirements. The Contract Administrators work closely with the Sellers when any contractual issues arise to immediately address any needs they may have from SDG&E regarding the PPAs.

Particularly for the renewable contracts, D.10-06-004 mandated SDG&E to actively monitor the Sellers' compliance with Standard Terms and Conditions 6 ("STC 6"), as defined in the California Public Utilities Code ("P.U. Code").[5] SDG&E implements the following method of active monitoring:

(i) request Sellers' copies of CEC certification;

(ii) request Sellers to register the contracted facility with WREGIS;

(iii) verify the Seller-provided CEC RPS ID through the WREGIS certificates and upload periodically; and

(iv) request Sellers to certify the product SDG&E received during the record period was indeed in compliance with STC 6.

As a result of its active monitoring, SDG&E found all RPS Sellers' projects compliant to STC 6 based on above activities (i), (ii) and (iii). All Sellers responded to SDG&E's questionnaire at year end according to (iv) above, confirming their compliance to STC 6.

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[5] STC 6 requires the Sellers warrant throughout the term of the PPA that (i) the Project qualifies and is certified by the CEC as an Eligible Renewable Energy Resource ("ERR") as such term is defined in the P.U. Code Section 399.12 or Section 399.16; and (ii) the Project's output delivered to Buyer qualifies under the requirements of the California RPS. To the extent a change in Law occurs after execution of this agreement that causes this representation and warranty to be materially false or misleading, it shall not be an Event of Default if Seller has used commercially reasonable efforts to comply with such change in Law.

5. Contract System Administration

During the record period, SDG&E used Allegro, its primary electronic contract management trading and tracking system, in the front, mid and back office of SDG&E's Electric & Fuel Procurement Department. Allegro offers repository features for SA contract administration, with flexibility to research the contract information. It also creates an audit trail when changes are made to contracts in the system.

B. Renewable Resources

SDG&E's renewable portfolio is comprised of resources from PPAs stemming from competitive solicitations, bilateral agreements, and standard agreements.

A description of renewable resource projects that delivered to SDG&E during the record period, arranged by technology type, is provided below along with discussions of activities unique to each project agreement. Unless stated otherwise, the PPAs include (i) the purchase of as-available capacity and energy, (ii) all green attributes (renewable energy credits "RECs") and (iii) resource adequacy ("RA") benefits.

1. BIO-MASS

SDG&E has two (2) projects supplying **<u>60 MW</u>** of generation from biomass projects in addition to a REC agreement. The agreements are with:

- <u>Covanta Delano</u>: This ten-year PPA was executed on January 1, 2008 and originally terminates on December 31, 2017. The plant size is 49 MW and is located in Delano, California. The guaranteed annual delivery is 300,468 MWh. The contract was amended in the record period; the main changes were:

  [redacted]

[redacted]

- Blue Lake Power: This fifteen-year PPA was executed on June 9, 2008 and started operating on April 30, 2010. The contract price is $100.00/MWh. The plant size is 11 MW and is located in the City of Blue Lake, California.

2. BIO-GAS & DIGESTER GAS

SDG&E has agreements with twelve (12) projects supplying **approximately 30.2 MW** of generation from bio-gas projects during the record period. Eight (8) of the ten projects are located in San Diego County. The agreements are with:

- GRS – Sycamore: The ten-year PPA was executed on October 31, 2002. The project began deliveries in April 2004. The contract price is $53.70/MWh. The Guaranteed Annual Energy Production is 16,425 MWh. The project size is 2.5 MW and is located in Santee, California.
- Minnesota Methane San Diego LLC ("MM San Diego") (formally MM Miramar Landfill):
  - The MM San Diego – Miramar Renewable PPA executed on May 20, 2003 expired on May 19, 2013. The price from January 1 through May 19 was $55.32/MWh. The project continued delivery starting May 20, 2013 under a Renewable Access Mechanism ("RAM") contract executed on November 9, 2012. The project guarantees to deliver to SDG&E

[redacted] each year. The project size is 4.5 MW and is located in San Diego, California.

- The MM North City Landfill contract executed on May 20, 2003 expired on May 19, 2013. The initial price under the Renewable bilateral PPA contract was \$48.39/MWh and escalated based on the change in the Consumer Price Index ("CPI"). The annual escalation is capped at 1.5% per year. During the record period, the price was \$55.32/MWh.

- Minnesota Methane Prima Deshecha Energy LLC ("Prima"): Starting October 1, 2007, this facility is under a PPA with a term of fifteen years, throughout which the capacity increases from 6.1 MW to 15.25 MW, and the price increases from \$48.50/MWh to \$68.53/MWh. The guaranteed annual delivery to SDG&E was 34,554 MWh. In the record period, the price from January 1 through October 31 was \$54.87/MWh; and the price from November 1 to December 31 was \$56.25/MWh. The project size was 6.1 MW during the record period, and is located in Orange County, California.
- City of San Diego ("Point Loma"): Point Loma has been under a PPA with SDG&E starting January 1, 2008. The PPA has a termination date of December 31, 2012, with the Seller's option to extend the delivery period beyond December 31, 2012 for consecutive one year periods up to five times. In the record period, Seller exercised the option to extend the agreement by one year to make the new termination date as of December 31, 2014. The guaranteed delivery is 10,000 MWh each year at a contract price of \$75.60/MWh for the duration of the agreement. The plant size is 4.8 MW and is located in San Diego, California.

- Otay 1, 2, 3, V and VI Landfills
    - Otay 1 Landfill: As authorized by D.08-09-033, Otay Landfill I executed a Feed-in-Tariff ("FIT") Agreement with SDG&E effective May 1, 2009. The ten-year PPA has a fixed price of $100.43/MWh and annual expected delivery of 13,140 MWh. The plant size is 1.5 MW and is located in Chula Vista, California.
    - Otay 2 Landfill: As authorized by D.08-09-033, Otay Landfill II executed a FIT Agreement with SDG&E, effective July 1, 2011. The twenty-year PPA has a fixed price of $100.98/MWh and annual expected delivery of 13,140 MWh. The plant size is 1.5 MW and is located in Chula Vista, California.
    - Otay Landfill 3: This PPA was executed on August 31, 2005. The term of the agreement is ten years from March 8, 2007. Otay 3 is expected to deliver to SDG&E 24,000 MWh each year at a price of $57.00/MWh. The project size is 3.8 MW and is located in Chula Vista, California.
    - Otay Landfill V: Otay V executed a FIT Agreement with SDG&E effective December 1, 2011. The term of the agreement is twenty years from June 21, 2013. Otay V is expected deliver to SDG&E 12,483 MWh each year at a price of $108.98/MWh. The project size is 1.5 MW and is located in Chula Vista, California.
    - Otay VI: Otay VI executed a FIT Agreement with SDG&E effective December 1, 2011. The term of the agreement is twenty years from June 21, 2013. Otay V is expected to deliver to SDG&E 12,483 MWh each year at a price of $108.98/MWh. The project size is 1.5 MW and is located in Chula Vista, California

- San Marcos and Sycamore Energy 1 Landfills:
    - San Marcos Energy, LLC: San Marcos Energy executed a FIT Agreement with SDG&E on November 20, 2009 and began operating on May 18, 2011. The PPA has a 20-year term at price of $117.30/MWh and annual expected delivery of 11,784 MWh. The plant size is 1.5 MW and is located in San Marcos, California.
    - Sycamore Energy 1, LLC: Sycamore Energy 1 executed a FIT Agreement with SDG&E on November 20, 2009, and it began operating on May 16, 2011. The 20-year PPA has a price of $117.30/MWh and annual expected delivery of 11,784 MWh. The plant size is 1.5 MW and is located in Santee, California.

3. WIND

SDG&E had fifteen (15) wind agreements that it administered during the record period. The projects provided regular or test energy during the record period and provided a total combined nameplate capacity up to **1,196.7 MW**. Descriptions of the projects, the associated agreements, and administration activities are provided below:

- Cabazon Wind Partners, LLC: This Green Attribute Purchase and Sale Agreement was executed on July 3, 2012. SDG&E purchased the Green Attributes associated with energy delivered for a delivery term of 2 years effective January 1, 2012. The contract price for the Green Attributes is [redacted]. The project size is 40.9 MW and is located in the San Gorgonio Pass west of Palm Springs, California. This PPA expired on December 31, 2013.
- Whitewater Hill Partners, LLC: This Green Attribute Purchase and Sale Agreement was executed on July 3, 2012. SDG&E purchased the Green Attributes associated with energy delivered for a delivery term of 2 years effective January 1, 2012. The contract

price is [redacted]. The project size is 61.5 MW and is located in the San Gorgonio Pass area of California. This PPA expired on December 31, 2013.

- Coram Energy, LLC: This is a fifteen-year PPA executed on July 12, 2010. The PPA has a tiered pricing structure starting at $95.00/MWh and escalates to $109.20/MWh. The project began deliveries on February 19, 2011. The project size is 7.5 MW and is located in the Tehachapi area of California.
- NEXTera (also known as WTE Acquisitions, LLC) ("WTE"), and FPL Energy ("FPLE"): This agreement is a fifteen year PPA. The original agreement was executed on October 31, 2002. The contract price is $52.60/MWh. Deliveries under the agreement commenced on June 29, 2004. The contract price is $52.60/MWh. The project size is 16.5 MW and is located in the Gorgonio Pass area of Riverside County, California.
- Iberdrola Renewables, LLC (also known as Iberdrola Renewables, Inc., PPM Energy, Inc., and PacifiCorp Power Marketing): Effective April 2, 2012, Iberdrola Renewables, Inc. converted into a limited liability company. There are three projects under agreement with SDG&E.
    - Mountain Wind: This agreement is a fifteen-year PPA executed on October 31, 2002. The project began deliveries in December 2003. The contract price is $49.15/MWh. SDG&E and Iberdrola Renewables, LLC have been transacting Inter SC Trades ("ISTs") under their MRTU Agreement since April 2009. This project size is 22.8 MW and is located in the Palm Springs area of California.

- Phoenix Wind: This fifteen-year PPA was executed on November 7, 2003. The project began deliveries on December 2003. The contract price is $49.15/MWh. SDG&E and Iberdrola Renewables have been transacting ISTs under their MRTU Agreement since April 2009. This project size is 2.1 MW and is located in the Palm Springs area of California.
- Manzana Wind: This is a twenty-year PPA executed on February 14, 2012. The project began deliveries on December 31, 2012. The contract price is [redacted] The SDG&E contracted capacity is 100 MW, and this project is located in Rosamond, California. The estimated annual output is 259,296 MWh.

- Oasis Power Partners, LLC. ("Oasis"): This agreement is a fifteen-year PPA executed on October 30, 2002. The project began deliveries in December 2004. The contract price is $49.20/MWh. SDG&E and Oasis have been transacting ISTs under their MRTU Agreement since April 2009. The project size is 60 MW and is located in the Tehachapi area of California.
- Mesa Wind Power Corporation: This agreement is a two-year PPA executed on March 30, 2012. The project began deliveries on April 19, 2012. The contract price is [redacted]. The estimated annual output is 55,270 MWh. The project size is 29.9 MW and is located at the Coachella Valley in Whitewater Riverside County, California. This PPA was terminated per contract terms on December 31, 2013.
- Pacific Wind Lessee, LLC: This amended and restated agreement is a twenty-year PPA executed on April 20, 2010 and began deliveries on August 16, 2012. The contract price

is [redacted]. The estimated annual output is 392,448 MWh. The project size is 140 MW and is located at Rosamond, California.

- Kumeyaay Wind LLC ("Kumeyaay"): This agreement is a twenty-year PPA with an estimated annual output of 167,900 MWh. The PPA has a tiered pricing structure starting at $49.00/MWh and escalating to $51.75/MWh. SDG&E began taking deliveries of the energy on March 21, 2006. SDG&E and Kumeyaay have been transacting ISTs under their MRTU Agreement since April 2009. The project size is 50 MW and is located on the Campo Indian Reservation in eastern San Diego County, California.

[redacted]

- Naturener Glacier I: This bilateral agreement was executed on May 16, 2008. This is a fifteen-year PPA and started on December 29, 2008. The annual estimated output is 325,000 MWh. The transaction is a combination of two products. First, SDG&E buys the output, including green attributes. Second, Glacier I buys back the output, excluding green attributes, at the same delivery point. The contract prices for the products are $89.00/MWh and $68.00/MWh, respectively. The project size 106.5 MW and is located in Ethridge, Montana.

- Naturener Glacier II: This bilateral agreement was executed on May 23, 2008. This is a fifteen-year PPA started on October 16, 2009. The annual estimated output is 310,000 MWh. The transaction is a combination of two products. First, SDG&E buys the output, including green attributes. Second, Glacier 2 buys back the output, excluding green attributes, at the same delivery point. On May 5, 2009, this PPA was amended, and the prices for the products are $98.00/MWh and $68.00/MWh, respectively. The project size is 103.5 MW is located in Ethridge, Montana.

- Naturener Rim Rock: This bilateral agreement was executed on May 5, 2009. This is a twenty-year PPA with an annual estimated output is 678,812 MWh. The transaction is a combination of two products, with the end result being that SDG&E acquires the green attributes from the project. First, SDG&E buys the output, including green attributes. Second, Rim Rock buys back the output excluding green attributes, at the same delivery point. On January 6, 2012, this PPA was amended, and the prices for the products are [redacted] and [redacted], respectively. The plant declared COD on October 15, 2013. The project size is 189 MW and is located in Toole and Glacier County, Montana.

  The parties are currently in litigation regarding this PPA and the Contribution Agreement governing SDG&E's potential $285 million tax equity investment in this wind farm project regarding SDG&E's termination rights.

- Ocotillo Express: This bilateral agreement is a twenty-year PPA executed on February 1, 2011. The contract price is [redacted]. The project began deliveries on December 4, 2012. The annual estimated output is 790,140 MWh. The project size is 265 MW and is located in Imperial Valley, California.

4. HYDRO

SDG&E had one **5.0 MW** non-QF hydro-conduit PPA and one RAM contract that delivered energy during the record period:

- San Diego County Water Authority ("SDCWA") – Rancho Penasquitos: This PPA was executed on November 20, 2003 for a term of ten years starting on January 23, 2007. The contract price is $53.70/MWh. The plant size is 4.5 MW and is located in San Diego, California.
- Olivenhain Municipal Water District: The original SO1 contract ended September 30, 2013, at the Seller's request. Olivenhain executed a FIT Agreement on July 23, 2013 and began delivery on October 1, 2013. The annual estimated output to SDG&E is 1,150 MWh. The project size is 0.45 MW, and is located in Encinitas, California. The contract price is $93.75/MWh.

5. GEOTHERMAL

SDG&E had one agreement of **25 MW** that delivered energy during the record period, which is described as follows:

- Calpine Geysers: This agreement is a five-year geothermal PPA executed on February 26, 2010. The annual estimated output is 212,430 MWh. The project began operating on March 2, 2010. The PPA provided firm capacity and energy at a contract price of $114.00/MWh. The project consists of 25 MW from fifteen separate geothermal power plants in Calpine's portfolio located in Sonoma and Lake Counties, California.

  [redacted]

6. HYBRID COMBINATION

SDG&E had one agreement of **29 MW** that delivered energy from wind, solar, and geothermal resources during the record period, which is described as follows:

* Southern California Edison Company – WSPP: This is a 2.25-year bilateral PPA. It was executed on September 26, 2011. [redacted]. SDG&E takes delivery of bundled firm renewable energy that began delivery on October 1, 2011. The PPA firm capacity is 29 MW for years 2012-2013 from existing California facilities.

7. SOLAR

SDG&E had twelve (12) solar agreements for a total of **889.4 MW** that delivered energy during the record period. The agreement is as follows:

* Arlington Valley Solar: This bilateral agreement is a twenty-five year PPA executed on June 3, 2011. The project began test deliveries on April 9, 2013 and reached commercial operation on November 5, 2013. The contract price is $[redacted]/MWh in year 2013. The annual estimated output is 270,000 MWh. The project size is 127 MW and is located in Arlington, Arizona.
* Campo Verde Solar: This is a twenty year renewable PPA executed on January 31, 2011. The project began test deliveries on August 1, 2013 and achieved commercial operation on October 25, 2013. The contract price [redacted] in year 2033. The annual estimated output is 276,000 MWh. The project size is 139 MW and is located in Imperial Valley, California.
* Cascade SunEdison Solar: This bilateral agreement is a twenty-year PPA executed on October 19, 2012. The project began test deliveries on December 14, 2013 and reach commercial operation on December 24, 2013. The contract price is $[redacted] in year 2013 and escalates to $[redacted] in year 2033. However, before achieving Full Capacity Deliverability Status, the price was $[redacted], which was paid for the all

energy during the record period. The estimated annual estimated production is 55,219 MWh. The project size is 18.5 MW and is located in Sun Fair, California.

- Catalina Solar: This is a twenty-five year renewable PPA executed on June 3, 2011. The project began test energy deliveries on December 14, 2012 and achieved commercial operation on November 27, 2013. The contract price is [redacted] The annual estimated output is 223,770 MWh. The project size is 109.4 MW and is located in Mojave Dessert in Kern County, California.
- CSOLAR IV South: This bilateral agreement is a twenty-five year PPA executed on November 10, 2010. The project began test deliveries on April 14, 2013 and reached commercial operation on November 1, 2013. The contract price is [redacted]. The annual estimated output is 273,312 MWh. The project size is 130 MW and is located in Calexico, Imperial County, California.
- NRG Solar Borrego I: This bilateral agreement is a twenty-five year PPA executed on January 25, 2011. The project began test deliveries on January 1, 2013, and reached commercial operation on February 12, 2013. The contract price is $[redacted]. The annual estimated output is 59,400 MWh. The project size is 26 MW and is located in Borrego Springs, California.
- Sol Orchard LLC: SDG&E executed four twenty-five year renewable PPA's with Sol Orchard, LLC on April 11, 2011. All of these projects achieved commercial operation on December 31, 2013. The contract price is [redacted].

- Sol Orchard San Diego 20 LLC (Ramona 1): The project began test energy deliveries on December 18, 2013, and reached commercial operation on December 31, 2013. The annual estimated output is 4,110 MWh. The project size is 2.0 MW and is located in Ramona, California.
- Sol Orchard San Diego 21 LLC (Ramona 2): The project began test energy deliveries on December 18, 2013, and reached commercial operation on December 31, 2013. The annual estimated output is 8,220 MWh. The project size is 5.0 MW and is located in Ramona, California.
- Sol Orchard San Diego 22 LLC (Valley Center 1): The project began test energy deliveries on December 11, 2013, and reached commercial operation on December 31, 2013. The annual estimated output is 4,054 MWh. The project size is 2.5 MW and is located in Valley Center, California.
- Sol Orchard San Diego 23 LLC (Valley Center 2): The project began test energy deliveries on December 11, 2013, and reached commercial operation on December 31, 2013. The annual estimated output is 8,108 MWh. The project size is 5.0 MW and is located in Valley Center, California.

- Imperial Valley Solar 1 (Silver Ridge Mt Signal): This is a twenty-five year renewable PPA executed on February 3, 2012. The project began test energy deliveries on August 7, 2013. The contract price is [redacted]. The annual estimated output is 495,274 MWh. The project size is 200 MW and is located in Calexico, Imperial County, California.
- Centinela Solar Energy 1: This is a twenty year renewable PPA executed on May 10, 2010. The project began test energy deliveries on July 26, 2013. The contract

price is [redacted]. The annual estimated output is 270,393 MWh. The project size is 127.5 MW and is located in Calexico, Imperial County, California.

C. QF Resources

SDG&E had twelve (12) QF agreements for a total of **234.4 MW** that delivered energy during the record period. These QF projects consisted of the following: two Non-standard Agreements; four Standard Offer 4 ("SO4") Agreements; two Standard Offer 2 ("SO2") Agreements; and four Uniform Standard Offer 1 ("USO1")/Standard Offer 1 ("SO1") Agreements.

All QF projects that have agreements with SDG&E are located within SDG&E's electric service territory with the exception of the Yuma Cogeneration Association ("YCA") unit, which is located in Yuma, Arizona.

1. PAYMENTS TO QFS

During the record period, the SA section was responsible for invoicing and paying the energy and capacity payments to the QFs.

On a monthly basis, SA calculated the payments due to the firm capacity QFs by using: (1) the PPA payment provisions; (2) energy production data for QFs aggregated by Time-of-Use (this data is provided by SDG&E's Metering Services Department); (3) Short Run Avoided Costs ("SRAC") published monthly by the SA staff; and (4) scheduled maintenance outage reports for firm capacity QFs.

After the QFs' monthly account total was calculated, SA prepared the QFs' Power Purchase Statements. Additionally, throughout the term of the agreements, the SA staff ensures that QFs are properly paid by reviewing each Power Purchase Statement for compliance with the payment provisions of their respective agreements before sending the statements to the QFs. Along with preparing the monthly billing statement for the firm capacity QFs, SA initiated the preparation and payments to the QFs.

During the Record Period, it was brought to SDG&E SA's attention that the City of Escondido Bear Valley, a 1.5 MW small Hydro Plant, had metering issues for the past three years due to incorrect wiring. SDG&E worked with the project to correct the metering.[6]

2. EFFICIENCY MONITORING

In 1991, D.91-05-007 authorized the utilities to monitor the compliance of co-generators with operating and efficiency standards of the Federal Energy Regulatory Commission ("FERC"). The program implementing this decision is known as QF Efficiency Monitoring. As a result, SDG&E QFs were required to submit operating data to SDG&E to demonstrate compliance with FERC standards. Based upon the reported energy use and production for a calendar year, SDG&E determines conformity with the FERC performance requirements on an annual basis.

SDG&E solicited and reviewed the operating and efficiency data for calendar year 2013 in early 2014. According to the data provided by the generators, all QFs were in compliance with the FERC's QF efficiency standards during the record period.

3. INSURANCE MONITORING

The CPUC-approved standard offer agreements required QFs to obtain and maintain comprehensive general liability insurance during the term of their agreements. SDG&E requires each QF to provide SDG&E with evidence of insurance coverage that will reimburse SDG&E for all costs incurred, and any judgments against or damages suffered by SDG&E, as a result of a QF's actions. In D.82-01-103, the CPUC reaffirmed SDG&E's policy on insurance. In that decision, the Commission ruled that it is appropriate for QFs to provide insurance coverage at a commercially reasonable amount; consistent with utility's actual risk of loss; and to name the utility as an

[6] In 2014, SDG&E plans to remit the amount that would have been paid had there been no metering issue.

additional insured party under the QF's insurance policy, provided the QF was larger than 100 kW. Besides QFs, there are a few other bilateral PPAs that also have provisions requiring Sellers to maintain proper insurance.

An insurance administration procedure has been established by the SA staff, which is designed to ensure that SDG&E's counterparties provide their initial insurance certificates before their projects are first operated in parallel with SDG&E, the insurance policies and insurance carriers meet SDG&E's approval, and SDG&E's counterparties maintain their insurance throughout the term of the relevant agreement.

Before interconnecting with a generator, SDG&E conducts an insurance check. The SA staff verifies that the counterparty's insurance is in place and that it meets the requirements of the relevant agreement. Counterparties that provide the required insurance are authorized to interconnect, while those who fail to secure the required insurance are denied interconnection until acceptable evidence of insurance is furnished to SDG&E. This review is completed as part of SDG&E's standard pre-operational review for PPAs.

The SA staff tracks the insurance certificates for compliance and ensures current insurance is maintained by TrackCertsNow, an Ebix BPO system. Ebix generates letters to SDG&E's counterparties, on SDG&E's behalf, alerting them of upcoming insurance expiration. SDG&E's SA section is responsible for contacting the counterparties when action is required to ensure contract compliance.

D.00-12-037, issued on December 21, 2000, adopted a new set of interconnection standards, including insurance amounts different from those of the original QF standard offers. During the record period, the SA staff enforced the insurance requirements in the same manner as they did for the original standard offers, and there was no non-compliance in terms of insurance tracking by the end of record period.

4. QF PERFORMANCE

During the record period, the firm capacity operational QFs totaled about 201 MW. Firm capacity QFs are required to meet minimum performance provisions during the summer on-peak period, unless the QF is unable to perform due to an uncontrollable force outage. In those instances, SDG&E would continue to make firm capacity payments pursuant to the relevant QF contract provisions.

Except for YCA (explained further on page 19), the SO2 and SO4 agreements require QFs to maintain a minimum 80% capacity factor during the summer on-peak period. QFs that fail to meet this minimum provision may be placed on probation for a period not to exceed fifteen months. Those who can operate above an 85% capacity factor during the same period can earn a capacity bonus.

The following describes the largest QF PPAs currently under contract with SDG&E:

- Applied Energy LLC ("AEI"): SDG&E has five PPAs with AEI: (1) Naval Station SO4, (2) North Island SO1, (3) North Island SO4, (4) Naval Training Center/Marine Corps Recruit Depot SO1 and (5) Naval Training Center/Marine Corps Recruit Depot SO4. On May 1, 2012, SDG&E and AEI executed three Amendments to the SO4 Agreements for the Naval Station, North Island and Naval Training Center/Marine Corps Recruit Depot. These Amendments were executed in compliance with the QF Settlement and D.07-09-040. AEI selected Option A for its energy price which is the published SRAC energy and as-available capacity prices.

- Naval Station: This QF is located at the Naval Station, San Diego, California. The agreement terminates November 30, 2019. The SO4 is for 46.5 MW of firm capacity and energy. SRAC was the energy price during the record period. [redacted]
- North Island: This QF is located at the Navy Base, Coronado, California. The SO4 terminates November 30, 2019. It provides 33.5 MW of firm capacity and energy to SDG&E. The energy price during the record period was at the SRAC. The SO1, however, has an indefinite term with a 4 MW nameplate, all output sold to SDG&E at SRAC energy and as-available capacity prices.
- Naval Training Center/Marine Corps Recruit Depot: The SO4 terminates November 30, 2019. The amount is 21.6 MW of firm capacity and energy. The energy price during the record period was at the SRAC. The term for the 2.6 MW nameplate SO1 is indefinite with all output sold to SDG&E at SRAC energy and as-available capacity. [redacted]

- Yuma Cogeneration Associates: YCA is a cogeneration project located in Yuma, Arizona with an option of being dispatchable to SDG&E. It delivers its energy and capacity through Arizona Public Service Company to SDG&E at the North Gila Substation over SDG&E's 500 kV Southwest Powerlink between Arizona and San Diego. The SO2 terminates on May 28, 2024. Firm capacity is 50 MW at a price of $140/kW-yr with energy purchased up to 56.5 MW at SDG&E's monthly posted SRAC prices. The YCA agreement has economic curtailment provisions where SDG&E may exercise its rights to pay YCA an alternative energy price rather than the SRAC during the curtailment hours. When YCA receives a curtailment notice from SDG&E, YCA may do one of the following: (1) physically curtail generation or (2) continue to generate and receive the alternate energy price, which is the CAISO SP-15 hourly LMP for supplemental energy. YCA's curtailment provision was exercised when the CAISO LMP was expected to be lower than the SRAC. The plant is dispatchable under the SO2 and requires the plant be available when called upon by SDG&E. The contract has a Minimum Performance Requirement ("MPR") for the QF to earn a bonus.

On May 17, 2013, YCA filed with FERC a petition for a limited waiver of the efficiency standard in section 292.205 (a)(2) of the FERC regulations for the calendar years 2010, 2011 and 2012 ("Petition"). On July 16, 2013, FERC granted the waiver.

- Goal Line LLP: Goal Line provides SDG&E with 49.9 MW of firm capacity and energy. The plant is located in Escondido, California. During the record period, the energy price SDG&E paid Goal Line was at the SRAC, and the firm capacity price at $172/KW-yr. The agreement provides SDG&E the option to economically curtail deliveries of the project. During the record period, Goal Line elected to shut down for the majority of hours of curtailment. The term of this SO2 agreement expires on February 14, 2025. [redacted].

- Pursuant to D.07-09-040, the Combined Heat and Power ("CHP") Settlement, on July 2, 2013, SDG&E and Goal Line executed an Amendment and Restatement of Agreement for Power Purchase with a Firm Capacity Qualifying Facility ("Restatement

Agreement") which [redacted]. The Restatement Agreement was filed for CPUC approval on May 8, 2014 in Advice Letter 2600-E. During the record period and Goal Line continued to operate under the original SO2.

C.P. Kelco ("Kelco"): This is a facility with an agreement which allows SDG&E to purchase excess power from three gas turbines for a total of 25 MW at SRAC prices for both energy and capacity. The original agreement had a fixed price with a term that ended on December 31, 2009. An amendment was executed on January 1, 2010 to extend the term until the parties executed a CPUC-approved Transition Standard Contract for Existing Qualifying Cogeneration Facilities ("Transitional PPA") pursuant to D.07-09-040. On December 20, 2013, the parties executed a Transitional PPA. However, because the PPA was modified [redacted], SDG&E filed advice letter 2517-E on September 5, 2013 seeking approval of the modified Transitional PPA. The Commission approved the Transitional PPA in Resolution E-4642 on March 14, 2014.

D. Bilateral Power Purchase Contracts

- PGE Boardman: The PGE Boardman PPA consists of a Long Term Power Sale Agreement ("LTPSA") and a Long Term Transmission Service Agreement ("LTTSA") between PGE and SDG&E. The PPAs were executed on November 5, 1985 and terminated on December 31, 2013. PGE Boardman's Unit 1 coal-fired plant and associated facilities are located in Boardman, Oregon. PGE is a majority owner and makes all operational decisions. SDG&E has a contractual right to 14.534% (about 86 MW) of the plant output, but has no ownership rights to make or veto PGE's operational decisions.

This agreement is not unit contingent. If PGE elects to operate the plant, SDG&E may elect to purchase electricity from PGE at a formula price based on the coal costs and a predetermined plant heat rate. At any time, SDG&E may elect to reduce its share of the plant output in any amount between SDG&E's entitlement and zero, or displace plant output by purchasing power from PGE's system power, if available, or from a third party. If the plant is not operating, SDG&E may obtain replacement power, if available, at a mutually agreed upon rate from PGE's system or from third parties using marketing assistance.

Under terms of the LTPSA, PGE obtains, on behalf of SDG&E, third party transmission service from Boardman to the John Day substation, where service under the LTTSA begins. Under the terms of the LTTSA, PGE is responsible to transmit the power to the California/Oregon Border. The CAISO is responsible for transmission inside California.

For services under the LTPSA, SDG&E pays PGE the following: (1) a base price for entitlement for an annual fixed cost of $28.8 million annually; (2) a price for capital additions as escalated by an annual escalation rate; (3) plant fixed operating costs; (4) carrying costs; (5) plant variable operating costs; and (6) third party transmission charges. The PPA allows SDG&E to audit PGE records back 36 months. On June 24, 2013, SDG&E and PGE executed a letter agreement extending the time SDG&E can audit records. To avoid an administrative burden and lower costs, the parties agreed to do a final audit in 2014 for the years 2011, 2012 and 2013. The parties will reconcile any exceptions by December 31, 2014.

- EnerNOC, Inc.: This is a ten-year contract that was executed on February 21, 2005and became effective on December 31, 2006. The Agreement terminates on December 31, 2016. This agreement permits SDG&E to startup and brings on-line 25 MW of customer-owned back up generation. Under the existing contract, these generators can be operated at up to eight hours per day for a maximum of 200 hours per year. This contracted product is dispatchable with a capacity price of $77.00/kW-year. The cost of energy is based on the index fuel price for the period in which the generators run.
- Olivenhain-Hodges Pump Storage Facility: This Hydroelectric Pumped Storage Facility is owned by the San Diego County Water Authority (SDCWA) and consists of two 20 MW hydroelectric turbines for a total of 40 MW. The PPA was executed on January 29, 2004 and was approved by D.04-08-028. The capacity price is a combination of a fixed portion of $65/kW-year and a variable portion at $5/kW-year escalated at CPI. The O&M is $2.00/MWh escalated at the CPI.

  Hodges draws water during off-peak hours using power, and then generates power during on-peak hours by flowing water back. This is to take advantage of the price spread between the on and off-peak time periods. According to the PPA, SDG&E manages the economics through dispatching the generation and pump load.[7]

  On August 21, 2013, after working with SDCWA to obtain proper documentation, SDG&E notified Hodges that all of the outstanding milestone issues required by the PPA had been resolved and that SDG&E accepted the COD of August 27, 2012.

[7] Based on recent information, it appears that there may be a billing issue for this facility. SDG&E will continue its research on this matter and update this testimony if it determines an adjustment is warranted.

During the record period, SDCWA claimed that the project experienced a force majeure event. SDG&E investigated it and accepted the claim. Pursuant to the PPA, SDG&E paid no capacity payments (around $900,000) to the SDCWA during the claimed force majeure event.

In July 2013, the SDCWA requested for a series of short-term generation dispatches without pumping water. The parties agreed to split the savings of pumping under such circumstances. SDG&E dispatched the plant four times in August without pumping, and split about $43,000 in CAISO revenues with the SDCWA.

E. Tolling Agreements

- Otay Mesa Energy Center, LLC ("OMEC"): On May 1, 2007, SDG&E and OMEC (a subsidiary of Calpine Corporation) entered into an Amended and Restated PPA. The Agreement has a ten-year term after which SDG&E has the option to purchase the plant. OMEC is a combined cycle plant located in Otay Mesa in San Diego County near the United States/Mexico International Border and started operating on October 3, 2009. OMEC's capacity was 600 MW after conducting its annual performance test in 2013. The plant is comprised of two combustion turbine-generators and one steam turbine. SDG&E is responsible for supply of the fuel. The capacity price is $117.00/kW-year, and the current O&M cost was $2.44/MWh during the record period, escalated by 2.5% each calendar year.

[redacted]

[redacted] On March 22, 2013, the parties executed a Settlement Agreement and Mutual Release ("Settlement"). On November 14, 2013, the CPUC issued D.13-11-004 approving the Settlement agreement and amendments to SDG&E's power purchase agreements and authorized SDG&E to recover its costs in ERRA. [redacted]

- El Cajon Energy, LLC ("ECEC"): On May 24, 2010, SDG&E and ECEC (a subsidiary of Wellhead Services, Inc.) entered into a Power Purchase Tolling Agreement. The contract has a term of twenty-five years, and the plant started operating on June 16, 2010. ECEC is a quick-start peaking plant with a contract capacity of 46.9 MW after performing their annual performance test in the spring 2013. [redacted].

- Orange Grove Energy, LP ("OGE"): On July 14, 2009, SDG&E and OGE (a subsidiary of J-Power USA Development Co., Ltd) entered into a Power Purchase Tolling Agreement. The contract has a term of twenty-five years. Pursuant to D.07-09-010, SDG&E leases its land to J-Power, who constructed the peaker generator on the leased land and provides its output to SDG&E for a period of twenty-five years, after which the lease shall expire and the title to the peaker shall be transferred to SDG&E at no additional cost. The plant started operating on June 17, 2010. OGE is comprised of two gas turbines located in Pala, California. OGE is a quick-start peaking plant and had a contract capacity of 98.9 MW after performing their annual performance test in the spring 2013. The capacity price was $173.45/kW-year for the term of the agreement, and the

O&M price, which was adjusted by the CPI for the calendar year, was $4.87/MWh during the record period.

F. CDWR Power Purchase Contracts

In D.02-12-069, the Commission approved an operating agreement between SDG&E and CDWR. Exhibit E of the operating agreement specifies that CDWR will retain the majority of contract administration duties, including the following management responsibilities: performance assessment, formal correspondence and notifications with generators, agreement interpretation, and dispute resolution. SDG&E engages in limited duties in support of CDWR's administrative function. SDG&E, in its role as limited agent for California Energy Resources Scheduling ("CERS"), brings any contract issues that it discovers to the attention of CERS. However, the administration of disputes associated with the CDWR contract remains a CERS function. Any costs associated with these contract disputes, though they may have been identified by SDG&E, are ultimately handled and resolved by CERS. SDG&E's duties include:

- <u>Verifying invoices for the allocated agreements</u>: Monthly invoices are sent directly to SDG&E from the generators. SDG&E works with CDWR, the generator and the generator's scheduling coordinators to ensure consistency between all schedules. If there are discrepancies, SDG&E works with all parties to reconcile the schedules. SDG&E also reviews the CAISO metered data online. After schedules and metered data are confirmed to be correct, SDG&E verifies invoices for payment pursuant to the agreement price.
- <u>Conducting bi-weekly meetings with CDWR to discuss administration issues</u>: As part of the coordination efforts between SDG&E and CDWR, the parties hold conference calls as needed to discuss issues related to administration of the agreement. Members from

SDG&E's SA section and scheduling teams participate in the conference calls with CDWR as specific issues arise. These meetings are a forum where a wide range of issues, including least cost dispatch, are discussed and processes are coordinated.

- Coordination of annual performance tests: All of the existing CDWR contracts require the generators to perform an annual test as demonstration of capacity. During the record period, SDG&E performed as CDWR's agent to assume responsibility for coordinating the tests, including test procedure approval, witnessing the tests, and issuing the approval of test results. This is consistent with the Operating Agreement between CDWR and SDG&E, approved in D.03-04-029.

The following sections briefly describe the active agreements allocated to SDG&E during the record period:

- Whitewater Cabazon: On April 1, 2002, CDWR and Whitewater Energy Corporation entered into the Amended and Restated PPA for Whitewater Cabazon. The agreement terminated on December 31, 2013. The agreement amount is 42.9 MW of as-available energy only with a price of $54.00/MWh. The project is in the Palm Springs area of California. On January 24, 2011, SDG&E and Cabazon Wind Partners, LLC executed a Scheduling Coordinator Services Agreement effective March 1, 2011 with a term to last until the termination of the agreement. The PPA ended on December 31, 2013.
- Whitewater Hill: On January 2, 2003, CDWR and Whitewater Energy Corporation entered into the Amended and Restated Master PPA for Whitewater Hill. The agreement terminated on December 31, 2013. The agreement amount is 61.5 MW of as-available energy only with a price of $51.50/MWh. The project

is in the Palm Springs area of California. On January 24, 2011, SDG&E and Whitewater Hill Wind Partners, LLC executed a Scheduling Coordinator Services Agreement effective March 1, 2011 and with a term to last until the termination of the agreement. The PPA ended on December 31, 2013.

G. RENEWABLE ENERGY SALES

During the Record Period, SDG&E made several bundled REC energy sales pursuant to CPUC Resolutions E-4579, E-4600, E-4608, E-4608, E-4621, E-4606, E-4606, E-4606 summing to the amount of 696 GWh.

H. Historical Purchases

Table 1 summarizes the agreements and delivery amounts for the record period.

Confidential/privileged pursuant to applicable provisions of
D.06-06-066, G.O. 66-C and PUC Code Section 583 and Section 454.5 (g).

Table 1:

Historical Purchases

Contract Class	Contract Name/Counterparty	Technology	Product	Purchased kWH in 2013	Contract MW	Contract Dates		CPUC Authorization
						COD	Stop	
QF	Santa Fe Irrigation District - Badger	Hydro	As-Available	1,063,889	1.5	07/01/87	06/30/17	
QF	City of Escondido - Bear Valley Hydro	Hydro	As-Available	80,841	1.5	04/13/94	Evergreen	Standard Offer Contracts pe CPUC D.82-01-103 on 1/21/82
QF	City of Oceanside - San Francisco Peak Hydro Plant	Hydro	As-Available	443,494	0.4	12/15/85	Evergreen	
QF	Olivenhain Municipal Water Dist	Hydro	As-Available	848,582	0.5	11/01/88	Terminated 09/30/2013	Standard Offer Contracts pe CPUC D.82-01-103 on 1/21/82
QF	AEI Naval Station	Natural Gas	Firm	333,604,801	46.6	12/01/89	11/30/19	CPUC Decision D.83-09-054
QF	AEI North Island	Natural Gas	Firm	279,071,604	33.5	12/01/89	11/30/19	CPUC Decision D.83-09-055
QF	AEI NTC/MCRD	Natural Gas	Firm	174,449,740	21.6	12/01/89	11/30/19	CPUC Decision D.83-09-056
QF	Yuma Cogeneration Associates	Natural Gas	Firm	189,907,692	50.0	05/28/94	05/27/24	CPUC Decision D.90-06-028
QF	Goal Line	Natural Gas	Firm	161,031,824	49.9	02/15/95	02/14/25	CPUC Decision D.91-09-071
QF	Grossmont	Natural Gas	As-Available	384	1.5	08/06/84	Evergreen	CPUC Decision 83-01-103
QF	CP Kelco	Natural Gas	As-Available	9,308,470	28.0	10/07/02	06/20/12	CPUC Decision D.07-09-040
QF	AEI NTC Steam Turbine	Natural Gas	As-Available	16,327,475	2.6	07/31/84	Evergreen	CPUC Decision 83-01-103
Renewable	City of San Diego - Point Loma	Digester Gas	As-Available	18,268,520	4.8	01/01/06	12/31/13	CPUC Resolution E-4081
Renewable	GRS - Sycamore 2	Bio-Gas	As-Available	8,200,058	2.5	03/30/04	03/29/14	CPUC Resolution E-3803
Renewable	MM San Diego - Miramar	Bio-Gas	As-Available	11,479,760	3.0	05/20/03	05/19/13	CPUC Resolution E-3803
Renewable	MM San Diego, LLC (formally Miramar)	Bio-Gas	As-Available	16,260,240	See MM SD	05/20/13	05/19/23	CPUC Resolution E-4414
Renewable	MM San Diego - North City	Bio-Gas	As-Available	4,699,110	1.0	05/20/03	05/19/13	CPUC Resolution E-3803
Renewable	MM Prima Deshecha	Bio-Gas	As-Available	41,958,947	6.1	10/01/07	09/30/22	CPUC Resolution E-3965
Renewable	Otay Landfill 1	Bio-gas	Firm	11,251,025	1.5	05/01/09	04/30/19	FIT - CPUC Resolution E-4137
Renewable	Otay Landfill 2	Bio-gas	Firm	11,843,060	1.5	07/01/11	06/30/31	FIT - CPUC Resolution E-4137
Renewable	Otay Landfill 3	Bio-gas	Firm	21,603,716	3.8	03/08/07	03/07/17	CPUC Resolution E-3965
Renewable	Otay Landfill V	Bio-gas	Firm	6,560,720	1.5	06/21/13	06/20/33	FIT - CPUC D.07-07-027 and D.08-09-033
Renewable	Otay Landfill VI	Bio-gas	Firm	6,244,040	1.5	06/21/13	06/20/33	FIT - CPUC D.07-07-027 and D.08-09-033
Renewable	San Marcos Landfill	Bio-gas	Firm	11,132,417	1.5	05/18/11	05/17/31	FIT - CPUC D.07-07-027 &
Renewable	Sycamore Landfill 1	Bio-gas	Firm	6,711,691	1.5	05/16/11	05/15/31	Resolution E-4137
Renewable	Covanta Delano (aka AES)	Bio-Mass	As-Available	362,099,000	49.0	01/01/08	12/31/17	CPUC Resolution E-4070
Renewable	Blue Lake Power	Bio-Mass	As-Available	74,449,000	11.0	04/30/10	04/29/25	CPUC Resolution E-4208 & E-
Renewable	Olivenhain Municipal Water Dist	Hydro	As-Available	296,170	See QFs - Olivenhain	07/23/13	07/22/33	FIT - CPUC D.07-07-027 & Resolution E-4137
Renewable	SOCWA - Rancho Penasquitos	Hydro	As-Available	17,560,410	4.5	01/23/07	01/22/17	CPUC Resolution E-3868
Renewable	Southern California Edison (SCE) - WSPP	Hybrid (Geo/Wind/Solar)	Firm	294,040,000	29.0	10/01/11	12/31/13	CPUC Resolution E-4448
Renewable	Calpine - Geyser	Geothermal	As-Available	219,000,000	25.0	03/01/10	12/31/14	CPUC Resolution E-4342
Renewable	Arlington Valley Solar (LS Power)	Solar	As-Available	195,504,860	127.0	11/05/13	11/04/38	CPUC Resolution E-4423
Renewable	Campo Verde Solar (Southern Company)	Solar	As-Available	109,470,668	139.0	10/25/13	10/21/33	CPUC Resolution E-4073
Renewable	Cascade SunEdison (RAM 2)	Solar	As-Available	1,393,919	18.8	12/24/13	12/23/33	RAM - CPUC Resolution E-4414
Renewable	Catalina Solar	Solar	As-Available	204,242,400	109.4	11/27/13	11/26/38	CPUC Resolution E-4462
Renewable	Centinela Solar Energy	Solar	As-Available	49,791,590	125.0	Test Energy	04/29/34	CPUC Resolution E-4388
Renewable	CSOLAR IV South (Tenaska)	Solar	As-Available	155,596,000	130.0	11/01/13	10/31/38	CPUC Resolution E-4408
Renewable	Imperial Valley Solar	Solar	As-Available	49,429,070	200.0	Test Energy	10/09/38	CPUC Resolution E-3965
Renewable	NRG Solar Borrego I (NRG)	Solar	As-Available	66,997,810	26.0	02/12/13	02/11/38	CPUC Resolution E-4407
Renewable	Sol Orchard SD 20 (Ramona 1)	Solar	As-Available	73,700	2.0	12/31/13	12/30/38	CPUC Resolution E-4466
Renewable	Sol Orchard SD 21 (Ramona 2)	Solar	As-Available	106,350	5.0	12/31/13	12/30/38	CPUC Resolution E-4466
Renewable	Sol Orchard SD 22 (Valley Center 1)	Solar	As-Available	136,720	2.8	12/31/13	12/30/38	CPUC Resolution E-4466
Renewable	Sol Orchard SD 23 (Valley Center 2)	Solar	As-Available	198,490	5.0	12/31/13	12/30/38	CPUC Resolution E-4466
Renewable	Kumeyaay	Wind	As-Available	149,633,030	49.5	03/21/06	12/30/25	CPUC Resolution E-3890
Renewable	Iberdrola Manzana Wind	Wind	As-Available	383,767,650	100.0	12/31/12	12/31/32	CPUC Resolution E-4524
Renewable	Iberdrola Mountain Wind	Wind	As-Available	5,413,499	2.5	12/16/03	12/15/18	CPUC Resolutions E-3803 &
Renewable	Iberdrola Phoenix Wind	Wind	As-Available	71,593,536	22.4	12/16/03	12/15/18	CPUC Resolutions E-3803 &
Renewable	Mesa Wind	Wind	As-Available	29,888,231	29.9	04/09/12	01/31/13	CPUC Resolution E-4486
Renewable	Nextera Energy (WTE/FPL)	Wind	As-Available	28,915,370	16.5	06/28/04	12/31/18	CPUC Resolution E-3803 & E
Renewable	Oasis Power Partners	Wind	As-Available	140,466,990	60.0	12/26/04	12/30/19	CPUC Resolution E-3803 & E
Renewable	Pacific Wind	Wind	As-Available	326,190,630	140.0	08/16/12	08/15/32	CPUC Resolution E-4358
Renewable	Naturener Glacier 1 Wind Energy	Wind	RECs	287,638,000	106.5	12/29/08	12/28/23	CPUC Resolution E-4192
Renewable	Naturener Glacier 2 Wind Energy	Wind	RECs	278,877,000	103.5	10/16/09	10/15/24	CPUC Resolution E-4192
Renewable	Naturener Rim Rock	Wind	RECs	349,232,000	189.0	06/01/13	05/31/33	CPUC Decision 11-07-002
Renewable	Ocotillo Express	Wind	As-Available	334,749,780	265.0	05/31/13	05/30/33	CPUC Resolution E-4438
Renewable	Coram	Wind	As-Available	26,587,150	7.5	02/01/11	01/31/26	CPUC Resolution E-4372
Renewable	Whitewater Cabazon (DWR)	Wind	As-Available	118,929,065	42.9	10/01/02	12/31/13	CPUC Decision D.02-09-053: allocated selected
Renewable	Whitewater Hill (DWR)	Wind	As-Available	188,771,715	61.5	08/31/02	12/31/13	Department of Water Resources'
Bilateral	Portland General Electric - Boardman Power Purchase	Coal	Firm	553,404,000	85.0	01/01/09	12/31/13	CPUC Decision D. 91-11-068;
Bilateral	Portland General Electric Boardman Transmission Purchase	Transmission	Firm	N/A	See Bilateral	01/01/89	12/31/13	Conclusions of Law #5 in A.88-07-003 (ECAC)
Bilateral	Olivenhain/Hodges Pumped Storage	Hydro	Dispatchable	(8,565,479)	40.0	08/27/12	25 Years	CPUC Decision 04-08-028
Use Limited Dispatch	EnerNoc	Natural Gas	Dispatchable	119,000	25.0	12/31/06	12/30/16	CPUC Resolution E-3926
Tolling	Otay Mesa Energy Center, LLC	Natural Gas	Dispatchable	3,703,707,234	602.0	10/03/09	10/02/19	CPUC Decision D. 04-06-011
Tolling	Orange Grove Energy (JPower)	Natural Gas	Dispatchable	38,717,659	96.6	06/17/10	06/16/35	CPUC Decision D.07-09-10 & D. 09-03-033
Tolling	El Cajon Energy Center (Wellhead)	Natural Gas	Dispatchable	24,197,648	47.4	06/16/10	06/15/35	CPUC Decision D.07-09-10 & D. 09-12-026
Renewable	Various Bundle REC Sales	N/A	Energy/RECs	(696,888,700)	N/A	01/01/13	12/31/13	CPUC Resolutions E-4579, E-4600, E-4606, E-4608, E-4621, E-4606, E-4606, E-4606

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IV. CONCLUSION

Based on the foregoing, SDG&E's recorded contract expenses to the ERRA are in conformance with the P.U. Code, Commission decisions, and the contract terms for the 2013 record period.

This concludes my prepared direct testimony.

V. QUALIFICATIONS

My name is Sally Chen. My business address is 8315 Century Park Court, San Diego, CA 92123. I am employed by SDG&E as the Settlement and Administration Manager in the Electric and Fuel Procurement Department. My present duties include management and administration of existing agreements, including renewable agreements, Tolling and QF agreements, allocated CDWR agreements and bilateral agreements. I have been employed by SDG&E since 2001. I have been in my current position since February 2012.

I received a MBA, with a Finance concentration, from San Diego State University.

I have previously testified before the Commission.

BEFORE THE PUBLIC UTILITIES
COMMISSION OF THE STATE OF CALIFORNIA

DECLARATION
OF SALLY CHEN

A.14-05-XXX

Application of San Diego Gas & Electric Company (U 902-E) for Approval of: (i) Contract Administration, Least Cost Dispatch and Power Procurement Activities in 2013, (ii) Costs Related to those Activities Recorded to the Energy Resource Recovery Account and Transition Cost Balancing Account in 2013 and (iii) Costs Recorded in Related Regulatory Accounts in 2013

I, Sally Chen, declare as follows:

1. I am the Settlements & Administration Manager for San Diego Gas & Electric Company ("SDG&E"). I have included my Direct Testimony ("Testimony") in support of SDG&E's Application for Approval of: (i) Contract Administration, Least Cost Dispatch and Power Procurement Activities, and (ii) Costs Related to those Activities Recorded to the Energy Resource Recovery Account, Incurred During the Record Period January 1, 2013 through December 31, 2013, and (iii) the Entries Recorded in Related Regulatory Accounts. Additionally, as the Settlements & Administration Manager, I am thoroughly familiar with the facts and representations in this declaration and if called upon to testify I could and would testify to the following based upon personal knowledge.

2. I am providing this Declaration to demonstrate that the confidential information ("Protected Information") in support of the referenced Application falls within the scope of data provided confidential treatment in the IOU Matrix ("Matrix") attached to the Commission's Decision D.06-06-066 (the Phase I Confidentiality

decision). Pursuant to the procedures adopted in D.08-04-023, I am addressing each of the following five features of Ordering Paragraph 2 in D.06-06-066:

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

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

Confidential Information	Matrix Reference	Reason for Confidentiality And Timing
SC-7 lines 22-23 SC-8 lines 1-4 SC-9 line 1 SC-11 line 18 SC-12 line 1 SC-13 lines 8, 18 SC-14 lines 1, 9-12 SC-15 lines 10, 17 SC-16 lines 18-20 SC-17 lines 2-3, 11, 16-17, 21-23 SC-18 lines 5-6, 11, 16, 21-22 SC-19 line 19 SC-20 line 1	VII.G	Contract terms; confidential for 3 years

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

Confidential Information	Matrix Reference	Reason for Confidentiality And Timing
SC-24 lines 3-5, 15-17 SC-25 lines 18-20 SC-26 lines 1, 11 SC-29 lines 21-23 SC-30 line 1, 4-6, 11-13	VII.E	Contract terms; confidential for 3 years

4. I am not aware of any instances where the Protected Information has been disclosed to the public. To my knowledge, no party, including SDG&E, has publicly revealed any of the Protected Information.

5. I will comply with the limitations on confidentiality specified in the Matrix for the type of data that is provided herewith.

6. The Protected Information cannot be provided in a form that is aggregated, partially redacted, or summarized and continue to provide the level of support to the Application as intended; however SDG&E is certainly willing to work with the Commission regarding possible aggregations if the Commission seeks to make any of the confidential information provided in the Testimony public.

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

Executed this 29th day of May, 2014, at San Diego, California.

Sally Chen

Sally Chen
Settlements & Administration Manager
San Diego Gas & Electric Company