

Proceeding No.: A.13-09-

Exhibit No.: _____

Witness: Andrew Scates

DIRECT TESTIMONY OF
ANDREW SCATES
ON BEHALF OF
SAN DIEGO GAS & ELECTRIC COMPANY

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

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

September 27, 2013



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**DIRECT TESTIMONY OF
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I. INTRODUCTION

My testimony describes the resources San Diego Gas & Electric Company (“SDG&E”) expects to use in calendar year 2014 to provide electric commodity service to its bundled service customers and the procurement costs that SDG&E expects to record in 2014 to the Energy Resource Recovery Account (“ERRA”), Local Generation Balancing Account (“LGBA”), and Transition Cost Balancing Account (“TCBA”). A summary of the proposed total 2014 ERRA revenue requirement is contained in the direct testimony of SDG&E witness Sheri Miller.

Section II of my testimony describes the supply resources that SDG&E forecasts will be utilized to meet SDG&E’s bundled customer load in calendar year 2014. These resources include SDG&E’s continuing obligations under various long-term power purchase contracts, including Public Utility Regulatory Policies Act (“PURPA”) contracts, contracts with conventional generators, contracts with renewable generators, and anticipated short-term market transactions. Section III of my testimony quantifies the costs associated with the resources described in Section II along with other electric procurement costs that are recorded in ERRA, such as California Independent System Operator (“CAISO”) charges and portfolio hedging costs. All Greenhouse Gas (“GHG”) costs, both direct and indirect, associated with SDG&E’s compliance with California’s Cap-and-Trade Program have been explicitly removed from the costs addressed in this testimony.¹ My statement of qualifications can be found at the end of my testimony.

¹ The associated, direct testimony of SDG&E witness Ana Garza-Beutz addresses SDG&E’s forecast of GHG compliance obligations for 2014.

1 My testimony makes reference to the following, which are attachments located directly
2 after my statement of qualifications: Attachment A: SDG&E 2014 ERRA and LGBA Expenses;
3 Attachment B: SDG&E 2014 URG Delivery Volumes; Attachment C: SDG&E 2014
4 Long-Term Power Purchase, CTC & Qualifying Facility Detail; and Attachment D: SDG&E
5 2014 Renewable Resource Detail.

6 **II. 2014 FORECAST OF LOAD AND SUPPLY RESOURCES**

7 On January 1, 2003, SDG&E resumed procurement of its Residual Net Short position and
8 assumed operational control of various California Department of Water Resources (“CDWR”)
9 long-term contracts, which SDG&E dispatched along with its own supply resources as a single,
10 integrated portfolio. The CDWR contracts allocated to SDG&E included bilateral “must take”
11 contracts, as-available wind resource contracts, and dispatchable resource contracts. All CDWR
12 power contracts will expire at the end of 2013. SDG&E procures resources from a diverse
13 portfolio that includes renewable, Qualifying Facilities (“QFs”) and dispatchable generation.
14 Most of the costs for these resources are captured through the ERRA.

15 The results contained in this Application were developed using the production cost model
16 ProSym from Global Energy Decisions, a Ventyx Company. SDG&E resources were modeled
17 in ProSym, which produced generation forecasts for these resources based on contract
18 requirements and forecasts of 2014 natural gas and electric prices. The price forecasts were
19 derived using a recent (July 31, 2013) assessment of 2014 market prices based on the average of
20 forward prices over a 22-day period. In the CAISO market structure, SDG&E’s bundled load
21 requirements, primarily of energy and ancillary services (“A/S”), are purchased from the CAISO
22 Day-Ahead and Real-Time Markets (“DAM” and “RTM”) and the output from SDG&E’s
23 portfolio of resources is sold into the CAISO DAM and RTM. SDG&E’s ERRA forecast for

1 2014 addresses this market structure by separating the expected purchase cost of energy and A/S
2 for its bundled load from the expected sales revenue and supply cost of energy and A/S from its
3 resource portfolio.

4 **A. LOAD FORECAST**

5 The forecast of SDG&E's 2014 bundled load requirement is based on SDG&E's filed
6 forecast in the California Energy Commission's ("CEC's") 2013 Integrated Energy Policy
7 Report ("IEPR") Proceeding. Using this forecast and adjusting for direct access load, SDG&E
8 projected that its bundled load for 2014 will be [REDACTED]. This forecast is [REDACTED] or [REDACTED]
9 higher than SDG&E's forecasted bundled load for 2013 ([REDACTED]). SDG&E's A/S
10 obligations were forecasted to be 6% of load for operating reserves and 2.5% of load for
11 regulation capacity based on the CAISO's historical levels of procurement for these products.

12 **B. SUPPLY RESOURCE FORECAST**

13 **1. Qualifying Facilities**

14 In 2014, SDG&E will have about 230 MW of capacity under contract with eight QFs.²
15 The five largest QF contracts account for 220 MW or 96% of total QF capacity. All QFs are
16 located in the SDG&E service area except for the Yuma Cogeneration Associates ("YCA")
17 plant, a 56.5 MW natural gas-fired plant in Arizona whose output is imported into the CAISO.

18 QF contracts are must-take resources. SDG&E is obligated to pay the contract price for
19 all delivered QF generation and schedule it into the CAISO market, with the exception of limited
20 price replacement rights in the YCA and Goal Line contracts. To the extent allowed in these
21 contracts, SDG&E exercises these rights during low-priced hours to maximize ratepayer savings.
22 Typically, these plants will choose to shut down during these hours to avoid operating at a loss.

² The actual number of active QF contracts is over 50, but many of these QF resources only serve on-site load and do not deliver net energy to SDG&E. As a result, these are not included in the production cost model run. The nine QFs referenced above deliver net energy to SDG&E and are modeled in ProSym.

1 SDG&E has executed a new contract with Goal Line and is currently negotiating new terms with
2 YCA, which would allow SDG&E to have more economic dispatch rights. With the expectation
3 that the YCA contract will be executed before the end of 2013, SDG&E forecasted the plant's
4 dispatch in accordance with the new terms. Accounting for the economic curtailments and
5 forecast availability, the forecast of QF energy supply in 2014 is [REDACTED], a decrease of
6 [REDACTED] from the forecasted amount for 2013 ([REDACTED]).

7 2. Renewable Energy Contracts

8 SDG&E procures renewable energy through competitive solicitations and bilateral
9 agreements to meet California's Renewable Portfolio Standard ("RPS")³ established by Senate
10 Bill ("SB") 1078, *et seq.*⁴ The forecast of renewable energy supply from California Public
11 Utilities Commission ("Commission") approved contracts for 2014 is 4,940 GWh, which
12 includes 871 GWh of Renewable Energy Credits ("RECs") quantities that are delivered to
13 SDG&E in conjunction with existing non-renewable imports. This forecast is an increase of
14 400 GWh from the forecast for 2013 (4,540 GWh).

15 SDG&E expects to receive 871 GWh of anticipated renewable energy credits from
16 various wind contracts. The renewable energy credits are delivered using physical deliveries of
17 energy that SDG&E has already accounted for in its 2014 forecast or which are provided for
18 under separate contract, specifically the Morgan Stanley contract. The Morgan Stanley contract
19 provides firmed and shaped deliveries at the Northern Oregon Border ("NOB") of brown energy
20 which partially offsets expected energy from the Rim Rock project. However, costs associated
21 with these renewable energy credits are included in the renewable section of the 2014 ERRA
22 cost forecast.

³ Some renewable resources have QF contracts and also qualify to meet the Renewable Portfolio Standard. Those resources are reported in the QF sections of this testimony.

⁴ See e.g., Decision ("D.")03-06-071; D.04-07-029; D.05-07-039; D.06-10-019.

1 SDG&E included renewable energy quantities of wind, solar and bio projects that are
2 currently under development. SDG&E aggregated these and called them Generic Wind, Generic
3 Solar, and Generic Bio contracts (under development). SDG&E did not include renewable
4 energy quantities or costs associated with the Sustainable Communities Photovoltaic program
5 because costs for this program are not charged to ERRA.

6 SDG&E also forecasts RPS Sales in 2014 for a total of 665 GWh. A detailed table of the
7 renewable contracts discussed above is provided in Attachment D.

8 **3. SDG&E-Owned Dispatchable Generation**

9 SDG&E owns the following generating facilities:

- 10 • the 575 MW Palomar Energy Center (“Palomar”) combined cycle power plant
11 that commenced commercial operation in April 2006,
- 12 • the 48 MW Miramar Energy Facility (“Miramar I”) peaking combustion turbine
13 that commenced commercial operation in July 2005,
- 14 • the second 48 MW Miramar peaker (“Miramar II”) that commenced commercial
15 operation in August 2009,
- 16 • the 495 MW Desert Star Energy Center (“Desert Star”) combined cycle power
17 plant, acquired in 2011, and
- 18 • the 45 MW Cuyamaca Peak Energy Plant, (“Cuyamaca” formerly Calpeak
19 El Cajon) acquired by SDG&E in January 1, 2012.

20 These units are dispatched for generation and A/S awards based on economic merit and
21 SDG&E’s requirements. For the 2014 forecast, SDG&E’s dispatch model considered only
22 generation dispatched for energy rather than for A/S. The rationale for this approach is that the
23 CAISO co-optimizes market awards between energy and A/S based on the opportunity cost of

1 capacity and, therefore, the economic benefit (and ERRRA contribution) of using capacity for
2 generation is equivalent to using capacity for A/S.

3 The forecasted generation for Palomar in 2014 is [REDACTED], an increase of [REDACTED]
4 from the forecast for 2013 ([REDACTED]). The forecasted generation for Miramar I & II
5 (collectively, “Miramar”) in 2014 is [REDACTED], a decrease of [REDACTED] from the forecast for 2013
6 ([REDACTED]). The forecasted generation for Cuyamaca in 2014 is [REDACTED]. The forecasted
7 generation for Desert Star in 2014 is [REDACTED], an increase of [REDACTED] from the forecast for
8 2013 ([REDACTED]).

9 4. SDG&E-Contracted Generation

10 SDG&E has a number of generation units under contract in its resource portfolio in 2014.
11 The primary benefit of the other contracts will be to offset SDG&E’s load requirements from a
12 capacity standpoint. The largest of these contracts are further described below.

13 SDG&E’s Power Purchase Agreement (“PPA”) for the Otay Mesa Energy Center
14 (“OMEC”), a combined-cycle plant, is expected to provide a significant quantity of generation to
15 the CAISO market. The OMEC tolling agreement between SDG&E and Calpine began in
16 October 2009. OMEC is an air-cooled 2x1 combined cycled plant that provides up to 604 MW
17 of efficient, gas fired generation capacity. The forecasted generation from OMEC for 2014 is
18 [REDACTED], an increase of [REDACTED] from the forecast for 2013 ([REDACTED]).

19 The Orange Grove contract provides 99 MW of peaking capacity and is forecasted to
20 generate [REDACTED] during 2014, a decrease of [REDACTED] from the forecast for 2013 ([REDACTED]).

21 The Wellhead contract, El Cajon Energy Center, provides 48 MW of peaking capacity
22 and is forecasted to generate about [REDACTED] during 2014 a decrease of [REDACTED] from the forecast
23 for 2013 ([REDACTED]). Escondido Energy Center is a new Wellhead contract with a capacity of

1 45MW and contracted to begin May 1, 2014. Escondido Energy Center is forecasted to generate
2 about [REDACTED] for 2014.

3 **5. Market Purchases and Surplus Sales**

4 Under the Market Redesign and Technology Upgrade (“MRTU”), quantities purchased
5 from the CAISO for SDG&E’s load are based on load schedules and economic bids. Quantities
6 sold to the CAISO from SDG&E’s resource portfolio are based on separate generation schedules
7 and economic bids. Therefore, there is no requirement that SDG&E’s bundled load and
8 SDG&E-controlled generation quantities that clear the market must balance.

9 If in any hour, the quantity of SDG&E’s bundled load requirements purchased from the
10 CAISO is greater than SDG&E-controlled generation sold to the CAISO, the difference may be
11 viewed as equivalent to a market purchase. If in any hour, the quantity of SDG&E’s bundled
12 load requirements purchased from the CAISO is less than SDG&E-controlled generation sold to
13 the CAISO, the difference may be viewed as equivalent to a market sale.

14 SDG&E forecasts that the quantity of [REDACTED] in
15 2014, an increase of [REDACTED] from the forecast for 2013 ([REDACTED]). The increase is
16 primarily due to Southern California Edison’s announcement on June 7, 2013 to permanently
17 shut down the San Onofre Nuclear Generating Station (“SONGS”), the expiration of CDWR
18 contracts and the Boardman contract⁵ creating additional need in the portfolio.

19 **III. 2014 FORECAST OF ERRA EXPENSES**

20 Electric procurement expenses incurred by SDG&E to serve bundled load are recorded to
21 the ERRA. These expenses include, but are not limited to, costs and revenues for energy and
22 capacity cleared through the MRTU markets, power purchase contract costs, generation fuel
23 costs, market energy purchase costs, CAISO charges, brokerage fees and hedging costs.

⁵ The CDWR and Boardman contracts expire December 31, 2012.

1 Deviations between forecast and actual costs for any of these items will create variances between
2 forecast and actual ERRA costs.

3 SDG&E expects to incur \$1,213 million of ERRA costs in 2014, before franchise fees
4 and uncollectibles (“FF&U”) costs (see Attachment A). This forecast is \$209 million more than
5 the \$1,004 million forecasted for 2013.⁶ The key driver behind the increase is the increase of
6 renewable generation costs. Other factors contributing to the costs include higher gas prices,
7 expiration of CDWR contracts and the SONGS plant closure. The Renewable Generation cost is
8 largely outside of SDG&E’s control, as achieving RPS goals is a direct result of policies enacted
9 by California’s Legislators.

10 The remainder of this testimony will discuss the cost of specific ERRA items in more
11 detail.

12 **A. LOAD**

13 Under MRTU, the CAISO supplies and sells all energy and A/S to SDG&E to meet
14 SDG&E’s bundled load requirement. Based on expected prices for energy and A/S, SDG&E
15 expects to incur charges totaling [REDACTED] for load requirements in 2014 from the CAISO.

16 **B. SUPPLY ISO REVENUES**

17 Under MRTU, all generation from SDG&E’s resource portfolio is sold to the CAISO.
18 Based on expected prices for energy, SDG&E expects to receive revenues totaling [REDACTED]
19 for generation produced in 2014. These revenues are largely offset by costs incurred for
20 generation fuel and variable operation and maintenance (“O&M”), contracted energy purchases
21 and generation capacity. These costs are described in more detail below.

⁶ Application (“A.”) 12-10-002 is pending Commission approval.

1 **C. GENERATION FUEL AND VARIABLE O&M**

2 **1. Palomar, Desert Star, Miramar and Cuyamaca (Fuel Expenses that**
3 **are Recovered through ERRA)**

4 In 2014, the ERRA expense for generation fuel purchased by SDG&E for Palomar,
5 Miramar I & II, Desert Star and Cuyamaca is forecasted to be [REDACTED]. Capital and
6 non-fuel operating costs for these plants are recovered through the Non-Fuel Generation
7 Balancing Account (“NGBA”) as required by D.05-08-005, Resolution E-3896 and D.07-11-046.

8 **D. CONTRACTED ENERGY PURCHASES**

9 **1. Qualifying Facilities**

10 All QFs are under contract with SDG&E through as-available capacity or firm capacity
11 PURPA contracts. These contracts include provisions for both energy and capacity payments.
12 The energy payment is determined using the SDG&E Short-Run Avoided Cost (“SRAC”)
13 formula.⁷ The ERRA expenses for Competition Transition Charge (“CTC”) QF contracts are
14 based on delivered energy multiplied by the market benchmark price. Any costs, including
15 capacity payments, greater than the market benchmark price are booked to the TCBA. For the
16 purposes of ERRA accounting, ERRA expenses for CTC QF contracts are recorded on Line 23
17 of Attachment C, “Qualifying Facilities (Up To Market),” and are forecast to be [REDACTED] in
18 2014. Any gas hedging costs incurred to mitigate
19 SRAC-priced QF contracts are also recovered in ERRA, but those expenses are captured in Line
20 46 Attachment A, “Hedging Costs.” Attachment C details the breakdown of all the units
21 discussed in this section and shows the associated costs, both ERRA and TCBA, and the forecast
22 energy deliveries.

23

⁷ The derivation of the SRAC price for QF contracts is posted monthly on an SDG&E website:
<http://www2.sdge.com/SRAC/>.

1 **2. Renewable Energy Contracts**

2 SDG&E’s renewable energy contracts usually contain an energy payment only and no
3 capacity payment. There are some slight differences between renewable contracts regarding
4 energy payments based on schedules or metered energy, and the treatment of CAISO imbalance
5 charges, depending on the type of resource. In 2014, SDG&E’s renewable energy portfolio will
6 include a cost for the renewable energy credits described in Section II under “Renewable Energy
7 Contracts.” All costs associated with these contracts are booked as an ERRA expense and are
8 forecasted to be \$540 million for 2014. Attachment D details the renewable projects by fuel
9 type, their costs and forecasted energy deliveries.

10 **3. Other Purchased Power Contracts**

11 SDG&E’s forecast of total costs for non-renewable power purchase contracts in 2014 is
12 [REDACTED]. These costs cover capacity payments and variable generation costs for OMEC,
13 Lake Hodges, Kelco and several peakers. The largest components in this category are capacity
14 and generation costs for the OMEC unit, expected to be [REDACTED], and Resource Adequacy
15 capacity costs for [REDACTED] and Calpeak, expected to be [REDACTED]. The Morgan Stanley
16 contract is also included in this category and is expected to cost [REDACTED]. Escondido Energy
17 Center forecasted costs and associated CAISO revenues are accounted for in the LGBA.
18 Attachment A details the breakdown of LGBA expenses.

19 **4. Inter-Scheduling Coordinator Trades (“ISTs”)**

20 Under MRTU, SDG&E may transact ISTs bilaterally with counterparties to hedge long
21 or short positions. Under an IST purchase, SDG&E pays the counterparty the contracted energy
22 price and in return receives payment from the CAISO based on the MRTU market clearing price.
23 Under an IST sale, SDG&E receives payment from the counterparty based on the contracted

1 energy price and in return pays to the CAISO the MRTU market clearing price. For IST
2 purchases and sales, the payment to, or revenue from, the counterparty is largely offset by the
3 respective credit from, or payment to, the CAISO. Because ISTs are used as a hedge against
4 unknown MRTU prices, SDG&E does not include a forecast of the net cost or benefit from these
5 transactions.

6 **E. CAISO RELATED COSTS**

7 SDG&E forecasts CAISO's charge associated with the Federal Energy Regulatory
8 Commission ("FERC") Annual Assessment fees to recover estimated and actual FERC fees as
9 Market Participants for use of the CAISO Controlled Grid to transmit electricity. Other CAISO
10 related costs includes CalPX Windup fees and Western Renewable Energy Generation
11 Information System ("WREGIS") fees. The forecast of these charges is based on historical data.
12 SDG&E's forecast of these CAISO costs is expected to be ██████████ in 2014.

13 **F. UTILITY RETAINED GENERATION ("URG") HEDGING COSTS**

14 SDG&E's resource portfolio has substantial exposure to gas price volatility as a result of
15 fuel requirements for its gas-fired resources as well as the gas price-based pricing formula for its
16 QF contracts. To manage this exposure, SDG&E expects to continue its hedging activity, and
17 will book the resulting hedging costs and any realized gains and losses from hedge transactions
18 to ERRA. The current estimate of hedging costs for 2014 is ██████████, calculated as the
19 marked-to-market profit/loss of hedges already in place, plus expected broker fees. The
20 profit/loss of these and future hedges placed will rise and fall with market prices. Therefore, the
21 final cost or savings will not be known until the settlement process has been completed for the
22 hedge transactions.

1 SDG&E may also trade short-term financial power products to hedge its long or short
2 position against potentially volatile MRTU market clearing prices. Similar to ISTs described
3 above, SDG&E does not include a forecast of net cost or benefit from these power hedges due to
4 the unpredictability of market prices relative to the price of the hedges.

5 **G. CONVERGENCE BIDS**

6 SDG&E's primary use of convergence bids is to hedge certain operational risks in the
7 day-to-day management of its portfolio. It is not possible to forecast the gains or losses
8 associated with potential convergence bidding activity because of the unpredictable relationship
9 between day-ahead and real-time prices. Therefore, SDG&E did not forecast an ERRA
10 revenue/charge for convergence bids.

11 **H. CONGESTION REVENUE RIGHTS ("CRRs")**

12 The CAISO day-ahead market establishes a market clearing price (which may include a
13 congestion charge component) at each price node ("Pnode"). If congestion occurs where a
14 generator is located, the market clearing price will be lower at that Pnode and the CAISO will
15 consequently pay a lower price for energy delivered there. If congestion occurs where a load is
16 located, the market clearing price will be higher at that Pnode and the CAISO will consequently
17 charge a higher price for load served there.

18 Market participants, including SDG&E, were allocated CRRs for which they can
19 nominate source and sink Pnodes to match those in their portfolio. If congestion arises between
20 the source and sink Pnodes, the CAISO will pay the market participant holding the CRR the
21 congestion charges to offset the congestion costs incurred. SDG&E expects its CRRs to generate
22 revenues from the CAISO to offset congestion costs incurred within its portfolio. However,
23 expected revenues were not forecast for the 2014 ERRA forecast because SDG&E assumed

1 congestion-free clearing prices to develop forecasts for load requirement costs and generation
2 revenues. A forecast of CRR revenues would have required SDG&E to forecast offsetting
3 market-congestion prices at various Pnodes over the 2014 period, which would have introduced
4 complexity and additional uncertainty into the forecast.

5 Market participants, including SDG&E, are offered the ability to purchase CRRs through
6 an auction process. If the CRRs allocated were insufficient to hedge the congestion on a
7 volumetric level, SDG&E may elect to participate in the annual and monthly auction processes
8 to procure the incremental CRRs. Since the incremental CRRs volumes cannot be forecasted,
9 the CRR revenues also cannot be forecasted.

10 This concludes my direct testimony.

11

1 IV. QUALIFICATIONS

2 My name is Andrew Scates. My business address is 8315 Century Park Court,
3 San Diego, CA 92123. I am currently employed by SDG&E as a Market Operations Manager.
4 My responsibilities include overseeing a staff of schedulers involved in dispatching the SDG&E
5 bundled load portfolio of supply assets for the benefit of retail electric customers. This includes
6 operational administration of DWR contracts, transacting in the real-time wholesale market and
7 managing scheduling activities in compliance with CAISO requirements. I assumed my current
8 position in January 2011.

9 I previously managed the Electric Fuels Trading desks for SDG&E, primarily managing
10 day ahead and forward procurement of Natural Gas. Prior to joining SDG&E in 2003, my
11 experience included five years as an energy trader/scheduling manager.

12 I hold a Bachelors degree in Business Administration with an emphasis in Finance from
13 California State University, Chico.

14 I have previously testified before the Commission.

Attachment A

ATTACHMENT A - SDG&E 2014 ERRR and LGBA EXPENSES

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2014
1 EXPENSES (\$)													
2 Load ISO Charges (Energy & A/S Costs)													
3 Supply ISO Revenues (Energy & A/S Costs)													
4 Contract Costs (non-CTC)													
5 Contract Costs (CTC up to mkt)													
6 Generation Fuel													
7 CAISO Misc Costs													
8 Hedging Costs (inc. Broker Fees)													
9 Equity Re-balancing Costs													
10 GHG Allowance Costs													
11 GHG Indirect Costs													
12 Total Balancing Account Expenses													
Line 4 Contract Costs (non-CTC)													
Otay Mesa Energy Center PPA payment													
Otay Mesa Energy Center Energy Costs													
Lake Hodges													
Celerity													
Kelco													
El Cajon Energy Center Peaker Costs													
Orange Grove Peaker Costs													
NRG Capacity Costs													
Calpeak Capacity Costs													
Cabrillo 2 Capacity Costs													
Wellhead Chula Vista Capacity Costs													
Morgan Stanley Index Costs													
Renewable Energy													
Line 4 Total													
Line 5 Contract Costs (CTC up to mkt)													
Qualifying Facilities (Up To Market)													
Line 5 Total													
Line 6 Generation Fuel													
Palomar													
Desert Star													
Miramar													
Miramar 2													
Cuyamaca													
Line 6 Total													
Line 8 Hedging Costs (inc. Broker Fees)													
Hedging Costs													
Broker Fees													
Line 8 Total													
Market Purchases and Sales													
Total Sales Revenue													
Net Short													
LGBA Expenses (K\$)													
Escondido Energy Center cost													
Escondido Energy Center ISO revenue													
Total LGBA Expense													\$ 5,111,327

Attachment B

ATTACHMENT B - SDG&E 2014 URG DELIVERY VOLUMES

URG Deliveries (GWh)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2014
CTC QF	[REDACTED]												
Non-CTC QF	[REDACTED]												
TOTAL QF	[REDACTED]												
Renewable - Bio Gas	14	11	13	12	12	12	14	14	14	13	12	13	154
Renewable - Bio Mass	13	12	14	14	12	13	33	35	36	17	13	14	226
Renewable - Geothermal	6	6	6	6	6	6	16	19	18	8	6	6	110
Renewable - Other	1	1	1	1	1	1	2	3	3	2	1	1	20
Renewable - Solar	155	148	203	224	232	224	219	219	198	171	150	146	2,288
Renewable - Wind	118	126	182	205	222	213	177	141	139	160	129	123	1,935
Renewable - Wind REC	90	77	80	75	72	67	51	49	54	78	85	92	871
Renewable - RPS Sale	(55)	(55)	(55)	(55)	(55)	(55)	(55)	(55)	(55)	(55)	(55)	(55)	(665)
TOTAL NON-QF RENEWABLE	342	326	444	483	503	482	457	425	405	393	340	339	4,940
Miramar	[REDACTED]												
Miramar 2	[REDACTED]												
Cuyamaca	[REDACTED]												
Palomar	[REDACTED]												
Otay Mesa Energy Center	[REDACTED]												
Desert Star	[REDACTED]												
Celerity	[REDACTED]												
Kelco	[REDACTED]												
Lake Hodges	[REDACTED]												
Morgan Stanley	[REDACTED]												
El Cajon Energy Center	[REDACTED]												
Orange Grove	[REDACTED]												
Escondido Energy Center	[REDACTED]												
RPS Sales Residual Generation	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4	665
TOTAL GENERATION	[REDACTED]												
Economic RNS - On Peak	[REDACTED]												
Economic RNS - Off Peak	[REDACTED]												
TOTAL Market Purchase	[REDACTED]												
TOTAL URG DELIVERIES	[REDACTED]												
Surplus Energy Sold	[REDACTED]												
LOAD REQUIREMENT (GWh)	[REDACTED]												

Note 1: Total URG deliveries do not include Wind REC

Note 2: Load Requirement is SDG&E bundled load including load served by CDWR contract energy and transmission losses.

Attachment C

ATTACHMENT C - SDG&E 2014 LONG-TERM POWER PURCHASE, CTC & QUALIFYING FACILITY DETAIL

URG Deliveries (GWh) Long Term Power Purchase CTC-GWh	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2014
SRAC Priced CTC QF													
Goal Line QF													
Naval Station QF													
North Island QF													
Navy Training Center QF													
Yuma Cogen Associates QF													
Navy Training Center QF - Steam Turbine													
Aggregation of Hydro Units (SO1)													
Badger Filtration Plant													
Subtotal													
ERRA Expenses (K\$)													
CTC QF (to Line 5 of Attachment A)													
Non CTC QF (to Line 4, see Attachment D)													
TCBA Expenses (K\$)													
CTC QF													
Total TCBA Expense													\$14,382

Attachment D

ATTACHMENT D - SDG&E 2014 RENEWABLE RESOURCE DETAIL

PowerPurchaseDeliveries(GWh)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2014
BIO GAS													
GRS Sycamore Landfill Plant	1.6	-	-	-	-	-	-	-	-	-	-	-	1.6
San Marcos Landfill	0.9	0.8	1.0	0.9	0.9	0.9	1.0	1.0	1.0	0.9	0.9	0.9	11.3
MM Prima Deshecha Energy LLC	3.3	2.9	3.4	3.0	3.4	3.2	3.7	3.9	3.6	3.6	3.0	3.3	40.3
MM San Diego LLC - Miramar Landfill	2.2	2.0	2.2	2.1	2.2	2.1	2.2	2.2	2.2	2.2	2.1	2.2	25.9
Otay Landfill1	1.0	0.8	1.0	0.9	1.0	0.9	1.2	1.2	1.2	1.0	1.0	1.0	12.2
Otay Landfill2	1.0	1.0	0.9	1.0	1.0	1.0	1.1	1.2	1.2	1.0	1.0	1.0	12.3
Otay Landfill3	2.0	1.8	2.0	2.0	1.9	2.0	2.1	2.2	2.0	2.1	1.9	2.0	24.0
Generic Biogas contracts (under negotiatio	2.1	2.0	2.0	2.1	2.0	2.1	2.6	2.7	2.6	2.1	2.1	2.1	26.4
Subtotal	14.0	11.3	12.6	12.1	12.5	12.2	13.9	14.4	13.8	12.9	12.0	12.5	154.1
BIO MASS													
Covanta Delano	9.6	8.4	9.5	9.8	8.9	9.4	25.8	27.3	27.8	11.9	9.4	9.6	167.2
Blue Lake	3.7	3.6	4.1	4.2	3.6	4.0	7.3	8.2	7.9	4.7	3.7	4.0	58.9
Subtotal	13.2	11.9	13.6	14.0	12.4	13.4	33.2	35.5	35.8	16.6	13.1	13.5	226.1
GEOTHERMAL													
Calpine Geysers	6.2	6.0	6.0	6.4	6.5	6.3	15.8	18.6	18.0	8.3	6.2	6.0	110.1
Subtotal	6.2	6.0	6.0	6.4	6.5	6.3	15.8	18.6	18.0	8.3	6.2	6.0	110.1
OTHER													
Rnch Pnasquitos	9.6	8.4	9.5	9.8	8.9	9.4	25.8	27.3	27.8	11.9	9.4	1.4	159.0
Subtotal	9.6	8.4	9.5	9.8	8.9	9.4	25.8	27.3	27.8	11.9	9.4	1.4	159.0
SOLAR													
NRG Borrego Solar	4.1	3.9	5.3	5.9	6.1	5.9	5.7	5.7	5.2	4.5	3.9	3.8	60.0
Generic Solar contracts (under negotiatio	150.5	144.0	198.0	217.7	226.2	218.3	213.0	213.0	192.8	166.6	145.6	142.4	2228.1
Subtotal	154.5	147.9	203.4	223.6	232.3	224.2	218.7	218.7	198.0	171.1	149.5	146.2	2288.1
WIND													
Glacier Wind (TREC)	56.2	49.8	49.6	49.0	47.3	43.7	32.6	28.1	35.2	44.7	52.9	59.0	548.2
RimRock (TREC)	33.9	27.3	30.6	26.3	24.3	23.1	18.7	21.3	18.7	33.4	32.0	33.4	323.0
Generic Wind contracts (under negotiatio	40.1	40.8	41.3	42.8	29.3	25.9	17.0	17.5	27.9	40.5	34.1	30.0	387.2
Coram Energy	1.1	1.2	2.1	2.5	3.1	3.0	2.6	1.9	1.7	1.8	1.4	1.4	23.7
Pacific Wind	20.2	22.4	39.0	45.8	57.1	55.5	48.6	36.2	30.9	32.6	26.5	26.8	441.5
Kumeyaay	14.2	14.5	14.7	15.2	10.4	9.2	6.0	6.2	9.9	14.4	12.1	10.6	137.3
Pattern	29.6	32.7	57.1	67.1	83.6	81.2	71.1	53.1	45.2	47.8	38.8	39.2	646.5
Oasis Power Partners	8.7	9.6	16.7	19.6	24.5	23.8	20.8	15.5	13.2	14.0	11.4	11.5	189.2
PPM Energy	3.3	4.1	6.4	10.0	11.1	11.5	8.3	8.1	8.1	7.1	3.5	2.4	85.8
WTE Monocito	0.9	1.1	2.7	2.5	3.0	3.2	2.5	2.4	2.1	1.9	0.8	0.6	23.7
Subtotal	208.1	203.4	262.3	280.7	293.6	280.0	228.0	190.4	192.7	238.2	213.5	215.0	2806.1
RPS Sales													
Noble America Energy Solutions LLC II	(17)	(17)	(17)	(17)	(17)	(17)	(17)	(17)	(17)	(17)	(17)	(17)	(200.0)
Pilot Power Group	(8.8)	(8.8)	(8.8)	(8.8)	(8.8)	(8.8)	(8.8)	(8.8)	(8.8)	(8.8)	(8.8)	(8.8)	(105.0)
City of Corona	(5.0)	(5.0)	(5.0)	(5.0)	(5.0)	(5.0)	(5.0)	(5.0)	(5.0)	(5.0)	(5.0)	(5.0)	(60.0)
Exelon II	(25.0)	(25.0)	(25.0)	(25.0)	(25.0)	(25.0)	(25.0)	(25.0)	(25.0)	(25.0)	(25.0)	(25.0)	(300.0)
Subtotal	(55.4)	(55.4)	(55.4)	(55.4)	(55.4)	(55.4)	(55.4)	(55.4)	(55.4)	(55.4)	(55.4)	(55.4)	(665.0)
Total Power Purchase Costs(K\$)													
BIO GAS	\$ 1,051	\$ 876	\$ 971	\$ 940	\$ 967	\$ 942	\$ 1,096	\$ 1,131	\$ 1,092	\$ 995	\$ 941	\$ 970	\$ 11,973
BIO MASS	\$ 986	\$ 899	\$ 1,021	\$ 1,051	\$ 929	\$ 1,007	\$ 2,404	\$ 2,584	\$ 2,593	\$ 1,241	\$ 980	\$ 1,013	\$ 16,708
GEOTHERMAL	\$ 701	\$ 678	\$ 687	\$ 724	\$ 738	\$ 718	\$ 1,804	\$ 2,120	\$ 2,052	\$ 941	\$ 701	\$ 687	\$ 12,551
OTHER	\$ 75	\$ 66	\$ 79	\$ 69	\$ 74	\$ 74	\$ 127	\$ 146	\$ 134	\$ 94	\$ 68	\$ 75	\$ 1,080
SOLAR	\$ 20,486	\$ 19,607	\$ 26,962	\$ 29,639	\$ 30,790	\$ 29,718	\$ 28,998	\$ 28,998	\$ 26,250	\$ 22,685	\$ 19,825	\$ 19,387	\$ 303,347
WIND	\$ 11,098	\$ 11,848	\$ 17,006	\$ 19,208	\$ 20,836	\$ 19,962	\$ 16,642	\$ 13,153	\$ 12,906	\$ 14,981	\$ 12,150	\$ 11,654	\$ 181,423
WIND (REC)	\$ 2,923	\$ 2,472	\$ 2,612	\$ 2,408	\$ 2,279	\$ 2,129	\$ 1,652	\$ 1,657	\$ 1,721	\$ 2,611	\$ 2,758	\$ 2,975	\$ 28,199
RPS SALES	\$ (1,265)	\$ (1,265)	\$ (1,265)	\$ (1,265)	\$ (1,265)	\$ (1,265)	\$ (1,265)	\$ (1,265)	\$ (1,265)	\$ (1,265)	\$ (1,265)	\$ (1,265)	\$ (15,180)
Subtotal	\$ 36,054	\$ 35,181	\$ 48,073	\$ 52,775	\$ 55,348	\$ 53,286	\$ 51,458	\$ 48,524	\$ 45,483	\$ 42,263	\$ 36,157	\$ 35,496	\$ 540,100

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

**DECLARATION
OF ANDREW SCATES**

A.13-09-XXX

Application of San Diego Gas & Electric Company (U 902-E)
for Adoption of its 2014 Energy Resource Recovery Account Revenue Requirement,
Competition Transition Charge, and Local Generation Balancing Account Revenue Requirement
Forecasts

I, Andrew Scates, declare as follows:

1. I am the Market Operations Manager for San Diego Gas & Electric Company (“SDG&E”). I included my Prepared Direct Testimony (“Testimony”) in support of SDG&E’s September 27, 2013 Application for Adoption of its 2014 Energy Resource Recovery Account (“ERRA”), Competition Transition Charge (“CTC”), and Local Generation Balancing Account (“LGBA”) revenue requirement forecasts. Additionally, as the Market Operations 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 procedure adopted in D.08-04-023, I am addressing each of the following five features of Ordering Paragraph 2 of D.06-06-066:

- that the material constitutes a particular type of data listed in the Matrix;
- the category or categories in the Matrix the data correspond to;
- that SDG&E is complying with the limitations on confidentiality specified in the Matrix for that type of data;
- that the information is not already public; and

- that the data cannot be aggregated, redacted, summarized, masked or otherwise protected in a way that allows partial disclosure.

3. The Protected 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 is allowed confidential treatment in accordance with the Matrix, as follows:

Confidential Information	Matrix Reference	Reason for Confidentiality and Timing
AS-3 lines 8-9	V.C	LSE Total Energy Forecast – Bundled Customer; confidential for the front three years
AS-4 lines 5-6	IV.B	Forecast of Qualifying Facility Generation; confidential for three years
AS-6 lines 3-8	IV.A	Forecast of IOU Generation Resources; confidential for three years
AS-6 lines 18, 20, 22-23, AS-7 line 2	IV.F	Forecast of Post-1/1/2003 Bilateral Contracts; confidential for three years
AS-7 line 14-15	IV.J	Forecast of Wholesale Market Purchases; confidential for the front three years
AS-8 line 15	II.A.2, V.C	Utility Electric Price Forecasts; confidential for three years, LSE Total Energy Forecast, confidential for the front three years
AS-8 lines 18	II.A.2, II.B.1, II.B.3, II.B.4	Utility Electric Price Forecasts; confidential for three years, Generation Cost Forecasts of Utility Retained Generation, confidential for three years, Generation Cost Forecasts of QF Contracts, confidential for three years, Generation Cost Forecasts of Non-QF Bilateral Contracts, confidential for three years
AS-9 line 5	II.B.1 II.B.4	Generation Cost Forecasts of Utility Retained Generation, confidential for three years, Generation Cost Forecast of Non-QF Bilateral Contracts; confidential for three years
AS-9 line 18	II.B.3	Generation Cost Forecast of QF Contracts; confidential for three years
AS-10 lines 12, 14-16	II.B.4	Generation Cost Forecast of Non-QF Bilateral

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 this data under those provisions, as applicable.

		Contracts; confidential for three years
AS-11 line 13	II.A.2	Utility Electric Price Forecasts; confidential for three years
AS-11 line 19	I.A.4	Long-term Fuel (gas) Buying and Hedging; confidential for three years
Attachment A - SDG&E 2012 ERRA Expenses	XI	Monthly Procurement Costs; confidential for three years
Attachment B - SDG&E 2012 URG Delivery Volumes		
<ul style="list-style-type: none"> • Cuyamaca, Palomar, Desert Star, and Miramar data 	IV.A	Forecast of IOU Generation Resources; confidential for three years
	IV.E	Forecast of Pre-1/1/2003 Bilateral Contracts; confidential for three years
<ul style="list-style-type: none"> • QF data 	IV.B	Forecast of Qualifying Facility Generation; confidential for three years
<ul style="list-style-type: none"> • Otay Mesa, Celerity, Kelco, Lake Hodges, Wellhead, and Orange Grove data 	IV.F	Forecast of Post-1/1/2003 Bilateral Contracts; confidential for three years
<ul style="list-style-type: none"> • Market Purchase data 	IV.J	Forecast of Wholesale Market Purchases; confidential for the front three years
<ul style="list-style-type: none"> • Surplus Energy Sold data 	IV.K	Forecast of Wholesale Market Sales; confidential for the front three years
Load Requirement data	V.C	LSE Total Energy Forecast – Bundled Customer; confidential for the front three years
Attachment C - SDG&E 2012 Long-Term Power Purchase, CTC and Qualifying Facility Detail		
<ul style="list-style-type: none"> • QF data 	IV.E	Forecast of Pre-1/1/2003 Bilateral Contracts; confidential for three years
	IV.B	Forecast of Qualifying Facility Generation; confidential for three years
<ul style="list-style-type: none"> • Long-Term Power Purchase CTC data 	II.B.4	Generation Cost Forecast of Non-QF Bilateral Contracts; confidential for three years
<ul style="list-style-type: none"> • CTC QF & Non CTC QF data 	II.B.3	Generation Cost Forecast of QF Contracts; confidential for three years
<ul style="list-style-type: none"> • TCBA Expenses data 	II.B.3 and	Generation Cost Forecast of QF Contracts; confidential for three years
	II.B.4	Generation Cost Forecast of Non-QF Bilateral Contracts; confidential for three 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. SDG&E will comply with the limitations on confidentiality specified in the Matrix for the Protected Information.

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

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

Executed this 24th day of September, 2013, at San Diego, California.

A handwritten signature in black ink, appearing to read "Andrew Scates", written over a horizontal line.

Andrew Scates
Market Operations Manager
San Diego Gas & Electric Company