Proceeding No.: A.12-10-XXX
Exhibit No.:
Witness: Andrew Scates

DIRECT TESTIMONY OF

ANDREW SCATES

SAN DIEGO GAS & ELECTRIC COMPANY

redacted, public version

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA
October 1, 2012

TABLE OF CONTENTS

DIRECT TESTIMONY OF
ANDREW SCATES
ON BEHALF OF SDG&E

I. INTRODUCTION

My testimony describes the resources San Diego Gas & Electric Company ("SDG&E") expects to use in calendar year 2013 to provide electric commodity service to its bundled service customers and the procurement costs that SDG&E expects to record in 2013 to the Energy Resource Recovery Account ("ERRA"). A summary of the proposed total 2013 ERRA revenue requirement is contained in the direct testimony of SDG&E witness Amanda D. Jenison.

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 2013. 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, SDG&E-owned generation (including 20% of the San Onofre Nuclear Generating Station ["SONGS"]), 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 requirements that are recorded in ERRA, such as California Independent System Operator ("CAISO") charges and portfolio hedging costs. My statement of qualifications can be found at the end of my testimony.

My testimony makes reference to the following, which are attachments located directly after my statement of qualifications: Attachment A: 2013 ERRA Expense Forecast; Attachment B: Forecast Volumes by Resource Type for 2013; Attachment C:

Detail of Long-Term Competition Transition Charge ("CTC") and Qualifying Facility ("QF") Contract Expense Forecast; and Attachment D: Detail of Renewable Expense Forecast.

II. 2013 FORECAST OF LOAD AND SUPPLY RESOURCES

On January 1, 2003, SDG&E resumed procurement of its Residual Net Short ("RNS") position and assumed operational control of various California Department of Water Resources ("CDWR") long-term contracts, which SDG&E dispatches along with its own supply resources as a single, integrated portfolio. The CDWR contracts allocated to SDG&E included bilateral "must take" contracts, as-available wind resource contracts, and dispatchable resource contracts. All but two wind contracts will have expired by the beginning of 2013. Costs for these contracts are captured through CDWR's retail remittance rate, which is addressed in Rulemaking ("R.") 11-03-006. SDG&E procures resources from a diverse portfolio that includes nuclear, renewable, QFs and dispatchable generation. Most of the costs for these resources are captured through the ERRA.

The results contained in this Application were developed using the production cost model ProSym from Global Energy Decisions, a Ventyx Company. SDG&E and CDWR resources were modeled in ProSym, which produced generation forecasts for these resources based on contract requirements and forecasts of 2013 natural gas and electric prices. The price forecasts were based on a recent (August 31, 2012) assessment of 2013 market prices based on the average of forward prices over a 22-day period. In the new CAISO market structure following implementation of the Market Redesign and Technology Upgrade ("MRTU") on April 1, 2009, SDG&E's bundled load requirements – primarily of energy and ancillary services ("A/S") – are purchased from the CAISO

Day-Ahead and Real-Time Markets ("DAM" and "RTM") rather than directly supplied from SDG&E portfolio resources. Similarly, the output from SDG&E's portfolio of resources is sold into the CAISO DAM and RTM rather than directly scheduled to serve SDG&E's bundled load. SDG&E's ERRA forecast for 2013 addresses this market structure by separating the expected purchase cost of energy and A/S for its bundled load from the expected sales revenue and supply cost of energy and A/S from its resource portfolio.

A. LOAD FORECAST

The forecast of SDG&E's 2013 bundled load requirement is based on the California Energy Commission's ("CEC's"), recently approved load forecast. This forecast was developed in the CEC's 2012 Integrated Energy Policy Report ("IEPR") Proceeding. Using the CEC's forecast and adjusting for direct access load, SDG&E projected that its bundled load for 2013 will be [redacted]. This forecast is [redacted] or [redacted] lower than SDG&E's forecasted bundled load for 2012 ([redacted]). SDG&E's A/S obligations were forecasted to be 6% of load for operating reserves and 2.5% of load for regulation capacity based on the CAISO's historical levels of procurement for these products.

B. SUPPLY RESOURCE FORECAST

1. SONGS

SDG&E has a 20% ownership interest in SONGS Units 2 & 3 for a combined capacity of 450 MW.[1] SDG&E sells the output from SONGS into the CAISO market as baseload energy. The forecasted supply of SONGS energy for 2013 is [redacted] for

[1] Capacity ratings provided in this testimony are the maximum operating levels defined in the CAISO Resource Data Template for each resource.

SONGS 2, a decrease of [redacted] from the forecast for 2012 ([redacted]). For this Application, SDG&E assumed [redacted]

2. BOARDMAN

SDG&E has a long-term power purchase agreement with Portland General Electric ("PGE") for 15% of the output of the Boardman coal-fired power plant ("Boardman"). SDG&E's current share of plant output is nominally 86 MW at the plant and 83 MW after transmission losses delivered to the CAISO grid at Malin. Based on its variable cost of delivery to the CAISO of about [redacted], the forecast supply of Boardman energy for 2013 is [redacted], about a [redacted] increase from the forecast for 2012 ([redacted]).

This contract contains curtailment provisions whereby SDG&E can reduce its schedule on an hourly basis. The implementation of MRTU allows SDG&E to bid in Boardman energy into the CAISO market at a price to ensure that SDG&E receives revenues sufficient to offset the delivery cost for Boardman. While the relatively low energy price suggests that the contract will be fully scheduled for most available hours,

economic bids may result in the amount of energy supplied by Boardman to the CAISO being lower than forecast.

3. QUALIFYING FACILITIES

In 2013, SDG&E will have about 230 MW of capacity under contract with nine QFs.[2] The five largest QF contracts account for 220 MW or 96% of total QF capacity. All QFs are located in the SDG&E service area except for the Yuma Cogeneration Associates plant ("YCA"), a 56.5 MW natural gas-fired plant in Arizona whose output is imported into the CAISO.

QF contracts are must-take resources. SDG&E is obligated to pay the contract price for all delivered QF generation and schedule it into the CAISO market, with the exception of limited price replacement rights in the YCA and Goal Line contracts. To the extent allowed in these contracts, SDG&E exercises these rights during low-priced hours to maximize ratepayer savings. Typically, these plants will choose to shut down during these hours to avoid operating at a loss. Accounting for these economic curtailments and forecast availability, the forecast of QF energy supply in 2013 is [redacted] a decrease of [redacted] from the forecasted amount for 2012 ([redacted]).

4. RENEWABLE ENERGY CONTRACTS

SDG&E procures renewable energy through competitive solicitations and bilateral agreements to meet the Renewable Portfolio Standard ("RPS")[3] established by Senate Bill ("SB") 1078, *et seq.*[4] The forecast of renewable energy supply from Commission approved contracts for 2013 is 4,540 GWh, which includes 1,514 GWh of

[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.
[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.

Renewable Energy Credits ("RECs") quantities that are delivered to SDG&E in conjunction with existing non-renewable imports. This forecast is an increase of 1,652 GWh from the forecast for 2012 (2,887 GWh).

SDG&E expects to receive the following in 2013 in order to meet its RPS target:

- 14 GWh of renewable energy under existing QF agreements. The quantity and ERRA cost associated with these contracts is included under QFs for the purposes of this testimony.
- 1,514 GWh of anticipated renewable energy credits from various wind contracts. The renewable energy credits are delivered using physical deliveries of energy that SDG&E has already accounted for in its 2013 forecast or which are provided for under separate contract, specifically the Morgan Stanley contract. The Morgan Stanley contract provides firmed and shaped deliveries at the Northern Oregon Border ("NOB") of brown energy which partially offsets expected energy from the Rim Rock project. However, costs associated with these renewable energy credits are incremental to ERRA and are included in the 2013 ERRA cost forecast.

SDG&E included renewable energy quantities of wind and solar projects which are currently under negotiation but have a reasonable probability of success. SDG&E aggregated these and called them Generic Wind or Generic Solar contracts (under negotiation). SDG&E did not include renewable energy quantities or costs associated with the Sustainable Communities Photovoltaic program because costs for this program are not charged to ERRA.

SDG&E continues to pursue new renewable energy resources to add to its portfolio for 2013, which will increase ERRA-related quantities and costs. A detailed table of the renewable contracts discussed above is provided in Attachment D.

5. SDG&E-OWNED DISPATCHABLE GENERATION

SDG&E owns the following power plants:

- the 575 MW Palomar Energy Center ("Palomar") combined cycle power plant that commenced commercial operation in April 2006,
- the 48 MW Miramar Energy Facility ("Miramar I") peaking combustion turbine that commenced commercial operation in July 2005,
- the second 48 MW Miramar peaker ("Miramar II") that commenced commercial operation in August 2009,
- the 495 MW Desert Star Energy Center ("Desert Star") combined cycle power plant, and newly acquired in 2011, and
- the 45 MW Cuyamaca Peak Energy Plant, (formerly Calpeak El Cajon) acquired by SDG&E in January 1, 2012.

These units are dispatched for generation and A/S awards based on economic merit and SDG&E's requirements. For the 2013 forecast, SDG&E's dispatch model considered only generation dispatched for energy rather than for A/S. The rationale for this approach is that the CAISO co-optimizes market awards between energy and A/S based on the opportunity cost of capacity and, therefore, the economic benefit (and ERRA contribution) of using capacity for generation is equivalent to using capacity for A/S.

The forecasted generation for Palomar in 2013 is [redacted], a decrease of [redacted] from the forecast for 2012 ([redacted]). The forecasted generation for Miramar I

& II (collectively, "Miramar") in 2013 is [redacted], an increase of [redacted] from the forecast for 2012 ([redacted]). The forecasted generation for Desert Star in 2013 is [redacted], an increase of [redacted] from the forecast for 2012 ([redacted]). The net increase in forecasted generation for existing resources reflects the replacement energy for the expiration of the Sunrise CDWR contract and the reduced output of SONGS.

6. SDG&E-CONTRACTED GENERATION

SDG&E has a number of generation units under contract in its resource portfolio in 2013. SDG&E's Power Purchase Agreement ("PPA") for Otay Mesa Energy Center ("OMEC"), a combined-cycle plant, is expected to provide a significant quantity of generation to the CAISO market. The primary benefit of the other contracts will be to offset SDG&E's load requirements from a capacity standpoint. The larger of these contracts is further described below.

The OMEC tolling agreement between SDG&E and Calpine began in October 2009. OMEC is an air-cooled 2x1 combined cycled plant that provides up to 604 MW of efficient, gas fired generation capacity. The forecasted generation from OMEC for 2013 is [redacted], an increase of [redacted] from the forecast for 2012 ([redacted]).

The Orange Grove contract provides 99 MW of peaking capacity and is forecasted to generate [redacted] during 2013 and increase of [redacted] from the forecast for 2012 ([redacted]).

The Wellhead contract, El Cajon Energy Center, provides 48 MW of peaking capacity and is forecasted to generate about [redacted] during 2013 an increase of [redacted] from the forecast for 2012 ([redacted]). The difference in forecast between the El Cajon

Energy Center and Orange Grove contracts is due primarily to a higher fuel transportation cost for the El Cajon Energy Center.

7. MARKET PURCHASES AND SURPLUS SALES

Under MRTU, quantities purchased from the CAISO for SDG&E's load are based on load schedules and economic bids. Quantities sold to the CAISO from SDG&E's resource portfolio are based on completely separate generation schedules and economic bids. Therefore, there is no requirement that SDG&E's bundled load and SDG&E-controlled generation quantities that clear the market must balance.

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

SDG&E forecasts that the quantity of equivalent market purchases will be [redacted] in 2013, an increase of [redacted] from the forecast for 2012 ([redacted]). This increase is due primarily to a combination of the expiration of the Sunrise CDWR contract and reduced SONGS operation, creating additional need in the portfolio, and a lower market heat rate which makes market purchases more economic.

8. CDWR ALLOCATION

CDWR contracts will supply an estimated [redacted] of energy to the CAISO in 2013, a decrease of [redacted] from 2012's expected CDWR energy volumes ([redacted]). This decrease is due to the expiration of the Sunrise Power Plant contract in June

of 2012. For 2013, the CDWR share of load is projected to be [redacted] (less than the [redacted] projected for 2012).

III. 2013 FORECAST OF ERRA EXPENSES

Electric procurement expenses incurred by SDG&E to serve bundled load are recorded to the ERRA. These expenses include, but are not limited to, costs and revenues for energy and capacity cleared through the MRTU markets, power purchase contract costs, generation fuel costs, market energy purchase costs, CAISO charges, brokerage fees and hedging costs. Deviations between forecast and actual costs for any of these items will create variances between forecast and actual ERRA costs.

Expenses associated with CDWR resources, including contract costs, gas tolling expenses, and gas hedging expenses are recovered by CDWR through its retail remittance rate and not recorded as an ERRA expense. The ERRA balance may be impacted by CDWR resources, however. For example, lower-than-forecast generation from CDWR contracts would require additional supply from SDG&E's portfolio that is paid by ERRA funds.

SDG&E expects to incur $1,091 million of ERRA costs in 2013, before franchise fees and uncollectibles ("FF&U") costs (see Attachment A). This forecast is $279 million more than the $812 million implemented in 2012. The key drivers behind the increase are the contract expiration of the CDWR Sunrise Power Plant which caused an increase in generation of SDG&E's portfolio, the increase of renewable generation costs of more than $146 million, the introduction of the California Air Resources Board's ("CARB") Cap-and-Trade Program accounting for [redacted] in projected allowance purchases, and the expected reduced operation of SONGS. These contributing drivers are

largely outside of SDG&E's control, as complying with Assembly Bill ("AB") 32/ Greenhouse Gas ("GHG") regulations and achieving RPS goals are a direct result of policies enacted by the California's Legislators.

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

A. LOAD

Under MRTU, the CAISO supplies and sells all energy and A/S to SDG&E to meet SDG&E's bundled load requirement. Based on expected prices for energy and A/S, SDG&E expects to incur charges totaling [redacted] for load requirements in 2013 from the CAISO.

B. SUPPLY ISO REVENUES

Under MRTU, all generation from SDG&E's resource portfolio is sold to the CAISO. Based on expected prices for energy, SDG&E expects to receive revenues totaling [redacted] for generation produced in 2013. These revenues are largely offset by costs incurred for generation fuel & variable operation and maintenance ("O&M"), contracted energy purchases and generation capacity. These costs are described in more detail below.

C. GENERATION FUEL & VARIABLE O&M

1. SONGS

Only SONGS nuclear fuel expense and fuel carrying charges are booked to ERRA. Other SONGS costs, such as O&M and capital addition, are recorded in the Non-fuel Generation Balancing Account ("NGBA"). The projected ERRA expense for SONGS nuclear fuel and carrying charge expenses for 2013 is [redacted].

2. PALOMAR, DESERT STAR, MIRAMAR, & CUYAMACA (fuel expenses that are recovered through ERRA)

In 2013, the ERRA expense for generation fuel purchased by SDG&E for Palomar, Miramar I & II, Desert Star, and the newly acquired Cuyamaca Peak Energy Plant is forecasted to be [redacted]. Capital and non-fuel operating costs for these plants are recovered through the NGBA as required by D.05-08-005, Resolution E-3896 and D.07-11-046.

D. CONTRACTED ENERGY PURCHASES

1. PGE BOARDMAN CONTRACT

The costs incurred under the PGE Boardman long-term PPA include energy, capacity, transmission losses, transmission capacity from the plant to the CAISO, and SDG&E's share of any capital additions to the unit. The contract energy payment is based on an energy price (approximately [redacted]) which is applied to SDG&E's share of the plant output. However, the high capacity payment for this contract causes this contract to be a CTC contract; therefore, the expense recorded to the ERRA is determined by multiplying the forecast energy production by the proposed market benchmark price of [redacted]. The 2013 ERRA expense for this contract is projected to be [redacted].

2. QUALIFYING FACILITIES

All QFs are under contract with SDG&E through as-available capacity or firm capacity PURPA contracts. These contracts include provisions for both energy and capacity payments. The energy payment is determined using the SDG&E Short-Run

Avoided Cost ("SRAC") formula[5]. QF contracts are eligible for CTC recovery due to their high capacity payments. Like the PGE Boardman contract, the ERRA expenses for CTC QF contracts are based on delivered energy multiplied by the market benchmark price. Any costs, including capacity payments, greater than the market benchmark price are booked to the Transition Cost Balancing Account ("TCBA"). For the purposes of ERRA accounting, ERRA expenses for CTC QF contracts are recorded on Line 30 of Attachment C, "Qualifying Facilities (Up To Market)," and are forecast to be [redacted] in 2013. Any gas hedging costs incurred to mitigate SRAC-priced QF contracts would also be recovered in ERRA, but those expenses are captured in Line 49 Attachment A, "Hedging Costs." Attachment C details the breakdown of all the units discussed in this section and shows the associated costs, both ERRA and TCBA, and the forecast energy deliveries.

3. RENEWABLE ENERGY CONTRACTS

SDG&E's renewable energy contracts usually contain an energy payment only and no capacity payment. There are some slight differences between renewable contracts regarding energy payments based on schedules or metered energy, and the treatment of CAISO imbalance charges, depending on the type of resource. In 2013, SDG&E's renewable energy portfolio will include a cost for the renewable energy credits described in Section II under "Renewable Energy Contracts." None of the renewable energy contracts in the SDG&E portfolio is for CTC contracts. All costs associated with these contracts are booked as an ERRA expense and are forecast to be $331 million for 2013.

[5] The derivation of the SRAC price for QF contracts is posted monthly on an SDG&E website (URL: http://www2.sdge.com/SRAC/).

Attachment D details the renewable projects by fuel type, their costs and forecasted energy deliveries.

4. OTHER PURCHASED POWER CONTRACTS

SDG&E's forecast of total costs for non-renewable power purchase contracts in 2013 is [redacted]. These costs cover capacity payments and variable generation costs for OMEC, Lake Hodges, Kelco and several peakers. The largest components in this category are capacity and generation costs for the OMEC unit, expected to be [redacted], and Resource Adequacy capacity costs for [redacted] and Calpeak, expected to be [redacted]. The Morgan Stanley contract is also included in this category and is expected to cost [redacted].

5. INTER-SCHEDULING COORDINATOR TRADES ("ISTs")

Under MRTU, SDG&E may transact ISTs bilaterally with counterparties to hedge long or short positions. Under an IST purchase, SDG&E would pay the counterparty the contracted energy price and in return receive payment from the CAISO based on the MRTU market clearing price. Under an IST sale, SDG&E would receive payment from the counterparty based on the contracted energy price and in return pay to the CAISO the MRTU market clearing price. For IST purchases and sales, the payment to, or revenue from, the counterparty would be largely offset by the respective credit from, or payment to, the CAISO. Because ISTs are used as a hedge against unknown MRTU prices, SDG&E does not include a forecast of the net cost or benefit from these transactions.

E. CAISO RELATED COSTS

SDG&E forecasts CAISO grid management charges ("GMCs") that are allocated to load and resources, which include energy usage charges, energy transmission service

charges, and reliability services costs. The forecast of these charges is based on historical data. SDG&E's forecast of these CAISO costs is expected to be [redacted] in 2013.

F. UTILITY RETAINED GENERATION (URG) HEDGING COSTS

SDG&E's resource portfolio has substantial exposure to gas price volatility as a result of fuel requirements for its gas-fired resources as well as the gas price-based pricing formula for its QF contracts. To manage this exposure, SDG&E expects to continue its hedging activity, and to book the resulting hedging costs and any realized gains and losses from hedge transactions to ERRA. The current estimate of hedging costs for 2013 is [redacted], calculated as the marked-to-market profit/loss of hedges already in place, plus expected broker fees. The profit/loss of these and future hedges placed will rise and fall with market prices. Therefore, the final cost or savings will not be known until the settlement process has been completed for the hedge transactions.

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

G. CONVERGENCE BIDS

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

H. CONGESTION REVENUE RIGHTS

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

Market participants, including SDG&E, were allocated Congestion Revenue Rights ("CRRs") for which they can nominate source and sink Pnodes to match those in their portfolio. If congestion arises between the source and sink Pnodes, the CAISO will pay the market participant holding the CRR the congestion charges to offset the congestion costs incurred. SDG&E expects its CRRs to generate revenues from the CAISO to offset congestion costs incurred within its portfolio. However, expected revenues were not forecast for the 2013 ERRA forecast because SDG&E assumed congestion-free clearing prices to develop forecasts for load requirement costs and generation revenues. A forecast of CRR revenues would have required SDG&E to forecast offsetting market-congestion prices at various Pnodes over the 2013 period, which would have introduced complexity and additional uncertainty into the forecast.

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

I. GREENHOUSE GAS COMPLIANCE COSTS

California's new GHG initiative, AB 32, further addressed in R.11-03-012, enacted the Cap-and-Trade Program that is anticipated to begin in November 2012 with compliance starting January 1, 2013. The Cap-and-Trade Program will require allowances for all carbon emissions resulting from SDG&E generation, imports and tolling agreements. In accordance with the pending R.10-05-006 and the approved Advice Letter 2387-E, all costs associated with SDG&E's compliance with GHG requirements will be included and recovered in SDG&E's ERRA. A summary of the proposed GHG 2013 forecast is contained in the direct testimony of SDG&E witness Ryan Miller.

This concludes my direct testimony.

IV. QUALIFICATIONS

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

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

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

I have previously testified before the Commission.

Attachment A

ATTACHMENT A SDG&E 2013 ERRA EXPENSES

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2013
1	EXPENSES ($)													
2	Load ISO Charges (Energy & A/S Costs)													
3	Supply ISO Revenues (Energy & A/S Co													
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	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													
	Morgan Stanley Index Costs													
	Renewable Energy													
	Line 4 Total													
	Line 5 Contract Costs (CTC up to mkt)													
	Portland General Electric (Up To Market)													
	Qualifying Facilities (Up To Market)													
	Line 5 Total													
	Line 6 Generation Fuel													
	SONGS, Fuel													
	Nuclear Fuel Carrying Cost													
	Total SONGS													
	Palomar													
	Desert Star													
	Miramar													
	Miramar 2													
	Cuyamaca													
	Line 6 Total													
	Line 8 Hedging Costs (inc. Broker Fee													
	Hedging Costs													
	Broker Fees													
	Line 8 Total													

Attachment B

[redacted]

ATTACHMENT B - SDG&E 2013 URG DELIVERY VOLUMES

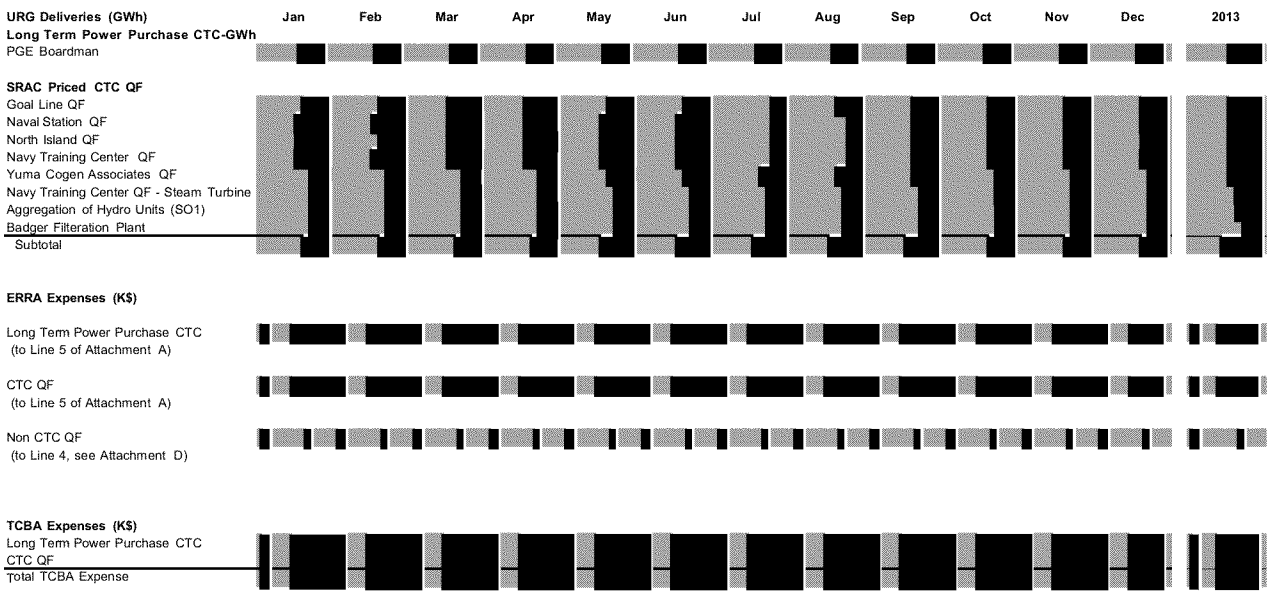
URG Deliveries(GWh)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2013
SONGS 2	[redacted]												
SONGS 3													
TOTAL SONGS													
PGE (Boardman)													
CTC QF													
Non-CTC QF													
TOTAL QF													
Renewable - Bio Gas	15	13	15	14	12	12	15	15	15	13	11	12	162
Renewable - Bio Mass	32	28	30	30	30	30	42	43	41	33	30	31	402
Renewable - Geothermal	19	17	19	18	19	18	19	19	18	19	18	19	219
Renewable - Other	23	21	23	22	23	22	24	24	23	23	22	23	274
Renewable - Solar	29	29	39	43	45	44	43	43	39	34	29	29	445
Renewable - Wind	66	69	103	112	122	120	206	165	147	161	128	125	1,524
Renewable - Wind REC	149	130	136	128	122	116	97	97	100	138	145	155	1,514
TOTAL NON-QF RENEWABLE	332	307	365	368	373	362	446	405	383	420	384	394	4,540
Miramar	[redacted]												
Miramar 2													
Cuyamaca													
Palomar													
Otay Mesa Energy Center													
Desert Star													
Celerity													
Kelco													
Lake Hodges													
Morgan Stanley													
El Cajon Energy Center													
Orange Grove													
TOTAL GENERATION													
Economic RNS - On Peak													
Economic RNS - Off Peak													
TOTAL Market Purchase													
TOTAL URG DELIVERIES													
Surplus Energy Sold													
LOAD REQUIREMENT (GWh)													

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

[redacted]

ATTACHMENT C - SDG&E 2013 LONG-TERM POWER PURCHASE, CTC & QUALIFYING FACILITY DETAIL



Attachment D

ATTACHMENT D - SDG&E 2012 RENEWABLE RESOURCE DETAIL

URG Deliveries (GWh)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2012
BIO GAS													
GRS Sycamore Landfill Plant	1.6	1.3	1.6	1.5	1.6	1.5	1.7	1.6	1.6	1.6	1.5	1.6	18.7
San Marcos Landfill	0.9	0.9	1.0	0.9	0.9	0.9	1.0	1.1	1.0	1.0	0.9	0.9	11.3
Sycamore Landfill	0.9	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.0	0.9	1.0	0.9	11.4
MM Prima Deshecha Energy LLC	3.8	3.6	3.8	3.8	3.8	3.8	4.5	4.5	4.3	3.9	3.9	3.8	47.4
MM San Diego LLC - Miramar Landfill	2.2	2.0	2.2	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5
MM San Diego LLC - North City Bio Plant	0.6	0.5	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
Otay Landfill 1	1.0	0.9	1.0	1.0	0.9	1.0	1.2	1.2	1.2	1.0	0.9	1.0	12.3
Otay Landfill 2	1.1	0.8	1.0	0.9	1.1	0.9	1.2	1.2	1.2	1.0	1.0	1.0	12.4
Otay Landfill 3	2.0	1.8	2.0	2.0	1.9	2.0	2.1	2.2	2.0	2.2	1.9	2.0	24.1
San Diego MWD	0.7	0.5	0.8	0.6	0.8	0.6	2.4	2.7	2.2	1.2	0.6	0.7	13.6
Subtotal	14.7	13.2	14.8	14.2	11.9	11.6	15.1	15.5	14.5	12.8	11.5	11.9	161.9
BIO MASS													
Covanta Delano	27.1	23.7	25.5	26.1	25.6	25.4	34.3	34.7	33.5	27.3	25.5	26.6	335.3
Blue Lake	4.8	4.0	4.9	4.3	4.8	4.8	8.2	8.2	7.9	5.4	4.5	4.8	66.6
Subtotal	31.8	27.7	30.5	30.4	30.4	30.2	42.4	42.9	41.4	32.7	30.0	31.5	401.8
GEOTHERMAL													
Calpine Geysers	18.6	16.8	18.6	18.0	18.6	18.0	18.6	18.6	18.0	18.6	18.0	18.6	219.0
Subtotal	18.6	16.8	18.6	18.0	18.6	18.0	18.6	18.6	18.0	18.6	18.0	18.6	219.0
OTHER													
SCE	21.58	19.49	21.58	20.88	21.58	20.88	21.58	21.58	20.88	21.58	20.88	21.58	254.1
Rnch Pnasquitos	1.4	1.3	1.3	1.4	1.4	1.3	2.7	2.6	2.6	1.5	1.6	1.4	20.4
Subtotal	23.0	20.8	22.9	22.3	23.0	22.2	24.3	24.1	23.5	23.0	22.4	22.9	274.5
SOLAR													
NRG Borrego Solar	4.05	3.87	5.3	5.84	6.09	5.88	5.75	5.74	5.21	4.52	3.94	3.84	60.0
Generic Solar contracts (under negotiation	25.2	24.9	34.1	37.5	39.1	37.8	36.9	36.9	33.4	29.0	25.3	24.7	384.8
Subtotal	29.3	28.7	39.4	43.4	45.2	43.7	42.7	42.6	38.7	33.5	29.2	28.5	444.8
WIND													
GlacierWind (TREC)	65.1	57.6	57.5	56.8	54.8	50.6	37.7	32.6	40.8	51.8	61.3	68.4	635.0
RimRock (TREC)	59.8	48.3	54.0	46.4	43.0	40.8	34.6	39.6	34.7	62.0	59.4	61.9	584.5
Shell Cabazon/Whitewater (TREC)	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	294.0
GenericWindcontracts(undernegotiation)	17.9	16.8	17.8	18.2	12.1	11.0	6.7	7.8	11.4	16.9	13.7	12.9	163.3
Coram Energy	1.1	1.2	2.1	2.4	3.1	2.9	2.6	2.0	1.7	1.7	1.4	1.4	23.6
Pacific Wind	20.1	22.4	39.4	44.6	57.7	54.9	48.9	37.4	31.0	2.4	26.3	26.5	441.5
Kumeyaay	14.1	14.3	15.1	15.4	10.2	9.3	5.7	6.6	9.7	14.4	11.6	10.9	137.3
Pattern	-	-	-	-	-	4.0	110.1	84.2	69.8	72.9	59.2	59.5	459.7
Oasis Power Partners	8.6	9.6	16.9	19.1	24.7	23.5	21.0	16.0	13.3	13.9	11.3	11.3	189.2
PPM Energy	3.2	4.0	8.6	9.9	11.0	11.4	8.5	8.1	8.1	7.1	3.7	2.3	85.8
WTE Monecito	0.8	1.1	2.8	2.5	3.0	3.2	2.6	2.4	2.1	1.9	0.8	0.6	23.7
Subtotal	215.1	199.8	238.5	239.8	244.1	236.2	303.0	261.2	247.0	299.4	273.2	280.3	3037.7

Total Power Purchase Costs (K$)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2012
BIO GAS	$ 1,057	$ 948	$ 1,064	$ 1,022	$ 903	$ 875	$ 1,157	$ 1,190	$ 1,115	$ 974	$ 866	$ 902	$ 12,071
BIO MASS	$ 2,693	$ 2,344	$ 2,586	$ 2,567	$ 2,576	$ 2,565	$ 3,627	$ 3,663	$ 3,540	$ 2,779	$ 2,542	$ 2,666	$ 34,148
GEOTHERMAL	$ 2,120	$ 1,915	$ 2,120	$ 2,052	$ 2,120	$ 2,052	$ 2,120	$ 2,120	$ 2,052	$ 2,120	$ 2,052	$ 2,120	$ 24,966
OTHER	$ 1,818	$ 1,588	$ 1,693	$ 1,582	$ 1,662	$ 1,600	$ 2,022	$ 2,006	$ 1,940	$ 1,820	$ 1,788	$ 1,853	$ 21,372
SOLAR	$ 3,694	$ 3,628	$ 4,967	$ 5,473	$ 5,708	$ 5,510	$ 5,387	$ 5,376	$ 4,878	$ 4,232	$ 3,689	$ 3,601	$ 56,143
WIND	$ 5,405	$ 5,703	$ 8,553	$ 9,401	$ 10,512	$ 10,423	$ 19,621	$ 15,461	$ 13,554	$ 14,747	$ 11,836	$ 11,704	$ 136,920
WIND (REC)	$ 4,224	$ 3,644	$ 3,836	$ 3,560	$ 3,394	$ 3,209	$ 3,021	$ 3,108	$ 3,101	$ 4,583	$ 4,709	$ 5,001	$ 45,389
Subtotal	$ 21,012	$ 19,770	$ 24,819	$ 25,657	$ 26,874	$ 26,234	$ 36,956	$ 32,925	$ 30,180	$ 31,256	$ 27,480	$ 27,846	$ 331,009

BEFORE THE PUBLIC UTILITIES
COMMISSION OF THE STATE OF CALIFORNIA

DECLARATION OF ANDREW SCATES

A.12-10-XXX
Application of San Diego Gas & Electric Company (U 902-E)
for Adoption of its 2013 Energy Resource Recovery Account Revenue Requirement and
Competition Transition Charge 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 October 1, 2012 Application for Adoption of its 2013 Energy Resource Recovery Account ("ERRA") and Competition Transition Charge ("CTC") 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 13-14	V.C	LSE Total Energy Forecast – Bundled Customer; confidential for the front three years
AS-3 line 22, AS-4 line 1	IV.A	Forecast of IOU Generation Resources; confidential for three years
AS-4 lines 2-10	II. B.1	Utility Retained Generation; confidential for three years
AS-4 lines 16-18	IV.E	Forecast of Pre-1/1/2003 Bilateral Contracts; confidential for three years
AS-5 lines 15-16	IV.B	Forecast of Qualifying Facility Generation; confidential for three years
AS-7 lines 22-23, AS-8 lines 1-3	IV.A	Forecast of IOU Generation Resources; confidential for three years
AS-8 lines 16, 18-19, 21-22	IV.F	Forecast of Post-1/1/2003 Bilateral Contracts; confidential for three years
AS-9 line 15-16	IV.J	Forecast of Wholesale Market Purchases; confidential for the front three years
AS-9 lines 21-23, AS-10 lines 1	V.G	Total Energy Load Forecast; confidential for the front three years
AS-10 line 22	II.B.1, II.B.4	Utility Retained Generation, confidential for three years Non-QF Bilateral contracts, confidential for three years
AS-11 line 9	II.A.2, V.C	Utility Electric Price Forecasts; confidential for three years, LSE Total Energy Forecast, confidential for the front three years
AS-11 lines 14	II.A.2, II.B.1,	Utility Electric Price Forecasts; confidential for three years, Generation Cost Forecasts of Utility Retained

[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.

	II.B.3, II.B.4	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-11 line 23, AS-12 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-12 lines 13, 17-18	II.B.4	Generation Cost Forecast of Non-QF Bilateral Contracts; confidential for three years
AS-13 line 7	II.B.3	Generation Cost Forecast of QF Contracts; confidential for three years
AS-14 lines 5, 7-10	II.B.4	Generation Cost Forecast of Non-QF Bilateral Contracts; confidential for three years
AS-15 line 2	II.A.2	Utility Electric Price Forecasts; confidential for three years
AS-15 line 9	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 • SONGS, Palomar, Desert Star, and Miramar data • PGE-Boardman data • QF data • Otay Mesa, Celerity, Kelco, Lake Hodges, Wellhead, and Orange Grove data • Market Purchase data • Surplus Energy Sold data Load Requirement data	 IV.A IV.E IV.B IV.F IV.J IV.K V.C	 Forecast of IOU Generation Resources; confidential for three years Forecast of Pre-1/1/2003 Bilateral Contracts; confidential for three years Forecast of Qualifying Facility Generation; confidential for three years Forecast of Post-1/1/2003 Bilateral Contracts; confidential for three years Forecast of Wholesale Market Purchases; confidential for the front three years Forecast of Wholesale Market Sales; confidential for the front three years 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 • PGE-Boardman data • QF data	 IV.E IV.B	 Forecast of Pre-1/1/2003 Bilateral Contracts; confidential for three years Forecast of Qualifying Facility Generation; confidential for three years

• Long-Term Power Purchase CTC data • CTC QF & Non CTC QF data • TCBA Expenses data	II.B.4 II.B.3 II.B.3 and II.B.4	Generation Cost Forecast of Non-QF Bilateral Contracts; confidential for three years Generation Cost Forecast of QF Contracts; confidential for three years Generation Cost Forecast of QF Contracts; confidential for three years 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 27th day of September, 2012, at San Diego, California.

Andrew Scates
Market Operations Manager
San Diego Gas & Electric Company