

***PUBLIC/REDACTED VERSION
ANA GARZA-BEUTZ***

Application No.: A.15-04-
Exhibit No.: _____
Witness: Ana Garza-Beutz

**PREPARED DIRECT TESTIMONY OF
ANA GARZA-BEUTZ
ON BEHALF OF
SAN DIEGO GAS & ELECTRIC COMPANY**

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

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

April 15, 2015



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PREPARED DIRECT TESTIMONY OF

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I. PURPOSE AND OVERVIEW

My testimony presents San Diego Gas & Electric Company's ("SDG&E") 2013 and 2014 actual revenues, 2013 updated actual costs and 2014 estimated "actual" costs for greenhouse gas ("GHG") compliance instruments used to satisfy its compliance obligations under the California Air Resources Board's ("ARB") cap-and-trade program pursuant to Assembly Bill ("AB") 32 .

My testimony also includes the 2015 estimated "actual" costs and revenues for January –

February 2015.¹ The following sections describe the cap-and-trade program and detail

SDG&E's unadjusted 2013 and 2014 actual revenues and costs and SDG&E's unadjusted

January – February 2015 actual revenues and costs. These costs and revenues are further

adjusted to recorded numbers for the purposes of reconciliation as further explained in the

testimonies of SDG&E witnesses Monica Vazquez Chihwaro and Yvonne LeMieux.²

II. BACKGROUND

A. AB 32 Background

The Global Warming Solutions Act of 2006, also referred to as AB 32, establishes a goal of reducing California's GHG emissions to the 1990 level by 2020. The statute grants ARB broad authority to regulate GHG emissions to reach this target. ARB's Scoping Plan includes a

¹ 2014 actual costs for GHG compliance instruments are estimated at this time. Some of these "actuals" are based on estimates or calculations rather than emission monitors, so they are subject to change. Even those volumes that come directly from an emissions monitoring system are subject to modification since they still need to undergo verification by ARB, which occurs in September 2015. Until that time, these numbers will continue to be estimated actuals.

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1 recommendation that California adopt a portfolio of emissions reduction measures, including a
2 California GHG cap-and-trade program.³

3 In October 2011, ARB released its Final Regulation Order, which was approved by its
4 Board and by the Office of Administrative Law (“OAL”) in December 2011.⁴ The ARB
5 regulations create a GHG emissions allowance cap-and-trade system, with compliance obligations
6 in the electricity sector applicable to “first deliverers of electricity”⁵ that emit more than 25,000
7 Metric Tons (“MT”) of GHG. The regulation requires that first deliverers of electricity, including
8 investor-owned utilities (“IOUs”) such as SDG&E, obtain all the compliance instruments⁶ required
9 to meet their compliance obligations by November 1 of the year following the end of a compliance
10 period.⁷

11

² SDG&E witness Benjamin Montoya provides a forecast of the 2016 GHG costs.

³ ARB Resolution 11-32 at 3.

⁴ The ARB Final Regulation Order from December 2012 is codified at 17 CCR § 95800 *et seq.* and is also available at: <http://www.arb.ca.gov/regact/2010/capandtrade10/capandtrade10.htm>.

⁵ “First deliverers of electricity” is defined in Section 95811(b) of ARB’s Final Regulation Order as electricity generators inside California and importers of electricity from outside of California.

⁶ Compliance instruments consist of allowances and offsets. An allowance is a limited tradable authorization to emit up to one MT of carbon dioxide equivalent (“CO₂e”) and an offset is a project that reduces GHG in sectors outside of those covered in the cap-and-trade program. *See* Section 95801 of ARB’s Final Regulation Order for these definitions.

⁷ Section 95892(b) of ARB’s Final Regulation Order establishes that IOUs are required to sell all of their free allowances and acquire an amount equal to their direct compliance obligations. There are also annual requirements to surrender at least 30% of expected annual obligations each year by November 1 of the following year.

1 **B. GHG Actual Revenue**

2 The revenues discussed in my testimony result from the sale of allowances allocated to
3 SDG&E by ARB for the benefit of its ratepayers. ARB requires that the allowances that are
4 allocated annually to IOUs be made available for sale at the ARB auctions.⁸ Revenues are
5 calculated by multiplying the volume sold by the auction settlement price. For 2013 and 2014, the
6 actual revenues consist of the revenues earned from all 2012 - 2014 auctions. For 2015, the actual
7 revenues consist of allowances sold at the February 2015 auction.

8 **C. GHG Actual Emissions Volumes**

9 The 2013 actual and 2014 estimated “actual” and partial 2015 estimated “actual” direct
10 emissions will be the actual/calculated GHG emissions for: (1) SDG&E’s California utility-owned
11 generation (“UOG”), (2) California generators with whom SDG&E has contracts where SDG&E is
12 responsible for GHG costs, and (3) estimated emissions associated with SDG&E imports of both
13 specified electricity and unspecified electricity. The 2013 direct emissions have been validated by
14 ARB and are thus final.⁹ The 2014 and 2015 direct volumes may change because they are subject
15 to: (1) emission estimates and emission reporting verification, (2) changing emission factors, and
16 (3) contractual requirements for reviewing tolling agreement emissions for potential reductions.

17 In addition, the 2013 actual and 2014 / 2015 estimated “actual” direct emission obligations
18 can be reduced by the Renewable Portfolio Standard (“RPS”) adjustment. The RPS adjustment is
19 calculated by multiplying the out-of-state renewable megawatt-hours (“MWh”) eligible for RPS

⁸ Allowances given to the IOUs must all be consigned by the last auction of that year. Except for the November 2012 auction where ARB specified the amount that each IOU needed to auction, all other amounts consigned at auctions are up to the discretion of each IOU provided that the entire annual volume is consigned by the end of each year.

⁹ The 2013 actuals listed in this testimony reflect an update of an additional [REDACTED] as compared to the previous testimony. For more details, see my “Revised Update Testimony,” in A.14-04-018 (October 31, 2014, revised January 16, 2015).

1 adjustment by the ARB assigned unspecified emission factor. The 2014 estimated “actual” RPS
2 adjustment is subject to change until final verification in September 2015. Likewise, the 2015
3 estimate “actual” is subject to final verification in September 2016. Potential reasons for changes
4 to the RPS adjustment are: (1) RPS MWh changes, (2) changing emission factors, and (3)
5 coordination with RPS portfolio retirement.

6 The 2013¹⁰ and 2014 / 2015 estimated “actual” indirect emissions are estimated emissions
7 based on net purchases from the California electricity market controlled by the California
8 Independent System Operator Corporation (“CAISO”) measured in MWh and multiplied by the
9 ARB assigned unspecified emission factor. Indirect emissions are not overseen by ARB. They are
10 an estimated volume of GHG for which SDG&E was exposed as a result of purchasing power.
11 The numbers for both 2014 and 2015 are subject to change if MWh change or if ARB publishes a
12 new unspecified factor.

13 For the purpose of reconciliation, SDG&E will be using the 2013 actual GHG costs and the
14 2014 / 2015 estimated “actual” GHG costs to adjust residential and small business returns in 2016.

15 **D. GHG Actual Cost Categories**

16 The costs outlined in my testimony are broken down into two categories of GHG actual
17 costs: direct costs and indirect costs. SDG&E defines 2013, 2014 and 2015 direct current costs as
18 the net cost of procuring compliance instruments that can be used to satisfy SDG&E’s 2013 and
19 2014 / 2015 compliance year obligations. SDG&E defines 2013, 2014 and 2015 indirect costs as
20 the GHG compliance costs embedded in the price of electricity delivered in 2013, 2014 and 2015,
21 which are passed on from sellers.

¹⁰ The 2013 indirect volume increased from [REDACTED]. The change is due to a refinement in determining which market purchases were pure in-state transactions that were not already accounted for in a different GHG category. The difference will affect revenue returns by [REDACTED]. This adjustment will flow through the reconciliation process as shown in Attachment G to the Application.

1 Section III below addresses the carbon price for 2013, 2014 and 2015. Section IV.A
2 addresses direct GHG emissions associated with SDG&E’s UOG plants, procurement of electricity
3 from tolling agreements, and electricity imports attributed to SDG&E for compliance. Section
4 IV.B addresses the approximate 2013, 2014 and 2015 indirect GHG emissions for which SDG&E
5 paid as GHG costs embedded in electricity prices charged by third parties to SDG&E under
6 contract for various supplies.¹¹ Section IV.C summarizes the GHG costs based on the carbon
7 prices in Section III and emissions in Sections IV.A and IV.B.

8 **III. CARBON PRICE METHODOLOGY**

9 **A. Price for Direct GHG Emissions**

10 SDG&E uses the Weighted Average Cost (“WAC”) of Compliance Instruments by
11 compliance period recorded on a monthly basis, as described in Appendix C of Decision (D.) 14-
12 10-033, to calculate its direct emissions pricing. The WAC¹² prices are listed in the table below:

Year	WAC
2013	
2014	
Jan - Feb '15	
Mar - Dec '15	

13
14 **B. Price for Indirect Emissions**

15 The embedded GHG costs for 2013, 2014 and January – February 2015 are estimated by
16 using the average 2013, 2014 and 2015 CAISO GHG Allowance Price Indices, as listed in the

¹¹ Indirect GHG costs are estimated based on the assumptions described herein.

¹² Monthly WAC prices are provided in Appendix A of my update testimony. The WAC calculations for 2014 and 2015 are based upon SDG&E’s most recent estimate for the respective monthly emissions.

1 tables below.¹³ Indirect costs are an estimate since it is assumed that the GHG cost was passed on
2 by all sources of power from market purchases.

2013 CAISO GHG Prices	
Q1 2013	\$14.55
Q2 2013	\$14.59
Q3 2013	\$13.27
Q4 2013	\$11.86
Total	\$13.57

2014 CAISO GHG Prices	
Q1 2014	\$12.10
Q2 2014	\$11.87
Q3 2014	\$11.94
Q4 2014	\$12.25
Total	\$12.04

2015 CAISO GHG Prices	
Jan-Feb '15	\$12.95
Mar-Dec '15	N/A
Total	\$12.95

6 **IV. ACTUAL GHG COMPLIANCE COSTS**

7 **A. Direct Greenhouse Gas Emissions**

8 Under ARB's cap-and-trade program, the "first deliverer of electricity" within California
9 must surrender one allowance or offset credit for each MT of GHG emissions. Accordingly,
10 SDG&E had direct compliance obligations for GHGs emitted from burning natural gas at its UOG
11 plants, namely, the Palomar Energy Center ("Palomar"), Miramar Energy Facility I and II

¹³ Department of Market Monitoring, CAISO, quarterly reports, "Q1 2013 Report on Market Issues and Performance," at 41, "Q2 2013 Report on Market Issues and Performance," at 41, "Q3 2013 Report on Market Issues and Performance," at 53, "Q4 2013 Report on Market Issues and Performance," at 58, "Q1 2014 Report on Market Issues and Performance," at 50, "Q2 2014 Report on Market Issues and Performance," at 55, and the Q3 and Q4 2014 reports did not list the GHG prices, however a manual calculation of daily published CAISO GHG prices resulted in \$11.94 and \$12.25 respectively. The Jan – Feb 2015 average of published daily CAISO GHG prices was \$12.95.

1 (collectively, “Miramar”) and the Cuyamaca Peak Energy Plant (“Cuyamaca”).¹⁴ SDG&E’s UOG
2 GHG emission volumes are derived from information extracted from each plant’s Continuous
3 Emissions Monitoring Systems (“CEMS”) and that plant’s annual fuel usage. The data is reported
4 to ARB (under the mandatory GHG reporting rule) and undergoes a rigorous quality
5 assurance/quality control (“QA/QC”) process with supporting documentation from the CEMS
6 systems. The data is then subject to third party verification by an ARB-certified verifier. The
7 2013 actuals¹⁵ became final early September 2014, 2014 data will become final September 2015
8 and 2015 data will become final in September 2016. The 2013 actuals and 2014 / 2015 estimated
9 actuals are as follows:

2013 Verified California UOG Plants	Actual (in MT)
Palomar Energy Center	
Miramar Energy Facilities	
Cuyamaca Peak Energy Plant	
Total	

2014 Unverified California UOG Plants	Est. Actual (in MT)
Palomar Energy Center	
Miramar Energy Facilities	
Cuyamaca Peak Energy Plant	
Total	

¹⁴ ARB’s Mandatory Reporting Regulations requires use of emission factors from federal regulations - 40 Code of Federal Regulation (“CFR”) Section 98. For pipeline natural gas, there are three components – CO₂, CH₄, and NO₂. Table C-1 of 40 CFR Section 98 provides an emissions rate for CO₂ of 0.05302 MT/MMBtu. Table C-2 of 40 CFR Section 9 gives a default emission factor for CH₄ of 0.000001 MT/MMBtu. Using a Global Warming Potential of 21, the resulting CO₂e emission rate is 0.00002 MT/MMBtu. The default NO₂ emission rate is given as 0.0000001 MT/MMBtu, and its Global Warming Potential is 310, resulting in a CO₂e emission rate of 0.00003 MT/MMBtu. Combining the 3 elements results in an overall emission rate of 0.05307 MT/MMBtu.

¹⁵ The 2013 Cuyamaca volume was inadvertently mis-entered when submitted to accounting for recording in 2014. The correct number, [REDACTED], which was submitted to and verified by ARB, is reflected in this testimony, Appendix A and in Attachment G to the Application.

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Jan-Feb 2015 California UOG Plants	Est. Actual (in MT)
Palomar Energy Center	
Miramar Energy Facilities	
Cuyamaca Peak Energy Plant	
Total	

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In addition, SDG&E has agreements with some California generators, which stipulate that if SDG&E is dispatching the plant, then SDG&E will provide compliance instruments to the generator for its GHG compliance obligations. These agreements include, among others, the Otay Mesa Energy Center (“OMEC”) and the Orange Grove Energy Center (“Orange Grove”). In both 2013 and 2014, the only SDG&E contracted generation that were covered entities under the cap-and-trade program were OMEC and Orange Grove. Goal Line became a dispatchable plant in 2015. The estimated actuals for these plants were calculated by multiplying the MMBtu burned with the emission factor of 0.05307 MT/MMBtu associated with natural gas as the input fuel. This estimate is subject to change, not only because the emissions estimates are based on fuel calculations instead of emission meter read calculations, but also because the tolling agreement contracts state that SDG&E will only cover the emissions generated resulting from SDG&E dispatches of efficiently run plants. The 2013 SDG&E obligation to tolling agreement partners is final and shown below. SDG&E will be analyzing the 2014 data along with the 2015 data and could potentially adjust the 2014 / 2015 emissions for non-SDG&E dispatches or for inefficiencies. The 2013 actual, estimated 2014 and estimated January – February 2015 actuals for California agreements are below:

2013 California Tolling Generators	Actual (in MT)
Otay Mesa Energy Center	
Orange Grove Energy Center	
Total	

18

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2014 Unverified California Tolling Generators	Est. Actual (in MT)
Otay Mesa Energy Center	
Orange Grove Energy Center	
Total	

1

Jan-Feb 2015 California Tolling Generators	Est. Actual (in MT)
Otay Mesa Energy Center	
Orange Grove Energy Center	
Goal Line	
Total	

2

3 An entity that delivers out-of-state electricity to a delivery point inside California is also
4 responsible for the GHG emissions associated with generation of that electricity. For known
5 imports, called “specified sources,” the estimated GHG emissions related to the portion of
6 outputs of plants that delivered to California are covered in the cap-and-trade program and as
7 such the importer of that electricity has a compliance obligation. SDG&E has a contract with
8 Yuma Cogeneration Associates (“YCA”) in Arizona and owns the Desert Star Energy Center
9 (“Desert Star”) combined cycle plant in Nevada. SDG&E also had a contract with Portland
10 General Electric’s Boardman coal plant in Oregon that expired at the end of 2013. All of these
11 out-of-state generators are specified sources. The compliance obligation for the power imported
12 from each of these sources is calculated by the product of the imported power times the
13 transmission loss correction factor as listed in section 95111 of ARB’s mandatory reporting
14 regulation, and the specified emissions factor assigned to those facilities by ARB.¹⁶ The 2013
15 verified actuals, the 2014 estimated actuals and the January – February 2015 estimated actuals
16 for SDG&E’s specified imports are as follows:

¹⁶ Specified Emission Factors are updated annually by ARB. They can be found at:
<http://www.cdsupport.com/confluence/display/calhelp/Reporting+Form+Instructions>

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2013 Verified Specified Imports	Actual (in MT)
Desert Star	
YCA	
Boardman	
Total	

1

2014 Unverified Specified Imports	Est. Actual Specified (in MWh)	Emission Factor	Transmission Loss Factor	Est. Actual (in MT)
Desert Star		0.398	1.00	
YCA		0.404	1.02	
Total				

2

Jan-Feb 2015 Specified Imports	Est. Actual Specified (in MWh)	Emission Factor	Transmission Loss Factor	Est. Actual (in MT)
Desert Star		0.398	1.00	
YCA		0.404	1.02	
Total				

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In addition to specified sources, importing of “unspecified sources” also generates a

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compliance obligation. SDG&E procured contracted imports and market imports from unspecified

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sources in both 2013 and 2014. The cap-and-trade compliance obligation for these unspecified

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imports is calculated by multiplying the number of MWh imported, adjusted upward by two

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percent to account for transmission losses between the point of generation and the California

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border, by the ARB default rate, as stated in its regulation (currently 0.428 MT per MWh).¹⁷

10

Finally, ARB recognizes that the building of new renewable generation outside California reduces

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GHG. As such, the cap-and-trade regulations allow for an RPS adjustment. The RPS adjustment

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reduces an entity’s GHG compliance burden and is calculated by assigning the default emission

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rate, 0.428 MT/MWh, to the GHG-free renewable energy, as measured at the point of generation.

14

The adjustment does not account for the transmission losses from the point of generation to

¹⁷ ARB’s Cap-and-Trade Regulation, Section 95852(b)(1)(B).

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1 California.¹⁸ The verified 2013 actuals, 2014 estimated and the January – February 2015 estimated
2 actuals for SDG&E’s unspecified imports and RPS adjustment are as follows:

2013 Verified Unspecified Imports & RPS Adjustment	Actual (in MT)
Unspecified Imports	
RPS Adjustment	
Total	

2014 Unverified Unspecified Imports & RPS Adjustment	Est. Actual Unspecified (in MWh)	Emission Factor	Transmission Loss Factor	Est. Actual (in MT)
Unspecified Imports		0.428	1.02	
RPS Adjustment		0.428	1.00	
Total				

Jan-Feb 2015 Unspecified Imports & RPS Adjustment	Est. Actual Unspecified (in MWh)	Emission Factor	Transmission Loss Factor	Est. Actual (in MT)
Unspecified Imports		0.428	1.02	
RPS Adjustment		0.428	1.00	
Total				

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5
6 Based on the above, SDG&E’s 2013 verified actual, 2014 estimated actual and January –
7 February 2015 estimated actual direct compliance obligations are:

2013 Verified Direct Compliance Obligations	Actual (in MT)
California UOG Plants	
California Tolling Generators	
Specified Imports	
Unspecified Imports	
RPS Adjustment	
Total	

2014 Unverified Direct Compliance Obligations	Est. Actual (in MT)
California UOG Plants	
California Tolling Generators	
Specified Imports	
Unspecified Imports	
RPS Adjustment	
Total	

¹⁸ See Section 95852(b)(1) of ARB’s Final Regulation Order for the calculation of the RPS Adjustment.

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Jan - Feb 2015 Direct Compliance Obligations	Est. Actual (in MT)
California UOG Plants	
California Tolling Generators	
Specified Imports	
Unspecified Imports	
RPS Adjustment	
Total	

Based on the above and the updated testimony of SDG&E witness Benjamin A. Montoya,

SDG&E's entire expected 2015 direct compliance obligation is below:

2015 Direct Compliance Obligations	Jan-Feb '15 Est. Actuals (in MT)	Mar-Dec '15 Forecast (in MT)	2015 Expected Direct Obligation (in MT)
California UOG Plants			
California Tolling Generators			
Specified Imports			
Unspecified Imports			
RPS Adjustment			
Total			

B. Indirect Greenhouse Gas Emissions

SDG&E, along with all other purchasers of wholesale electricity, is subjected to indirect GHG compliance costs that generators incur and pass on to their buyers. This additional cost of GHG compliance is embedded in the market price of electricity procured in the wholesale market from third parties, thereby increasing SDG&E's cost to purchase wholesale electricity, as well as from suppliers under contracts that include market-based prices. The cost of GHG affects both market purchases and contracts based on the price of energy (such as combined heat and power ("CHP") facilities); because the price of energy changes in tandem with the change in the GHG allowance prices, sellers of electricity demand higher revenues to offset the costs related to their cap-and-trade obligations. The 2013 and 2014 indirect GHG volumes are estimated, for both net market purchases and CHP contracts, as the MWh of electricity production multiplied by the ARB default rate for unspecified electricity of 0.428 MT/MWh. The 2013 and 2014 estimated actuals of SDG&E's indirect purchases are as follows:

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2013 Indirect Volumes in MWh and MT	
Total INDIRECTS (in MWh)	[REDACTED]
Unspecified Emissions Factor	0.428
Total INDIRECTS (in MT)	[REDACTED]

2014 Indirect Volumes in MWh and MT	
Total INDIRECTS (in MWh)	[REDACTED]
Unspecified Emissions Factor	0.428
Total INDIRECTS (in MT)	[REDACTED]

The 2015 SDG&E estimated indirect purchases are based on actual purchases for January-February and Mr. Montoya’s update testimony in SDG&E’s 2015 GHG Forecast Application for March – December 2015. The volumes are shown in the table below:

2015 Indirect Volumes in MWh and MT			
	Jan-Feb '15	Mar-Dec '15	Total 2015
Total INDIRECTS (in MWh)	[REDACTED]	[REDACTED]	[REDACTED]
Unspecified Emissions Factor	0.428	0.428	0.428
Total INDIRECTS (in MT)	[REDACTED]	[REDACTED]	[REDACTED]

C. GHG Costs

Using the prices from Section III above, the 2013 and 2014 direct GHG costs are estimated to be:

2013 GHG Direct Costs	Volume (in MT)	WAC Price (in \$/MT)	Cost
Jan - Dec 2013	[REDACTED]	[REDACTED]	[REDACTED]
Total	[REDACTED]	[REDACTED]	[REDACTED]

2014 GHG Direct Costs	Volume (in MT)	WAC Price (in \$/MT)	Cost
Jan - Dec 2014	[REDACTED]	[REDACTED]	[REDACTED]
Total	[REDACTED]	[REDACTED]	[REDACTED]

Similarly, the 2015 direct GHG costs based on prices from Section III above, the January – February 2015 estimated actuals and the March – December 2015 forecasts from the 2015 energy resource recovery account (“ERRA”) forecast filing are estimated to be:

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2015 GHG Direct Costs	Volume (in MT)	WAC Price (in \$/MT)	Cost
Jan - Feb 2015			
Mar - Dec 2015			
Total			

Combining indirect volumes and the CAISO GHG allowance price indices,¹⁹ the 2013, 2014 and 2015 estimated GHG indirect costs are:

2013 Indirect Volumes & Cost	
Total INDIRECTS (in MT)	
CAISO GHG Price (Jan-Dec '13) (in \$/MT)	\$13.57
Total 2013 Indirect Cost	

2014 Indirect Volumes & Cost	
Total INDIRECTS (in MT)	
CAISO GHG Price (in \$/MT)	\$12.04
Total 2014 Indirect Cost	

Jan-Feb 2015 Indirect Volumes & Cost	
Total INDIRECTS (in MT)	
CAISO GHG Price (Jan-Feb '15) (in \$/MT)	\$12.95
Jan-Feb 2015 Indirect Cost	

Mar-Dec 2015 Indirect Volumes & Cost	
Total INDIRECTS (in MT)	
CAISO GHG Price (Jan-Feb '15) (in \$/MT)	\$12.95
Mar-Dec 2015 Indirect Cost	

Total 2013 actual GHG Costs are estimated to be \$60.33million (rounded). Total 2014 actual GHG Costs are estimated to be \$ 57.38 million (rounded). The 2015 estimated actual/forecast blended cost is estimated to be \$57.01million (rounded).

V. ACTUAL AND ESTIMATED GHG REVENUES

SDG&E received 6,919,341 MT of vintage 2013 allowances to sell at the 2012- 2013 auctions. SDG&E also received 6,549,142 MT of vintage 2014 allowances to sell at 2014 auctions

¹⁹ Per D. 14-10-033, indirect costs are calculated using a proxy price equal to the average of the published CAISO prices. As of March 2015, the CAISO number comprises of January – February 2015. Thus, this price will be used for estimating both the January – February 2015 GHG indirect costs and the March – December 2015 indirect GHG costs.

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1 and 6,426,430 MT of vintage 2015 allowances to sell at 2015 auctions. As required by ARB
2 regulations, SDG&E consigned one-third of its vintage 2013 volume at the November 2012
3 auction and sold the remaining at its discretion among the 2013 auctions. SDG&E's allocated
4 vintage 2014 allowances are required to be consigned at the 2014 auctions; however, SDG&E had
5 full discretion on how to distribute the volume across the four auctions. The requirement to fully
6 consign its free allowances and the flexibility to determine how to allocate the free allowances
7 across the four auctions is also true for vintage 2015 free allowances sold in 2015. The tables
8 below show the volumes sold at each past auction and the associated revenues. The last table
9 shows the expected revenue from the remaining 2015 auctions. As further described in the 2015
10 GHG Forecast update testimony of SDG&E witness David T. Barker, SDG&E uses averaged ICE
11 prices to calculate the proxy price used for estimating revenues associated with remaining
12 consignment volumes.

2013 GHG Revenues			
Auction	Settlement Price (\$/MT)	Consigned Volume (MT)	Revenue
Nov-12	\$10.09	2,307,000	\$23,277,630
Feb-13	\$13.62		
May-13	\$14.00		
Aug-13	\$12.22		
Nov-13	\$11.48		
Total	\$11.92	6,919,341	\$82,453,505

14 The 2013 revenues were \$82,453,505.

2014 GHG Revenues			
Auction	Settlement Price (\$/MT)	Consigned Volume (MT)	Revenue
Feb-14	\$11.48		
May-14	\$11.50		
Aug-14	\$11.50		
Nov-14	\$12.10		
Total	\$11.72	6,549,142	\$76,756,698

16 The 2014 actual revenues were \$76,756,698.

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2015 GHG Revenues			
Auction	Settlement Price (\$/MT)	Consigned Volume (MT)	Revenue
Feb-15	\$12.21	[REDACTED]	[REDACTED]
2015 Balance	\$12.09	[REDACTED]	[REDACTED]
Total		6,426,430	[REDACTED]

1

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Using the \$12.09 ICE price from Ben Montoya's 2015 GHG Forecast Testimony, the

3

estimated total 2015 revenue is [REDACTED].

4

This concludes my testimony.

1 **VI. QUALIFICATIONS**

2 My name is Ana Garza-Beutz. My business address is 8315 Century Park Court, San
3 Diego, CA 92123. I am employed by SDG&E as a Senior Energy Administrator in the Electric
4 & Fuel Procurement Department. My responsibilities include managing SDG&E's GHG
5 portfolio, which includes development of GHG procurement and hedging strategies.

6 I joined SDG&E in November 2003, and have held various positions with increasing
7 levels of responsibility within the Electric & Fuels Procurement Department. Prior to joining
8 SDG&E, I worked as a Risk Analyst with Sempra Energy.

9 I received a Bachelor of Science degree in Mathematics from the California Polytechnic
10 State University San Luis Obispo and a Master of Arts in Mathematics from the University of
11 California Santa Barbara.

12 I have previously testified before the Commission.

APPENDIX A
SDG&E's Monthly WAC Calculation
(Calculation date of March 5, 2015)

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CONFIDENTIAL MATERIAL

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

**DECLARATION OF ANA GARZA-BEUTZ
REGARDING CONFIDENTIALITY OF CERTAIN DATA**

A.15-04-XXX

Application of San Diego Gas & Electric Company (U 902-E)
for Approval of Its 2016 Electric Procurement Revenue Requirement Forecasts and GHG-
Related Forecasts.

I, Ana Garza-Beutz, declare as follows:

1. I am a Senior Energy Administrator for San Diego Gas & Electric Company (“SDG&E”). I included my Prepared Direct Testimony (“Testimony”) in support of SDG&E’s April 15, 2015 Application for Approval of its 2016 Electric Procurement Revenue Requirement Forecasts and GHG-Related Forecasts (“Application”). I am 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, except for those matters expressly stated to be based on information provided to me, and as to those matters, I believe them to be true.

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 data described in the table below is market sensitive information designated as confidential under the Matrix of Allowed Confidential Treatment of Investor Owned Utility Data, adopted as Appendix 1 to D.06-06-066 (the Matrix), and is entitled to confidential treatment under Public Utilities Code section 454.5(g), D.06-06-066 and D.08-04-023:

Table 1
Information Protected from Disclosure Under the Matrix

Confidential Information	Matrix Category	Matrix Category Description	Limitations on Confidentiality
Page 3, footnote 9; Page 7, lines 10-11; Page 7, footnote 15; Page 8, line 1; Page 11, lines 8-9; Page 12, lines 1 and 4; Attachment G of this Application (2013, 2014 and 2015 Historical UOG Emissions)	IX.B	Strategic Procurement Information – Electric: Recorded data on specific resources (rather than percentages on broad categories of supply sources)	Appendix 1 IOU Matrix does not specify effective period of confidentiality.
Page 8, line 18; Page 9, lines 1-2; Page 11, lines 8-9; Page 12, lines 1 and 4; Attachment G of this Application (2013, 2014 and 2015 Historical Tolling Agreement Emissions)	IX.B	Strategic Procurement Information – Electric: Recorded data on specific resources (rather than percentages on broad categories of supply sources)	Appendix 1 IOU Matrix does not specify effective period of confidentiality.
Page 10, lines 1-3; Page 11, lines 8-9; Page 12, lines 1 and 4; Attachment G of this Application (2013, 2014 and 2015 Historical Specified Imported MWh and calculated Emissions)	IX.B	Strategic Procurement Information – Electric: Recorded data on specific resources (rather than percentages on broad categories of supply sources)	Appendix 1 IOU Matrix does not specify effective period of confidentiality.
Page 11, lines 3-5; Page 11, lines 8-9; Page 12, lines 1 and 4; Attachment G of this Application (2013, 2014 and 2015 Historical Unspecified Imported MWh and calculated Emissions; 2013, 2014 and 2015 Historical RPS Adjustment eligible MWh and calculated Emissions)	IX.B	Strategic Procurement Information – Electric: Recorded data in MWh on specific categories (rather than percentages on broad categories of supply sources)	Appendix 1 IOU Matrix does not specify effective period of confidentiality.

Confidential Information	Matrix Category	Matrix Category Description	Limitations on Confidentiality
Page 4, footnote 10; Page 13, lines 1-2 and 6; Page 14, lines – 4-7; Attachment G of this Application (2013, 2014 and 2015 Indirect Purchases in MWh and calculated Emissions)	IX.B	Strategic Procurement Information – Electric: Recorded data in MWh on specific categories (rather than percentages on broad categories of supply sources)	Appendix 1 IOU Matrix does not specify effective period of confidentiality.
Page 13, lines 10-11; Page 14 line 1; Attachment G of this Application (2013, 2014 and 2015 Direct GHG Volumes and Costs)	I.A.4	Natural Gas Information: Forecasts (gas): Long-term fuel (gas) buying and hedging plans	Three Years
Page 4, footnote 10; Page 14, lines 4-7; Attachment G of this Application (2013, 2014 and 2015 Indirect GHG Volumes and Costs)	IX.B	Strategic Procurement Information – Electric: Recorded data in MWh on specific categories (rather than percentages on broad categories of supply sources)	Appendix 1 IOU Matrix does not specify effective period of confidentiality.
Page 15, lines 13 and 15; Page 16, line 1; Attachment G of this Application (2013, 2014 and 2015 GHG Quarterly Auction Revenue)	I.A.4	Natural Gas Information: Forecasts (gas): Long-term fuel (gas) buying and hedging plans	Three Years

4. The data described in the table below does not expressly fall within any category of the Matrix, is market sensitive information analogous to Procurement Costs, Category XI in the Matrix, and is entitled to confidential treatment under D.06-06-066, D.08-04-023, Public Utilities Code section 454.5(g), General Order 66-C, 17CCR § 95914(c) (the “ARB Confidentiality Regulations”) and D.14-10-033. Among other things, the ARB Confidentiality Regulation requires bidding strategies to be confidential. Since SDG&E’s historical auction awards and historical consignment strategies reveal SDG&E’s prior bidding/consignment strategies, prior auction results are required to be kept confidential. In addition, D.14-10-033 requires forecasts of emissions intensity, forecasts of GHG costs, compliance instrument prices and weight average cost (“WAC”) to be kept confidential:

Table 2

Information Protected from Disclosure Under Other Relevant Statutes, Decisions, Regulations or Other Provisions of Law

Confidential Information	Legal Basis for Confidential Protection	Facts Showing consequence of Release
<p>Page 5, line 13; Attachment A of my Testimony (SDG&E WACs)</p>	<p>D.06-06-066, D.08-04-023, P.U. Code § 454.5(g), GO 66-C, 17 CCR § 95914(c), and D.14-10-033</p>	<p>Providing these prices to market participants could allow them to figure out SDG&E’s procurement strategy. And thus could adversely impact the competitiveness of procurement activities in California’s Assembly Bill (“AB”) 32 cap-and-trade markets. Further, release of the information would compromise SDG&E’s contractual bargaining power such that customer costs could rise.</p>
<p>Page 3, footnote 9; Page 7, lines 10-11; Page 7, footnote 15; Page 8, line 1; Page 11, lines 8-9; Page 12, lines 1 and 4; Attachment G of this Application (2013, 2014 and 2015 Historical UOG Emissions)</p>	<p>D.06-06-066, D.08-04-023, P.U. Code § 454.5(g), GO 66-C, 17 CCR § 95914(c), and D.14-10-033</p>	<p>Providing this information to market participants could allow them to figure out SDG&E’s procurement strategy. And thus could adversely impact the competitiveness of procurement activities in California’s Assembly Bill (“AB”) 32 cap-and-trade markets. Further, release of the information would compromise SDG&E’s contractual bargaining power such that customer costs could rise.</p>
<p>Page 8, line 18; Page 9, lines 1-2; Page 11, lines 8-9; Page 12, lines 1 and 4; Attachment G of this Application (2013, 2014 and 2015 Historical Tolling Agreement Emissions)</p>	<p>D.06-06-066, D.08-04-023, P.U. Code § 454.5(g), GO 66-C, 17 CCR § 95914(c), and D.14-10-033</p>	<p>Providing this information to market participants could allow them to figure out SDG&E’s procurement strategy. And thus could adversely impact the competitiveness of procurement activities in California’s Assembly Bill (“AB”) 32 cap-and-trade markets. Further, release of the information would compromise SDG&E’s contractual bargaining power such that customer costs could rise.</p>
<p>Page 10, lines 1-3; Page 11, lines 8-9; Page 12, lines 1 and 4; Attachment G of this Application (2013, 2014 and 2015 Historical Specified</p>	<p>D.06-06-066, D.08-04-023, P.U. Code § 454.5(g), GO 66-C, 17 CCR § 95914(c), and D.14-10-033</p>	<p>Providing this information to market participants could allow them to figure out SDG&E’s procurement strategy. And thus could adversely impact the competitiveness of procurement activities in California’s Assembly Bill (“AB”) 32 cap-and-trade markets. Further, release of the information would compromise</p>

Confidential Information	Legal Basis for Confidential Protection	Facts Showing consequence of Release
Imported MWh and calculated Emissions)		SDG&E's contractual bargaining power such that customer costs could rise.
Page 11, lines 3-5; Page 11, lines 8-9; Page 12, lines 1 and 4; Attachment G of this Application (2013, 2014 and 2015 Historical Unspecified Imported MWh and calculated Emissions; 2013 and 2014 Historical RPS Adjustment eligible MWh and calculated Emissions)	D.06-06-066, D.08-04-023, P.U. Code § 454.5(g), GO 66-C, 17 CCR § 95914(c), and D.14-10-033	Providing this information to market participants could allow them to figure out SDG&E's procurement strategy. And thus could adversely impact the competitiveness of procurement activities in California's Assembly Bill ("AB") 32 cap-and-trade markets. Further, release of the information would compromise SDG&E's contractual bargaining power such that customer costs could rise.
Page 4, footnote 10; Page 13, lines 1-2 and 6; Page 14, lines 4-7; Attachment G of this Application (2013, 2014 and 2015 Indirect Purchases in MWh and calculated Emissions)	D.06-06-066, D.08-04-023, P.U. Code § 454.5(g), GO 66-C, 17 CCR § 95914(c), and D.14-10-033	Providing this information to market participants could allow them to figure out SDG&E's procurement strategy. And thus could adversely impact the competitiveness of procurement activities in California's Assembly Bill ("AB") 32 cap-and-trade markets. Further, release of the information would compromise SDG&E's contractual bargaining power such that customer costs could rise.
Page 13, lines 10-11; Page 14 line 1; Attachment G of this Application (2013, 2014 and 2015 Direct GHG Volumes and Costs)	D.06-06-066, D.08-04-023, P.U. Code § 454.5(g), GO 66-C, 17 CCR § 95914(c), and D.14-10-033	Providing this information to market participants could allow them to figure out SDG&E's procurement strategy. And thus could adversely impact the competitiveness of procurement activities in California's Assembly Bill ("AB") 32 cap-and-trade markets. Further, release of the information would compromise SDG&E's contractual bargaining power such that customer costs could rise.
Page 4, footnote 10; Page 14, lines 4-7; Attachment G of this Application (2013, 2014 and 2015	D.06-06-066, D.08-04-023, P.U. Code § 454.5(g), GO 66-C, 17 CCR § 95914(c), and D.14-10-033	Providing this information to market participants could allow them to figure out SDG&E's procurement strategy. And thus could adversely impact the competitiveness of procurement activities in California's Assembly Bill ("AB") 32

Confidential Information	Legal Basis for Confidential Protection	Facts Showing consequence of Release
Indirect GHG Volumes and Costs)		cap-and-trade markets. Further, release of the information would compromise SDG&E's contractual bargaining power
Page 15, lines 13 and 15; Page 16, line 1; Attachment G of this Application (2013, 2014 and 2015 GHG Quarterly Auction Revenue)	D.06-06-066, D.08-04-023, P.U. Code § 454.5(g), GO 66-C, 17 CCR § 95914(c), and D.14-10-033	Providing this information to market participants could allow them to figure out SDG&E's procurement strategy. And thus could adversely impact the competitiveness of procurement activities in California's Assembly Bill ("AB") 32 cap-and-trade markets. Further, release of the information would compromise SDG&E's contractual bargaining power such that customer costs could rise.


5. I am not aware of any instances where the confidential information described in my testimony was disclosed to the public.

6. SDG&E will comply with the limitations on confidentiality specified in the Matrix for the Protected Information.

7. 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 15th day of April, 2015, at San Diego, California.



 Ana Garza-Beutz
 Senior Energy Administrator
 San Diego Gas & Electric Company