

Application No.: A.23-05-XXX
Exhibit No.: _____
Witness: Stephen M. Elliott

PREPARED DIRECT TESTIMONY OF
STEPHEN M. ELLIOTT
ON BEHALF OF
SAN DIEGO GAS & ELECTRIC COMPANY

****REDACTED, PUBLIC VERSION****

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



May 15, 2023

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1 **II. BACKGROUND**

2 **A. AB 32 Background**

3 The Global Warming Solutions Act of 2006, also referred to as AB 32,⁴ establishes a goal
4 of reducing California’s GHG emissions to the 1990 level by 2020. The statute grants CARB
5 broad authority to regulate GHG emissions to reach this target. CARB’s Scoping Plan includes a
6 recommendation that California adopt a portfolio of emissions reduction measures, including a
7 California GHG cap-and-trade program.⁵

8 In October 2011, CARB released its Final Regulation Order, which was approved by its
9 Board and by the Office of Administrative Law (“OAL”) in December 2011.⁶ The CARB
10 regulations create a GHG emissions allowance cap-and-trade system, with compliance
11 obligations in the electricity sector applicable to “first deliverers of electricity”⁷ that emit more
12 than 25,000 Metric Tons (“MT”) of GHG. The regulation requires that first deliverers of
13 electricity, including investor-owned utilities (“IOUs”) such as SDG&E, obtain all the
14 compliance instruments required to meet their compliance obligations by November 1 of the year
15 following the end of a compliance period. Compliance instruments consist of allowances and
16 offsets. An allowance is a limited, tradable authorization to emit up to one MT of carbon dioxide
17 equivalent (“CO2e”) and an offset is a project that reduces GHG in sectors outside of those

⁴ AB 32, Stats. 2005-2006, Ch. 488 (Cal. 2006).

⁵ State of California Air Resources Board, *California Cap-and-Trade Program, Resolution 11-32* (October 20, 2011) at 3-4 available at: <https://www.arb.ca.gov/regact/2010/capandtrade10/res11-32.pdf>.

⁶ The ARB Final Regulation Order from December 2011 is codified at 17 California Code of Regulations section (“§”) 95800 *et seq.* and is also available at: <http://www.arb.ca.gov/regact/2010/capandtrade10/capandtrade10.htm>.

⁷ “First deliverers of electricity” is defined in § 95811(b) of ARB’s Final Regulation Order as electricity generators inside California and electricity importers.

1 covered in the cap-and-trade program.⁸ Section 95892(b) of CARB’s Final Regulation Order
2 establishes that IOUs are required to sell all their free allowances and acquire an amount equal to
3 their direct compliance obligations. There are also annual requirements to surrender at least 30%
4 of expected annual obligations each year by November 1 of the following year.

5 **B. GHG Actual Revenue**

6 The revenues discussed in my testimony result from the sale of allowances allocated to
7 SDG&E by CARB for the benefit of its ratepayers. CARB requires that the allowances that are
8 allocated annually to the IOUs be made available for sale at the CARB auctions. Allowances
9 given to the IOUs must all be consigned by the last auction of that year. Except for the
10 November 2012 auction, where CARB specified the amount that each IOU needed to auction, all
11 other amounts consigned at auctions are up to the discretion of each IOU, provided the entire
12 annual volume is consigned by the end of each year. Revenues are calculated by multiplying the
13 volume sold by the auction settlement price. The revenues presented in this testimony consist of
14 allowances sold in the 2022 February, May, August, and November auctions.

15 **C. GHG Estimated Emission Volumes**

16 The 2022 direct emissions will be the estimated/calculated GHG emissions for: (1)
17 SDG&E’s California utility-owned generation (“UOG”), (2) California generators with whom
18 SDG&E has contracts where SDG&E is responsible for GHG costs, (3) estimated emissions
19 associated with SDG&E imports of both specified electricity and unspecified electricity, and (4)
20 Renewable Portfolio Standard adjustment (“RPS Adjustment”). The RPS Adjustment, which is
21 an optional provision of the Cap-and-Trade regulation that reduces a compliance entity’s direct
22 compliance obligation, is calculated by multiplying the out-of-state renewable megawatt-hours

⁸ Refer to § 95801 of CARB’s Final Regulation Order for definitions.

1 (“MWh”) eligible for RPS adjustment by the CARB assigned unspecified emission factor. The
2 2022 direct volumes may change because they are subject to: (1) emission estimates and
3 emission reporting verification, (2) changing emission factors, and (3) contractual requirements
4 for reviewing tolling agreement emissions for potential reductions. If there are such changes,
5 they will be reflected in future testimony.

6 The 2022 indirect emissions are estimated emissions based on net purchases from the
7 California electricity market controlled by the California Independent System Operator
8 (“CAISO”) measured in MWh and multiplied by the CARB assigned unspecified emission
9 factor. Indirect emissions are not overseen by CARB. Indirect emissions are comprised of
10 estimated GHG emissions for which SDG&E was exposed because of purchasing power from
11 third parties. The 2022 indirect emissions within this testimony are those calculated in
12 SDG&E’s 2022 ERRA Forecast Application and will be updated in the updated 2024 ERRA
13 Forecast testimony in October 2023.

14 **D. GHG Cost Categories**

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

20 Section III below addresses the carbon price for 2022. Section IV.A addresses direct
21 GHG emissions associated with SDG&E’s UOG plants, procurement of electricity from tolling
22 agreements, electricity imports attributed to SDG&E, and credits from SDG&E’s eligible RPS
23 Adjustment. Section IV.B addresses the approximate 2022 indirect GHG emissions for which
24 SDG&E paid as GHG costs embedded in electricity prices charged by third parties to SDG&E

1 under contract for various supplies.⁹ Section IV.C summarizes the GHG costs based on the
2 carbon prices in Section III and emissions in Sections IV.A and IV.B.

3 **III. CARBON PRICE METHODOLOGY**

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

5 The 2022 Direct GHG Emissions price is based on the sum of 2022 monthly balancing
6 account entries and the 2022 emission volumes as described in section IV.A.

7 The Direct GHG Emissions price is listed in the table below:¹⁰

8

2022 Direct GHG Emissions (\$/MT)	
-----------------------------------	--

9 Historically, SDG&E included testimony in its ERRA forecast application that presented
10 SDG&E’s accounting procedure used to record the GHG compliance instrument costs using the
11 Weighted Average Costs (“WAC”). SDG&E previously included Attachment C in its annual
12 ERRA forecast application and provided supporting testimony regarding its methodologies and
13 assumptions.¹¹ However, in D.19-04-016, the Commission found that the language in OP 9 of
14 D.14-10-033 was ambiguous as it failed to distinguish between the differing compliance
15 obligations in the utilities’ ERRA forecast and ERRA compliance proceedings.¹² The
16 Commission clarified the requirements of D.14-10-033 to state that compliance with Attachment
17 C shall be demonstrated in the ERRA compliance proceeding and not the ERRA forecast
18 proceeding.¹³ Accordingly, SDG&E is not including Attachment C (or supporting testimony

⁹ Indirect GHG costs are estimated based on the assumptions described herein.

¹⁰ Per D.19-04-016, the details and underlying computations for the Direct GHG Emissions price and the Weighted Average Cost (WAC) will be provided in the annual ERRA Compliance filing.

¹¹ Per D.14-10-033 at OP 9.

¹² D.19-04-016 at FOF 17.

¹³ *Id.* at OP 3.

1 regarding methodologies) in this ERRA forecast application. Rather, SDG&E will comply with
2 D.19-04-016, OP 3, which directs the IOUs to demonstrate compliance with the revised D.15-01-
3 024 Attachment C in its ERRA compliance filings and not in its ERRA forecasts. SDG&E will
4 submit the GHG WAC compliance testimony for record year 2022 in its 2022 ERRA
5 Compliance testimony, which will be filed on June 1, 2023.

6 **B. Price for Indirect Emissions**

7 The embedded GHG costs for indirect emissions are estimated by using the average
8 CAISO GHG Allowance Price Indices, as listed in the table below.¹⁴ Indirect costs are estimated
9 since it is assumed that the GHG cost was passed on by all sources of power from market
10 purchases.

2022 CAISO GHG Prices	
Jan-Dec 2022	\$29.48

11
12 **IV. GHG COMPLIANCE COSTS**

13 **A. Direct Greenhouse Gas Emissions**

14 Under CARB’s cap-and-trade program, the “first deliverer of electricity” within
15 California must surrender one allowance or offset credit for each MT of GHG emissions.
16 Accordingly, SDG&E had direct compliance obligations for GHGs emitted from burning natural
17 gas at its UOG plants, namely, the Palomar Energy Center (“Palomar”) and Miramar Energy
18 Facility I and II (collectively, “Miramar”). SDG&E’s UOG GHG emission volumes are derived
19 from information extracted from each covered plant’s Continuous Emissions Monitoring
20 Systems (“CEMS”) and that plant’s annual fuel usage. The data is reported to CARB (under the
21 mandatory GHG reporting rule) and undergoes a rigorous quality assurance/quality control

¹⁴ Annual CAISO prices are a straight average of public daily GHG prices published on CAISO’s OASIS website.

1 (“QA/QC”) process with supporting documentation from the CEMS systems. The data is then
 2 subject to third party verification by an ARB-certified verifier. The 2022 UOG emissions will
 3 become final in August 2023. The 2022 estimated UOG emissions are as follows:

Jan-Dec 2022 California UOG Plants	Emissions Estimate (in MT)
Palomar Energy Center	[REDACTED]
Miramar Energy Facilities	
Total	

4
 5 In addition, SDG&E has agreements with some California generators which stipulate that
 6 if SDG&E is dispatching the plant, then SDG&E will provide compliance instruments to the
 7 generator for its GHG compliance obligations. The generators covered by these agreements
 8 include the Pio Pico Energy Center (“Pio Pico”) and the Carlsbad Energy Center (“Carlsbad”).
 9 The estimated emissions for these plants can be calculated by multiplying the MMBtu burned
 10 with the emission factor of 0.05307 MT/MMBtu associated with natural gas as the input fuel.
 11 These estimates are subject to change, not only because the emissions estimates are based on fuel
 12 calculations instead of emission meter read calculations, but also because the tolling agreement
 13 contracts state that SDG&E will only cover the emissions generated resulting from SDG&E
 14 dispatches of efficiently run plants. The 2022 estimated SDG&E obligations to tolling
 15 agreement partners are shown below. SDG&E will be analyzing the 2022 tolling data and could
 16 potentially adjust the 2022 estimated emissions for non-SDG&E dispatches, inefficiencies or
 17 based on verification. If there are such changes, they will be reflected in the October update.

Jan-Dec 2022 California Tolling Generators	Emissions Estimate (in MT)
Pio Pico	[REDACTED]
Carlsbad Energy Center	
Total	

1 An entity that delivers out-of-state electricity to a delivery point inside California is also
 2 responsible for the GHG emissions associated with generation of that electricity. For known
 3 imports, called “specified sources,” the estimated GHG emissions related to the portion of
 4 outputs of plants that are delivered to California are covered in the cap-and-trade program and as
 5 such the importer of that electricity has a compliance obligation. SDG&E has a contract with
 6 Yuma Cogeneration Associates (“YCA”) in Arizona and owns the Desert Star Energy Center
 7 (“Desert Star”) combined cycle plant in Nevada. These out-of-state generators are specified
 8 sources. The compliance obligation for the power imported from each of these sources is
 9 calculated by the product of the imported power times the transmission loss correction factor as
 10 listed in section 95111 of CARB’s mandatory reporting regulation, and the specified emissions
 11 factor assigned to those facilities by CARB. As with SDG&E’s other estimated obligations,
 12 specified imports are also subject to change, and those changes will be reflected in the October
 13 update. The 2022 estimated emissions for SDG&E’s specified imports are as follows:

Jan-Dec 2022 Specified Imports	Specified Import Estimates (in MWh)	Emission Factor Estimates	Transmission Loss Factor	Emissions Estimate (in MT)
Desert Star		0.414	1.00	
YCA		0.486	1.02	
Total				

15 In addition to specified sources, importing of “unspecified sources” also generates a
 16 compliance obligation. SDG&E procured both contracted imports and market imports from
 17 unspecified sources in 2022. The cap-and-trade compliance obligation for these unspecified
 18 imports is calculated by multiplying the number of MWh imported, adjusted upward by two
 19 percent to account for transmission losses between the point of generation and the California

1 border, by the CARB default rate, as stated in its regulation (currently 0.428 MT/MWh).¹⁵
2 Finally, CARB recognizes that the building of new renewable generation outside California
3 reduces GHG. As such, the cap-and-trade regulations allow for an RPS Adjustment. The RPS
4 Adjustment reduces an entity's GHG compliance burden and is calculated by assigning the
5 default emission rate (currently 0.428 MT/MWh) to the GHG-free renewable energy, as
6 measured at the point of generation. The adjustment does not account for the transmission losses
7 from the point of generation to California,¹⁶ and the cap-and-trade regulations also allow that
8 they be taken in following years. SDG&E successfully claimed the undelivered portion of its
9 potential 2014 RPS Adjustment in 2015. SDG&E has been unable to claim undelivered portions
10 of the 2015-2022 contractually purchased renewable energy applicable to the RPS Adjustment
11 provision in recent GHG reports to CARB and SDG&E will not be claiming the RPS Adjustment
12 for 2022.¹⁷ If the RPS Adjustment data for any prior year(s) becomes available in the future,
13 SDG&E will incorporate that benefit in an upcoming annual CARB Electric Power Entity
14 ("EPE") report. Both the estimated 2022 unspecified imports and the RPS Adjustments claimed
15 for 2022 are subject to change and those changes will be reflected in future testimony. The 2022

¹⁵ CARB's Mandatory Reporting Regulation, Section 95111(b)(1). See Section 95852(c) in CARB, *Article 5: California Cap on Greenhouse Gas Emissions and Market-based Compliance Mechanisms* at 116, available at: https://ww3.arb.ca.gov/cc/reporting/ghg-rep/regulation/mrr-2018-unofficial-2019-4-3.pdf?_ga=2.248590913.797450650.1572910305-557391757.1471971036.

¹⁶ See Section 95852(b)(1) of CARB's Final Regulation Order for the calculation of the RPS Adjustment. CARB, *Article 5: California Cap on Greenhouse Gas Emissions and Market-based Compliance Mechanisms*, at 115, Section 95852(b)(1), available at https://ww3.arb.ca.gov/cc/capandtrade/capandtrade/ct_reg_unofficial.pdf.

¹⁷ SDG&E's ability to utilize the non-imported portion of its Glacier and Rim Rock contracts for the RPS Adjustment is dependent on receipt of Glacier and Rim Rock import volumes from Morgan Stanley. SDG&E has, thus far, not received this information for the 2015-2022 generation years. SDG&E continues to have discussions with Morgan Stanley and Open Access Technology International, Inc. ("OATI") about obtaining this data and may receive it in the future at which point SDG&E can apply the prior RPS Adjustment volumes to the next compliance year's report.

1 estimated emissions for SDG&E’s unspecified imports and RPS adjustment claims are as
 2 follows:

Jan-Dec 2022 Unspecified Imports & RPS Adjustment	Unspecified Import Estimates (in MWh)	Unspecified Emission Factor	Transmission Loss Factor	Emissions Estimate (in MT)
Unspecified Imports		0.428	1.02	
RPS Adjustment		0.428	1.00	
Total				

3
 4 Based on the above, SDG&E’s 2022 estimated direct compliance obligations are:

Jan-Dec 2022 Direct Compliance Obligations	Emissions Estimate (in MT)
California UOG Plants	
California Tolling Generators	
Specified Imports	
Unspecified Imports	
RPS Adjustment	
Total	

5
 6 **B. Indirect Greenhouse Gas Emissions**

7 SDG&E, along with all other purchasers of wholesale electricity, is subject to indirect
 8 GHG compliance costs that generators incur and pass on to their buyers. This additional cost of
 9 GHG compliance is embedded in the market price of electricity procured in the wholesale market
 10 from third parties, thereby increasing SDG&E’s cost to purchase wholesale electricity, as well as
 11 from suppliers under contracts that include market-based prices. The cost of GHG affects both
 12 market purchases and contracts based on the price of energy (such as combined heat and power
 13 [“CHP”] facilities); because the price of energy changes in tandem with the change in the GHG
 14 allowance prices, sellers of electricity demand higher revenues to offset the costs related to their
 15 cap-and-trade obligations. The 2022 indirect GHG volumes are estimated, for both net market
 16 purchases and CHP contracts, as the MWh of electricity production multiplied by the CARB

1 default rate for unspecified electricity of 0.428 MT/MWh. The forecasted 2022 MWh and
 2 emissions of SDG&E's indirect purchases are as follows:

2022 Forecasted Indirect Volumes in MWh and MT	
Total INDIRECTS (MWh)	[REDACTED]
Unspecified Emissions Factor (MT/MWh)	0.428
Total INDIRECTS (MT)	[REDACTED]

3
 4

C. GHG Costs

5 Using the prices from Section III above, the 2022 direct GHG costs are as follows:

2022 GHG Direct Cost Estimates	Emissions Estimate (in MT)	Direct GHG Emissions Price (in \$/MT)	Estimated Direct Cost
Jan-Dec 2022 (estimated actuals)	[REDACTED]	[REDACTED]	[REDACTED]

6
 7

Combining indirect volumes and the CAISO GHG allowance price indices,¹⁸ the 2022

8 estimated GHG indirect costs are as follows:

2022 Forecasted Indirect Volumes & Cost	
Total INDIRECTS (MT)	[REDACTED]
CAISO GHG Price (Jan-Dec 2022) (\$/MT)	\$29.48
Total Indirect Cost	[REDACTED]

9
 10

Thus, the 2022 Direct and Indirect estimate blended cost is [REDACTED]

11

D. Outreach and Administrative Costs

12 For 2024, the Detail of Outreach and Administrative Expense costs (Attachment G to the
 13 Application) reflects the twice-a-year Climate Credit Communications to customers as directed
 14 initially in D.16-06-04. These communications include emails and bill inserts for both April and
 15 October.

¹⁸ Per D.14-10-033 at 25, indirect costs are calculated using a proxy price equal to the average of the published CAISO GHG index daily prices in OASIS.

1 Therefore, the total cost projection of the expenses to be incurred in 2024 is \$83,000.00
2 for the required touchpoints stated above, including \$58,000.00 for residential customers and
3 \$25,000.00 for small business customers.

4 **V. ACTUAL AND ESTIMATED GHG REVENUES**

5 SDG&E received 6,651,508 MT of vintage 2022 allowances to sell at 2022 auctions.
6 SDG&E’s annual allocated allowances are required to be consigned at that year’s quarterly
7 auctions; however, SDG&E has full discretion on how to distribute its allowances across the four
8 quarterly auctions. The tables below show the volumes sold at each 2022 auction along with
9 associated revenues.

2022 GHG Revenues			
Auction	Settlement Price (\$/MT)	Sold Volume (MT)	Revenue
Feb-22	\$29.15		
May-22	\$30.85		
Aug-22	\$27.00		
Nov-22	\$26.80		
Total	\$28.45		

10
11

This concludes my prepared direct testimony.

1 **VI. QUALIFICATIONS**

2 My name is Stephen M. Elliott. My business address is 8315 Century Park Court, San
3 Diego, CA 92123. I am employed by San Diego Gas & Electric as an Electric & Fuels Trader in
4 the Energy Supply and Dispatch Department. My responsibilities include managing the
5 execution of SDG&E's GHG portfolio and also the day ahead and forward procurement of
6 natural gas that serves SDG&E's electric portfolio. I assumed my current position in December
7 2022.

8 I have been employed by SDG&E in numerous positions including an Analyst for Energy
9 Efficiency and Demand Response programs, a Business Analyst for Credit & Collections /
10 Customer Payment Services and a Senior Energy Risk Advisor in Energy Risk Management
11 (Middle Office). I have been responsible for Risk & Compliance of the Electric & Fuel & Fuel
12 Procurement operations, natural gas scheduling and trading and the management and execution
13 of SDG&E's emissions portfolio.

14 I hold a bachelor's degree in history with an emphasis in Pre-Law studies from San
15 Diego State University and a Masters of Business Administration with an emphasis in Finance
16 from National University.

17 I have not previously testified before the California Public Utilities Commission.

ATTACHMENT A

**DECLARATION OF CHRIS SUMMERS REGARDING
CONFIDENTIALITY OF CERTAIN DATA/DOCUMENTS
PURSUANT TO D.16-08-024, *et al.***

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

**DECLARATION OF CHRIS SUMMERS
REGARDING CONFIDENTIALITY OF CERTAIN DATA/DOCUMENTS
PURSUANT TO D.16-08-24, *et al.***

I, Chris Summers, do declare as follows:

1. I am the Director of Origination, Energy Supply & Dispatch in the Electric and Fuel Procurement department for San Diego Gas & Electric Company (“SDG&E”). I have been delegated authority to sign this declaration by Estela de Llanos, Vice President of Energy Procurement and Sustainability. I have reviewed Stephen Elliott’s Prepared Direct Testimony (“Testimony”) and Attachment G, the GHG Revenue and Reconciliation Application Form, in support of SDG&E’s “Application for approval of its 2024 Electric Procurement Revenue Requirement Forecasts and GHG Related-Forecasts (“Application”). I am personally familiar with the facts in this Declaration and, if called upon to testify, I could and would testify to the following based upon my personal knowledge and/or information and belief.

2. I hereby provide this Declaration in accordance with Decisions (“D.”) D.16-08-024, D.17-05-035 and D.17-09-023 to demonstrate that the confidential information (“Protected Information”) provided in Mr. Elliott’s Testimony and Attachment G are within the scope of data protected as confidential under applicable law.

3. In accordance with the legal citations and narrative justification described in Attachment A, the Protected Information should be protected from public disclosure.

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

Executed this 26th day of April 2023, at San Diego.

DocuSigned by:
Chris Summers
AAC77001461A4DB...

Chris Summers
Director of Origination, Energy Supply & Dispatch

ATTACHMENT A

SDG&E Request for Confidentiality on the following information contained in Scott Lewis’s Testimony and Attachment G in support of SDG&E’s Application

Location of Protected Information	Legal Citations	Narrative Justification
<p>1. SDG&E Direct GHG prices and Direct GHG calculations</p> <p><i>(The 2022 Direct GHG price appears in Stephen Elliott’s Testimony. The 2013 - 2022 Direct GHG calculations are utilized in tab “D-2” of Attachment G.</i></p>	<p>D.08-04-023</p> <p>D.14-10-033, D.16-08-024, D.17-05-035, D.17-09-023, Public Utilities Code Section 454.5(g)</p> <p>General Order (“GO”) 66-D</p> <p>17 CCR § 95914(c) (the “ARB Confidentiality Regulations”)</p> <p>The GHG Confidential Information Matrix in Attachment A of D.14-10-033 and revised in D.15-01-024</p> <p>The Matrix makes the following confidential: “Weighted Average Cost (WAC) of compliance instruments, and the calculation of WAC”</p> <p>Gov’t Code §§6254(k), 6254.7 (d), Evidence Code 1060, Civil Code §3426 et seq.</p>	<p>The Protected Information is entitled to confidential treatment under applicable law, including, but not limited to, the legal authority cited herein. The information does not expressly fall within any category of the IOU Matrix applicable to electric procurement information, but is market-sensitive information.</p> <p>Among other things, 17 CCR Section 95914(c)(1) of the Cap-and-Trade regulations prohibits disclosure of any auction-related information. Violation of Section 95914 may subject SDG&E to penalties by the California Air Resources Board.</p> <p>In addition, Attachments A, C & D of D.15-01-024 and Appendices A & B of D.15-10-032 require Auction-related information, forecasts of emissions intensity, forecasts of greenhouse gas (GHG) costs, GHG transactions, compliance instrument prices, weight average cost (“WAC”) and other GHG information to be kept confidential.</p> <p>Additionally, the Protected Information also includes trade secret information because SDG&E’s bidding/consignment strategies contain “commercial value,” which gives SDG&E “an opportunity to obtain a business advantage over competitors who do not know or use it.”</p> <p>Disclosure of this information would place SDG&E at an unfair business disadvantage relative to other Cap-and-Trade market participants and result in higher Cap-and-Trade compliance costs for SDG&E and its end-use ratepayers.</p>
<p>2. Historical/Recorded UOG Emissions</p>	<p>D.08-04-023</p> <p>D.14-10-033, D.16-08-024, D.17-05-035, D.17-09-023, Public Utilities Code Section 454.5(g)</p>	<p>The Protected Information is entitled to confidential treatment under applicable law, including, but not limited to, the legal authority cited herein. The information does not expressly fall within any category of the IOU Matrix applicable to electric procurement information, but is market-sensitive information.</p>

<p><i>(The 2022 Historical UOG Emissions appear in Scott Lewis’s Testimony. The 2013- 2022 Recorded UOG Emissions appear in Attachment G of this Application.)</i></p>	<p>General Order (“GO”) 66-D</p> <p>17 CCR § 95914(c) (the “ARB Confidentiality Regulations”)</p> <p>Annual GHG Emissions and Associated Costs in Template D-2 of D.14-10-033 and revised in D.15-01-024</p> <p>Template D-2 designates forecasted and recorded UOG emissions as confidential</p> <p>Gov’t Code §§6254(k), 6254.7 (d), Evidence Code 1060, Civil Code §3426 et seq.</p>	<p>Among other things, 17 CCR Section 95914(c)(1) of the Cap-and-Trade regulations prohibits disclosure of any auction-related information. Violation of Section 95914 may subject SDG&E to penalties by the California Air Resources Board.</p> <p>In addition, Attachments A, C & D of D.15-01-024 and Appendices A & B of D.15-10-032 require Auction-related information, forecasts of emissions intensity, forecasts of greenhouse gas (GHG) costs, GHG transactions, compliance instrument prices, weight average cost (“WAC”) and other GHG information to be kept confidential.</p> <p>Additionally, the Protected Information also includes trade secret information because SDG&E’s bidding/consignment strategies contain “commercial value,” which gives SDG&E “an opportunity to obtain a business advantage over competitors who do not know or use it.”</p> <p>Disclosure of this information would place SDG&E at an unfair business disadvantage relative to other Cap-and-Trade market participants and result in higher Cap-and-Trade compliance costs for SDG&E and its end-use ratepayers.</p>
<p>3.</p> <p><i>Historical/Recorded California Tolling Agreement Emissions</i></p> <p><i>(The 2022 Tolling Agreement Emissions appear in Stephen Elliott’s Testimony. The 2013- 2022 Tolling Agreement Emissions appear in Attachment G of this Application.)</i></p>	<p>D.08-04-023</p> <p>D.14-10-033, D.16-08-024, D.17-05-035, D.17-09-023, Public Utilities Code Section 454.5(g)</p> <p>General Order (“GO”) 66-D</p> <p>17 CCR § 95914(c) (the “ARB Confidentiality Regulations”)</p> <p>Annual GHG Emissions and Associated Costs in Template D-2 of D.14-10-033 and revised in D.15-01-024</p> <p>Template D-2 designates forecasted and recorded Tolling Agreements emissions as confidential</p> <p>Gov’t Code §§6254(k), 6254.7 (d), Evidence Code 1060, Civil Code §3426 et seq.</p>	<p>The Protected Information is entitled to confidential treatment under applicable law, including, but not limited to, the legal authority cited herein. The information does not expressly fall within any category of the IOU Matrix applicable to electric procurement information, but is market-sensitive information.</p> <p>Among other things, 17 CCR Section 95914(c)(1) of the Cap-and-Trade regulations prohibits disclosure of any auction-related information. Violation of Section 95914 may subject SDG&E to penalties by the California Air Resources Board.</p> <p>In addition, Attachments A, C & D of D.15-01-024 and Appendices A & B of D.15-10-032 require Auction-related information, forecasts of emissions intensity, forecasts of greenhouse gas (GHG) costs, GHG transactions, compliance instrument prices, weight average cost (“WAC”) and other GHG information to be kept confidential.</p> <p>Additionally, the Protected Information also includes trade secret information because SDG&E’s bidding/consignment strategies contain “commercial value,” which gives SDG&E “an opportunity to obtain a business advantage over competitors who do not know or use it.”</p> <p>Disclosure of this information would place SDG&E at an unfair business disadvantage relative to other Cap-and-Trade market participants and result in higher Cap-and-Trade compliance costs for SDG&E and its end-use ratepayers.</p>

<p>4. Historical/Recorded Specified Imported MWh and calculated Emissions</p> <p><i>(The 2022 Specified Imported MWh and calculated Emissions appear in Stephen Elliott’s Testimony. The 2013- 2022 Recorded Specified Imported Emissions appear in Attachment G of this Application.)</i></p>	<p>D.08-04-023</p> <p>D.14-10-033, D.16-08-024, D.17-05-035, D.17-09-023, Public Utilities Code Section 454.5(g)</p> <p>General Order (“GO”) 66-D</p> <p>17 CCR § 95914(c) (the “ARB Confidentiality Regulations”)</p> <p>Annual GHG Emissions and Associated Costs in Template D-2 of D.14-10-033 and revised in D.15-01-024</p> <p>Template D-2 designates forecasted and recorded Energy Imports (Specified) emissions as confidential. Knowledge of the MWh makes discovery of the emissions possible, thus the MWh are also confidential.</p> <p>Gov’t Code §§6254(k), 6254.7 (d), Evidence Code 1060, Civil Code §3426 et seq.</p>	<p>The Protected Information is entitled to confidential treatment under applicable law, including, but not limited to, the legal authority cited herein. The information does not expressly fall within any category of the IOU Matrix applicable to electric procurement information, but is market-sensitive information.</p> <p>Among other things, 17 CCR Section 95914(c)(1) of the Cap-and-Trade regulations prohibits disclosure of any auction-related information. Violation of Section 95914 may subject SDG&E to penalties by the California Air Resources Board.</p> <p>In addition, Attachments A, C & D of D.15-01-024 and Appendices A & B of D.15-10-032 require Auction-related information, forecasts of emissions intensity, forecasts of greenhouse gas (GHG) costs, GHG transactions, compliance instrument prices, weight average cost (“WAC”) and other GHG information to be kept confidential.</p> <p>Additionally, the Protected Information also includes trade secret information because SDG&E’s bidding/consignment strategies contain “commercial value,” which gives SDG&E “an opportunity to obtain a business advantage over competitors who do not know or use it.”</p> <p>Disclosure of this information would place SDG&E at an unfair business disadvantage relative to other Cap-and-Trade market participants and result in higher Cap-and-Trade compliance costs for SDG&E and its end-use ratepayers.</p>
<p>5. Historical/Recorded Unspecified Imported MWh and calculated Emissions</p> <p><i>(The 2022 Unspecified</i></p>	<p>D.08-04-023</p> <p>D.14-10-033, D.16-08-024, D.17-05-035, D.17-09-023, Public Utilities Code Section 454.5(g)</p> <p>General Order (“GO”) 66-D</p> <p>17 CCR § 95914(c) (the “ARB Confidentiality Regulations”)</p> <p>Annual GHG Emissions and Associated Costs in Template D-2 of D.14-10-</p>	<p>The Protected Information is entitled to confidential treatment under applicable law, including, but not limited to, the legal authority cited herein. The information does not expressly fall within any category of the IOU Matrix applicable to electric procurement information, but is market-sensitive information.</p> <p>Among other things, 17 CCR Section 95914(c)(1) of the Cap-and-Trade regulations prohibits disclosure of any auction-related information. Violation of Section 95914 may subject SDG&E to penalties by the California Air Resources Board.</p> <p>In addition, Attachments A, C & D of D.15-01-024 and Appendices A & B of D.15-10-032 require Auction-related information, forecasts of emissions intensity, forecasts of greenhouse gas (GHG) costs, GHG transactions, compliance instrument prices, weight average cost (“WAC”) and other GHG information to be kept confidential.</p> <p>Additionally, the Protected Information also includes trade secret information because SDG&E’s bidding/consignment</p>

<p><i>Imported MWh and calculated Emissions appear in Stephen Elliott’s Testimony. The 2013- 2022 Unspecified Imported Emissions appear in Attachment G of this Application.)</i></p>	<p>033 and revised in D.15-01-024</p> <p>Template D-2 designates forecasted and recorded Energy Imports (Unspecified) emissions as confidential. Knowledge of the MWh makes discovery of the emissions possible, thus the MWh are also confidential.</p> <p>Gov’t Code §§6254(k), 6254.7 (d), Evidence Code 1060, Civil Code §3426 et seq.</p>	<p>strategies contain “commercial value,” which gives SDG&E “an opportunity to obtain a business advantage over competitors who do not know or use it.”</p> <p>Disclosure of this information would place SDG&E at an unfair business disadvantage relative to other Cap-and-Trade market participants and result in higher Cap-and-Trade compliance costs for SDG&E and its end-use ratepayers.</p>
<p>6. Historical RPS Adjustment eligible MWh and calculated Emissions</p> <p><i>(The RPS Adjustment eligible MWh and calculated Emissions for 2022 appear in Stephen Elliott’s Testimony. The 2013- 2022 RPS Adjustment Emissions appear in Attachment G of this Application.)</i></p>	<p>D.08-04-023</p> <p>D.14-10-033, D.16-08-024, D.17-05-035, D.17-09-023, Public Utilities Code Section 454.5(g)</p> <p>General Order (“GO”) 66-D</p> <p>17 CCR § 95914(c) (the “ARB Confidentiality Regulations”)</p> <p>Annual GHG Emissions and Associated Costs in Template D-2 of D.14-10-033 and revised in D.15-01-024</p> <p>Template D-2 designates forecasted and recorded Energy Imports (Unspecified) emissions, which includes any applicable RPS Adjustments as confidential. Knowledge of the MWh makes discovery of the emissions possible, thus the MWh are also confidential.</p> <p>Gov’t Code §§6254(k), 6254.7 (d), Evidence Code 1060, Civil Code §3426 et seq.</p>	<p>The Protected Information is entitled to confidential treatment under applicable law, including, but not limited to, the legal authority cited herein. The information does not expressly fall within any category of the IOU Matrix applicable to electric procurement information, but is market-sensitive information.</p> <p>Among other things, 17 CCR Section 95914(c)(1) of the Cap-and-Trade regulations prohibits disclosure of any auction-related information. Violation of Section 95914 may subject SDG&E to penalties by the California Air Resources Board.</p> <p>In addition, Attachments A, C & D of D.15-01-024 and Appendices A & B of D.15-10-032 require Auction-related information, forecasts of emissions intensity, forecasts of greenhouse gas (GHG) costs, GHG transactions, compliance instrument prices, weight average cost (“WAC”) and other GHG information to be kept confidential.</p> <p>Additionally, the Protected Information also includes trade secret information because SDG&E’s bidding/consignment strategies contain “commercial value,” which gives SDG&E “an opportunity to obtain a business advantage over competitors who do not know or use it.”</p> <p>Disclosure of this information would place SDG&E at an unfair business disadvantage relative to other Cap-and-Trade market participants and result in higher Cap-and-Trade compliance costs for SDG&E and its end-use ratepayers.</p>

<p>7. Total Direct Compliance Obligation</p> <p><i>(The 2022 Total Direct Compliance Obligation appears in Stephen Elliott’s Testimony. The 2013- 2022 Total Direct Compliance Obligation appear in Attachment G of this Application.)</i></p>	<p>D.08-04-023</p> <p>D.14-10-033, D.16-08-024, D.17-05-035, D.17-09-023, Public Utilities Code Section 454.5(g)</p> <p>General Order (“GO”) 66-D</p> <p>17 CCR § 95914(c) (the “ARB Confidentiality Regulations”)</p> <p>Annual GHG Emissions and Associated Costs in Template D-2 of D.14-10-033 and revised in D.15-01-024</p> <p>Template D-2 designates forecasted and recorded Direct GHG Emissions Subtotal as confidential.</p> <p>Gov’t Code §§6254(k), 6254.7 (d), Evidence Code 1060, Civil Code §3426 et seq.</p>	<p>The Protected Information is entitled to confidential treatment under applicable law, including, but not limited to, the legal authority cited herein. The information does not expressly fall within any category of the IOU Matrix applicable to electric procurement information, but is market-sensitive information.</p> <p>Among other things, 17 CCR Section 95914(c)(1) of the Cap-and-Trade regulations prohibits disclosure of any auction-related information. Violation of Section 95914 may subject SDG&E to penalties by the California Air Resources Board.</p> <p>In addition, Attachments A, C & D of D.15-01-024 and Appendices A & B of D.15-10-032 require Auction-related information, forecasts of emissions intensity, forecasts of greenhouse gas (GHG) costs, GHG transactions, compliance instrument prices, weight average cost (“WAC”) and other GHG information to be kept confidential.</p> <p>Additionally, the Protected Information also includes trade secret information because SDG&E’s bidding/consignment strategies contain “commercial value,” which gives SDG&E “an opportunity to obtain a business advantage over competitors who do not know or use it.”</p> <p>Disclosure of this information would place SDG&E at an unfair business disadvantage relative to other Cap-and-Trade market participants and result in higher Cap-and-Trade compliance costs for SDG&E and its end-use ratepayers.</p>
<p>8. Indirect Purchases in MWh and calculated Emissions</p> <p><i>(The 2022 forecasted Indirect Purchase MWhs and calculated Emissions appear in Stephen Elliott’s Testimony. The 2013-2021 final and 2022 forecasted Indirect Emission calculations</i></p>	<p>D.08-04-023</p> <p>D.14-10-033, D.16-08-024, D.17-05-035, D.17-09-023, Public Utilities Code Section 454.5(g)</p> <p>General Order (“GO”) 66-D</p> <p>17 CCR § 95914(c) (the “ARB Confidentiality Regulations”)</p> <p>Annual GHG Emissions and Associated Costs in Template D-2 of D.14-10-033 and revised in D.15-01-024</p> <p>Template D-2 designates forecasted and recorded</p>	<p>The Protected Information is entitled to confidential treatment under applicable law, including, but not limited to, the legal authority cited herein. The information does not expressly fall within any category of the IOU Matrix applicable to electric procurement information, but is market-sensitive information.</p> <p>Among other things, 17 CCR Section 95914(c)(1) of the Cap-and-Trade regulations prohibits disclosure of any auction-related information. Violation of Section 95914 may subject SDG&E to penalties by the California Air Resources Board.</p> <p>In addition, Attachments A, C & D of D.15-01-024 and Appendices A & B of D.15-10-032 require Auction-related information, forecasts of emissions intensity, forecasts of greenhouse gas (GHG) costs, GHG transactions, compliance instrument prices, weight average cost (“WAC”) and other GHG information to be kept confidential.</p> <p>Additionally, the Protected Information also includes trade secret information because SDG&E’s bidding/consignment strategies contain “commercial value,” which gives SDG&E “an opportunity to obtain a business advantage over competitors who do not know or use it.”</p>

<p><i>appear in Attachment G of this Application.)</i></p>	<p>Indirect GHG Emissions as confidential. Knowledge of the MWh makes discovery of the emissions possible, thus, the MWh are also confidential.</p> <p>Gov't Code §§6254(k), 6254.7 (d), Evidence Code 1060, Civil Code §3426 et seq.</p>	<p>Disclosure of this information would place SDG&E at an unfair business disadvantage relative to other Cap-and-Trade market participants and result in higher Cap-and-Trade compliance costs for SDG&E and its end-use ratepayers.</p>
<p>9. Direct GHG Costs</p> <p><i>(The 2022 Direct GHG Costs appear in Stephen Elliott's Testimony. The 2013 – 2021 final and 2022 estimated Direct GHG Costs appear in Attachment G of this Application.)</i></p>	<p>D.08-04-023</p> <p>D.14-10-033, D.16-08-024, D.17-05-035, D.17-09-023, Public Utilities Code Section 454.5(g)</p> <p>General Order (“GO”) 66-D</p> <p>17 CCR § 95914(c) (the “ARB Confidentiality Regulations”)</p> <p>Annual GHG Emissions and Associated Costs in Template D-2 of D.14-10-033 and revised in D.15-01-024</p> <p>Template D-2 designates forecasted and recorded Direct GHG Costs as confidential.</p> <p>Gov't Code §§6254(k), 6254.7 (d), Evidence Code 1060, Civil Code §3426 et seq.</p>	<p>The Protected Information is entitled to confidential treatment under applicable law, including, but not limited to, the legal authority cited herein. The information does not expressly fall within any category of the IOU Matrix applicable to electric procurement information, but is market-sensitive information.</p> <p>Among other things, 17 CCR Section 95914(c)(1) of the Cap-and-Trade regulations prohibits disclosure of any auction-related information. Violation of Section 95914 may subject SDG&E to penalties by the California Air Resources Board.</p> <p>In addition, Attachments A, C & D of D.15-01-024 and Appendices A & B of D.15-10-032 require Auction-related information, forecasts of emissions intensity, forecasts of greenhouse gas (GHG) costs, GHG transactions, compliance instrument prices, weight average cost (“WAC”) and other GHG information to be kept confidential.</p> <p>Additionally, the Protected Information also includes trade secret information because SDG&E's bidding/consignment strategies contain “commercial value,” which gives SDG&E “an opportunity to obtain a business advantage over competitors who do not know or use it.”</p> <p>Disclosure of this information would place SDG&E at an unfair business disadvantage relative to other Cap-and-Trade market participants and result in higher Cap-and-Trade compliance costs for SDG&E and its end-use ratepayers.</p>
<p>10. Estimated Indirect GHG Costs</p>	<p>D.08-04-023</p> <p>D.14-10-033, D.16-08-024, D.17-05-035, D.17-09-023, Public Utilities Code Section 454.5(g)</p> <p>General Order (“GO”) 66-D</p>	<p>The Protected Information is entitled to confidential treatment under applicable law, including, but not limited to, the legal authority cited herein. The information does not expressly fall within any category of the IOU Matrix applicable to electric procurement information, but is market-sensitive information.</p> <p>Among other things, 17 CCR Section 95914(c)(1) of the Cap-and-Trade regulations prohibits disclosure of any auction-related information. Violation of Section 95914 may subject SDG&E to penalties by the California Air Resources Board.</p> <p>In addition, Attachments A, C & D of D.15-01-024 and Appendices A & B of D.15-10-032 require Auction-related</p>

<p><i>(The 2022 estimated Indirect GHG Costs appear in Stephen Elliott’s Testimony. The 2013 - 2022 estimated Indirect GHG Costs appear in Attachment G of this Application.)</i></p>	<p>17 CCR § 95914(c) (the “ARB Confidentiality Regulations”)</p> <p>Annual GHG Emissions and Associated Costs in Template D-2 of D.14-10-033 and revised in D.15-01-024</p> <p>Template D-2 designates forecasted and recorded Indirect GHG Costs as confidential.</p> <p>Gov’t Code §§6254(k), 6254.7 (d), Evidence Code 1060, Civil Code §3426 et seq.</p>	<p>information, forecasts of emissions intensity, forecasts of greenhouse gas (GHG) costs, GHG transactions, compliance instrument prices, weight average cost (“WAC”) and other GHG information to be kept confidential.</p> <p>Additionally, the Protected Information also includes trade secret information because SDG&E’s bidding/consignment strategies contain “commercial value,” which gives SDG&E “an opportunity to obtain a business advantage over competitors who do not know or use it.”</p> <p>Disclosure of this information would place SDG&E at an unfair business disadvantage relative to other Cap-and-Trade market participants and result in higher Cap-and-Trade compliance costs for SDG&E and its end-use ratepayers.</p>
<p>11. GHG Quarterly Auction Revenue</p> <p><i>(The 2022 GHG Quarterly Auction Revenues appear in Stephen Elliott’s Testimony. The 2013 - 2022 actual GHG Quarterly Auction Revenues appear in Attachment G of this Application.)</i></p>	<p>D.08-04-023</p> <p>D.14-10-033, D.16-08-024, D.17-05-035, D.17-09-023, Public Utilities Code Section 454.5(g)</p> <p>General Order (“GO”) 66-D</p> <p>17 CCR § 95914(c) (the “ARB Confidentiality Regulations”)</p> <p>1a. of Attachment A of D.14-10-033 and revised in D.15-01-024</p> <p>1a. makes the following confidential: “AB 32 GHG auction participation.” Although Annual Auction Revenues are public, Quarterly Auction Revenues must be confidential since public auction settlement prices and Quarterly Auction Revenues would reveal SDG&E’s quarterly auction participation as a consigner</p> <p>Gov’t Code §§6254(k),</p>	<p>The Protected Information is entitled to confidential treatment under applicable law, including, but not limited to, the legal authority cited herein. The information does not expressly fall within any category of the IOU Matrix applicable to electric procurement information, but is market-sensitive information.</p> <p>Among other things, 17 CCR Section 95914(c)(1) of the Cap-and-Trade regulations prohibits disclosure of any auction-related information. Violation of Section 95914 may subject SDG&E to penalties by the California Air Resources Board.</p> <p>In addition, Attachments A, C & D of D.15-01-024 and Appendices A & B of D.15-10-032 require Auction-related information, forecasts of emissions intensity, forecasts of greenhouse gas (GHG) costs, GHG transactions, compliance instrument prices, weight average cost (“WAC”) and other GHG information to be kept confidential.</p> <p>Additionally, the Protected Information also includes trade secret information because SDG&E’s bidding/consignment strategies contain “commercial value,” which gives SDG&E “an opportunity to obtain a business advantage over competitors who do not know or use it.”</p> <p>Disclosure of this information would place SDG&E at an unfair business disadvantage relative to other Cap-and-Trade market participants and result in higher Cap-and-Trade compliance costs for SDG&E and its end-use ratepayers.</p>

	6254.7 (d), Evidence Code 1060, Civil Code §3426 et seq.	
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