

Application No.: A.20-04-014

Exhibit No.: _____

Witness: ~~Ana Garza Beutz~~ Scott D. Lewis

UPDATED PREPARED DIRECT TESTIMONY OF

~~ANA GARZA BEUTZ~~ SCOTT D. LEWIS

ON BEHALF OF

SAN DIEGO GAS & ELECTRIC COMPANY

*****REDACTED – PUBLIC VERSION*****

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

~~April~~ November 0615, 2020



A  Sempra Energy utility

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GLOSSARY

1 **UPDATED PREPARED DIRECT TESTIMONY OF**
2 **ANA GARZA BEUTZ SCOTT D. LEWIS**
3 **ON BEHALF OF**
4 **SAN DIEGO GAS & ELECTRIC COMPANY**

5 **I. PURPOSE AND OVERVIEW**

6 My updated prepared direct testimony presents San Diego Gas & Electric Company's
7 ("SDG&E's") 2019-~~2020~~¹ costs for greenhouse gas ("GHG") compliance instruments used to
8 satisfy its compliance obligations under the California Air Resources Board's ("ARB") cap-and-
9 trade program pursuant to Assembly Bill ("AB") 32. My testimony also includes SDG&E's
10 2019-~~2020~~ revenues related to the sale of its -allowance allocation.² ~~Appendix A of this~~
11 ~~testimony includes SDG&E's Weighted Average Cost calculation ("WAC") as required in~~
12 ~~Decision ("D.") 14-10-033, subsequently corrected in D.14-10-055, D.15-01-024 and D.19-04-~~
13 ~~016.~~ The purpose of this updated prepared direct testimony is to present both SDG&E's 2019-
14 2020 costs and revenues ~~as well as SDG&E's WAC calculation~~, in accordance with applicable
15 decisions. The following sections describe the cap-and-trade program and details SDG&E's
16 2019 actual revenues and final estimated costs as well as estimates for SDG&E's 2020 revenues
17 and costs. These costs ~~and revenues~~ are used in the calculations of SDG&E's gas and electric

¹ The 2018 volumes and costs became final in September 2019 and were reported as part of SDG&E's Updated 2020 ERRA Forecast Filing (Application ("A.") 19-04-010); thus the 2018 volumes and costs were not reported in ~~my the~~ April 2020 testimony nor in this testimony. The 2019 ~~estimated~~ emissions and costs became final in September 2020. ~~reported in this testimony are subject to change due to emission verification for all of 202019. Additionally,~~ In, t This updated testimony, I does not includes 20210 emissions, costs and revenues since only January and February estimates are available at this time. ~~In my the~~ November 2020 update of this testimony, I will include ~~estimated~~ costs and revenues for January through September of 2020 and forecasts for October – December 2020, all of which are subject to change when ~~actualized and/or~~ verified.

² The 2019 revenues are now final. 2020 revenues for January-October-September are final, however the 2020 revenue total is subject to the outcome of the November 2020 auction. ~~emissions and costs are subject to change due to emission verification which will become final in August-September-2020. 2019 revenues, however, are now final.~~

1 ~~Weighted Average Cost (“WAC”) and in customer rates, further adjusted to recorded numbers~~
2 ~~for the purposes of reconciliation~~ as further explained in the testimony of SDG&E witnesses Ms.
3 ~~MillerChihware~~ and Ms. Fuhrer.³

5 II. BACKGROUND

6 A. AB 32 Background

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

12 In October 2011, ARB released its Final Regulation Order, which was approved by its
13 Board and by the Office of Administrative Law (“OAL”) in December 2011.⁶ The ARB
14 regulations create a GHG emissions allowance cap-and-trade system, with compliance obligations
15 in the electricity sector applicable to “first deliverers of electricity”⁷ that emit more than 25,000
16 Metric Tons (“MT”) of GHG. The regulation requires that first deliverers of electricity, including
17 investor-owned utilities (“IOUs”) such as SDG&E, obtain all the compliance instruments required

³ SDG&E witness Mr. Covic provides a forecast of the 2021 GHG costs.

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 to meet their compliance obligations by November 1 of the year following the end of a compliance
2 period. Compliance instruments consist of allowances and offsets. An allowance is a limited,
3 tradable authorization to emit up to one MT of carbon dioxide equivalent (“CO2e”) and an offset is
4 a project that reduces GHG in sectors outside of those covered in the cap-and-trade program.⁸
5 Section 95892(b) of ARB’s Final Regulation Order establishes that IOUs are required to sell all
6 their free allowances and acquire an amount equal to their direct compliance obligations. There
7 are also annual requirements to surrender at least 30% of expected annual obligations each year by
8 November 1 of the following year.

9 **B. GHG ~~Actual Revenues~~**

10 The revenues discussed in my testimony result from the sale of allowances allocated to
11 SDG&E by ARB for the benefit of its ratepayers. ARB requires that the allowances that are
12 allocated annually to the IOUs be made available for sale at the ARB auctions. Allowances given
13 to the IOUs must all be consigned by the last auction of that year. Except for the November 2012
14 auction, where ARB specified the amount that each IOU needed to auction, all other amounts
15 consigned at auctions are up to the discretion of each IOU, provided the entire annual volume is
16 consigned by the end of each year. Revenues are calculated by multiplying the volume sold by the
17 auction settlement price. The revenues presented in this testimony consist of allowances sold in
18 the 2019 auctions and the 2020 auctions that occurred in February, May and; August , auctions
19 with and an estimate for the 2020 and November auctions.

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

1 **C. GHG ~~Actuals and Estimated~~ Emission Volumes**

2 The 2019-~~2020~~ direct emissions will be the ~~estimated~~~~actual~~~~verified~~/calculated GHG
3 emissions for: (1) SDG&E’s California utility-owned generation (“UOG”), (2) California
4 generators with whom SDG&E has contracts where SDG&E is responsible for GHG costs, (3)
5 estimated emissions associated with SDG&E imports of both specified electricity and unspecified
6 electricity, and ~~potentially~~ (4) Renewable Portfolio Standard adjustment (“RPS Adjustment”). The
7 RPS Adjustment, which is an optional provision of the Cap-and-Trade regulation that reduces a
8 compliance entity’s direct compliance obligation, is calculated by multiplying the out-of-state
9 renewable megawatt-hours (“MWh”) eligible for RPS adjustment by the ARB assigned
10 unspecified emission factor. The 20~~2019~~ direct volumes may change because they are subject to:
11 (1) emission estimates and emission reporting verification, (2) changing emission factors, and (3)
12 contractual requirements for reviewing tolling agreement emissions for potential reductions. If
13 there are such changes, they will be reflected in future testimony.

14 The 2019-~~2020~~ indirect emissions are estimated emissions based on net purchases from the
15 California electricity market controlled by the California Independent System Operator
16 Corporation (“CAISO”) measured in MWh and multiplied by the ARB assigned unspecified
17 emission factor. Indirect emissions are not overseen by ARB. Indirect emissions are comprised of
18 estimated GHG emissions for which SDG&E was exposed because of purchasing power from third
19 parties. The 2019 calculated indirect emissions are included within this updated testimony. The
20 20~~2019~~ indirect emissions within this testimony are those calculated in SDG&E’s 20~~2019~~ ERRA
21 Forecast Application and will be updated in ~~my-the~~ Updated 202~~21~~ ERRA Forecast testimony in
22 November 202~~19~~.

1 **D. GHG Cost Categories**

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

7 Section III below addresses the carbon price for 2019-~~2020~~. Section IV.A addresses direct
8 GHG emissions associated with SDG&E’s UOG plants, procurement of electricity from tolling
9 agreements, electricity imports attributed to SDG&E, and potentially credits from SDG&E’s
10 eligible RPS Adjustment. Section IV.B addresses the approximate 2019-~~2020~~ indirect GHG
11 emissions for which SDG&E paid as GHG costs embedded in electricity prices charged by third
12 parties to SDG&E under contract for various supplies.⁹ Section IV.C summarizes the GHG costs
13 based on the carbon prices in Section III and emissions in Sections IV.A and IV.B.

14 **III. CARBON PRICE METHODOLOGY**

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

16 ~~SDG&E has used and continues to use the WAC of Compliance Instruments by compliance~~
17 ~~period recorded monthly, as described in D.19-04-016 which modified Attachment C of D.14-10-~~
18 ~~033 (subsequently corrected by D.14-10-055 and D.15-01-024) to calculate its direct emissions~~
19 ~~pricing.~~

20 The 2019 ~~Direct GHG Emissions price~~ ~~WAC price shown below~~ is based on the sum of
21 2019 monthly balancing account entries as found in the testimony of SDG&E witness Sheri Miller
22 ~~Attachment A of this testimony~~ and the final 2019 emission volumes as described in section IV.A.

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

1 The 2020 monthly January – September 2020 Direct GHG Emissions price is based on the
2 monthly balancing account entries found in Sheri Miller’s testimony and the January – September
3 2020 emission estimates as described in section IV.A. ~~The WAC Direct GHG Emissions price~~
4 calculations in Attachment A were calculated utilizing the approach detailed in D.19-04-016.
5 Attachment A below includes the calculations recorded in SDG&E’s balancing accounts through
6 December 31, 2019.

7 The Direct GHG Emissions price ~~WAC price~~ is listed in the tables below:

8

Jan-Dec 2019 Direct GHG Emissions Price (\$/MT)	
---	--

9

Jan-Sep 2020 Direct GHG Emissions Price (\$/MT)	
---	--

10 For October-December 2020 SDG&E will use the forecast price from Stefan Covic’s
11 Testimony in SDG&E’s 2020 ERRR Forecast Application of \$18.29.

12

Jan-Dec 2019 WAC (\$/MT)	
--------------------------	--

13 **B. Price for Indirect Emissions**

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

18

2019 CAISO GHG Prices	
Jan-Dec 2019	\$17.28

19

2020 CAISO GHG Prices	
Jan-Sep 2020	\$17.10

20

¹⁰ Annual CAISO prices are a straight average of public daily GHG prices published on CAISO’s OASIS website.

1 **IV. GHG COMPLIANCE EMISSIONS AND COSTS**

2 **A. Direct Greenhouse Gas Emissions**

3 Under ARB’s cap-and-trade program, the “first deliverer of electricity” within California
4 must surrender one allowance or offset credit for each MT of GHG emissions. Accordingly,
5 SDG&E had direct compliance obligations for GHGs emitted from burning natural gas at its UOG
6 plants, namely, the Palomar Energy Center (“Palomar”) and Miramar Energy Facility I and II
7 (collectively, “Miramar”).¹¹ SDG&E’s UOG GHG emission volumes are derived from
8 information extracted from each covered plant’s Continuous Emissions Monitoring Systems
9 (“CEMS”) and that plant’s annual fuel usage. The data is reported to ARB (under the mandatory
10 GHG reporting rule) and undergoes a rigorous quality assurance/quality control (“QA/QC”)
11 process with supporting documentation from the CEMS systems. The data is then subject to third
12 party verification by an ARB-certified verifier. The 2019 UOG emissions ~~will become~~ became
13 final in August 2020. The 2019 final and January – September 2020 estimated UOG emissions are
14 as follows:

15

Jan-Dec 2019 California UOG Plants	Verified Emissions (in MT)
Palomar Energy Center	
Miramar Energy Facilities	
Total	

¹¹ ARB’s Mandatory Reporting Regulation require use of emission factors from federal regulations – title 40, Code of Federal Regulation (“CFR”) Part 98 promulgated by U.S. EPA and published in the Federal Register on October 30, 2009, July 12, 2010, September 22, 2010, October 28, 2010, November 30, 2010, December 17, 2010, and April 25, 2011. For pipeline natural gas, there are three components – CO₂, CH₄, and NO₂. Table C-1 of Subpart C of the CFR Part 98 provides an emissions rate for CO₂ of 0.05302 MT/MMBtu. Table C-2 of Subpart C of the 40 CFR Part 98 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.

Jan-Sep 2020 California UOG Plants	Emissions Estimate (in MT)
Palomar Energy Center	
Miramar Energy Facilities	
Total	

Jan-Dec 2019 California UOG Plants	Emissions Estimate (in MT)
Palomar Energy Center	
Miramar Energy Facilities	
Total	

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. The generators covered by these agreements include, the Otay Mesa Energy Center (“OMEC”)¹², the Orange Grove Energy Center (“Orange Grove”), the Escondido Energy Center (“EEC”), the Pio Pico Energy Center (“Pio Pico”) and the Carlsbad Energy Center (“Carlsbad”), which became operational in 2018.¹³ The estimated emissions for these plants can be calculated by multiplying the MMBtu burned with the emission factor of 0.05307 MT/MMBtu associated with natural gas as the input fuel. These estimates are 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 2019 ~~estimated~~ SDG&E obligations to tolling agreement partners are shown below. ~~SDG&E will be analyzing the 2019 tolling data and could potentially adjust the 2019~~

¹² In October 2019, the OMEC-PPA expired and was replaced by a new capacity-only agreement which shifts the burden of purchasing compliance instruments back to Otay MesaMEC. As such Otay MesaMEC no longer contributes to SDG&E's Cap-and-Trade Obligation portfolio, though it did contribute during 2018-2019. See AL 3476-E.

¹³ Goal Line became eligible to exit the Cap-and-Trade program retroactive to January 1, 2018.

1 ~~estimated emissions for non-SDG&E dispatches, inefficiencies or based on verification. If there~~
 2 ~~are such changes, they will be reflected in future testimony.~~

Jan-Dec 2019 California Tolling Generators	Verified Emissions (in MT)
Otay Mesa Energy Center	
Orange Grove Energy Center	
Escondido Energy Center	
Pio Pico	
Carlsbad Energy Center	
Total	

Jan-Sep 2020 California Tolling Generators	Emissions Estimate (in MT)
Orange Grove Energy Center	
Escondido Energy Center	
Pio Pico	
Carlsbad Energy Center	
Total	

Jan-Dec 2019 California Tolling Generators	Emissions Estimate (in MT)
Otay Mesa Energy Center	
Orange Grove Energy Center	
Escondido Energy Center	
Pio Pico	
Carlsbad Energy Center	
Total	

6 An entity that delivers out-of-state electricity to a delivery point inside California is also
 7 responsible for the GHG emissions associated with generation of that electricity. For known
 8 imports, called “specified sources,” the estimated GHG emissions related to the portion of outputs
 9 of plants that are delivered to California are covered in the cap-and-trade program and as such the
 10 importer of that electricity has a compliance obligation. SDG&E has a contract with Yuma
 11 Cogeneration Associates (“YCA”) in Arizona and owns the Desert Star Energy Center (“Desert
 12 Star”) combined cycle plant in Nevada. These out-of-state generators are specified sources. The

1 compliance obligation for the power imported from each of these sources is calculated by the
 2 product of the imported power times the transmission loss correction factor as listed in section
 3 95111 of ARB’s mandatory reporting regulation, and the specified emissions factor assigned to
 4 those facilities by ARB.¹⁴ As with SDG&E’s other estimated obligations, specified imports are
 5 also subject to change, and those changes will be reflected in future testimony. The 2019
 6 ~~estimated~~ emissions for SDG&E’s specified imports which became final in August 2020, and the
 7 January – September 2020 estimated emissions for SDG&E’s specified imports are as follows:

Jan-Dec 2019 Specified Imports	Verified Specified Imports (in MWh)	Specified Emission Factor	Transmission Loss Factor	Verified Emissions (in MT)
Desert Star		0.411	1.00	
YCA		0.511	1.02	
Total				

Jan-Sep 2020 Specified Imports	Specified Import Estimates	Emission Factor Estimates	Transmission Loss Factor	Emissions Estimate (in MT)
Desert Star		0.411	1.00	
YCA		0.511	1.02	
Total				

Jan-Dec 2019 Specified Imports	Specified Import Estimates	Emission Factor Estimates	Transmission Loss Factor	Emissions Estimate (in MT)
Desert Star		0.423	1.00	
YCA		0.645	1.02	
Total				

11 In addition to specified sources, importing of “unspecified sources” also generates a
 12 compliance obligation. SDG&E procured both contracted imports and market imports from
 13 unspecified sources in 2019 and 2020. The cap-and-trade compliance obligation for these

¹⁴ Specified Emission Factors are updated annually by ARB. See Confluence, *Reporting Form Instructions*, available at:
<http://www.cdsupport.com/confluence/display/calhelp/Reporting+Form+Instructions>.

1 unspecified imports is calculated by multiplying the number of MWh imported, adjusted upward
2 by two percent to account for transmission losses between the point of generation and the
3 California border, by the ARB default rate, as stated in its regulation (currently 0.428 MT/MWh).¹⁵
4 Finally, ARB recognizes that the building of new renewable generation outside California reduces
5 GHG. As such, the cap-and-trade regulations allow for an RPS Adjustment. The RPS Adjustment
6 reduces an entity's GHG compliance burden and is calculated by assigning the default emission
7 rate (currently 0.428 MT/MWh) to the GHG-free renewable energy, as measured at the point of
8 generation. The adjustment does not account for the transmission losses from the point of
9 generation to California,¹⁶ and the cap-and-trade regulations also allow that they be taken in
10 following years. SDG&E successfully claimed the undelivered portion of its potential 2014 RPS
11 Adjustment in 2015. SDG&E ~~has beenis unable was planning~~ to claim undelivered portions of the
12 2015-201~~98~~ contractually purchased renewable energy applicable to the RPS Adjustment provision
13 in recent GHG reports to ARB ~~and SDG&E will not be claiming the RPS Adjustment for 2019 or~~
14 ~~2020~~ However, the data for the 2015-2018 RPS Adjustment was unavailable, thus SDG&E
15 ~~necessarily claimed zero RPS Adjustment for the RPS generated in years 2015-2018.~~¹⁷ If, as

¹⁵ ARB's Mandatory Reporting Regulation, Section 95111(b)(1). See Section 95852(~~be~~)(1)(C) in ARB, *Article 5: California Cap on Greenhouse Gas Emissions and Market-based Compliance Mechanisms* at 11~~86~~, available at: https://ww2.arb.ca.gov/sites/default/files/classic/cc/capandtrade/ct_reg_unofficial.pdf ~~https://ww3.arb.ea.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 ARB's Final Regulation Order for the calculation of the RPS Adjustment. ARB, *Article 5: California Cap on Greenhouse Gas Emissions and Market-based Compliance Mechanisms*, at 11~~75~~, Section 95852(b)(1), available at https://ww2.arb.ca.gov/sites/default/files/classic/cc/capandtrade/ct_reg_unofficial.pdf ~~https://ww3.arb.ea.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 2015-2018 generation years. SDG&E

1 ~~expected~~, the RPS Adjustment data for any prior year(s) becomes available in the future, SDG&E
2 will incorporate that benefit in an upcoming annual ARB Electric Power Entity (“EPE”) report.
3 ~~SDG&E is continuing to request delivered/undelivered volumes and expects to receive 2015-2018~~
4 ~~RPS Adjustment data in 2020 in time to utilize that benefit in the upcoming 2019 EPE Report.~~
5 ~~The estimated 2019 RPS Adjustment claims are shown below.~~ Both the estimated 202019
6 unspecified imports and the RPS Adjustments claimed for 202019 are subject to change and those
7 changes will be reflected in future testimony. The 2019 ~~estimated~~ emissions for SDG&E’s
8 unspecified imports and RPS adjustment claims, which became final in August 2020, and the
9 January – September 2020 estimated emissions for SDG&E’s unspecified imports and RPS
10 adjustment claims are as follows:

continues to have discussions with Morgan Stanley and Open Access Technology International, Inc. (“OATI”) about obtaining this data and ~~may expects to~~ receive it in the future at which point SDG&E can apply the prior RPS Adjustment volumes to the next compliance year’s report.

Jan-Dec 2019 Unspecified Imports & 2018 RPS Adjustment	Verified Unspecified Import (in MWh)	Unspecified Emission Factor	Transmission Loss Factor	Verified Emissions (in MT)
Unspecified Imports		0.428	1.02	
RPS Adjustment		0.428	1.00	
Total				

1

Jan-Sep 2020 Unspecified Imports & 2019 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				

2

Jan-Dec 2019 Unspecified Imports & 2018 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 2019 ~~actual~~ verified and January - September 2020

4

5 estimated direct compliance obligations are:

5

Jan-Dec 2019 Direct Compliance Obligations	Verified Emissions (in MT)
California UOG Plants	
California Tolling Generators	
Specified Imports	
Unspecified Imports	
RPS Adjustment	
Total	

6

Jan-Sep 2020 Direct Compliance Obligations	Emissions Estimate (in MT)	Jan-Dec 2019 Direct Compliance Obligations	Emissions Estimate (in MT)
California UOG Plants		California UOG Plants	
California Tolling Generators		California Tolling	
Specified Imports		Specified Imports	
Unspecified Imports		Unspecified Imports	
RPS Adjustment		RPS Adjustment	
Total		Total	

B. Indirect Greenhouse Gas Emissions

SDG&E, along with all other purchasers of wholesale electricity, is subject 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 2019-2020 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 ~~estimated 2019~~ estimated 2019 and forecasted 2020 MWh and emissions of SDG&E’s indirect purchases are as follows:

2019 Indirect Volumes in MWh and MT	
Total INDIRECTS (MWh)	[REDACTED]
Unspecified Emissions Factor (MT/MWh)	0.428
Total INDIRECTS (MT)	[REDACTED]

2019 Forecasted Indirect Volumes in MWh and MT	
Total INDIRECTS (MWh)	[REDACTED]
Unspecified Emissions Factor (MT/MWh)	0.428
Total INDIRECTS (MT)	[REDACTED]

2020 Forecasted Indirect Volumes in MWh and MT	
Total INDIRECTS (MWh)	[REDACTED]
Unspecified Emissions Factor (MT/MWh)	0.428
Total INDIRECTS (MT)	[REDACTED]

C. GHG Costs

Using the prices from Section III above, the 2019 direct GHG costs and 2020 estimated direct costs are as follows:

2019 GHG Direct Costs	Verified Emissions (in MT)	Direct GHG Emissions Price (in \$/MT)	Cost
Jan-Dec 2019	[REDACTED]	[REDACTED]	[REDACTED]
Total	[REDACTED]	[REDACTED]	[REDACTED]

2019 GHG Direct Costs	Verified Emissions (in MT)	Direct GHG Emissions Price (in \$/MT)	Cost
Jan-Dec 2019	[REDACTED]	[REDACTED]	[REDACTED]
Total	[REDACTED]	[REDACTED]	[REDACTED]

2020 GHG Direct Costs	Emissions Estimate (in MT)	Direct GHG Emissions Price (in \$/MT)	Estimated Direct Cost
Jan-Sep 2020 (emissions estimate)	[REDACTED]	[REDACTED]	[REDACTED]
Oct - Dec 2020 (forecasted)	[REDACTED]	[REDACTED]	[REDACTED]
Total	[REDACTED]	[REDACTED]	[REDACTED]

1 Combining indirect volumes and the CAISO GHG allowance price indices,¹⁸ the 2019-

2 2020 estimated GHG indirect costs are as follows:

3

2019 Indirect Volumes & Cost	
Total INDIRECTS (MT)	
CAISO GHG Price (Jan-Dec 2019) (\$/MT)	\$17.28
Total Indirect Cost	

4

2019 Forecasted Indirect Volumes & Cost	
Total INDIRECTS (MT)	
CAISO GHG Price (Jan-Dec 2019) (\$/MT)	\$17.28
Total Indirect Cost	

5

2020 Forecasted Indirect Volumes & Cost	
Total INDIRECTS (MT)	
CAISO GHG Price (Jan-Dec 2020) (\$/MT)	\$17.10
Total Indirect Cost	

6 Thus, the 2019 and 2020 Direct and Indirect ~~estimate~~ blended costs ~~is~~ are ~~\$30.19~~ \$723.072
7 million and \$49.81 million (rounded) respectively.

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

9 SDG&E received 6, ~~186,937~~ 288,321 MT of vintage 2019 allowances to sell at 2019
10 auctions and 6,143,947 MT of vintage 2020 allowances to sell at 2020 auctions. SDG&E's annual
11 allocated allowances are required to be consigned at that year's quarterly auctions; however,
12 SDG&E has full discretion on how to distribute its allowances across the four quarterly auctions.
13 The tables below show the volumes sold at each 2019 auction and at the first three 2020 auctions,
14 with an estimate for the last 2020 auction along with associated revenues.

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

1

2019 GHG Revenues			
Auction	Settlement Price (\$/MT)	Sold Volume (MT)	Revenue
Feb-19	\$15.73		
May-19	\$17.45		
Aug-19	\$17.16		
Nov-19	\$17.00		
Total	\$16.83	6,186,937	\$104,156,909

2020 GHG Revenues Jan - Sep 2020			
Auction	Settlement Price (\$/MT)	Sold Volume (MT)	Revenue
Feb-20	\$17.87		
May-20	\$16.68		
Aug-20	\$16.68		
Nov-20	\$0.00		
Total	\$17.08		

2020 Estimated GHG Revenues Oct - Dec 2020			
Auction	ICE Price (\$/MT)	Consign Volume (MT)	Revenue
2020 Balance	\$18.29		
Total	\$18.29		

2

2020 Estimated GHG Revenues			
Total		6,143,947	\$106,782,171

3

2019 GHG Revenues			
Auction	Settlement Price (\$/MT)	Sold Volume (MT)	Revenue
Feb-19	\$15.73		
May-19	\$17.45		
Aug-19	\$17.16		
Nov-19	\$17.00		
Total	\$16.83		

4

This concludes my updated prepared direct testimony.

5

1 **VI. QUALIFICATIONS**

2 My name is Scott D. Lewis. My business address is 8315 Century Park Court, San Diego,
3 CA 92123. I am employed by San Diego Gas & Electric as the Electric & Fuels Trading Manager
4 in 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 electricity and natural gas that serves SDG&E's electric portfolio. I assumed my current position
7 in August 2014.

8 I have been employed by SDG&E in numerous positions including Senior Electric Fuels
9 Trader, Electricity Trader, Electricity Pre-scheduler, and Electric Real Time Operations. I have
10 been responsible for natural gas scheduling and trading, electricity scheduling and trading,
11 outage management and demand forecasting.

12 I hold a Bachelor's degree in Business Administration with an emphasis in Finance from
13 California State University, Chico. ~~Ana Garza Beutz. My business address is 8315 Century Park~~
14 Court, San Diego, CA 92123. I am employed by SDG&E as a Principal Energy Administrator in
15 the Electric & Fuel Procurement Department. My responsibilities include managing SDG&E's
16 GHG portfolio, which includes development of GHG procurement and hedging strategies.

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

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

23 I have previously testified before the California Public Utilities Commission.

GLOSSARY

Acronym	Definition
AB	Assembly Bill
ARB	California Air Resources Board
CAISO	California Independent System Operator
CAM	Cost Allocation Mechanism
CARB	California Air Resources Board
CEMS	Continuous Emissions Monitoring System
CO ₂ e	Carbon Dioxide Equivalent
CUYAMACA	Cuyamaca Peak Energy Plant
CYCG	Czamecki-Yester Consulting Group LLC
DESERT STAR	Desert Star Energy Center
EEC	Escondido Energy Center
EECC	Electric Energy Commodity Cost
ENVOY	ENVOY is dashboard-styled web interface for managing natural gas supplies
EPE	Electric Power Entity; The EPE Report contains all import/RPS Adjustment Data submitted to ARB
ERRA	Energy Resource Recovery Account
GHG	Greenhouse Gas
IOU	Investor Owned Utility
MIRAMAR	Miramar Energy Facility I & Miramar Energy Facility II
MIRAMAR I	Miramar Energy Facility I
MIRAMAR II	Miramar Energy Facility II
MT	Metric Ton
MWh	Megawatt hour
OAL	Office of Administrative Law
OMAR	Operational Meter Analysis and Reporting (CAISO Online Metering System)
OMEC	Otay Mesa Energy Center
ORANGE GROVE	Orange Grove Energy Center
PALOMAR	Palomar Energy Center
PPA	Power Purchase Agreement
QA/QC	Quality Assurance/Quality Control
QFs	Qualifying Facilities
RPS	Renewable Portfolio Standard
SDG&E	San Diego Gas & Electric Company
UOG	Utility Owned Generation
WAC	Weighted Average Cost
YCA	Yuma Cogeneration Associates

APPENDIX A

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

I, Elsa Valay-Paz, 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 Miguel Romero, Vice President of Energy Supply. I have reviewed Scott Lewis’s Prepared Direct Testimony (“Testimony”) and Attachment G, the GHG Revenue and Reconciliation Application Form, in support of SDG&E’s “November Update to Application”, related to its Application for approval of its 2021 Electric Procurement Revenue Requirement Forecasts and GHG Related-Forecasts (“Application”), filed November 6, 2020. 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. Lewis’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 6th day of November, 2020, at San Diego.

DocuSigned by:



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Elsa Valay-Paz

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 Emissions Price and Direct GHG Emissions calculations</p> <p><i>(The 2019 and Jan – Sep 2020 Direct GHG Emissions price appears in Scott Lewis’s Testimony. The Jan 2013 - Sep 2020 Direct GHG Emissions 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 2019 and Jan – Sep 2020 Historical UOG Emissions appear in Scott Lewis’s Testimony. The 2013-2019 and Jan - Sep 2020 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 2019 and Jan – Sep 2020 Tolling Agreement Emissions appear in Scott Lewis’s Testimony. The 2013-2019 and Jan - Sep 2020 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 2019 and Jan – Sep 2020 Specified Imported MWh and calculated Emissions appear in Scott Lewis’s Testimony. The 2013-2019 and Jan - Sep 2020 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 2019 and Jan – Sep 2020 Unspecified Imported MWh</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>and calculated Emissions appear in Scott Lewis’s Testimony. The 2013-2019 and Jan - Sep 2020 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 2019 and Jan – Sep 2020 appear in Scott Lewis’s Testimony. The 2013-2019 and Jan - Sep 2020 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 2019 and Jan – Sep 2020 Total Direct Compliance Obligation appears in Scott Lewis’s Testimony. The 2013-2019 and Jan - Sep 2020 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 2019 and 2020 forecasted Indirect Purchase MWhs and calculated Emissions appear in Scott Lewis’s Testimony. The 2013-2019 final and 2020 forecasted Indirect Emission calculations appear in</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>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 2019 and estimated 2020 Direct GHG Costs appear in Scott Lewis's Testimony. The 2013 – 2019 final and 2020 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 2019 and 2020 estimated Indirect GHG Costs appear in Scott Lewis’s Testimony. The 2013 - 2020 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 2019 and Jan – Sep 2020 actual GHG Quarterly Auction Revenues and the forecasted 2020 balance of Quarterly Auction Revenues appear in Scott Lewis’s Testimony. The 2013 - 2019 actual GHG Quarterly Auction Revenues and estimated 2020 GHG Quarterly Auction Revenues</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>

<p><i>appear in Attachment G of this Application.)</i></p>	<p>6254.7 (d), Evidence Code 1060, Civil Code §3426 et seq.</p>	
<p>12. Emissions Intensities</p> <p><i>(The 2013-2019 final and 2020-2021 forecasted Emissions Intensities appears 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>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: “Forecast of GHG Emissions Intensity”</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>