Application No.: 19-05-Exhibit No.:

Witness: <u>Ana Garza-Beutz</u>
Date: May 31, 2019

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

PUBLIC VERSION

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

May 31, 2019



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ACRONYM GLOSSARY

AB	Assembly Bill
ARB	California Air Resources Board
BPP	Bundled Procurement Plan
CAISO	California Independent System Operator
CAM	Cost Allocation Mechanism
CARB	California Air Resources Board
CEMS	Continuous Emissions Monitoring System
CO2e	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
ЕРЕ	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
LTPP	Long-Term Procurement Plan
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
QCR	Quarterly Compliance Report
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

PREPARED DIRECT TESTIMONY OF ANA GARZA-BEUTZ ON BEHALF OF SDG&E

I. INTRODUCTION

This testimony presents San Diego Gas & Electric Company's ("SDG&E") procurement of Greenhouse Gas ("GHG") compliance instruments during the record period of January 1, 2018 through December 31, 2018 for compliance with California's Cap-and-Trade Program and recently issued Decision ("D.") 19-04-016, inclusive of its Attachment C, which requires the submission of Templates C-1 and D-2 with relevant data applicable to the 2018 record period.

By way of background, on May 6, 2019, the California Public Utilities Commission ("Commission") issued Decision ("D.") 19-04-016 which adopted a clarified Attachment C, which sets forth the methodology that each utility must follow to calculate their Weighted Average Cost ("WAC") as well as the manner in which each utility presents and establishes compliance with that methodology. D.19-04-016 approved a Petition for Modification ("PFM") submitted jointly by SDG&E, Pacific Gas and Electric Company ("PG&E") and Southern California Edison Company ("SCE"), and upon the adoption of the PFM and its new Attachment C, the prior Commission decisions, D.14-10-033, as corrected in D.14-10-055 and D.15-01-024, inclusive of their versions of Attachment C, were superseded in their entirety. My testimony follows the newly issued WAC methodology established in D.19-04-016, Attachment C, and it includes Templates C-1 and D-2.

The following sections describe the Cap-and-Trade Program and demonstrate that: (1) SDG&E procured compliance instruments during the record period in a manner consistent with Track III of the Long-Term Procurement Plan ("LTPP") Decision ("D.") 12-04-046 and the related Commission-approved SDG&E 2014 Bundled Procurement Plan ("BPP"), implemented

by SDG&E Advice Letter ("AL") 2850-E; and (2) SDG&E has complied with the directives in D.19-04-016.¹ Based on this showing, SDG&E requests that the Commission find that SDG&E's 2018 GHG product procurement complies with: (1) D.12-04-046 and SDG&E's BPP,

and (2) the methodology and requirements of D.19-04-016.

II. DEVELOPMENT OF CALIFORNIA'S CAP-AND-TRADE PROGRAM

In 2006, Assembly Bill ("AB") 32 became law. The bill requires California to lower GHG emissions to 1990 levels by 2020. To achieve AB 32's goals, the California Air Resource's Board ("CARB") created a scoping plan that included multiple comprehensive actions. One such action was creating California's Cap-and-Trade Program, intended to establish a market-based price for GHG emissions, provide market signals to promote investment in Energy Efficiency ("EE") activities and encourage the use of low emitting electric generation to reduce GHG emissions. The Cap-and-Trade Program covers compliance years 2013 to 2030. The 2013-2020 compliance years are divided into three separate compliance periods:

Compliance Period 1 ("CP1") covers years 2013-2014; Compliance Period 2 covers years 2015-2017; and Compliance Period 3 covers years 2018-2020. Compliance periods for 2021-2030 are

Greenhouse Gas product procurement is addressed in Track III of the Long-Term Procurement Plan Proceeding in D.12-04-046 at 40-59, Findings of Fact 12, 13; Conclusions of Law 8, 9, and Ordering Paragraphs 8-10. Appendix F of SDG&E's Bundled Procurement Plan, which was originally approved in AL 2362-E-A, approved November 14, 2012 and effective October 11, 2012, by Resolution E-4543 and amended in AL 2831-E, approved January 26, 2016 and effective January 1, 2016, and later amended again in AL 2850-E-A, approved March 30, 2016 and effective February 19, 2016, addresses SDG&E's Commission-approved plan of GHG product procurement. Sheets F-12, F-18 and F-24 of SDG&E's BPP were additionally updated with SDG&E's 2018 forecasts and limits in AL 3163-E, approved January 19, 2018 and effective December 15, 2017.

described in the recent Cap-and-Trade regulation.²

CARB has set declining GHG Emissions Caps for each year of the program to provide a trajectory to achieve the State's 2020 and 2030 GHG emissions goals. An Emission Cap equals the amount of California GHG allowances issued by CARB for that year. The program was designed so that allowances can be banked for use in future years. Future vintages, however, cannot be used to satisfy an obligation for a prior year.

Compliance instruments consist of GHG allowances and CARB-verified offsets, the latter of which is a verified reduction of GHG emissions from sectors outside the Cap-and-Trade Program. While one offset is equivalent to one allowance and can be used for compliance, their use is limited. For compliance years 2013 – 2020, no more than 8% of compliance year obligations can be fulfilled with offsets. Compliance years 2021-2025 have a 4% annual limit and years 2026-2030 have a 6% annual offset limit.³

A. Covered Entities

Emitters covered under the Cap-and-Trade Program must procure one Compliance Instrument for every metric ton ("MT") of carbon dioxide equivalent ("CO2e") that they emit. Only entities that exceed emissions thresholds and are in sectors covered by the program are subject to compliance. Entities subject to compliance are called Covered Entities.⁴ Electric generators that exceed 25,000 MTs of emissions in a calendar year and electric imports are

See Section 95840 of the Cap-and-Trade Regulation for further details on Compliance Periods for 2021-2030. California Air Resources Board, Article 5: California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms at 109-110 available at https://www.arb.ca.gov/cc/capandtrade/capandtrade/ct reg unofficial.pdf.

Note that offsets, although calculated annually, do not need to be surrendered until the end of the compliance period. *See id.* at 136.

See Section 95811 of the Cap-and-Trade Regulation for further details on Covered Entities and Thresholds. *Id.* at 64-66.

covered entities. As such, SDG&E must purchase Compliance Instruments for its imported power and for its Utility-Owned Generation ("UOG") plants. Imported power includes generic out-of-state market purchases as well as specified power such as electricity generated from the SDG&E-owned Desert Star Energy Center and from SDG&E contracted generators in the Yuma Cogeneration Association ("YCA"). At the time of SDG&E's updated 2018 GHG forecast within its BPP, SDG&E had two California UOG plants that were Covered Entities in the program: Palomar Energy Center and Miramar Energy Facility⁵. In addition, as a result of contractual agreements pursuant to its Purchased Power Agreements ("PPAs"), SDG&E has procurement obligations for various tolling agreements. For compliance years 2018 – 2021, SDG&E forecasted that it would have compliance obligations for the following tolling agreements: Otay Mesa Energy Center ("OMEC"), Goal Line, Pio Pico Energy Center, Carlsbad Energy Center, Orange Grove Energy and Escondido Energy Center.

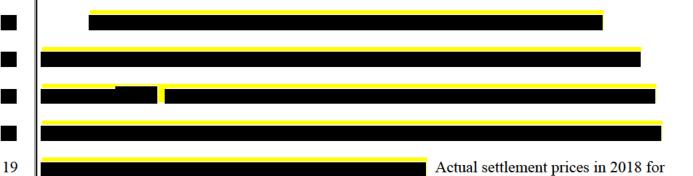
B. LTPP Approved Procurement Methods

The Commission recognized the utilities' need to procure compliance instruments to fulfill requirements with California's Cap-and-Trade Program. As a result, the Commission granted procurement authority of GHG compliance instruments along with limitations on procurement methodologies, vintages and volumetric limits in D.12-04-046 and in SDG&E's BPP. In accordance with SDG&E's BPP, SDG&E is authorized to procure seller-guaranteed

The Cuyamaca Peak Energy Plant which was a Covered Entity in CP1 (2013-2014), was verified to be below the 25,000 MT threshold for 2012-2014, thus making it eligible to be removed as a Covered Entity in the Cap-and-Trade program. The 2018 forecast continued to show Cuyamaca below the threshold.

See AL 3163-E, approved January 19, 2018 and effective December 15, 2017 at Appendices, Sheet F-12, and AL 2850 E-A, approved March 30, 2016 and effective February 19, 2016 at Appendix F, Sheet F-12.

1 offsets through a Request for Offering ("RFO") or via approved broker. SDG&E is also 2 authorized to purchase and sell allowance futures via approved exchanges and allowances from 3 CARB-run quarterly auctions and Price Containment Reserve Sales. For SDG&E's 2018 4 procurement period, the LTPP authorized purchases and sales of Vintages 2013 – 2021. 5 SDG&E's BPP GHG Limit for the 2018 procurement period was 6 III. 2018 GHG COMPLIANCE INSTRUMENT PROCUREMENT 7 SDG&E seeks the Commission's determination in this proceeding that SDG&E's 8 procurement of GHG-related products during 2018 was in compliance with the Commission's 9 approach on GHG procurement, as stated in the Track III Decision of the LTPP Proceeding, 10 D.12-04-046. In that Decision, the Commission issued a procurement limit regarding 11 Compliance Instruments that "provides the utilities broad latitude, particularly giving them the 12 opportunity to forward procure to the degree they believe compliance instrument prices are 13 favorable, or to postpone procurement to when they believe pricing will become more



favorable."8

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⁷ *Id.* at Sheets F-18 and F-19.

⁸ D.12-04-046 at 57.

See AL 3163-E, approved January 19, 2018 and effective December 15, 2017 at Appendices, Sheet F-18 and F-19, and AL 2850 E-A, approved March 30, 2016 and effective February 19, 2016 at Appendix F, Sheets F-18 and F-19.

1 the Vintage 2018 quarterly auctions were \$14.61, \$14.65, \$15.05 and \$15.31. The Vintage 2021 2 quarterly auctions typically settled at slightly lower prices: \$14.53, \$14.53, \$14.90 and \$15.33. 3 SDG&E's procurement activity in 2018 is shown in Appendix A. 4 and sold of Compliance Instruments in the SDG&E purchased 5 which was below SDG&E's limit of 2018 procurement period, net purchases were 6 SDG&E's 2018 Quarterly Compliance Report ("QCR") Attachment Q tables in 7 Appendix A herein show the specific transactions executed in 2018 and the individual costs 8 associated with each transaction. SDG&E's total net cost spent on GHG procurement in 2018 9 was 10 See Appendix A for SDG&E's four 2018 QCR Attachment Q tables. IV. 2018 GHG WAC AND MODIFIED TEMPLATE D-2 11

SDG&E also seeks the Commission's determination in this proceeding that SDG&E has met the requirements of D.19-04-016's Revised Attachment C which states: "a utility's annual demonstration of compliance with the WAC methodology set forth in this Attachment is met by providing portions of Template D-2 as noted above and a completed Template C-1, consistent with the methodology provided in this Attachment C."10

SDG&E's 2018 WAC of Compliance Instruments and SDG&E's modified Template D-2 are both presented in Appendix B and Appendix C of this testimony, respectively.

V. CONCLUSION

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SDG&E's procurement activity was consistent with the approach prescribed by the Commission in D.12-04-046, D.15-10-031 and SDG&E's BPP in Advice Letter 2850-E-A and AL 3163-E, discussed above, for procuring GHG compliance instruments. SDG&E's showing

D.19-04-016 at Attachment A, C-16.

of its 2018 WAC and modified Template D-2, also discussed above, is demonstrated herein as required by D.19-04-016's Revised Attachment C. Therefore, SDG&E requests that the Commission find that SDG&E complied with D.12-04-046, D.15-10-031, Commission-approved AL 2850-E-A and AL 3163-E, and D.19-04-016 based on the testimony provided herein for the record period January 1, 2018 through December 31, 2018.

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VI. QUALIFICATIONS

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

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

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

I have previously testified before the Commission on GHG issues.

APPENDIX A QCR ATTACHMENT Q – GHG DEALS – Q1 2018

(CONFIDENTIAL)

APPENDIX A

QCR Attachment Q - GHG DEALS - Q1 2018

QUIL.	Ittucinii	· 2 ·	JIIG DEALE	<u> </u>	10										
Deal Number	Initiatio n Date*	Trans fer Date*	Counter Party	Purchas e or Sale	Total Volume (MT)	Average Price (\$/MT)	Notional Value (\$)	Vintage **	Product Type	Method of Transactio n	Affiliat e	Comments	Offset Project Type **	Offs e t Lo c a t i o n **	Complianc e Period Eligibility

^{*} Initiation Date refers to the date that SDG&E committed to the purchase/sale. The Transfer Date refers to the date SDG&E received/delivered the allowances/offsets. For Auctions, Initiation Day is the Auction Date and Transfer Date is when SDG&E received the allowances.

Compliance Periods are as follows: CP1 is 2013-2014; CP2 is 2015-2017; CP3 is 2018-2020; CP4 is either 2021-2022 or 2021-2023 (depending on US EPA Clean Power Plan outcome).

For Offsets and Bilateral transactions, Initiation Date is the date the confirm was signed or formal agreement was made and Transfer date is when SDG&E received/delivered the compliance instruments.

^{**} Vintage, Offset Project Type and Offset Location are typically unknown at the time of transaction.

^{***} This column was added after the Q1 2018 QCR was filed.

QCR Attachment Q - GHG DEALS - Q2 2018

Deal Number	Initiatio n Date*	Trans fer Date*	Counter Party	Purchas e or Sale	Total Volume (MT)	Average Price (\$/MT)	Notional Value (\$)	Vintage **	Product Type	Method of Transactio n	Affiliat e	Comments	Offset Project Type **	Offs et Lo c atio n	Complianc e Period Eligibility ***

^{*} Initiation Date refers to the date that SDG&E committed to the purchase/sale. The Transfer Date refers to the date SDG&E received/delivered the allowances/offsets. For Auctions, Initiation Day is the Auction Date and Transfer Date is when SDG&E received the allowances.

For Offsets and Bilateral transactions, Initiation Date is the date the confirm was signed or formal agreement was made and Transfer date is when SDG&E received/delivered the compliance instruments.

^{**} Vintage, Offset Project Type and Offset Location are typically unknown at the time of transaction.

^{***} Compliance Periods are as follows: CP1 is 2013-2014; CP2 is 2015-2017; CP3 is 2018-2020; CP4 is either 2021-2022 or 2021-2023 (depending on US EPA Clean Power Plan outcome).

QCR Attachment Q - GHG DEALS - Q3 2018 (Inadvertently included last transaction in this Q3 Attachment when it was transacted in Q4; Also apprears in Q4)

Deal Number	Initiatio n Date*	Trans fer Date*	Counter Party	Purchas e or Sale	Total Volume (MT)	Average Price (\$/MT)	Notional Value (\$)	Vintage	Product Type	Method of Transactio n	A ffilia t e	Comments	Offset Project Type **	Offs e t Lo c a t i o n	Complianc e Period Eligibility ***

^{*} Initiation Date refers to the date that SDG&E committed to the purchase/sale. The Transfer Date refers to the date SDG&E received/delivered the allowances/offsets. For Auctions, Initiation Day is the Auction Date and Transfer Date is when SDG&E received the allowances.

For Offsets and Bilateral transactions, Initiation Date is the date the confirm was signed or formal agreement was made and Transfer date is when SDG&E received/delivered the compliance instruments.

^{**} Vintage, Offset Project Type and Offset Location are typically unknown at the time of transaction.

^{***} Compliance Periods are as follows: CP1 is 2013-2014; CP2 is 2015-2017; CP3 is 2018-2020; CP4 is either 2021-2022 or 2021-2023 (depending on US EPA Clean Power Plan outcome).

QCR Attachment Q - GHG DEALS - Q4 2018 (Note that the first deal was also inadvertently included in the Q3 Attachment)

Deal Number	Initiatio n Date*	Transfer Date*	Counter Party	Purchas e or Sale	Total Volume (MT)	Average Price (\$/MT)	Notional Value (\$)	Vintage **	Product Type	Method of Transactio	Affiliat e	Comments	Offset Project Type **	Offs e t Location **	Complianc e Period Eligibility

 $^{*\} Initiation\ Date\ refers\ to\ the\ date\ that\ SDG\&E\ committed\ to\ the\ purchase/sale.\ The\ Transfer\ Date\ refers\ to\ the\ date\ SDG\&E\ received/delivered\ the\ allowances/offsets.$

For Auctions, Initiation Day is the Auction Date and Transfer Date is when SDG&E received the allowances.

For Offsets and Bilateral transactions, Initiation Date is the date the confirm was signed or formal agreement was made and Transfer date is when SDG&E received/delivered the compliance instruments.

^{**} Vintage, Offset Project Type and Offset Location are typically unknown at the time of transaction.

^{***} Compliance Periods are as follows: CP1 is 2013-2014; CP2 is 2015-2017; CP3 is 2018-2020; CP4 is either 2021-2022 or 2021-2023 (depending on US EPA Clean Power Plan outcome).

APPENDIX B

SDG&E'S MONTHLY WAC CALCULATION

(CONFIDENTIAL)

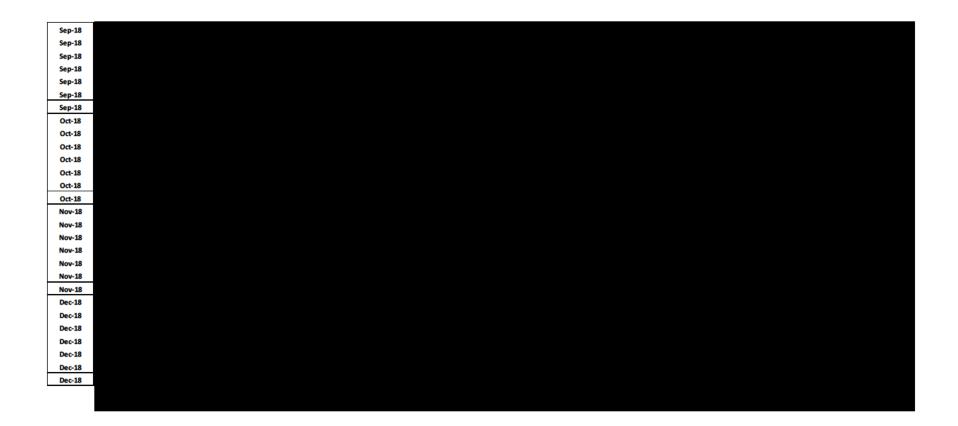
APPENDIX B

SDG&E's Monthly WAC Calculation

(Calculation date of January 3, 2019)

Month			Transaction	/Activity Deta	ils			Inventory Quan	ntity and \$	WAC Pricing (\$/MT)	Direct G	HG Costs	True-Ups	Monthly BA Entry
Month	Transaction Date	Transaction Type	Quantity Pur/(Sales) (MT)	Purchase \$ (\$/MT)	Sales \$ (\$/MT)	Total Cost (\$)	Total Sales (\$)	Inventory Balance (\$)	Total Qty in Inventory (MT)	WAC (\$/MT)	Direct Monthly Emissions (MT)	WAC x Direct Emissions Qty (\$)	True-Up Value +/- (\$)	Monthly Balancing Account Entries (\$)
Jan-18														
Jan-18														
Jan-18														
Jan-18														
Jan-18														
Jan-18														
Jan-18														
Jan-18														
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APPENDIX C

SDG&E'S MODIFIED TEMPLATE D-2

(CONFIDENTIAL)

APPENDIX C

SDG&E's Modified Template D-2

(Calculation date of January 3, 2019)

		2017	2018
Line	Description	Recorded	Recorded (Estimate)
1	Direct GHG Emissions (MTCO2e)		
2	Utility Owned Generation (UOG)		
3	Tolling Agreements		
4	Energy Imports (Specified)		
5	Energy imports (Unspecified)		
6	RPS Adjustment		
6.5	2013 Under-Reported True-Up (Section 95858 of C&T Regulation) ¹	(75.877)	
7	Qualifying Facility (QF) Contracts		
	Contract with Financial Settlement		
8	Subtotal		
15	GHG Costs (\$)		
16	Direct GHG Costs ²		
16.5	Direct GHG Costs True-Up for WAC approach ³		
17	Direct GHG Costs - Financial Settlement		

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

DECLARATION OF RYAN A. MILLER REGARDING CONFIDENTIALITY OF CERTAIN DATA/DOCUMENTS PURSUANT TO D.16-08-24, et al.

- I, Ryan A. Miller, do declare as follows:
- 1. I am the Manager- 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 Kendall K. Helm, Vice President of Energy Supply. I have reviewed Ana Garza-Beutz's Prepared Direct Testimony ("Testimony") in support of SDG&E's May 31, 2019 "Application ... for Approval of ERRA Compliance of Record Period 2018" ("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 Ms. Garza-Beutz's Testimony is within the scope of data protected as confidential under applicable law.
- 3. In accordance with the legal citations and narrative justification described in Attachments A and B, 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 31st day of May 2019, at San Diego.

/s/ Ryan A. Miller

Ryan A. Miller Manager – Energy Supply & Dispatch

ATTACHMENT A

SDG&E Request for Confidentiality on the following information contained in Ana Garza-Beutz's Testimony in support of SDG&E's Application

	ocation of	Legal Citations	Narrative Justification
In	formation ABG-5, lines 5 and 16; ABG-6, line 6 (SDG&E's 2018 volumetric limit)	D.08-04-023 D.14-10-033, D.16-08-024, D.17-05-035, D.17-09-023, Public Utilities Code Section 454.5(g) General Order ("GO") 66-D 17 CCR § 95914(c) (the "ARB Confidentiality Regulations") The GHG Confidential Information Matrix in Attachment A of D.14-10-033 and revised in D.15-01-024 1dii. of Attachment A makes the following confidential: CPUC-approved procurement limits for compliance exposure and financial exposure Gov't Code §§6254(k),	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. Among other things, 17 CCR Section 95914(c)(1) of the Capand-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. 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. 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." 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.
		6254.7 (d), Evidence Code 1060, Civil Code §3426 et seq.	
2.	ABG-5, lines 15-19	D.08-04-023 D.14-10-033, D.16-08-024, D.17-05-035, D.17-09-023,	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.

(SDG&E's 2018 auction procurement strategy)	Public Utilities Code Section 454.5(g) General Order ("GO") 66-D 17 CCR § 95914(c) (the "ARB Confidentiality Regulations") The GHG Confidential Information Matrix in Attachment A of D.14-10- 033 and revised in D.15-01- 024 1a of Attachment A makes the following confidential: Utility AB 32 GHG auction participation, including but not limited to Auction bidding strategy Gov't Code §§6254(k), 6254.7 (d), Evidence Code 1060, Civil Code §3426 et seq.	Among other things, 17 CCR Section 95914(c)(1) of the Capand-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. 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. 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." 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.
3. AGB-6, lines 4, 5, and 9 (SDG&E's 2018 Direct GHG procurement: volumes and cost)	D.08-04-023 D.14-10-033, D.16-08-024, D.17-05-035, D.17-09-023, Public Utilities Code Section 454.5(g) General Order ("GO") 66-D 17 CCR § 95914(c) (the "ARB Confidentiality Regulations") The GHG Confidential Information Matrix in Attachment A of D.14-10-033 and revised in D.15-01-024	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. Among other things, 17 CCR Section 95914(c)(1) of the Capand-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. 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. 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."

	1b of Attachment A makes the following confidential: Utility GHG compliance instrument inventories or quantities that can be used to derive GHG compliance instrument holdings Gov't Code §§6254(k), 6254.7 (d), Evidence Code 1060, Civil Code §3426 et seq.	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.
4. Tables on AGB-A-1, AGB-A-2, AGB-A-3, and AGB-A-4 (SDG&E's 2018 Direct GHG procurement: volumes, prices and costs appear in Appendix A of Ana Garza-Beutz's Testimony)	D.08-04-023 D.14-10-033, D.16-08-024, D.17-05-035, D.17-09-023, Public Utilities Code Section 454.5(g) General Order ("GO") 66-D 17 CCR § 95914(c) (the "ARB Confidentiality Regulations") The GHG Confidential Information Matrix in Attachment A of D.14-10-033 and revised in D.15-01-024 1b of Attachment A makes the following confidential: Utility GHG compliance instrument inventories or quantities that can be used to derive GHG compliance instrument holdings 1c of Attachment A makes the following confidential: Negotiated contract terms of non-public contract terms of Utility AB32 GHG transactions	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. Among other things, 17 CCR Section 95914(c)(1) of the Capand-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. 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. 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." 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.

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5.	SDG&E 2018	Gov't Code §§6254(k), 6254.7 (d), Evidence Code 1060, Civil Code §3426 et seq.	The Protected Information is entitled to confidential treatment
	WAC prices and WAC calculations on AGB-B-1 – B-3 (The 2018 WAC calculations appear in Appendix B of Ana Garza-Beutz's Testimony)	D.14-10-033, D.16-08-024, D.17-05-035, D.17-09-023, Public Utilities Code Section 454.5(g) General Order ("GO") 66-D 17 CCR § 95914(c) (the "ARB Confidentiality Regulations") The GHG Confidential Information Matrix in Attachment A of D.14-10-033 and revised in D.15-01-024 The Matrix makes the following confidential: "Weighted Average Cost (WAC) of compliance instruments, and the calculation of WAC" Gov't Code §§6254(k), 6254.7 (d), Evidence Code 1060, Civil Code §3426 et seq.	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. Among other things, 17 CCR Section 95914(c)(1) of the Capand-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. 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. 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." 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.
6.	Historical/Reco rded UOG Emissions in Template D-2 on AGB-C-1	D.08-04-023 D.14-10-033, D.16-08-024, D.17-05-035, D.17-09-023, Public Utilities Code Section 454.5(g) General Order ("GO") 66-D 17 CCR § 95914(c) (the "ARB Confidentiality	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. Among other things, 17 CCR Section 95914(c)(1) of the Capand-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. In addition, Attachments A, C & D of D.15-01-024 and Appendices A & B of D.15, 10,032 require Auction related.
		Regulations")	Appendices A & B of D.15-10-032 require Auction-related information, forecasts of emissions intensity, forecasts of

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	(The 2017-2018 Recorded UOG Emissions appear in Appendix C of Ana Garza- Beutz's Testimony.)	Annual GHG Emissions and Associated Costs in Template D-2 of D.14-10-033 and revised in D.15-01-024 Template D-2 designates forecasted and recorded UOG emissions as confidential Gov't Code §§6254(k), 6254.7 (d), Evidence Code 1060, Civil Code §3426 et seq.	greenhouse gas (GHG) costs, GHG transactions, compliance instrument prices, weight average cost ("WAC") and other GHG information to be kept confidential. 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." 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.
7.	Historical/Reco	D.08-04-023	The Protected Information is entitled to confidential treatment
/.	rded California Tolling Agreement Emissions in Template D-2 on AGB-C-1	D.14-10-033, D.16-08-024, D.17-05-035, D.17-09-023, Public Utilities Code Section 454.5(g) General Order ("GO") 66-D 17 CCR § 95914(c) (the	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. Among other things, 17 CCR Section 95914(c)(1) of the Capand-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.
	(The 2017-2018 Historical Tolling Agreement Emissions appear in Appendix C of Ana Garza- Beutz's Testimony.)	"ARB Confidentiality Regulations") Annual GHG Emissions and Associated Costs in Template D-2 of D.14-10- 033 and revised in D.15-01- 024 Template D-2 designates forecasted and recorded Tolling Agreements emissions as confidential	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. 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." Disclosure of this information would place SDG&E at an unfair business disadvantage relative to other Cap-and-Trade market.
		Gov't Code §§6254(k), 6254.7 (d), Evidence Code 1060, Civil Code §3426 et seq.	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.
8.	Historical/Rec orded Specified Imported, calculated Emissions in	D.08-04-023 D.14-10-033, D.16-08-024, D.17-05-035, D.17-09-023, Public Utilities Code Section 454.5(g)	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. Among other things, 17 CCR Section 95914(c)(1) of the Cap-
			and-Trade regulations prohibits disclosure of any auction-

	Template D-2	General Order ("GO") 66-D	related information. Violation of Section 95914 may subject
	on AGB-C-1	, , ,	SDG&E to penalties by the California Air Resources Board.
		17 CCR § 95914(c) (the	
		"ARB Confidentiality	In addition, Attachments A, C & D of D.15-01-024 and
		Regulations")	Appendices A & B of D.15-10-032 require Auction-related
		regulations)	information, forecasts of emissions intensity, forecasts of
			greenhouse gas (GHG) costs, GHG transactions, compliance
		Annual GHG Emissions and	instrument prices, weight average cost ("WAC") and other
		Associated Costs in	GHG information to be kept confidential.
		Template D-2 of D.14-10-	
		033 and revised in D.15-01-	Additionally, the Protected Information also includes trade
		024	secret information because SDG&E's bidding/consignment strategies contain "commercial value," which gives SDG&E "an
		T 1 . D 2 1	opportunity to obtain a business advantage over competitors
	(m) 001=0010	Template D-2 designates	who do not know or use it."
	(The 2017-2018	forecasted and recorded	who do not know of use it.
	Historical	Energy Imports (Specified)	Disclosure of this information would place SDG&E at an unfair
	Specified	emissions as confidential.	business disadvantage relative to other Cap-and-Trade market
	Imported, calculated	Knowledge of the MWh	participants and result in higher Cap-and-Trade compliance
	Emissions appear	makes discovery of the	costs for SDG&E and its end-use ratepayers.
	in Appendix C of	emissions possible, thus the	• •
	Ana Garza-	MWh are also confidential.	
	Beutz's		
	Testimony.)	Gov't Code §§6254(k),	
	•	6254.7 (d), Evidence	
		Code 1060, Civil	
		Code §3426 et seq.	
9.	Historical/Rec	D.08-04-023	The Protected Information is entitled to confidential treatment
	orded		under applicable law, including, but not limited to, the legal
	Unspecified	D.14-10-033, D.16-08-024,	authority cited herein. The information does not expressly fall
	Imported,	D.17-05-035, D.17-09-023,	within any category of the IOU Matrix applicable to electric
	calculated	Public Utilities Code	procurement information but is market-sensitive information.
	Emissions in	Section 454.5(g)	Among other things, 17 CCR Section 95914(c)(1) of the Cap-
			and-Trade regulations prohibits disclosure of any auction-
	Template D-2 on AGB-C-1	General Order ("GO") 66-D	related information. Violation of Section 95914 may subject
	on AGD-C-1		SDG&E to penalties by the California Air Resources Board.
		17 CCR § 95914(c) (the	
		"ARB Confidentiality	In addition, Attachments A, C & D of D.15-01-024 and
		Regulations")	Appendices A & B of D.15-10-032 require Auction-related
			information, forecasts of emissions intensity, forecasts of
		Annual GHG Emissions and	greenhouse gas (GHG) costs, GHG transactions, compliance
		Associated Costs in	instrument prices, weight average cost ("WAC") and other GHG information to be kept confidential.
			orto information to be kept confidential.
		Template D-2 of D.14-10- 033 and revised in D.15-01-	Additionally, the Protected Information also includes trade
	(The 2017 2010		secret information because SDG&E's bidding/consignment
	(The 2017-2018 Recorded	024	strategies contain "commercial value," which gives SDG&E "an
	Unspecified	Template D-2 designates	opportunity to obtain a business advantage over competitors
	Imported	forecasted and recorded	who do not know or use it."
	Emissions appear	Energy Imports (Unspecified)	
	in Appendix C of	emissions as confidential.	Disclosure of this information would place SDG&E at an unfair
	Ana Garza-	Knowledge of the MWh	business disadvantage relative to other Cap-and-Trade market
	Beutz's	-	participants and result in higher Cap-and-Trade compliance
	Testimony.)		costs for SDG&E and its end-use ratepayers.

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	makes discovery of the	
	emissions possible, thus the	
	MWh are also confidential.	
	Gov't Code §§6254(k),	
	6254.7 (d), Evidence	
	Code 1060, Civil	
	Code §3426 et seq.	
10. Historical RPS	D.08-04-023	The Protected Information is entitled to confidential treatment
Adjustment	D.00-04-023	under applicable law, including, but not limited to, the legal
•	D 14 10 022 D 16 09 024	authority cited herein. The information does not expressly fall
eligible	D.14-10-033, D.16-08-024,	within any category of the IOU Matrix applicable to electric
calculated	D.17-05-035, D.17-09-023,	procurement information but is market-sensitive information.
Emissions in	Public Utilities Code	F
Template D-2	Section 454.5(g)	Among other things, 17 CCR Section 95914(c)(1) of the Cap-
on AGB-C-1		and-Trade regulations prohibits disclosure of any auction-
	General Order ("GO") 66-D	related information. Violation of Section 95914 may subject
		SDG&E to penalties by the California Air Resources Board.
	17 CCR § 95914(c) (the	•
	"ARB Confidentiality	In addition, Attachments A, C & D of D.15-01-024 and
	Regulations")	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
	Annual GHG Emissions and	instrument prices, weight average cost ("WAC") and other
	Associated Costs in	GHG information to be kept confidential.
	Template D-2 of D.14-10-	
(The 2017-2018	033 and revised in D.15-01-	Additionally, the Protected Information also includes trade
Historical RPS	024	secret information because SDG&E's bidding/consignment
Adjustment	T1-4- D 2 4	strategies contain "commercial value," which gives SDG&E "an
calculated	Template D-2 designates	opportunity to obtain a business advantage over competitors
Emissions appear	forecasted and recorded	who do not know or use it."
in Appendix C of	Energy Imports (Unspecified)	Disalance of this information would also CDC 0.E at an unfair
Ana Garza-	emissions, which includes	Disclosure of this information would place SDG&E at an unfair business disadvantage relative to other Cap-and-Trade market
Beutz's	any applicable RPS	participants and result in higher Cap-and-Trade compliance
Testimony.)	Adjustments as confidential.	costs for SDG&E and its end-use ratepayers.
• /	Knowledge of the MWh	costs for SDO&L and its end-use fatepayers.
	makes discovery of the	
	emissions possible, thus the	
	MWh are also confidential.	
	Gov't Code §§6254(k),	
	6254.7 (d), Evidence	
	Code 1060, Civil	
	Code §3426 et seq.	
11. Total Direct	D.08-04-023	The Protected Information is entitled to confidential treatment
	D.00-04-023	under applicable law, including, but not limited to, the legal
Compliance	D 14 10 022 D 16 09 024	authority cited herein. The information does not expressly fall
Obligation in	D.14-10-033, D.16-08-024,	within any category of the IOU Matrix applicable to electric
Template D-2	D.17-05-035, D.17-09-023,	procurement information but is market-sensitive information.
on AGB-C-1	Public Utilities Code	
	Section 454.5(g)	Among other things, 17 CCR Section 95914(c)(1) of the Cap-
		and-Trade regulations prohibits disclosure of any auction-
(The 2017-2018	General Order ("GO") 66-D	
Total Direct		

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Compliance		related information. Violation of Section 95914 may subject
Obligation appear	17 CCR § 95914(c) (the	SDG&E to penalties by the California Air Resources Board.
in Appendix C of	"ARB Confidentiality	In addition Attachments A. C. & D. of D. 15.01.024 and
Ana Garza- Beutz's	Regulations")	In addition, Attachments A, C & D of D.15-01-024 and Appendices A & B of D.15-10-032 require Auction-related
Testimony.)		information, forecasts of emissions intensity, forecasts of
1 estimony.)	Annual GHG Emissions and	greenhouse gas (GHG) costs, GHG transactions, compliance
	Associated Costs in	instrument prices, weight average cost ("WAC") and other
	Template D-2 of D.14-10-	GHG information to be kept confidential.
	033 and revised in D.15-01-	
	024	Additionally, the Protected Information also includes trade
		secret information because SDG&E's bidding/consignment
	Template D-2 designates	strategies contain "commercial value," which gives SDG&E "an
	forecasted and recorded	opportunity to obtain a business advantage over competitors
	Direct GHG Emissions	who do not know or use it."
	Subtotal as confidential.	Disclosure of this information would place SDG&E at an unfair
		business disadvantage relative to other Cap-and-Trade market
	Gov't Code §§6254(k),	participants and result in higher Cap-and-Trade compliance
	6254.7 (d), Evidence	costs for SDG&E and its end-use ratepayers.
	Code 1060, Civil	
	Code §3426 et seq.	
12. Direct GHG	D.08-04-023	The Protected Information is entitled to confidential treatment
Costs in		under applicable law, including, but not limited to, the legal
Template D-2	D.14-10-033, D.16-08-024,	authority cited herein. The information does not expressly fall
on AGB-C-1	D.17-05-035, D.17-09-023,	within any category of the IOU Matrix applicable to electric procurement information but is market-sensitive information.
	Public Utilities Code	procurement information but is market-sensitive information.
	Section 454.5(g)	Among other things, 17 CCR Section 95914(c)(1) of the Cap-
		and-Trade regulations prohibits disclosure of any auction-
	General Order ("GO") 66-D	related information. Violation of Section 95914 may subject
		SDG&E to penalties by the California Air Resources Board.
	17 CCR § 95914(c) (the	
	"ARB Confidentiality	In addition, Attachments A, C & D of D.15-01-024 and
(777 - 0.17 - 0.10	Regulations")	Appendices A & B of D.15-10-032 require Auction-related
(The 2017-2018		information, forecasts of emissions intensity, forecasts of greenhouse gas (GHG) costs, GHG transactions, compliance
Direct GHG	Annual GHG Emissions and	instrument prices, weight average cost ("WAC") and other
Costs appear in Appendix C of	Associated Costs in	GHG information to be kept confidential.
Appendix C of Ana Garza-	Template D-2 of D.14-10-	r
Beutz's	033 and revised in D.15-01-	Additionally, the Protected Information also includes trade
Testimony.)	024	secret information because SDG&E's bidding/consignment
		strategies contain "commercial value," which gives SDG&E "an
	Template D-2 designates	opportunity to obtain a business advantage over competitors
	forecasted and recorded	who do not know or use it."
	Direct GHG Costs as	Disclosure of this information would place SDG&E at an unfair
	confidential.	business disadvantage relative to other Cap-and-Trade market
	C24 C- 1- 88 (25 4 (1-)	participants and result in higher Cap-and-Trade compliance
	Gov't Code §§6254(k),	costs for SDG&E and its end-use ratepayers.
	6254.7 (d), Evidence	1 7
	Code 1060, Civil	
	Code §3426 et seq.	