

Application No.: A.26-05-XXX
Exhibit No.: SDGE-2
Witness: Jimmy Elias

PREPARED DIRECT TESTIMONY OF
JIMMY ELIAS
ON BEHALF OF
SAN DIEGO GAS & ELECTRIC COMPANY

*****REDACTED - PUBLIC VERSION*****

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



May 15, 2026

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TO D.16-08-024, *et al.***

1 contract for 2027; and (4) Qualifying Facilities (“QFs”) under the Public Utility Regulatory
2 Policies Act (“PURPA”) that are under contract for 2027.

3 Section III quantifies the costs associated with the resources described in Section II,
4 along with other electric procurement costs that are recorded in ERRA, such as market
5 purchases, California Independent System Operator (“CAISO”) charges and portfolio hedging
6 costs. These costs are summarized in Attachment A.

7 Section IV provides a forecast of the 2027 SONGS Unit 1 Offsite Spent Fuel Storage
8 Costs associated with SDG&E’s 20% minority ownership interest in SONGS.

9 Section V provides a forecast of the 2027 GHG emissions and associated costs, both
10 direct and indirect, incurred in connection with SDG&E’s compliance with California’s cap-and-
11 invest program. This testimony also provides a forecast of GHG allowance auction revenues.

12 Section VI provides a forecast of the 2027 TMNBC costs.

13 Section VII provides a summary of SDG&E’s meet-and-confer activities with
14 Community Choice Aggregators in SDG&E’s service territory.

15 Finally, this testimony refers to the following attachments:

16 Attachment A: SDG&E 2027 ERRA and LG Expenses (CONFIDENTIAL)

17 Attachment B: SDG&E 2027 Generation Portfolio Delivery Volumes (CONFIDENTIAL)

18 Attachment C: SDG&E 2027 Renewable Resource Detail

19 Attachment D: SDG&E 2027 CTC Qualifying Facility Detail (CONFIDENTIAL)

20 Attachment E: SDG&E Greenhouse Gas Detail (CONFIDENTIAL)

21 **II. 2027 FORECAST OF ENERGY REQUIREMENTS AND SUPPLY RESOURCES**

22 **A. Energy Requirements Forecast**

23 The sales forecast utilized in this filing was developed internally by SDG&E witness Mr.
24 Simmerman. This forecast includes the projected load departure of Community Choice

1 Aggregators (“CCA”) Clean Energy Alliance (“CEA”), and San Diego Community Power
2 (“SDCP”). Using this forecast and adjusting for direct access load, SDG&E projects that the
3 energy requirements for SDG&E’s bundled load for 2027 will be [REDACTED] gigawatt hours (“GWh”).
4 The 2027 forecast is [REDACTED] GWh or [REDACTED] less than SDG&E’s forecasted bundled energy for 2026
5 ([REDACTED] GWh).

6 **B. Supply Resource Forecast**

7 After determining the amount of energy that SDG&E’s bundled load customers will
8 require in 2027, SDG&E developed a forecast of the supply that will meet that demand. To
9 quantify the generation associated with the supply resources, I used the PLEXOS production cost
10 modeling software. Inputs to this model include the characteristics of the various generation
11 resources, including capacity, heat rate, operating constraints, both fixed and variable Operating
12 and Maintenance (“O&M”) costs, and other factors that impact each plant’s dispatch and
13 generation costs. The natural gas and electric market price forecasts used are from Ascend
14 Analytics’ most recent CAISO market intelligence report. The model simulates a least-cost
15 dispatch of SDG&E’s resource portfolio for every hour of 2027 to serve load. The supply
16 resources fall into the following four categories, each of which is addressed in the next four
17 subsections.

18 **1. SDG&E-Contracted Conventional Generation**

19 SDG&E has multiple conventional generation resources under contract in its 2027
20 resource portfolio. These resources are available under a variety of contractual arrangements,
21 including tolling contracts, fixed energy contracts, and contracts for resource adequacy only.
22 The largest of the tolling and fixed energy contracts are:

- 23 • the Carlsbad Energy Center Power Purchase Agreement (“PPA”) for the
24 output of a 528 MW simple cycle combustion turbine unit;

- the Pio Pico Energy Center PPA for the output of a 336 MW simple cycle combustion turbine unit;
- the Orange Grove PPA for the output of two 48 MW simple cycle combustion turbine units;
- the El Cajon Energy Center PPA for the output of a 48 MW simple cycle combustion turbine unit; and
- the Escondido Energy Center PPA for the output of a 48 MW simple cycle combustion turbine unit.

The forecasted generation for these contracts is detailed in Attachment B and is summarized in Table 1 below

Table 1: Generation (GWh)			
	2027	2026	Difference
El Cajon Energy Center			
Orange Grove			
Escondido Energy Center			
Pio Pico			
Carlsbad Energy Center			
Total			

SDG&E also enters into additional contracts each year to meet its California Public Utilities Commission (“Commission” or “CPUC”) Resource Adequacy (“RA”) requirements.² Under its RA contracts, SDG&E shows this capacity as meeting its RA obligation, but SDG&E does not have rights to the energy or ancillary services from these units. For the 2024 ERRA

¹ Table sums may not total due to rounding.

² California Public Utilities Code Section 380 established the Resource Adequacy program to provide enough resources to the CAISO to ensure the safe and reliable operation of the grid in real time and to provide appropriate incentives for the siting and construction of new resources needed for reliability in the future.

1 Forecast proceeding, SDG&E was directed in Decision (“D.”) 23-12-021 by the CPUC to use
2 2023 average of actual RA sales as a basis for forecasting 2024 sales.³ However, for the 2027
3 forecast, SDG&E is not held to this methodology.⁴ For 2027, SDG&E calculates Modified Cost
4 Allocation Mechanism (“MCAM”) sales separately from non-MCAM sales. Per D.23-12-014,
5 MCAM sales are based on contractual amounts, which were amended per advice letter (“AL”)
6 4516-E in September 2024. For 2027 non-MCAM sales, SDG&E used 12 months of historical
7 sales data to forecast its future volumes. For 2027, SDG&E forecasts average monthly MCAM
8 and non-MCAM sales of [REDACTED] MW and [REDACTED] MW of RA capacity, respectively. Rulemaking
9 (“R.”) 20-05-003⁵ established the cost recovery mechanism for the resources in compliance with
10 D.19-11-016,⁶ while D.21-03-056⁷ establishes the cost recovery mechanism for resources as a
11 result of procurement in R.20-11-003.⁸

12 2. SDG&E-Owned Dispatchable Generation

13 SDG&E owns several generation facilities, which it uses to meet its bundled customer
14 load, including the following:

³ D.23-12-021 at Ordering Paragraph (“OP”) 10.

⁴ *Id.*

⁵ A successor docket to R.16-02-007, this proceeding addressed ongoing oversight of the Integrated Resource Plan (“IRP”) planning process and the procurement necessary to achieve the goals set by the Legislature in Senate Bill (“SB”) 350 and SB 100, as well as by the Commission in R.16-02-007.

⁶ The IRP proceeding, R.16-02-007, issued D.19-11-016, requiring 3,300 MW of procurement by all load-serving entities (“LSEs”) within the CAISO for purposes of long-term statewide planning. The decision required at least 50% of the resources to come online by August 1, 2021, 75% by August 1, 2022, and 100% by August 1, 2023.

⁷ Electric Reliability proceeding directed the investor-owned utilities (“IOUs”) to procure additional resources for the summers of 2021 - 2023; procurement was expanded to include 2024 - 2025 in D.23-06-029.

⁸ During August 2020, the Commission instituted the Emergency Reliability Rulemaking Order as a result of extreme heat storms experienced in California.

- 1 • the Palomar Energy Center (“Palomar”), a 588 MW combined cycle
2 power plant;
- 3 • the Desert Star Energy Center (“Desert Star”), a 485 MW combined cycle
4 power plant;
- 5 • the Miramar Energy Facility (“Miramar I and II”), consisting of two 48
6 MW simple cycle combustion turbine units;
- 7 • the Battery Storage facilities, consisting of El Cajon at 7.5 MW, Top Gun
8 at 30 MW, Fallbrook at 40 MW, Escondido at 30 MW, Melrose at 20
9 MW, Pala-Gomez at 10 MW, Clairemont at 9 MW, Boulevard at 10 MW,
10 Elliott at 10 MW, Paradise at 10 MW, Fallbrook 2 at 29.6 MW, Kearny
11 (“Kearny South and North”), consisting of two 10 MW facilities, Westside
12 Canal at 131 MW, Westside Canal 2 at 100 MW, and Santee at 10 MW;
- 13 • the Cuyamaca Peak Energy Plant, consisting of a 45 MW simple cycle
14 combustion turbine.

15 These units are dispatched by the CAISO for generation and ancillary services (“A/S”)
16 awards based on economic merit.⁹ The forecasted generation for these plants for 2027 is detailed

⁹ SDG&E’s dispatch model considered only generation dispatched for energy and not for A/S because the CAISO co-optimizes market awards between energy and A/S based on the opportunity cost of capacity. Thus, the economic benefit (and ERRRA contribution) of using energy for generation is equivalent to using capacity for A/S.

1 in Attachment B and is summarized in Table 2 below:

Table 2: Generation (GWh)			
	2027	2026	Difference
Palomar			
Desert Star			
Miramar			
Battery Storage			
Cuyamaca			
Total			

3 **3. Renewable Energy Contracts**

4 The 2027 forecast of renewable energy supply from CPUC-approved contracts is 5,906
5 GWh, which includes 563 GWh of Renewable Energy Credit (“REC”) quantities¹⁰ that are
6 delivered to SDG&E in conjunction with existing non-renewable imports. This forecast
7 represents an increase of 432 GWh from the 2026 forecast (5,474GWh). The forecasted
8 generation associated with SDG&E’s monthly renewable contracts is set forth in Attachment C.

9 For 2027, SDG&E forecasts it will receive 1,986 GWh of bundled renewable energy
10 under 52 contracts with facilities that generate electricity using wind, solar, biogas, and non-
11 pumped hydro technologies. This number considers forecasted RPS sales for 2027 in the amount
12 of 3,920 GWh. Forecasted sales represent a reduction of renewable energy credits to maintain an
13 equivalent RPS compliance position considering CCA load departure and voluntary allocations
14 of RPS resources as designated in R.18-07-003.¹¹ These sales volumes are estimates only and do
15 not represent specific current or future agreements with counterparties. The forecasted
16 generation for projects that are currently online and operating is based on recent years’

¹⁰ Renewable Energy Credits represent the green attribute of renewable generation and, while they can be purchased independent of physical delivery of generation from the source, they must accompany a delivery of “tagged” physical power to be imported into California.

¹¹ Based on R.17-06-026 the amount of RPS sales is subject to change.

1 generation, and for those projects that will come online or have recently come online and are
2 expected to continue operations in 2027, are derived from generation profiles based on historical
3 data for similar technologies.¹² The forecasted energy mix from these renewable resources is
4 shown in Table 3 below:

	Table 3: Generation (GWh)		
	2027	2026	Difference
Solar	3,347	2,901	446
Wind	1,771	1,795	(24)
Wind RECs	563	574	(11)
Biogas	222	193	29
Other	4	11	(7)
RPS Sales	(3,920)	(4,577)	657
Total	1,986	897	1,089

4. Competitive Transition Charge (“CTC”) Contracts

8 In 2027, SDG&E will have approximately 2 MW of CTC capacity under contract, with
9 one QF.¹³

10 SDG&E’s CTC contracts include a combination of must-take and dispatchable resources.
11 For must-take resources, SDG&E is obligated to pay the contract price for all delivered QF
12 generation and schedule it into the CAISO market; SDG&E has no such obligation with
13 dispatchable resources. The forecast of CTC energy supply for 2027 is [REDACTED] The
14 forecasted generation for these plants is detailed in Attachment D.

¹² SDG&E did not include renewable energy quantities or costs associated with the Sustainable Communities Photovoltaic program because costs for this program are not charged to ERR.

¹³ The actual number of active QF contracts is over 50, but many of these QF resources only serve on-site load and do not deliver net energy to SDG&E. As a result, these are not included in the production cost model analysis. The one QF referenced above delivers net energy to SDG&E and thus is included in SDG&E’s model.

1 **III. 2027 FORECAST OF ERRA EXPENSES**

2 To quantify the costs associated with the supply resources described in Section II, the
3 production cost model also tracks the costs of the economic dispatch. Electric procurement
4 expenses incurred by SDG&E to serve its bundled load are also recorded to the ERRA. These
5 expenses include, among other items, costs and revenues for energy and capacity cleared through
6 the CAISO market, power purchase contract costs, generation fuel costs, market energy purchase
7 costs, CAISO charges, brokerage fees, battery storage optimization costs, and hedging costs.

8 SDG&E expects to incur \$517 million of ERRA costs (inclusive of PABA) in 2027,¹⁴ as
9 reflected in Attachment A. This forecast is \$105 million more than the \$412 million forecasted
10 for 2026.

11 The above-market costs of all generation resources that are eligible for cost recovery
12 through PCIA rates are recovered in PABA. SDG&E’s 2027 PABA cost forecast is \$138
13 million.¹⁵ This compares with a forecast of \$30 million for 2026 filed in the 2026 ERRA
14 forecast proceeding.

15 The cost forecasts for specific ERRA items are discussed in greater detail below.

16 **A. ISO Load Charges**

17 The CAISO supplies and sells to SDG&E the energy and A/S necessary to meet
18 SDG&E’s bundled load requirement. Based on forecasted prices for energy and A/S, SDG&E
19 forecasts \$ [REDACTED] of ISO load charges for 2027. This cost includes the indirect GHG costs
20 embedded in the market price of energy. GHG quantities and costs are presented in Section V.

¹⁴ This amount does not include Franchise Fees and Uncollectible (“FF&U”), nor do any of the other figures in my testimony.

¹⁵ In D.07-01-025, the Commission adopted the PCIA methodology for CCA customers. AL 3318-E, effective January 1, 2019, established the PABA to record the “above-market” costs and revenues associated with all PCIA eligible resources by vintage subaccounts.

1 **B. ISO Supply Revenues**

2 In the CAISO market, all generation from SDG&E’s resource portfolio is sold to the
3 CAISO. Based on the market price benchmark for energy, SDG&E forecasts revenues totaling
4 \$ [REDACTED] for generation sold in 2027.

5 **C. Contracted Energy Purchases**

6 **1. Purchased Power Contracts**

7 SDG&E’s forecast of total costs for non-renewable power purchase and capacity
8 contracts in 2027 is \$ [REDACTED]. These costs cover capacity payments and variable generation
9 costs for facilities with which SDG&E has contracts. The largest components in this category
10 are midterm reliability procurement projects totaling [REDACTED]^{16,17}. This category also
11 includes \$ [REDACTED] of RA sale transactions to maintain SDG&E’s RA compliance position
12 considering CCA load departure in 2027.

13 **2. Renewable Energy Contracts**

14 SDG&E’s renewable energy contracts usually contain only an energy payment and no
15 capacity payment. For 2027, SDG&E’s renewable energy portfolio will include a cost for all the
16 renewable power delivered based on contract prices and the RECs described in Section II under
17 “Renewable Energy Contracts.” All costs associated with these contracts are forecasted to be
18 \$321 million for 2027 and are booked to ERRA with above market costs booked to PABA. This
19 includes \$231 million of REC sales to maintain an equivalent RPS compliance position

¹⁶ Resolution E-5277 was approved July 13, 2023 allowing SDG&E to count the utility-owned Westside Canal Energy Storage Project towards its midterm reliability procurement requirements pursuant to D.21-06-035 and modify the project’s cost recovery mechanism to PCIA vintage 2021.

¹⁷ AL 4096-E which included three projects: Edward Sanborn, Bottleneck, and Cald was approved January 2023. AL 4189-E which included projects: Yellow Pine Solar Hybrid, Daggett Storage and Nova Power Bank Storage was approved August 2023. AL 4299-E which included one project: Edward Sanborn BESS was approved March 2024.

1 considering CCA load departure and allocations according to the VAMO process outlined in
2 R.18-07-003. Attachment C details the renewable projects by technology type, their costs, and
3 forecasted energy deliveries.

4 **3. Competitive Transition Charge (“CTC”) Contracts**

5 SDG&E’s CTC contracts consist of dispatchable capacity or firm capacity PURPA
6 contracts. These contracts include provisions for both energy and capacity payments. The
7 energy payments for QFs that are under firm capacity PURPA contracts are forecasted using
8 SDG&E’s Short-Run Avoided Cost (“SRAC”) formula.¹⁸ For the dispatchable contracts,
9 SDG&E pays fuel, variable O&M and capacity payments. These contracts, whether PURPA or
10 dispatchable, are considered CTC contracts and the ERRA expenses are based on CAISO
11 revenues. This method was approved in D.24-12-040, and full details are discussed in the
12 testimony of SDG&E witness Ms. Felan. Any costs, including capacity payments, greater than
13 the market price benchmark are booked to the TCBA. For the purposes of ERRA accounting,
14 ERRA expenses for CTC contracts are recorded on Line 7 of Attachment A, “Contract Costs
15 (CTC up to market),” and are forecasted to be ██████████ in 2027. Attachment D details the
16 breakdown of all the units discussed in this section and shows the associated costs, both ERRA
17 and TCBA, and the forecasted energy deliveries. These costs include the indirect GHG cost
18 embedded in the market price that flows through the SDG&E SRAC formula. GHG quantities
19 and costs are presented in Section IV of this testimony.

¹⁸ The derivation of the SRAC price for QF contracts is posted monthly on an SDG&E website:
<http://www2.sdge.com/SRAC/>.

1 **D. Generation Fuel**

2 **1. Palomar, Desert Star, Miramar and Cuyamaca (Fuel Expenses**
3 **Recovered through ERRA)**

4 For 2027, the ERRA expense for generation fuel purchased by SDG&E for Palomar,
5 Miramar I & II, Desert Star and Cuyamaca is forecasted to be \$ [REDACTED].¹⁹ These forecasted
6 expenses include in lieu of gas fees for Palomar, which are also recovered in ERRA. These costs
7 are calculated based on SDG&E’s forecasted fuel usage for this plant and the applicable tariffs,
8 Schedule GP-SUR²⁰ and Schedule EG.²¹

9 **E. Local Generation**

10 As previously noted, SDG&E has entered into contracts for generation resources which
11 specifically provide local RA for the SDG&E system, and has additionally procured several
12 energy storage units that it owns. Because these contract costs, compliance optimization costs,
13 and energy storage unit costs are allocated to both bundled and unbundled customers, the costs
14 are accounted for in a separate Local Generating Balancing Account. The Carlsbad Energy
15 Center, El Cajon Energy Storage, Top Gun Energy Storage, Fallbrook Energy Storage,
16 Escondido Energy Center, Escondido Energy Storage, Melrose Energy Storage, Pala-Gomez
17 Creek Energy Storage, Pio Pico, Clairemont, Boulevard, Elliot, Paradise, Santee, Westside Canal
18 Storage 2, and Fallbrook Energy Storage 2 contracts are included in this balancing account and
19 are expected to cost \$ [REDACTED], net of supply ISO revenue. Attachment A details the
20 breakdown of local generation expenses.

¹⁹ Capital and non-fuel operating costs for these plants are recovered in the Non-Fuel Generation Balancing Account (“NGBA”) as required by D.05-08-005, Resolution E-3896 and D.07-11-046.

²⁰ Customer-procured Gas Franchise Fee Surcharge.

²¹ Natural Gas Intrastate Transportation Service for Electric Generation Customers.

1 **F. Integrated Resource Planning and Electric Reliability Procurement Tracks**

2 The IRP proceeding, R.16-02-007, issued D.19-11-016, requiring 3,300 MW of
3 procurement by all LSEs within the CAISO for purposes of long-term statewide planning. The
4 decision required at least 50% of the resources to come online by August 1, 2021, 75% by
5 August 1, 2022, and 100% by August 1, 2023. The Commission determined that SDG&E is
6 responsible for 292.9 MW of incremental procurement beyond the State’s existing portfolio of
7 resources. SDG&E may also be responsible for incremental procurement of LSEs in its service
8 territory that fail to procure, whether by choice or by consequence, their allocation of the total
9 procurement need identified. This “on-behalf-of” procurement is additive to the IOU
10 procurement for its own share of the identified need. In D.19-11-016, the Commission ordered
11 cost recovery for this “backstop” procurement through a MCAM mechanism. Until the
12 Commission adopted the cost recovery for procurement undertaken in D.19-11-016, SDG&E
13 requested that the Commission authorize SDG&E to establish a new memorandum account, the
14 Resource Adequacy Procurement Memorandum Account (“RAPMA”), to track and record costs
15 related to the procurement of incremental RA capacity required by D.19-11-016 and related
16 administrative costs.²² Resolution E-5241, approving SDG&E’s rate implementation plan to
17 recover procurement costs associated with MCAM, was issued January 2023. Therefore, this
18 2027 forecast does not have any forecasted dollars in RAPMA.

19 The Integrated Resource Plan (R.20-05-003) issued Decision D.21-06-035 requiring all
20 LSEs in the CAISO to procure a total of at least 11,500 MW of NQC. The decision requires
21 2,000 MW by 2023, an additional 6,000 MW by 2024, an additional 1,500 MW by 2025, and an
22 additional 2,000 MW by 2026. The Commission determined that SDG&E is responsible for 361

²² Advice Letter 3707-E.

1 MW of incremental procurement beyond the State’s existing portfolio of resources. Due to
2 updated load departure forecasts since the decision, SDG&E filed advice letter 3967-E
3 requesting an adjustment to the capacity requirements to ensure both SDG&E and SDCP’s
4 respective obligations more accurately account for expected load migration. SDG&E and SDCP
5 mutually agreed and requested Commission approval to increase SDG&E’s total procurement
6 obligation by 114.3 MW and correspondingly decrease SDCP’s obligation by the same amount.
7 SDG&E’s new procurement requirement would be 475.3 MW. Any procurement resulting from
8 the Commission’s Order must be requested via advice letter outlining details of the resource and
9 cost recovery methods. On February 23, 2023, the Commission adopted D.23-02-040 requiring
10 supplemental mid-term reliability procurement of 4,000 MW of net qualifying capacity in
11 addition to the 11,500 MW ordered in D.21-06-035 for 2026 and 2027. The decision specifies
12 that SDG&E’s total share of the supplemental procurement requirement is 143 MW, with 72
13 MW online by June 1, 2026, and 72 MW by June 1, 2027.²³ SDG&E requested approval for five
14 advice letters, AL 4096-E, AL 4189-E, AL 4299-E, AL 4182-E, and AL 4755-E. AL 4096-E
15 which included three projects: Edward Sanborn, Bottleneck, and Cald was approved January
16 2023. AL 4189-E which included four projects: Yellow Pine Solar Hybrid, Luna Valley Solar,
17 Daggett Storage and Nova Power Bank Storage was approved August 2023. AL 4299-E which
18 included one project: Edward Sanborn Battery Energy Storage System (“BESS”) was approved
19 March 2024. AL 4182-E included one project: Westside Canal Storage Project and was
20 approved in March 2023. AL 4755-E which included 2 projects: Rosamond South BESS (4hr)
21 and Rosamond South LDES (8hr) was approved November 2025. LSEs were not given the
22 opportunity to opt out of this procurement, and procurement costs as a result of this decision are

²³ D.23-02-040, at p. 32.

1 allocated to bundled customers through PCIA. However, the IOUs are designated as backstop
2 procurers in the event an LSE fails to reach its targets, and any backstop procurement costs
3 SDG&E incurs for deficient LSEs are authorized to be recovered through the MCAM cost
4 recovery mechanism.

5 In the Electric Reliability proceeding (R.20-11-003), D.21-03-056 directed the IOUs
6 within the CAISO to procure additional resource capacity for the summers of 2021 and 2022. In
7 subsequent decisions (D.21-12-015 and D.23-06-029), the IOUs were directed to procure
8 additional resource capacity for the summers of 2022, 2023, 2024, 2025. These decisions
9 authorized the IOUs to seek CAM cost recovery for any resulting procurement. SDG&E
10 requested approval for advice letter 4290-E, which included two projects: Fallbrook Energy
11 Storage 2, and Santee BESS, advice letter 4556-E, which included Westside Canal Storage 2,
12 advice letter 3992-E, which included four projects: Clairemont, Paradise, Boulevard, and Elliot,
13 and advice letter 3913-E, which included three projects: Pala-Gomez, Melrose, and Westside
14 Canal Storage Project. AL 4290-E was approved December 2023, AL 4556-E was approved
15 November 22, 2024, AL 3992-E was approved June 2022, and AL 3913-E was approved
16 February 2022. Westside Canal Storage Project was later adjusted in AL 4182-E to comply with
17 IRP procurement as mentioned above.

18 **G. CAISO Related Costs**

19 SDG&E forecasts the miscellaneous CAISO costs to be \$ [REDACTED] in 2027. SDG&E
20 also forecasts the cost of the Federal Energy Regulatory Commission (“FERC”) Fees and
21 Western Renewable Energy Generation Information System to be \$ [REDACTED] in 2027.

22 **H. Hedging Costs & Financial Transactions**

23 SDG&E’s resource portfolio has substantial exposure to gas price volatility because of
24 fuel requirements for its gas-fired resources, as well as the gas price-based pricing formula for its

1 QF contracts. To manage this exposure, SDG&E engages in hedging activity, consistent with its
2 CPUC-approved procurement plan,²⁴ and it will book the resulting hedging costs and any
3 realized gains and losses from hedge transactions to ERRA consistent with its CPUC-approved
4 hedge plan. The estimate of hedging costs for 2027 is \$ [REDACTED], calculated as the mark-to-
5 market profit/loss of hedges already in place. The profit/loss of these and future hedges placed
6 will rise and fall with market prices. Therefore, the final cost or savings will not be known until
7 the settlement process has been completed for the hedging transactions. SDG&E's hedging costs
8 were as of March 1, 2026.

9 SDG&E may also trade short-term financial power products to hedge its long or short
10 position against potentially volatile CAISO market clearing prices. SDG&E does not include a
11 forecast of net cost or benefit from these power hedges due to the unpredictability of market
12 prices relative to the price of the hedges.

13 I. Convergence Bids

14 SDG&E uses convergence bids²⁵ to hedge certain operational risks in the day-to-day
15 management of its portfolio. It is not possible to forecast the gains or losses associated with
16 potential convergence bidding activity because of the unpredictable relationship between day-

²⁴ SDG&E's 2014 Long-Term Procurement Plan (October 3, 2014), Appendix B: Electric and Gas Hedging Strategy, *available at* <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M147/K780/147780628.PDF>.

²⁵ A convergence bid (also known as a virtual bid) is not backed by any physical generation or load and is thus completely financial. Convergence bidding allows market participants to arbitrage expected price differences between the Day-Ahead and Real-Time markets. Using convergence bids, market participants can sell (buy) energy in the Day-Ahead market, with the explicit requirement to buy (sell) that energy back in the Real-Time market, without intending to physically consume or produce energy in Real-Time. Convergence bids that clear the Day-Ahead market will either earn (or lose) the difference between the Day-Ahead and Real-Time market prices at a specified node multiplied by the megawatt volume of their bids.

1 ahead and real-time prices. Therefore, SDG&E did not forecast an ERRA revenue/charge for
2 convergence bids.

3 **J. Congestion Revenue Rights (“CRRs”)**

4 Market participants, including SDG&E, were allocated CRRs by the CAISO for which
5 they can nominate source and sink P-nodes²⁶ to match those in their portfolio. If congestion
6 arises between the source and sink P-nodes, the CAISO will pay the market participant holding
7 the CRR the congestion charges to offset the congestion costs incurred. SDG&E expects its
8 CRRs to generate revenues from the CAISO to offset congestion costs incurred within its
9 portfolio. However, expected revenues were not included in the 2027 ERRA forecast because
10 SDG&E assumed congestion-free clearing prices to develop forecasts for load requirement costs
11 and generation revenues. A forecast of CRR revenues would have required SDG&E to forecast
12 offsetting market-congestion prices at various P-nodes over the 2027 period. Since there are no
13 forward market prices for congestion, there does not exist a strong basis to perform this forecast
14 without introducing complexity and additional uncertainty into the forecast.

15 Market participants, including SDG&E, are offered the ability to purchase CRRs through
16 an auction process. SDG&E may elect to participate in the annual and monthly auction
17 processes to procure the incremental CRRs. Since the incremental CRRs volumes cannot be
18 forecasted, the incremental CRR costs and revenues also cannot be forecasted.

²⁶ The source and the sink are the two ends of a path for which congestion may occur. The CRR represents the difference in the Marginal Cost of Congestion component of the Locational Marginal Prices for the Nodal Prices of the source and sink.

1 **K. Inter-Scheduling Coordinator Trades (“IST”)**

2 In the CAISO market, SDG&E may transact ISTs²⁷ bilaterally with counterparties to
3 hedge long or short positions. Under an IST purchase, SDG&E pays the counterparty the
4 contracted energy price and in return receives payment from the CAISO based on the market
5 clearing price. Under an IST sale, SDG&E receives payment from the counterparty based on the
6 contracted energy price and in return pays the market clearing price to the CAISO. For IST
7 purchases and sales, the payment to, or revenue from, the counterparty is largely offset by the
8 respective credit from, or payment to, the CAISO. Because ISTs are used as a hedge against
9 unknown market prices, SDG&E does not include a forecast of the net cost or benefit from these
10 transactions.

11 **IV. SONGS UNIT 1 OFFSITE SPENT FUEL STORAGE COSTS**

12 **A. Background**

13 SONGS Unit 1 ceased operation on November 30, 1992. Defueling was completed on
14 March 6, 1993. On July 18, 2005, SDG&E submitted AL 1709-E, which removed SONGS Unit
15 1 shutdown O&M expense from the revenue requirement pursuant to D.04-07-022. Southern
16 California Edison Company (“SCE”), the majority owner of SONGS, has decommissioned the
17 Unit 1 facility, and as of 2010, most of the Unit 1 structures and equipment have been removed
18 and disposed of.

19 Spent fuel assemblies from SONGS Unit 1 have been stored since 1972 at the General
20 Electric-Hitachi spent fuel storage facility located in Morris, Illinois. There are 270 spent fuel
21 assemblies from SONGS Unit 1 currently in storage at that facility. Because there are no other

²⁷ ISTs are financial bilateral transactions which allow SDG&E to hedge long or short price positions in the market.

1 facilities currently available in the U.S. for the commercial storage of spent nuclear fuel, those
2 270 assemblies are expected to remain at the Morris facility until they are accepted for ultimate
3 disposal by the U.S. Department of Energy. Pursuant to the terms of the storage contract with
4 General Electric-Hitachi, payments are made monthly by SCE, which in turn bills SDG&E for its
5 20% ownership share.

6 **B. 2027 Forecast**

7 SDG&E estimates its 2027 SONGS Unit 1 offsite spent fuel storage expense to be \$0.
8 On February 28, 2022, SDG&E filed A.22-02-016 which requested retaining the Department of
9 Energy (“DOE”) Spent Fuel Litigation Proceeds in its Unit 1 Non-Qualified Nuclear
10 Decommissioning Trust (“NQNDT”), and to use these proceeds to fund GE-Hitachi spent fuel
11 storage expenses and suspend recovery of these charges through ERRA. On August 5, 2024, the
12 Commission issued its Final Decision granting SDG&E authorization to deposit DOE litigation
13 proceeds in its Unit 1 NQNDT and to use the proceeds to pay for the costs of the spent fuel at the
14 GE-Hitachi facility. SDG&E will start paying for GE-Hitachi facility Unit 1 spent fuel costs
15 from its Unit 1 NQNDT beginning in 2025.²⁸

16 **V. 2027 FORECAST OF GHG COSTS**

17 In this section, my testimony describes the cost forecast for GHG compliance obligations
18 under the California Air Resources Board (“CARB”) cap-and-invest program²⁹. The cap-and-
19 invest program provides that compliance obligations in the electricity sector are applicable to

²⁸ D.24-08-001, Conclusions of Law (“COL”) 12.

²⁹ Formally known as the Cap-and-Trade program is now called the Cap-and-Invest program pursuant to AB 1207.

1 “first deliverers of electricity.”³⁰ Generally, first deliverers of electricity in 2027 are electricity
2 generators inside California that emit more than 25,000 metric tons (“MT”) of GHG, and
3 importers of electricity from outside of California. SDG&E is the first deliverer for its utility-
4 owned generation, for generation it purchases under third-party tolling agreements in California,
5 and for its imports of electricity into California. The cost of allowances and offsets is a direct
6 GHG cost. In Section V.A below, this testimony addresses the direct GHG compliance costs
7 associated with SDG&E utility-owned generation plants, procurement of electricity from third
8 parties under tolling agreements, and electricity imports attributed to SDG&E.

9 SDG&E customers also face a second type of GHG compliance cost – indirect costs.
10 Indirect costs are costs embedded in market electricity prices, or costs that SDG&E incurs from
11 third parties under contracts. The party selling the power is responsible for the GHG allowance
12 acquisition, but it implicitly charges SDG&E for the cost of acquiring allowances. In Section
13 V.B below, indirect GHG costs are addressed. Section V.C describes the calculation of both
14 direct and indirect 2027 GHG costs. Finally, Section V.D discusses the 2027 allowance auction
15 revenues and the allocations of those revenues.

16 **A. Direct GHG Emissions**

17 Each first deliverer of electricity within California must surrender to CARB one
18 allowance or offset for each MT of carbon dioxide emissions or its equivalent (CO₂e). Under
19 CARB’s first deliverer approach, SDG&E will have a direct compliance obligation for GHG
20 emissions from burning natural gas at facilities in its portfolio, including carbon dioxide,
21 methane, and nitrous oxide. SDG&E’s expected direct GHG compliance costs were forecasted

³⁰ CARB, Article 5: California Cap on Greenhouse Gas Emissions and Market-based Compliance Mechanisms, at 60, Section 95811(b), *available at* <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2018/capandtrade18/ct18fro.pdf>,

1 using the same production simulation model results that produced the ERRA expenses discussed
2 above. The amount of fuel needed for each natural gas fired plant is provided as an output based
3 on the expected operation of the plant, including fuel associated with starts. The fuel volume is
4 then multiplied by an emissions factor of 0.05307 MT of CO₂e per MMBtu to calculate direct
5 emissions obligations for each plant.³¹ The forecast of GHG emissions from SDG&E facilities
6 in 2027 is included in Table 4 below.

7 Similarly, the estimated emissions for tolling agreements are estimated by multiplying the
8 forecast of MMBtu of natural gas burned from the production simulation by the emission factor
9 of 0.05307 MT of CO₂e per MMBtu. Table 4 below provides the forecast of GHG emissions
10 from generators that are under tolling agreements with SDG&E in 2027.

11 In addition, SDG&E imports out-of-state electricity to a delivery point inside California,
12 and it is thus responsible for the GHG emissions attributed to generation of that electricity.
13 There are three categories of GHG emissions associated with imports.

14 First, there are imports from “specified sources” (*i.e.*, imports where the source of the
15 power is known), which consist of either a specific plant or an asset-controlling supplier.³²
16 Accordingly, power from SDG&E’s Desert Star combined-cycle generation plant in Nevada, for
17 example, is included on the same basis as SDG&E’s other utility-owned facilities—multiplying

³¹ CARB’s Mandatory Reporting Regulations requires use of emission factors from federal regulations - 40 Code of Federal Regulations (“C.F.R.”) Section 98. For pipeline natural gas, there are three components – CO₂, CH₄, and NO₂. Using Tables C-1 and C-2 from 40 C.F.R. Subpart C, Section 98 we calculate an overall emissions rate of 0.05307 MT/MMBtu. SDG&E’s portfolio of GHG emitting resources uses only natural gas, not other fuels.

³² SDG&E currently does not have any contracts with asset-controlling suppliers such as the Bonneville Power Administration or Powerex. CARB assigns an emissions factor based on the entire portfolio for these suppliers.

1 the forecast of MMBtu of natural gas burned from the production simulation by the emission
2 factor of 0.05307 MT of CO₂e per MMBtu.

3 Second, imported power from “unspecified sources” is multiplied by an estimated
4 transmission loss factor of 1.02³³ to estimate the MWh related to emitting generation from
5 unspecified electricity imports. The quantity is multiplied by the CARB default emission rate,
6 which is 0.428 metric tons of CO₂e per MWh. For any market purchases of energy, 2.5% of the
7 total purchased power is considered to be an unspecified power import with direct GHG
8 emissions.

9 The emissions of imported power are shown in Table 4 below. Monthly emissions for all
10 categories are summarized in Attachment E.

11 **B. Indirect GHG Emissions**

12 In addition to the direct GHG costs described above, the cap-and-invest program results
13 in GHG compliance costs being embedded in the market price of electricity procured in the
14 wholesale market and from third parties. The cost to purchase electricity from the wholesale
15 market, as well as from suppliers under contracts that include market-based prices, will have
16 these embedded costs of compliance with the cap-and-trade program built into the electricity
17 price. The compliance instrument will be procured by the first deliverer, rather than by SDG&E,
18 as purchaser. SDG&E’s expected indirect GHG compliance costs are based on an assumption
19 that all power sold by SDG&E-controlled assets are used by SDG&E customers, up to the level
20 of the forecasted SDG&E load.³⁴ If the total CAISO market purchases exceed the MWh from

³³ Transmission losses on SDG&E’s system are measured at approximately 2% of load requirement.

³⁴ In fact, however, the generation is bid into the CAISO market and dispatched by CAISO to meet statewide needs. The simplifying assumption is used to calculate net CAISO market purchases – all CAISO purchases less all resources that are forecasted to successfully bid into the CAISO market by

1 SDG&E-controlled generation, then the assumption is that SDG&E entered into market
2 purchases to cover this difference. To estimate the GHG emissions embedded in these net
3 CAISO market purchases, SDG&E used the CARB’s default emissions rate, which is 0.428 MT
4 per MWh, and considers 97.5% of the total purchased energy to contain indirect GHG emissions
5 after multiplying by an estimated transmission loss factor of 1.02. The rest is considered as
6 imported power with direct GHG emissions as described earlier.

7 In addition to market purchases, contracts with some Combined Heat and Power (“CHP”)
8 facilities are included as indirect costs. Specific CHP contracts require payments based on a
9 market electricity price (with embedded GHG costs), or a fixed heat rate with the GHG cost
10 based on the contract heat rate; or in other cases, a reimbursement of GHG expenditures incurred
11 by the CHP facility associated with sales to SDG&E. These contracts represent a second source
12 of indirect GHG costs in that the CHP owner acquires GHG compliance instruments.

13 Contractual GHG costs do not provide a good estimate of actual GHG costs.
14 Accordingly, determining actual GHG costs is difficult because it requires knowledge of
15 confidential counterparty data and the choice of method used to split the GHG emissions
16 between electricity production and useful thermal energy. For simplicity, SDG&E estimates
17 GHG costs associated with CHP on the assumption that the CHP units, on average, are as
18 efficient as unspecified power, assigning a 0.428 MT per MWh emissions rate to all purchases of
19 power from CHP facilities.

20 Finally, SDG&E forecasts REC sales to maintain an equivalent RPS compliance position
21 considering CCA load departure in 2027 and allocations according to R.18-07-003. REC sales

SDG&E, including imports. However, SDG&E does make an adjustment for expected sales of renewable energy beyond regulatory requirements.

1 remove the GHG-free attribute of the renewable resource generation. To estimate the GHG
 2 emissions of the unbundled renewable generation, SDG&E treats this the same as imported
 3 power from unspecified sources. The GHG emissions from indirect sources are summarized on
 4 an annual basis in Table 4 below and monthly in Attachment E.

Table 4: 2027 GHG Total Emissions Forecast

Resource	Fuel (000 MMBtu)	GHG (000 Metric Tons)
Palomar - UOG		
Desert Star - UOG - Out of State		
Pio Pico - PPA		
Carlsbad Energy Center - PPA		
Miramar - UOG		
Yuma - PPA Out of State		
Fuel-Based		
	Generation (GWh)	GHG (000 Metric Tons)
Imports		
Total Direct Emissions		

Resource	Generation (GWh)	GHG (000 Metric Tons)
Net Market Purchases		
Unbundled RPS after REC Sales		
CHP (CP Kelco)		
Total Indirect Emissions		
Total Forecasted Emissions		

C. 2027 GHG Costs

7 The proxy for the 2027 GHG emissions price is calculated as \$30.12/MT. This figure
 8 was derived using a recent (March 03, 2026) assessment of 2027 GHG market prices based on
 9 the forward prices on the Intercontinental Exchange (“ICE”), consistent with the forecasted
 10 natural gas and electricity prices associated with the forecast of emissions in Table 4 above. The
 11 GHG cost forecast multiplies the expected emissions, both direct and indirect, by the forecasted
 12 proxy GHG price resulting in forecasted GHG costs for 2027 of \$ [redacted] with [redacted] of

1 direct GHG costs in LGBA, [REDACTED] of direct GHG costs in PABA, and [REDACTED] of
2 indirect GHG costs.

3 **D. 2027 Allowance Auction Revenues**

4 The CARB allocates cap-and-invest allowances to SDG&E for 2027. SDG&E is
5 required to place all these allowances for sale in CARB’s 2027 quarterly auctions. The forecast
6 of allowance revenues was developed by multiplying the total number of allowances allocated to
7 SDG&E for consignment by a forecast price for the allowances.³⁵

8 The total allowances that will be allocated to SDG&E for 2027 are expected to be
9 6,023,536 MT. SDG&E’s Forecast 2027 Allocated Allowances (MT) represents the SDG&E
10 allocation as established in Table 9-4 of the Cap-and-Invest regulation. This new quantity is
11 reflected in the forecast column within Appendix G template D-1. The allowance price is the
12 same proxy price as used in the calculation of GHG costs, which is \$30.12/MT. The allowance
13 auction revenue forecast is the allowances allocated multiplied by the allowance price, which
14 totals \$181.4 million.

15 A portion of the allowance auction revenue is reserved for clean energy and energy
16 efficiency projects initiated by the Solar on Multifamily Affordable Housing (“SOMAH”)
17 Program.^{36, 37} This program provides financial incentives for installation of solar energy systems

³⁵ It was assumed that all allowances are sold in the auction process, which is consistent with the assumption that the market-clearing price is above the price floor.

³⁶ D.17-12-022, OP 4, at 69, states that the IOUs “each shall reserve 10% of the proceeds from the sale of greenhouse gas allowances defined in Public Utilities Code Section 748.5 through its annual Energy Resource Recover Account (ERRA) proceedings for use in the Solar on Multifamily Affordable Housing Program, starting with its ongoing 2018 ERRA forecast proceeding.”

³⁷ On May 13, 2022, SCE filed a Petition for Modification of D.17-12-022 (issued in R.14-07-002) seeking to change the allocation to 10%, not to exceed \$1 million statewide. On September 15, 2022, the Commission adopted D.22-09-009, which modified D.17-12-022 and D.20-04-012, changing the funding requirements for the SOMAH program. The IOUs are now required to set aside 10% of their

1 on multifamily affordable housing properties, as specified in the statute. For 2027, the funding
2 amount is \$0 million, which is the lesser of 10% of SDG&E’s total forecasted allowance revenue
3 amount or SDG&E’s proportionate stateside share of \$100 million.³⁸ Any true-ups for allowance
4 revenues set aside for clean energy and energy efficiency projects are addressed in the testimony
5 of SDG&E witness Ms. Felan.

6 D.18-06-027 (issued on June 22, 2018), adopted new programs to promote the
7 installation of renewable generation among residential customers in disadvantaged communities
8 (“DACs”) including the Single-family Solar Homes (“DAC-SASH”).³⁹ SDG&E is requesting
9 zero funding for the DAC-SASH program, as existing funding levels are sufficient to sustain the
10 program through 2030. SDG&E is currently awaiting final Commission authorization regarding
11 the allowable use of funds in the balancing account. Should the Commission determine that the
12 remaining balances cannot be utilized, SDG&E reserves the right to request additional funding
13 through the PPP, as necessary. SDG&E estimates the DAC-SASH program funding for 2027 to
14 be \$0 million.

15 VI. 2027 FORECAST OF TMNBC COSTS

16 The cost forecast for tree mortality-related procurement costs for 2027 is \$([REDACTED])⁴⁰
17 The TMNBC costs will be recovered through the PPP charge, as addressed in the testimony of
18 SDG&E witness Ms. Guardado.

proportionate share of \$100 million, whichever is less, of the proceeds from the sale of GHG allowances.

³⁸ With AB1207 ending GHG funding by June 2026, SDG&E does not plan to request additional GHG funding, as any future funding would need to be pursued through the PPP.

³⁹ D.18-06-027 at OP 1.

⁴⁰ Per D.18-12-003, SDG&E filed Advice Letter 3343-E requesting approval to establish TMNBCBA as directed by Resolution E-4770 and Resolution E-4805.

1

This concludes my prepared direct testimony.

1 **VII. QUALIFICATIONS**

2 My name is Jimmy Elias. My business address is 8315 Century Park Court, San Diego,
3 CA 92123. I joined SDG&E in July 2015 and my current title is Senior Resource Planner in the
4 Electric & Fuel Procurement Department. My responsibilities include running computer models
5 that forecast energy needs for both physical and financial operational needs.

6 I received a B.S. in Finance from San Diego State University in San Diego, CA.

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

ATTACHMENT A

SDG&E 2027 ERRATA AND LG EXPENSES

ATTACHMENT A

SDG&E 2027 ERRR AND LG EXPENSES

PRIVILEGED AND CONFIDENTIAL PURSUANT TO P.U.C. CODE 963, 454 50g, 00 9F-C and D.05-05-056 as needed

ATTACHMENT A - SDG&E 2027 ERRR and LG EXPENSES

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2027
1 EXPENSES (\$)													
2 ISO Load Changes (Energy & NS Costs)													
3 ISO Charging cost for Modified CAM resources													
4 ISO Supply Revenues													
5 ISO Supply Revenues for Modified CAM resources													
6 Contract Costs (non-CTC)													
7 Contract Costs (CTC up to market)													
8 Generation Fuel													
9 CAISO Misc Costs													
10 Hedging Costs & Financial Transactions													
11 Contract Costs - CHP Costs (AB1613)													
12 Customer Incentives - SFIP, DR, DR20													
13 Rewards/Ferries - Palomar Energy Ctr													
14 WREGIS Costs													
15 ISO OP&M Costs													
17 ISO Convergence Bidding Costs													
18 Purchased Tradable Renewable Energy Credits (TREC)													
19 Sales Tradable Renewable Energy Credits (TREC)													
20 Net Surplus Compensation Costs (ASCC)													
21 Authorized Drawdowns													
22 Greenhouse Gas & Carrying Costs													
Total ERRR/PABA Balancing Account Expenses													
PABA Portion of ERRR Expenses													
Line 4 Contract Costs (non-CTC)													
El Cajon Energy Center Peaker Costs													
Orange Grove Peaker Costs													
Clearwater Hybrid													
Other RA Capacity Costs (RA RFO, DRAM)													
Card BESS LLC													
Orma Sol Interact													
Westside Canal Storage													
Edwards Sanborn Hybrid Storage													
Daguerre Power Bank Storage													
Yellow Pine Solar III Storage													
Sunlight Hybrid													
Edward-Sanborn BESS													
Novia Power Bank Storage													
Rosemond South II BESS													
Rosemond South II DR20													
Modified CAM/PABA per ion contract costs													
Modified CAM/PABA per ion RA sales													
RA Sales													
REC Sales													
CFD Revenues													
Renewable Energy													
Line 4 Total													
Line 8 Generation Fuel													
Palomar													
Desert Star													
Miramar													
Miramar 2													
Cuyamaca													
Line 8 Total													
In Line Gas Fees													
Palomar													
Line 11 Hedging Costs & Financial Transactions													
Hedging Costs													
Broker Fees													
Line 11 Total													
LG Expenses													
Cardado Energy Center													
El Cajon Energy Storage													
Top Gun Energy Storage													
Fallbrook Energy Storage													
Esccondido Energy Center													
Esccondido Energy Storage													
Marathon Energy Storage													
Pala-Gomez Creek Storage													
Pio Pico													
Grassmont													
Sentinel Energy Center RA													
Calvermont													
Boulevard													
East													
Paradise Substation													
Santee BESS													
Fallbrook Energy Storage 2													
Westside Canal Storage 2													
LG Revenue													
LG RA sales revenue													
CAM portion of Modified CAM contracts													
Emissions													
Total LG Expense													

ATTACHMENT B

SDG&E 2027 GENERATION PORTFOLIO DELIVERY VOLUMES

ATTACHMENT B

SDG&E 2027 GENERATION PORTFOLIO DELIVERY VOLUMES

PRIVILEGED AND CONFIDENTIAL PURSUANT TO P.U.C. CODE 583, 454.5(g), GO 66-C and D.05-06-066 as needed

ATTACHMENT B - SDG&E 2027 GENERATION PORTFOLIO DELIVERY VOLUMES (GWh)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2027
CTC													
Non-CTC GF													
TOTAL													
Renewable - Bio Gas	20.4	18.4	19.0	14.9	20.6	15.5	18.1	20.2	18.9	20.5	15.3	20.5	222.3
Renewable - Other	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.8
Renewable - Solar	200.2	199.5	224.7	236.6	314.1	372.9	371.9	346.8	315.7	295.1	204.2	190.9	3,272.6
Renewable - Wind	146.2	129.7	207.9	169.4	215.6	193.2	144.1	126.6	122.9	115.7	113.1	85.9	1,776.5
Renewable - Wind REC	66.6	55.0	40.8	53.7	39.5	34.4	31.2	30.6	31.3	48.4	60.4	71.3	563.1
Midway-Green Tariff-EcoChoice	5.2	5.3	5.1	6.1	7.6	8.6	7.9	6.7	6.2	5.9	4.7	4.4	73.9
Renewable - RPS Sales	(292.6)	(278.3)	(327.7)	(317.7)	(383.7)	(467.6)	(375.6)	(351.1)	(335.6)	(327.0)	(271.4)	(263.4)	(3,315.7)
TOTAL NON-CTC RENEWABLE	145.9	131.6	199.9	165.1	213.6	217.3	197.7	180.0	158.6	158.7	126.4	119.6	1,963.4
Miramar													
Miramar 2													
Cuyamaca													
Palomar													
Desert Star													
Grossmont													
El Cajon Energy Center													
Orange Grove													
Escondido Energy Center													
Pio Pico													
Carlsbad Energy Center													
Johanna Energy Storage													
Kearny Energy Storage North													
Kearny Energy Storage South													
Valley Center Energy Storage													
El Cajon Energy Storage													
Top Gun Energy Storage													
Escondido Energy Storage													
Fallbrook Energy Storage													
Miguel Energy Storage													
Sagebrush Storage													
Melrose Storage													
Pala-Gomez Storage													
Westside Canal Storage													
Claremont													
Boulevard													
Elia													
Paradise Substation													
Borrego Advanced Energy Storage													
Cald BESS LLC													
Ormat Bolleneck													
Santee BESS													
Fallbrook Energy Storage 2													
Edwards-Garborn BESS													
Bright Canyon Hybrid													
Daguerre Power Bank Storage													
Yellow Pine Solar III Storage													
Starlight Hybrid													
Nova Power Bank Storage													
Westside Canal Storage 2													
Rosamond South II BESS													
Rosamond South II LDES													
TOTAL GENERATION													

ATTACHMENT C

SDG&E 2027 RENEWABLE RESOURCE DETAIL

ATTACHMENT C - SDG&E 2027 RENEWABLE RESOURCE DETAIL

Power Purchase Deliveries (GWh)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2027
BIO GAS													
MM San Diego LLC- Miramar Landfill	1.9	1.8	1.3	1.4	1.8	1.9	2.0	2.1	1.7	1.9	1.9	2.3	21.9
MM San Diego LLC - North City	0.8	0.5	1.0	1.0	0.9	0.9	0.8	1.0	1.0	1.0	0.9	0.9	10.6
Sycamore Energy	0.5	0.4	0.4	0.5	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	5.2
HL Power	17.3	15.7	16.3	12.0	17.4	12.2	14.9	16.7	15.8	17.2	12.1	16.9	184.5
Subtotal	20.4	18.4	19.0	14.9	20.6	15.5	18.1	20.2	18.9	20.5	15.3	20.5	222.3

OTHER													
Small Hydro	0.2	0.2	0.2	0.3	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.2	3.7
Subtotal	0.2	0.2	0.2	0.3	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.2	3.7

SOLAR													
NRG Borrego Solar	3.1	2.8	3.9	4.3	6.0	7.1	7.4	6.6	5.5	5.1	3.6	3.2	58.6
Sol Orchard	1.5	0.8	0.6	0.5	1.0	2.0	2.7	2.7	2.4	2.2	1.0	1.5	19.1
Solar Energy Project	0.1	0.0	0.0	0.0	0.1	0.3	0.4	0.3	0.3	0.3	0.1	0.1	2.2
NLP Valley Center Solar	0.3	0.2	0.1	0.1	0.2	0.4	0.5	0.5	0.3	0.4	0.2	0.3	3.3
NLP Granger A82	0.3	0.2	0.1	0.1	0.2	0.5	0.6	0.5	0.5	0.4	0.2	0.3	4.0
Arlington Valley Solar	19.5	21.4	22.9	28.3	36.0	40.0	38.0	34.3	31.1	26.9	21.0	19.0	338.4
Calipatria	1.9	2.5	2.5	3.3	4.3	4.6	4.4	4.0	3.6	3.2	1.5	1.4	37.4
Campo Verde	21.4	19.5	19.1	17.0	25.1	30.4	30.6	30.2	29.4	29.5	12.1	18.8	283.1
Catalina_Solar	16.8	17.2	22.1	24.5	25.6	26.0	26.3	25.3	23.2	22.6	16.8	15.4	261.6
Centinela Solar1	15.9	14.7	15.6	15.7	23.3	29.0	28.5	25.6	23.1	21.7	16.5	14.7	244.2
Centinela Solar2	12.8	11.9	12.8	12.8	18.9	23.5	22.9	20.7	18.7	17.5	13.3	11.8	197.7
Desert Green	0.5	0.3	0.3	0.2	0.5	0.9	1.1	1.0	0.7	0.8	0.4	0.6	7.4
Imperial Valley Solar I	21.6	19.9	23.7	24.4	35.3	45.6	46.1	42.7	39.0	35.3	25.7	22.9	382.0
Midway Solar	2.8	3.0	3.0	4.3	5.1	5.7	5.2	4.2	3.6	3.7	2.4	2.5	45.6
Maricopa West Solar	1.8	2.5	2.5	0.9	2.9	5.4	6.1	5.7	4.4	3.7	1.6	1.0	38.5
TallBear Seville	2.6	3.4	3.4	4.5	5.2	6.6	6.4	5.6	4.9	4.5	2.0	1.3	50.4
SolarGen 2	19.4	24.4	28.4	33.9	40.4	42.6	41.1	38.4	33.5	30.0	19.6	17.7	369.3
Cascade SunEdison	2.7	3.3	3.9	1.5	3.0	5.3	5.9	5.4	4.6	4.2	3.0	2.5	45.3
Csolar IV South	18.9	16.2	16.0	14.4	20.5	24.5	24.7	24.4	23.8	24.0	19.7	17.8	245.0
Csolar IV West	20.8	19.4	22.1	23.2	34.6	43.3	42.2	38.3	33.7	30.1	21.9	19.3	348.8
Wister Solar Project	2.3	2.2	2.1	1.8	2.5	3.1	2.6	2.5	2.6	2.2	2.3	1.9	28.3
Bright Canyon Solar	1.5	1.6	2.7	2.7	2.8	3.0	3.2	3.2	3.2	3.4	2.4	2.0	31.7
Yellow Pine Solar	-	-	-	-	-	3.0	3.2	3.2	3.2	3.4	2.4	2.0	20.4
Starlight Solar	-	-	-	-	2.8	3.0	3.2	3.2	3.2	3.4	2.4	2.0	23.2
Luna Valley Solar	16.8	17.2	22.1	24.2	25.4	26.0	26.3	25.3	23.2	22.6	16.8	15.4	261.2
Subtotal	205.4	204.7	229.8	242.7	321.7	381.7	379.7	353.5	322.0	301.0	208.9	195.3	3,346.5

WIND													
Rim Rock (TREC)	66.6	55.0	40.8	53.7	39.5	34.4	31.2	30.6	31.3	48.4	60.4	71.3	563.1
Coram Energy	-	-	-	-	-	-	-	-	-	-	-	-	-
Energia Sierra Juarez	45.1	37.0	51.5	35.6	43.9	32.7	18.9	20.1	26.4	28.0	32.4	25.7	397.4
Energia Sierra Juarez 2	34.9	29.6	37.1	24.8	29.8	24.7	22.4	21.3	20.2	23.6	27.9	25.5	321.7
Manzana Wind	17.1	15.1	24.7	27.3	35.0	33.2	29.3	22.9	16.9	16.6	14.0	12.8	265.0
Ocotillo Express	26.5	30.4	66.4	54.0	69.8	66.3	45.5	38.9	42.1	29.1	22.1	9.0	500.2
Pacific Wind	22.4	17.6	28.1	27.7	37.1	36.2	28.1	23.6	17.4	18.5	16.6	12.8	286.2
Subtotal	212.7	184.7	248.7	223.1	255.0	227.6	175.4	157.3	154.3	164.1	173.5	157.2	2,333.6

RPS SALES													
Subtotal	(292.6)	(276.3)	(327.7)	(317.7)	(383.7)	(407.6)	(375.6)	(351.1)	(335.6)	(327.0)	(271.4)	(253.4)	(3,919.7)

Total Power Purchase Costs (\$000)													
Biogas	\$ 143	\$ 108	\$ 154	\$ 178	\$ 158	\$ 160	\$ 206	\$ 239	\$ 219	\$ 223	\$ 154	\$ 159	\$ 2,103
Other	\$ 48	\$ 14	\$ 15	\$ 18	\$ 40	\$ 39	\$ 49	\$ 35	\$ 35	\$ 21	\$ 17	\$ 17	\$ 348
Solar	\$ 20,976	\$ 20,715	\$ 23,394	\$ 25,002	\$ 31,843	\$ 39,576	\$ 54,176	\$ 49,351	\$ 44,470	\$ 41,330	\$ 21,076	\$ 20,129	\$ 392,039
Wind	\$ 13,202	\$ 11,771	\$ 19,475	\$ 16,208	\$ 20,663	\$ 18,839	\$ 14,604	\$ 12,878	\$ 12,507	\$ 11,633	\$ 10,233	\$ 7,461	\$ 169,474
Wind (REC)	\$ 2,929	\$ 2,421	\$ 1,796	\$ 2,361	\$ 1,736	\$ 1,513	\$ 1,375	\$ 1,345	\$ 1,379	\$ 2,130	\$ 2,656	\$ 3,136	\$ 24,776
RPS Sales	\$ (17,201)	\$ (16,185)	\$ (19,349)	\$ (18,740)	\$ (22,811)	\$ (24,280)	\$ (22,302)	\$ (20,794)	\$ (19,838)	\$ (19,313)	\$ (15,886)	\$ (14,782)	\$ (231,482)
Subtotal	\$ 20,097	\$ 18,844	\$ 25,484	\$ 25,027	\$ 31,628	\$ 35,848	\$ 48,107	\$ 43,054	\$ 38,772	\$ 36,024	\$ 18,251	\$ 16,120	\$ 357,258

ATTACHMENT D

SDG&E 2027 CTC QUALIFYING FACILITY DETAIL

ATTACHMENT D

SDG&E 2027 CTC QUALIFYING FACILITY DETAIL

PRIVILEGED AND CONFIDENTIAL PURSUANT TO P.U.C. CODE 583, 454.5(g), GO 66-C and D.06-06-066 as needed

ATTACHMENT D - SDG&E 2027 CTC DETAIL

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
CTC - Dispatchable (GWh)													2027
Goal Line													
CTC QF - SRAC Priced (GWh)													
Aggregation of Hydro Units (SO1)													
Subtotal													
ERRA Expenses (\$000)													
CTC (up to market)													
TCBA Expenses (\$000)													
CTC (above market)													

ATTACHMENT E

SDG&E GREENHOUSE GAS DETAIL

ATTACHMENT E

SDG&E GREENHOUSE GAS DETAIL

PRIVILEGED AND CONFIDENTIAL PURSUANT TO P.U.C. CODE 583, 454.5(g), GO 66-C and D.06-06-066 as needed

ATTACHMENT E - SDG&E 2027 GREENHOUSE GAS (GHG) DETAIL

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2027
2027 Direct Emissions (MT)													
California UOG Plants													
California Tolling Generators													
Specified Imports													
Unspecified Imports (Market Purchases)													
Total Direct Emissions													
2027 Indirect Emissions (MT)													
Unspecified Imports (Market Purchases)													
Unbundled RPS after REC Sales													
CHP													
Total Indirect Emissions													
2026 Total Forecasted Emissions													

ATTACHMENT F

DECLARATION OF JIMMY ELIAS

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

**DECLARATION
OF JIMMY ELIAS**

A.26-05-XXX

**Application of San Diego Gas & Electric Company (U 902-E)
for Approval of Its 2027 Electric Procurement Revenue Requirement Forecasts and GHG-
Related Forecasts**

I, Jimmy Elias, declare as follows:

1. I am a Senior Resource Planner for San Diego Gas & Electric Company (“SDG&E”). I sponsored my Updated Prepared Direct Testimony (“Testimony”) in support of SDG&E’s May 15, 2026 Application for Approval of its 2027 Electric Procurement Revenue Requirement Forecasts and GHG-Related Forecasts (“Application”). Additionally, as the Senior Resource Planner, I am thoroughly familiar with the facts and representations in this declaration, and if called upon to testify I could and would testify to the following based upon personal knowledge.

2. I am providing this Declaration to demonstrate that the confidential information (“Protected Information”) in support of the referenced Application falls within the scope of data provided confidential treatment in the IOU Matrix (“Matrix”) attached to the Commission’s Decision (“D.”) 06-06-066 (the Phase I Confidentiality decision). Pursuant to the procedure adopted in D.08-04-023, I am addressing each of the following five features of Ordering Paragraph 2 of D.06-06-066:

- that the material constitutes a particular type of data listed in the Matrix;
- the category or categories in the Matrix the data correspond to;
- that SDG&E is complying with the limitations on confidentiality specified in the Matrix for that type of data;
- that the information is not already public; and

- that the data cannot be aggregated, redacted, summarized, masked, or otherwise protected in a way that allows partial disclosure.

3. The Protected Information contained in my Testimony constitutes material, market sensitive, electric procurement-related information that is within the scope of Section 454.5(g) of the Public Utilities Code.¹ As such, the Protected Information is allowed confidential treatment in accordance with the Matrix, as follows:

Location of Protected Information (designated in Yellow Highlight)	Matrix Reference	Reason for Confidentiality and Timing
JE-3	V.C	LSE Total Energy Forecast – Bundled Customer; confidential for the front three years
JE-4 Table 1	IV.F	Forecast of Post-1/1/2003 Bilateral Contracts; confidential for three years
JE-5	VI.A VII.B	Utility Bundled Net Open Position for Capacity; confidential for the front three years Contracts and power purchase agreements between utilities and non-affiliated third parties
JE-7 Table 2	IV.A	Forecast of IOU Generation Resources; confidential for three years
JE-9	IV.B	Forecast of Qualifying Facility Generation; confidential for three years
JE-10	II.B.1 II.B.3 II.B.4 IV.J	Generation Cost Forecasts of Utility Retained Generation, confidential for three years, Generation Cost Forecasts of QF Contracts, confidential for three years, Generation Cost Forecasts of Non-QF Bilateral Contracts, confidential for three years, Forecast of Wholesale Market Purchases; confidential for the front three years
JE-11	II.A.2	Utility Electric Price Forecasts; confidential for three years,
JE-12	II.B.3	Generation Cost Forecast of QF Contracts; confidential for three years

¹ In addition to the details addressed herein, SDG&E believes that the information being furnished in my Testimony is governed by Public Utilities Code Section 583 and General Order 66-D. Accordingly, SDG&E seeks confidential treatment of this data under those provisions, as applicable.

Location of Protected Information (designated in Yellow Highlight)	Matrix Reference	Reason for Confidentiality and Timing
JE-13	II.B.1 II.B.4	Generation Cost Forecasts of Utility Retained Generation, confidential for three years, Generation Cost Forecasts of Non-QF Bilateral Contracts, confidential for three years,
JE-16, JE-17	I.A.4	Long-term Fuel (gas) Buying and Hedging; confidential for three years
JE-25 Table 4	Justification for confidentiality provided in Declaration of Chris Summers	GHG emissions forecast: Providing these forecasts to market participants would allow them to know SDG&E's GHG forecasted GHG obligation, thereby compromising SDG&E's contractual bargaining power such that customer costs are likely to rise. Thus, the release of this non-public confidential information will unjustifiably allow market participants to use this information to the disadvantage of SDG&E's customers.
JE-25, JE-26, JE-27	II.B.4	Generation Cost Forecasts of Non-QF Bilateral Contracts, confidential for three years
Attachment A - SDG&E 2027 ERRAs and LG Expenses	XI	Monthly Procurement Costs; confidential for three years
Attachment B - SDG&E 2027 Generation Portfolio Delivery Volumes <ul style="list-style-type: none"> • CTC and non-CTC QF generation data • UOG and non-UOG gas, pumped hydro storage, and battery storage generation data 	IV.A IV.E IV.B IV.F	Forecast of IOU Generation Resources; confidential for three years Forecast of Pre-1/1/2003 Bilateral Contracts; confidential for three years Forecast of Qualifying Facility Generation; confidential for three years Forecast of Post-1/1/2003 Bilateral Contracts; confidential for three years

Location of Protected Information (designated in Yellow Highlight)	Matrix Reference	Reason for Confidentiality and Timing
Attachment D - SDG&E 2027 CTC Qualifying Facility (QF) Detail <ul style="list-style-type: none"> • CTC QF dispatchable and non-dispatchable data • Long-Term Power Purchase CTC data • TCBA Expenses data 	IV.E IV.B II.B.4 II.B.3	Forecast of Pre-1/1/2003 Bilateral Contracts; confidential for three years Forecast of Qualifying Facility Generation; confidential for three years Generation Cost Forecast of Non-QF Bilateral Contracts; confidential for three years Generation Cost Forecast of QF Contracts; confidential for three years
Attachment E - SDG&E Greenhouse Gas (GHG) Detail	Justification for confidentiality provided in Declaration of Chris Summers	GHG emissions forecasts: Providing these forecasts to market participants would allow them to know SDG&E's GHG forecasted GHG obligation, thereby compromising SDG&E's contractual bargaining power such that customer costs are likely to rise. Thus, the release of this non-public confidential information will unjustifiably allow market participants to use this information to the disadvantage of SDG&E's customers.

4. I am not aware of any instances where the Protected Information has been disclosed to the public. To my knowledge, no party, including SDG&E, has publicly revealed any of the Protected Information.

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

6. The Protected Information cannot be provided in a form that is aggregated, partially redacted, or summarized, masked, or otherwise protected in a manner that would allow further disclosure of the data while still protecting confidential information.

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

Executed this 15th day of May, 2026, at San Diego, California.

/s/ Jimmy Elias
 Jimmy Elias
 Senior Resource Planner
 San Diego Gas & Electric Company

ATTACHMENT G

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

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

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

I, Chris Summers do declare as follows:

1. I am the Director of Origination, Energy Supply, & Dispatch in the Energy Procurement Department for San Diego Gas & Electric Company (“SDG&E”). I have been delegated authority to sign this declaration by Adam Pierce, Vice President of Energy Procurement & Rates. I have reviewed Jimmy Elias’s Prepared Direct Testimony (“Testimony”) in support of SDG&E’s May 15, 2026 Application for Approval of Its 2027 Electric Procurement Revenue Requirement Forecasts and GHG-Related Forecasts (“Application”). I am personally familiar with the facts and representations in this Declaration and, if called upon to testify, I could and would testify to the following based upon my personal knowledge and/or information and belief.

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

3. In accordance with the legal authority described herein, 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 15th day of May 2026, in San Diego.

/s/ Chris Summers
Chris Summers
Director of Origination, Energy Supply & Dispatch

ATTACHMENT A

SDG&E Request for Confidentiality on the following information in its Application for Approval of Its 2027 Electric Procurement Revenue Requirement Forecasts and GHG- Related Forecasts

Location of Protected Information (designated in Yellow Highlight)	Legal Authority	Narrative Justification
JE-25 Table 4, and Attachment E - SDG&E Greenhouse Gas (GHG) Detail Application Attachment G, Template D-2: Forecasted Emissions and Costs	D.14-10-033; D.16-08-024; D.17-05-035; D.17-09-023; Public Utilities Code Section 454.5(g).	The information does not expressly fall within any category of the IOU Matrix applicable to electric procurement information, but is market-sensitive information in that providing these GHG emissions forecasts to market participants would allow them to know SDG&E’s forecasted GHG obligation, thereby compromising SDG&E’s contractual bargaining power such that customer costs are likely to rise. Thus, the release of this non-public confidential information will unjustifiably allow market participants to use this information to the disadvantage of SDG&E’s customers.