

Company: San Diego Gas & Electric Company (U 902 M)  
Proceeding: 2028 General Rate Case  
Application: A.26-06-\_\_\_\_  
Exhibit: SDGE-10

**PREPARED DIRECT TESTIMONY OF DARREN A. WEIM  
(ELECTRIC GENERATION)**

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



**June 2026**

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**SUMMARY**

<b>ELECTRIC GENERATION (In 2025 \$)</b>			
<b>O&amp;M</b>	<b>2025 Adjusted-Recorded (000s)</b>	<b>TY2028 Est. (000s)</b>	<b>Change (000s)</b>
<b>Total Non-Shared Services</b>	<b>38,175</b>	<b>48,696</b>	<b>10,521</b>
<b>Total Shared Services (Incurred)</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total O&amp;M</b>	<b>38,175</b>	<b>48,696</b>	<b>10,521</b>

<b>ELECTRIC GENERATION (In 2025 \$)</b>							
<b>Capital</b>	<b>2025 Adjusted-Recorded (000s)</b>	<b>Est. 2026 (000s)</b>	<b>Est. 2027 (000s)</b>	<b>Est. 2028 (000s)</b>	<b>Est. 2029 (000s)</b>	<b>Est. 2030 (000s)</b>	<b>Est. 2031 (000s)</b>
<b>Total CAPITAL</b>	<b>15,874</b>	<b>13,222</b>	<b>13,192</b>	<b>12,103</b>	<b>12,103</b>	<b>12,103</b>	<b>12,103</b>

**Summary of Requests**

- Approval of the forecasted cost of operating SDG&E’s Electric Generation gas-fired power plant fleet, consisting of the Palomar Energy Center (PEC), Desert Star Energy Center (DSEC), Miramar Energy Facility (MEF), and Cuyamaca Peak Energy Plant (CPEP).
- Approval of the forecasted cost of operating SDG&E’s current Electric Generation Distributed Energy Facility (DEF) fleet, consisting of 23 California Independent System Operator (CAISO)-connected resources throughout the service territory, as well as new DEFs that are expected to be added to the Electric Generation DEF fleet in 2026.
- Approval of the forecasted cost of administration of the Electric Generation function (Generation Administration).

**PREPARED DIRECT TESTIMONY OF DARREN A. WEIM  
(ELECTRIC GENERATION)**

**I. INTRODUCTION**

**A. Summary of Electric Generation Costs and Activities**

My Electric Generation testimony encompasses three primary areas: Generation Plant, DEF (current and future), and Generation Administration. The testimony supports the General Rate Case (GRC) Test Year (TY) 2028 forecasts for operations and maintenance (O&M) costs for non-shared services, and capital costs for the forecast years 2026, 2027, and 2028, associated with the Electric Generation area for SDG&E. Table DAW-1 summarizes my sponsored costs.

**TABLE DAW-1  
Test Year 2028 Summary of Total Costs**

<b>ELECTRIC GENERATION (In 2025 \$)</b>			
<b>O&amp;M</b>	<b>2025 Adjusted-Recorded (000s)</b>	<b>TY2028 Est. (000s)</b>	<b>Change (000s)</b>
<b>Total Non-Shared Services</b>	<b>38,175</b>	<b>48,696</b>	<b>10,521</b>
<b>Total Shared Services (Incurred)</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total O&amp;M</b>	<b>38,175</b>	<b>48,696</b>	<b>10,521</b>

<b>ELECTRIC GENERATION (In 2025 \$)</b>							
<b>Capital</b>	<b>2025 Adjusted-Recorded (000s)</b>	<b>Est. 2026 (000s)</b>	<b>Est. 2027 (000s)</b>	<b>Est. 2028 (000s)</b>	<b>Est. 2029 (000s)</b>	<b>Est. 2030 (000s)</b>	<b>Est. 2031 (000s)</b>
<b>Total CAPITAL</b>	<b>15,874</b>	<b>13,222</b>	<b>13,192</b>	<b>12,103</b>	<b>12,103</b>	<b>12,103</b>	<b>12,103</b>

In addition to this testimony, please also refer to my workpapers, exhibits SDG&E-10-WP (for O&M) and SDG&E-10-CWP (for Capital) for additional information on the activities described herein.

SDG&E’s Electric Generation function (Generation) is responsible for the safe and reliable operation and maintenance of the Generation gas-fired power plant and Distributed Energy Facility (DEF) fleets. Costs are included for operations and maintenance of the generating fleet, as well as for Generation Administration.

Costs related to Generation power plant fleet represent the majority of the O&M and capital expenditures in the Electric Generation organization. SDG&E owns and operates two

1 combined cycle generating facilities, Palomar Energy Center (PEC) located in Escondido, CA  
2 and Desert Star Energy Center (DSEC) located in Boulder City, NV.<sup>1</sup> SDG&E also owns and  
3 operates two peaking plants, Miramar Energy Facility (MEF) located in San Diego, CA, and  
4 Cuyamaca Peak Energy Plant (CPEP), located in El Cajon, CA. Descriptions and capabilities for  
5 each facility are provided below.

6 In addition, SDG&E owns and operates 23 DEFs. Costs are included for facility  
7 operations, minor maintenance activities, and costs associated with the administration of the  
8 Long-Term Service Agreement (LTSA) for each DEF.<sup>2</sup> The sites are located throughout the  
9 SDG&E service territory. Descriptions and capabilities for each facility are provided below.

## 10 **B. Organization of Testimony**

11 My testimony is organized as follows:

- 12 • Introduction
- 13 • Affordability & Efficiency
- 14 • Non-Shared O&M Costs
- 15 • Capital
- 16 • Conclusion
- 17 • Witness Qualifications

## 18 **C. Description of Electric Generation Facilities**

### 19 **1. Generation Plants**

#### 20 **a. Generation Plant Palomar**

21 The Palomar Energy Center (PEC) is a 588 megawatt gas-fired combined-cycle plant  
22 with 2 General Electric (GE) 7FA model combustion turbine-generator sets (CT) and a single GE  
23 steam turbine-generator set (ST). Each CT exhausts into a Heat Recovery Steam Generator  
24 (HRSG), each of which is equipped with a selective catalytic reduction (SCR) system for  
25 removal of nitrogen oxides (NOx) and an oxidation catalyst for removal carbon monoxide (CO).  
26 Each HRSG is also equipped with a duct burner system to provide additional heat for steam

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<sup>1</sup> DSEC is located on land leased from the City of Boulder City, NV, pursuant to a lease agreement that has been extended to 2045.

<sup>2</sup> Costs associated with the administration of the DEF LTSAs (primarily labor) are included in this GRC request. Costs of contracted LTSA services (*e.g.*, site maintenance and repairs) are recovered through other regulatory accounts.

1 production during peak load periods. The steam produced in the two HRSGs is supplied to the  
2 single ST. Exhaust steam exiting the ST is condensed in a steam surface condenser by  
3 transferring heat to circulating cooling water. Heat in the circulating cooling water is then  
4 rejected to the atmosphere in an evaporating cooling tower.

5 PEC is also configured so that it may operate only one combustion turbine and the steam  
6 turbine. The steam turbine depends on the HRSG, fueled by the gas turbine's exhaust, to  
7 generate steam for power production. This gives PEC the operational flexibility to respond to  
8 varying load demands while maximizing operational efficiency. This plant configuration is  
9 commonly referred to as a combined-cycle plant.

10 Combined-cycle power plants generate more power and operate more efficiently at lower  
11 gas-turbine inlet air temperatures. To take advantage of this characteristic, the plant is equipped  
12 with inlet air chillers and a thermal energy storage tank, allowing it to maintain full generating  
13 capacity during the summer months. Recycled water is used to cool plant equipment.

#### 14 **b. Generation Plant Desert Star**

15 The Desert Star Energy Center (DSEC) is a 480 megawatt gas-fired combined-cycle plant  
16 with 2 Siemens W501-FC+ model CT and a single Siemens-Westinghouse ST. Each CT  
17 exhausts into a HRSG, each of which is equipped with SCR for removal of NOx and an  
18 oxidation catalyst for removal of CO. Each HRSG is also equipped with a duct burner system to  
19 provide additional heat for steam production during peak load periods. The steam produced in  
20 the two HRSGs is supplied to the single ST. Exhaust steam exiting the ST is condensed in an  
21 air-cooled condenser by rejecting heat to the atmosphere.

22 DSEC is also configured so that it may operate only one combustion turbine and the  
23 steam turbine. This gives DSEC the operational flexibility to respond to varying load demands  
24 while maximizing operational efficiency.

#### 25 **c. Generation Plant Miramar**

26 The Miramar Energy Facility (MEF) is a peaking plant with two GE LM6000 model  
27 turbine-generator sets in a simple cycle configuration (MEF-1 and MEF-2). Together they are  
28 capable of producing 92 megawatts. The facility uses modern peaking turbines with SCR for  
29 removal of NOx and an oxidation catalyst for removal of CO. This site also provides black start  
30 services used for restoration of the electric grid. Operations and maintenance personnel based  
31 out of the Palomar Energy Center provide all plant services to this facility.

1 **d. Generation Plant Cuyamaca**

2 The Cuyamaca Peak Energy Plant (CPEP) is a peaking plant with a Pratt & Whitney FT8  
3 model turbine generator set that is capable of producing 45 megawatts. The facility uses modern  
4 peaking turbines with SCR for removal of NOx and an oxidation catalyst for removal of CO.  
5 This site also provides black start services used for restoration of the electric grid. Operations  
6 and maintenance personnel based out of the Palomar Energy Center provide all plant services to  
7 this facility.

8 **2. Distributed Energy Facilities – Current**

9 Since SDG&E’s TY 2024 GRC application, the site count of SDG&E’s California  
10 Independent System Operator (CAISO)-connected DEF resources has increased from 9 to 23.  
11 The power rating has increased from a total of 93.82 megawatts to 442.92 megawatts, and the  
12 energy rating has increased from a total of 358 megawatt-hours to 1,783.04 megawatt-hours.  
13 These DEFs are located throughout SDG&E’s service territory and are operated by personnel  
14 based out of Palomar Energy Center. See Appendix B for a list of DEF sites and capabilities. A  
15 description of each DEF site follows:

16 **a. Boulevard Battery Energy Storage System (BESS)**

17 Boulevard BESS was constructed pursuant to California Public Utility Commission  
18 (CPUC) Resolution E-5219. This Resolution approved contracts for energy storage microgrid  
19 projects for a total of 39 megawatts of incremental capacity that SDG&E procured to address  
20 2023 summer reliability and thereafter. This energy storage system uses lithium-ion technology  
21 and is rated at 50.5 megawatt-hours with a maximum output of 10 megawatts for up to 5 hours.  
22 Personnel based out of the Palomar Energy Center operate the site, while a majority of the  
23 maintenance is performed by Prevalon under an LTSA. Costs associated with the LTSA are not  
24 recovered through the GRC.

25 **b. Cameron Corners Solar**

26 Cameron Corners Solar was constructed pursuant to CPUC Resolution SPD-01. This  
27 Resolution ratified the approval of SDG&E’s 2020-2022 Wildfire Mitigation Plan, which  
28 included development and deployment of microgrids that may reduce the risk of ignition, risk  
29 from public safety power shutoff (PSPS), and wildfire consequences. The site is built with fixed  
30 photovoltaic panels and can produce up to 840 kilowatts (alternating current). Operations and

1 maintenance personnel based out of the Palomar Energy Center provide all plant services at this  
2 facility.

3 **c. Cameron Corners Vanadium Redox Flow BESS**

4 Cameron Corners Vanadium Redox Flow (VRF) BESS was constructed pursuant to  
5 CPUC Resolution SPD-01. This Resolution ratified the approval of SDG&E's 2020-2022  
6 Wildfire Mitigation Plan, which included development and deployment of microgrids that may  
7 reduce the risk of ignition, risk from PSPS, and wildfire consequences. This energy storage  
8 system uses VRF technology rated at 4 MWh with a maximum output of 460 kilowatts for up to  
9 8 hours. Personnel based out of the Palomar Energy Center operate the site, while a majority of  
10 the maintenance will be performed by Sumitomo under an LTSA. Costs associated with the  
11 LTSA are not recovered through the GRC.

12 **d. Clairemont BESS**

13 Clairemont BESS was constructed pursuant to CPUC Resolution E-5219. This  
14 Resolution approved contracts for energy storage microgrid projects for a total of 39 megawatts  
15 of incremental capacity that SDG&E procured to address reliability in summer 2023 and  
16 thereafter. This energy storage system uses lithium-ion technology and is rated at 29 megawatt-  
17 hours with a maximum output of 9 megawatts for up to 3 hours. Personnel based out of the  
18 Palomar Energy Center operate the site while a majority of the maintenance is performed by  
19 Prevalon under an LTSA. Costs associated with the LTSA are not recovered through the GRC.

20 **e. Dark Sky BESS**

21 Dark Sky BESS was constructed pursuant to California Energy Commission Publication  
22 CEC-500-2019-013, Contract Number EPC-14-060 and CPUC Decision (D.) 24-12-074. The  
23 project is an addition to the existing microgrid facility that was built to independently provide  
24 power to an entire substation and the Borrego Springs community during emergencies. This  
25 energy storage system uses lithium-ion technology and is rated at 14.66 megawatt-hours with a  
26 maximum output of 7.33 megawatts for up to 2 hours. Personnel based out of the Palomar  
27 Energy Center operate the site while a majority of the maintenance is performed by Tesla under  
28 an LTSA. Costs associated with the LTSA are not recovered through the GRC.

29 **f. El Cajon BESS**

30 El Cajon BESS was constructed pursuant to CPUC Resolution E-4798. This Resolution  
31 approved SDG&E contracts for engineering, procurement and construction of energy storage

1 facilities to address electrical reliability risks in the Los Angeles Basin arising from the  
2 moratorium on injections into the Aliso Canyon natural gas storage facility (Aliso Canyon). This  
3 energy storage system uses lithium-ion technology and is rated at 30 megawatt-hours with a  
4 maximum output of 7.5 megawatts for up to 4 hours. Personnel based out of the Palomar Energy  
5 Center operate the site, while a majority of the maintenance is performed by Fluence under an  
6 LTSA. Costs associated with the LTSA are not recovered through the GRC.

7 **g. Elliot BESS**

8 Elliot BESS was constructed pursuant to CPUC Resolution E-5219. This Resolution  
9 approved contracts for energy storage microgrid projects for a total of 39 megawatts of  
10 incremental capacity that SDG&E procured to address reliability in summer 2023 and thereafter.  
11 This energy storage system uses lithium-ion technology and is rated at 50.5 megawatt-hours with  
12 a maximum output of 10 megawatts for up to 5 hours. Personnel based out of the Palomar  
13 Energy Center operate the site, while a majority of the maintenance is performed by Prevalon  
14 under an LTSA. Costs associated with the LTSA are not recovered through the GRC.

15 **h. Escondido 1 BESS**

16 Escondido 1 BESS was constructed pursuant to CPUC Resolution E-4798. This  
17 Resolution approved SDG&E contracts for engineering, procurement and construction of energy  
18 storage facilities to address electrical reliability risks in the Los Angeles Basin arising from the  
19 moratorium on injections into Aliso Canyon. This energy storage system uses lithium-ion  
20 technology and is rated at 40 megawatt-hours with a maximum output of 10 megawatts for up to  
21 4 hours. Personnel based out of the Palomar Energy Center operate the site, while a majority of  
22 the maintenance is performed by Fluence under an LTSA. Costs associated with the LTSA are  
23 not recovered through the GRC.

24 **i. Escondido 2 BESS**

25 Escondido 2 BESS was constructed pursuant to CPUC Resolution E-4798. This  
26 Resolution approved SDG&E contracts for engineering, procurement and construction of energy  
27 storage facilities to address electrical reliability risks in the Los Angeles Basin arising from the  
28 moratorium on injections into Aliso Canyon. This energy storage system uses lithium-ion  
29 technology and is rated at 40 megawatt-hours with a maximum output of 10 megawatts for up to  
30 4 hours. Personnel based out of the Palomar Energy Center operate the site, while a majority of

1 the maintenance is performed by Fluence under an LTSA. Costs associated with the LTSA are  
2 not recovered through the GRC.

3 **j. Escondido 3 BESS**

4 Escondido 3 BESS was constructed pursuant to CPUC Resolution E-4798. This  
5 Resolution approved SDG&E contracts for engineering, procurement and construction of energy  
6 storage facilities to address electrical reliability risks in the Los Angeles Basin arising from the  
7 moratorium on injections into Aliso Canyon. This energy storage system uses lithium-ion  
8 technology and is rated at 40 megawatt-hours with a maximum output of 10 megawatts for up to  
9 4 hours. Personnel based out of the Palomar Energy Center operate the site, while a majority of  
10 the maintenance is performed by Fluence under an LTSA. Costs associated with the LTSA are  
11 not recovered through the GRC.

12 **k. Fallbrook BESS**

13 Fallbrook BESS was constructed pursuant to California Assembly Bill (AB) 2514 and  
14 D.18-05-024. The decision set a goal for SDG&E to procure 165 megawatts (MW) of energy  
15 storage by the end of 2020, to be installed no later than year-end, 2024. The energy storage  
16 system uses lithium-ion technology and is rated at 160 megawatt-hours with a maximum output  
17 of 40 megawatts for up to 4 hours.

18 Under CPUC Resolution E-5303, utility-owned energy storage contracts for incremental  
19 capacity were approved to address 2024 and 2025 summer reliability. The system is being  
20 augmented to increase the rating to 278.4 megawatt-hours with a maximum output of 69.6  
21 megawatts for up to 4 hours. Projected commercial operation is expected Q2 of 2026. Personnel  
22 based out of the Palomar Energy Center operate the site, while a majority of the maintenance is  
23 performed by Fluence and Stella under an LTSA. Costs associated with the LTSA are not  
24 recovered through the GRC.

25 **l. Kearny North BESS**

26 Kearny North BESS was constructed pursuant to CPUC Resolution E-5117. This  
27 Resolution approved SDG&E's request to procure 144 megawatts of nameplate energy storage  
28 capacity to satisfy the procurement requirements ordered in D.19-11-016, issued in the CPUC's  
29 Integrated Resource Planning (IRP) Rulemaking (R.16-02-007). This energy storage system  
30 uses lithium-ion technology and is rated at 40 megawatt-hours with a maximum output of 10  
31 megawatts for up to 4 hours. Personnel based out of the Palomar Energy Center operate the site,

1 while a majority of the maintenance is performed by Fluence under an LTSA. Costs associated  
2 with the LTSA are not recovered through the GRC.

3 **m. Kearny South BESS**

4 Kearny South BESS was constructed pursuant to CPUC Resolution E-5117. This  
5 Resolution approved SDG&E's request to procure 144 megawatts of nameplate energy storage  
6 capacity to satisfy the procurement requirements ordered in D.19-11-016. This energy storage  
7 system uses lithium-ion technology and is rated at 40 megawatt-hours with a maximum output of  
8 10 megawatts for up to 4 hours. Personnel based out of the Palomar Energy Center operate the  
9 site, while a majority of the maintenance is performed by Fluence under an LTSA. Costs  
10 associated with the LTSA are not recovered through the GRC.

11 **n. Melrose 1 BESS**

12 Melrose 1 BESS was constructed pursuant to CPUC Resolution E-5193. This Resolution  
13 approved energy storage contracts for 161 megawatts of incremental capacity that SDG&E  
14 procured to address 2023 summer reliability. This energy storage system uses lithium-ion  
15 technology and is rated at 40 megawatt-hours with a maximum output of 10 megawatts for up to  
16 4 hours. Personnel based out of the Palomar Energy Center operate the site, while a majority of  
17 the maintenance is performed by Fluence under an LTSA. Costs associated with the LTSA are  
18 not recovered through the GRC.

19 **o. Melrose 2 BESS**

20 Melrose 2 BESS was constructed pursuant to CPUC Resolution E-5193. This Resolution  
21 approved energy storage contracts for 161 megawatts of incremental capacity that SDG&E  
22 procured to address 2023 summer reliability. This energy storage system uses lithium-ion  
23 technology and is rated at 40 megawatt-hours with a maximum output of 10 megawatts for up to  
24 4 hours. Personnel based out of the Palomar Energy Center operate the site, while a majority of  
25 the maintenance is performed by Fluence under an LTSA. Costs associated with the LTSA are  
26 not recovered through the GRC.

27 **p. Miguel VRF BESS**

28 Miguel VRF BESS was constructed as a demonstration project in partnership with  
29 Sumitomo, Japan's New Energy and Industrial Technology Development Organization (NEDO)  
30 and the State of California Governor's Office of Business and Economic Development (GO-Biz).  
31 Additional interconnection funding was authorized in accordance with D.18-01-008. This

1 energy storage system uses flow technology and is rated at 8 megawatt-hours with a maximum  
2 output of 2 megawatts for up to 4 hours. Personnel based out of the Palomar Energy Center  
3 operate the site, while a majority of the maintenance is provided pursuant to a standard service  
4 agreement with Sumitomo.

5 **q. Pala-Gomez Creek BESS**

6 Pala-Gomez Creek BESS was constructed pursuant to CPUC Resolution E-5193. This  
7 Resolution approved energy storage contracts for 161 megawatts of incremental capacity that  
8 SDG&E procured to address 2023 summer reliability. The energy storage system uses lithium-  
9 ion technology and is rated at 60 megawatt-hours with a maximum output of 10 megawatts for  
10 up to 6 hours. Personnel based out of the Palomar Energy Center operate the site, while a  
11 majority of the maintenance is performed by Prevalon under an LTSA. Costs associated with the  
12 LTSA are not recovered through the GRC.

13 **r. Paradise BESS**

14 Paradise BESS was constructed pursuant to CPUC Resolution E-5219. This Resolution  
15 approved contracts for energy storage microgrid projects for a total of 39 megawatts of  
16 incremental capacity that SDG&E procured to address reliability in summer 2023 and thereafter.  
17 This energy storage system uses lithium-ion technology and is rated at 50.5 megawatt-hours with  
18 a maximum output of 10 megawatts for up to 5 hours. Personnel based out of the Palomar  
19 Energy Center operate the site, while a majority of the maintenance is performed by Prevalon  
20 under an LTSA. Costs associated with the LTSA are not recovered through the GRC.

21 **s. Ramona BESS**

22 Ramona BESS was constructed pursuant to CPUC Resolution SPD-01. This Resolution  
23 ratified the approval of SDG&E's 2020-2022 Wildfire Mitigation Plan, which included  
24 development and deployment of microgrids that may reduce the risk of ignition, risk from PSPS,  
25 and wildfire consequences. The site uses lithium-ion technology rated at 1.88 megawatt-hours  
26 with a maximum output of 470 kilowatts for up to 4 hours. Personnel based out of the Palomar  
27 Energy Center operate the site, while a majority of the maintenance is performed by Tesla under  
28 an LTSA. Costs associated with the LTSA are not recovered through the GRC.

29 **t. Ramona Solar Energy Project**

30 The Ramona Solar Energy Project (RSEP) was constructed pursuant to D.10-09-016.  
31 The decision authorized 26 megawatts of utility-owned generation and 74 megawatts of power

1 purchase agreements (PPAs) with independent power producers. The project is built with fixed  
2 photovoltaic panels and can produce up to 4.32 megawatts. Operations and maintenance  
3 personnel based out of the Palomar Energy Center provide all plant services at this facility.

4 **u. Top Gun BESS**

5 Top Gun BESS was constructed pursuant to Assembly Bill (AB) 2514<sup>3</sup> and D.18-05-024,  
6 which set a goal for SDG&E to procure 165 MW of energy storage by the end of 2020, to be  
7 installed no later than year-end, 2024. The energy storage system uses lithium-ion battery  
8 technology energy storage and is rated at 120 megawatt-hours with a maximum output of 30  
9 megawatts for up to 4 hours. Personnel based out of the Palomar Energy Center operate the site,  
10 while a majority of the maintenance is performed by RES America under an LTSA. Costs  
11 associated with the LTSA are not recovered through the GRC.

12 **v. Westside Canal BESS**

13 Westside Canal BESS was constructed pursuant to CPUC Resolution E-5193. This  
14 Resolution approved energy storage contracts for 161 megawatts of incremental capacity that  
15 SDG&E procured to address 2023 summer reliability. This energy storage system uses lithium-  
16 ion technology and is rated at 524 megawatt-hours with a maximum output of 131 megawatts for  
17 up to 4 hours. Personnel based out of the Palomar Energy Center operate the site, while a  
18 majority of the maintenance is performed by RWE under an LTSA. Costs associated with the  
19 LTSA are not recovered through the GRC.

20 **w. Westside Canal 2B BESS**

21 Westside Canal 2B BESS was constructed pursuant to CPUC Resolution E-5372. This  
22 Resolution approved SDG&E's request for approval of a utility-owned energy storage contract  
23 procured to address 2025 summer reliability. This energy storage system uses lithium-ion  
24 technology and is rated at 400 megawatt-hours with a maximum output of 100 megawatts for up  
25 to 4 hours. Personnel based out of the Palomar Energy Center operate the site, while a majority  
26 of the maintenance is performed by RWE under an LTSA. Costs associated with the LTSA are  
27 not recovered through the GRC.

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<sup>3</sup> AB 2514 (Skinner, 2010), *available at*:  
[https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=200920100AB2514](https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200920100AB2514)

1                                   **3.       Distributed Energy Facilities – Future**

2                   SDG&E plans to add the following BESS during this GRC cycle.

3                                   **a.       Santee BESS**

4                   Santee BESS is currently under construction pursuant to CPUC Resolution E-5303. This  
5 Resolution approves utility-owned energy storage contracts for 39.6 megawatts of incremental  
6 capacity that SDG&E procured to address 2024 and 2025 summer reliability. This energy  
7 storage system will use lithium-ion technology and will be rated at 40 megawatt-hours with a  
8 maximum output of 10 megawatts for up to 4 hours. Projected commercial operation is expected  
9 Q2 of 2026. Personnel based out of the Palomar Energy Center will operate the site, while  
10 maintenance will be performed by Stella under an LTSA. Costs associated with the LTSA will  
11 not be recovered through the GRC.

12                                   **b.       Westside Canal 2A BESS**

13                   SDG&E has submitted Advice Letter 4736-E requesting CPUC approval of cost recovery  
14 for Westside Canal 2A BESS. This energy storage system uses lithium-ion technology and is  
15 rated at 476 megawatt-hours with a maximum output of 119 megawatts for up to 4 hours. If  
16 approved, personnel based out of the Palomar Energy Center will operate the site, while  
17 maintenance will be performed by RWE under an LTSA. Costs associated with the LTSA will  
18 not be recovered through the GRC.

19                                   **4.       Generation Administration**

20                   Generation Administration area provides managerial oversight for all Electric Generation  
21 facilities and personnel.

22                                   **D.       Voluntary Protection Program – Star**

23                   The Occupational Safety and Health Administration (OSHA)’s Voluntary Protection  
24 Program (VPP) certification recognizes employers and workers who have implemented effective  
25 safety and health management systems and maintain injury and illness rates below national  
26 Bureau of Labor Statistics averages for their respective industries. In the VPP, management,  
27 labor, and OSHA work cooperatively and proactively to prevent fatalities, injuries, and illnesses.  
28 These goals are achieved through a system focused on hazard prevention and control, worksite  
29 analysis, training, management commitment, and worker involvement.

30                   Currently, DSEC maintains Nevada VPP Star status (since 2009) and the California  
31 plants maintain VPP Star status as follows: PEC since 2018, MEF since 2021 and CPEP since

1 2021. Successful completion of the certification and the periodic recertification process  
2 indicates that the employer and employees work together to elevate the safety and health  
3 practices beyond the standard OSHA requirements. The costs include engineered improvements,  
4 employee training, OSHA consultation services, additional safety equipment, and employee and  
5 management time in developing and implementing new practices to maintain the elevated  
6 requirements of the program.

## 7 **II. AFFORDABILITY & EFFICIENCY**

8 Prudent management and maintenance of generation assets are essential to maintaining  
9 affordability while maximizing operational efficiency. A disciplined, strategic approach to asset  
10 management helps to control costs, improve reliability, and optimize plant performance over the  
11 long term.

12 Central to this effort is the use of condition-based maintenance practices, which reduce  
13 unnecessary work and help avoid forced outages by addressing equipment issues before they  
14 escalate into failures. In parallel, structured asset maintenance planning allows major  
15 components, such as turbines, compressors, generators, HRSG components, and control systems  
16 to be inspected, maintained, and refurbished at optimal intervals consistent with manufacturer  
17 recommendations. Aligning maintenance activities with capital projects further enhances  
18 efficiency by minimizing repeated outages and reducing mobilization and contractor costs.

19 Historical data, industry expertise and manufacturer recommendations are used to  
20 prioritize and focus resources on the highest-value and highest-impact activities, so that limited  
21 maintenance and capital dollars deliver the greatest benefit to system reliability and performance.  
22 Digital control systems play a key role in this strategy by providing real-time monitoring of plant  
23 production and efficiency, enabling operators and engineers to identify performance degradation  
24 and improvement opportunities more quickly.

25 Forced outages and derates have a direct and significant impact on affordability by  
26 increasing replacement energy costs. To mitigate these impacts, a combination of root-cause  
27 analysis, targeted reliability initiatives, and spare parts management is employed. This includes  
28 standardizing high-failure-rate components, establishing faster procurement pathways, and  
29 conducting focused thermal system inspections.

30 Lastly, non-LTSA work is competitively bid to identify lower-cost options, and existing  
31 contracts are routinely reviewed to uncover opportunities for cost optimization. Strategic

sourcing of materials and purchased services further supports affordability goals by capturing available cost savings while maintaining quality and reliability standards.

**III. NON-SHARED O&M COSTS**

“Non-shared services” are activities that are performed by a utility solely for its own benefit. Corporate Center provides certain services to the utilities and to other subsidiaries. For purposes of this general rate case, SDG&E treats costs for services received from Corporate Center as non-shared services costs. Table DAW-2 summarizes the total non-shared O&M forecasts for the listed cost categories.

**TABLE DAW-2  
Non-Shared O&M Summary of Costs**

<b>ELECTRIC GENERATION (In 2025 \$)</b>			
<b>Categories of Management</b>	<b>2025 Adjusted-Recorded (000s)</b>	<b>TY 2028 Est. (000s)</b>	<b>Change (000s)</b>
<b>A. Generation Plant</b>	<b>37,941</b>	<b>48,447</b>	<b>10,506</b>
<b>B. Generation Administration</b>	<b>234</b>	<b>249</b>	<b>15</b>
<b>Total Non-Shared Services O&amp;M</b>	<b>38,175</b>	<b>48,696</b>	<b>10,521</b>

**A. Generation Plant**

**TABLE DAW-3  
Generation O&M**

<b>ELECTRIC GENERATION (In 2025 \$)</b>			
<b>A. Generation Plant</b>	<b>2025 Adjusted-Recorded (000s)</b>	<b>TY 2028 Est. (000s)</b>	<b>Change (000s)</b>
<b>1. Generation Plant Palomar</b>	<b>22,889</b>	<b>27,012</b>	<b>4,123</b>
<b>2. Generation Plant Desert Star</b>	<b>10,922</b>	<b>17,272</b>	<b>6,350</b>
<b>3. Generation Plant Miramar</b>	<b>1,216</b>	<b>1,221</b>	<b>5</b>
<b>4. Generation Plant Cuyamaca Peak</b>	<b>1,445</b>	<b>1,450</b>	<b>5</b>
<b>5. Generation Plant Distributed Energy Facilities</b>	<b>1,469</b>	<b>1,492</b>	<b>23</b>
<b>Total</b>	<b>37,941</b>	<b>48,447</b>	<b>10,506</b>

1                   **1.       Generation Plant Palomar**

2                   **a.       Description of Costs and Underlying Activities**

3                   The O&M request for PEC as shown in Table DAW-3 includes labor and non-labor  
4 costs. The labor component includes salaries for supervision, support staff, and operations and  
5 maintenance personnel. The non-labor component includes, but is not limited to, contracted  
6 services, repair parts, water, chemicals, industrial gases, and miscellaneous consumables to  
7 support plant operations and maintenance. Maintenance is performed both during operation and  
8 during outages, planned and unplanned, as appropriate.

9                   **b.       Forecast Method**

10                  The forecast method developed for this cost category is Base Year recorded for both  
11 labor and non-labor costs.

12                  Due to unionization of the Generation technical workforce in 2025, which increased labor  
13 costs and personnel levels, the Base Year methodology was selected for labor forecasting. This  
14 method most accurately represents the labor expenses associated with maintaining and operating  
15 the facility at the new wage rates and staffing level.

16                  In addition, due to an extended maintenance outage in 2023 and an extended regional gas  
17 curtailment in 2024, Palomar experienced lower than expected run hours. The Base Year  
18 method was also selected for non-labor costs because it eliminates the lower run hour years and  
19 more accurately represents the current and forecasted operating profile of the facility.

20                  **c.       Cost Drivers**

21                  The cost drivers behind the labor forecast are related to a wage increase due to the  
22 unionization of the Generation technical workforce, which includes all maintenance, operations,  
23 and storeroom personnel. Beginning on January 1, 2025, the Generation technical workforce  
24 transitioned to the Collective Bargaining Agreement under Local Union 465 of San Diego,  
25 California, of the International Brotherhood of Electrical Workers. On average, employees  
26 experienced a 20% wage increase. In addition, this transition necessitated the addition of new  
27 supervisory and support personnel within the PEC organization (2 Supervisors, Fossil Power  
28 Generation and 1 Administrative Services Coordinator).

29                  The cost drivers behind the non-labor forecast are related to maintaining the clean, safe,  
30 and reliable operation of the Palomar Energy Center. Maintenance outages are a primary cost  
31 driver of the O&M request for Generation Plant Palomar. These outages are typically scheduled

1 annually and range between 30 to 45 days in duration. The extent of the maintenance performed  
2 during the annual outage is dependent on the accumulated run hours of the equipment and the  
3 number of start-cycles the equipment experiences. Generally, more starts and more run hours  
4 result in more required maintenance. Major maintenance outages are scheduled and conducted  
5 when the equipment reaches manufacturer designated hour milestones. PEC is expecting to  
6 perform major maintenance on CT 2 in 2028 and CT 1 in 2029. Also expected in 2029 are CT  
7 and ST generator inspections and a ST minor inspection. The major maintenance outages  
8 include additional inspections and maintenance consisting of, but not limited to, opening turbine  
9 and generator cases for inspection and component replacement. A one-time adjustment has been  
10 included in the forecast for these maintenance activities. All planned outages are scheduled  
11 through the CAISO well in advance of the maintenance event and outside of peak demand  
12 periods. Much of the required maintenance is performed during planned outages, however,  
13 minor routine and unplanned maintenance and inspection activities are experienced throughout  
14 the year.

## 15 **2. Generation Plant Desert Star**

### 16 **a. Description of Costs and Underlying Activities**

17 The O&M request for DSEC as shown in Table DAW-3 above consists of labor and non-  
18 labor costs. The labor component includes salaries for supervision, support staff, and operations  
19 and maintenance personnel. The non-labor component includes, but is not limited to, contracted  
20 services, repair parts, water, chemicals, industrial gases, and miscellaneous consumables to  
21 support plant operations and maintenance. Maintenance is performed both during operation and  
22 during outages, planned and unplanned, as appropriate.

23 Additionally, the non-labor component includes payments for the Desert Star combustion  
24 turbine LTSA purchased through Siemens. LTSA costs for the combustion turbines are tied to  
25 the plant's run hours or starts, as they are generally calculated on a dollar-per-run-hour or dollar-  
26 per-start basis. Consequently, increased run hours or starts result in higher LTSA costs.

### 27 **b. Forecast Method**

28 The forecast methods developed for this cost category are Base Year recorded for labor,  
29 5-Year Average for non-labor, and Zero-Based for Non Standard Escalation (NSE). Due to  
30 unionization of the Generation technical workforce in 2025 the Base Year methodology was

1 selected for labor forecasting. This method most accurately represents the labor expenses  
2 associated with maintaining and operating the facility at the new wage rates and staffing level.

3 Due to major equipment failure at Desert Star, CT Unit # 2 was out of service beginning  
4 in July 2024 through the entirety of 2025. Due to the unit being unavailable, 2025 operating  
5 expenses for the facility are not representative of typical operations, therefore forecast  
6 methodology 5-Year Average was selected for non-labor. This method blends typical and  
7 atypical expenditure years resulting in a strong foundation for forecasting future years.

8 The Zero-Based method was selected for NSE, which only includes the Desert Star  
9 LTSA costs for both combustion turbines. LTSA costs fluctuate year over year and are based on  
10 run hours or starts and cost escalation using the Bureau of Labor Statistics (BLS) indices -  
11 Consumer Price Index, All-Urban. Run hours were forecast using a 5-year rolling average (2021  
12 - 2025). The hourly fee was calculated using the contract base hourly fee escalated by the  
13 projected Consumer Price Index, All-Urban.

#### 14 **c. Cost Drivers**

15 The cost drivers behind the labor forecast are related to a wage increase due to the  
16 unionization of the Generation technical workforce, which includes all maintenance, operations,  
17 and storeroom personnel. Beginning on January 1, 2025, the generation technical workforce  
18 transitioned to the Collective Bargaining Agreement under Local Union 465 of San Diego,  
19 California, of the International Brotherhood of Electrical Workers. On average, employees  
20 experienced a 20% wage increase. The transition also necessitated the addition of new  
21 supervisory and support personnel within the Desert Star organization (1 Supervisor, Fossil  
22 Power Generation, 1 IT Development Senior, and 1 Generation Maintenance Scheduler).

23 The cost drivers behind the non-labor forecast are related to maintaining the clean, safe,  
24 and reliable operation of the Desert Star Energy Center. Maintenance outages are a primary cost  
25 driver of the O&M request. These outages are typically scheduled annually and range between  
26 30 to 45 days in duration. The extent of maintenance during these outages is determined by the  
27 accumulated run hours and the number of start cycles experienced by the equipment. Generally,  
28 more starts and more run hours result in more required maintenance. Major maintenance outages  
29 are scheduled and conducted when the equipment reaches manufacturer-designated milestones.  
30 Desert Star is projecting to perform major maintenance on the ST and its Generator in 2027, and  
31 major maintenance on CT 1 in 2029 and CT 2 in 2030, however these activities will not require

1 additional funding beyond the forecasted amount. The major maintenance outages include  
2 additional inspections and maintenance consisting of, but not limited to, opening turbine and  
3 generator cases for inspection and component replacement. All planned outages are scheduled  
4 through the CAISO well in advance of the maintenance event and outside of peak demand  
5 periods. Much of the required maintenance is performed during planned outages, however,  
6 minor routine and unplanned maintenance and inspection activities are experienced throughout  
7 the year.

### 8 **3. Generation Plant Miramar**

#### 9 **a. Description of Costs and Underlying Activities**

10 The O&M request for MEF as shown in Table DAW-3 includes labor and non-labor  
11 costs. The labor component includes salaries for supervision, support staff, and operations and  
12 maintenance personnel. The non-labor component includes, but is not limited to, contracted  
13 services, repair parts, water, chemicals, industrial gases, and miscellaneous consumables to  
14 support plant operations and maintenance. Maintenance is performed both during operation and  
15 during outages, planned and unplanned, as appropriate.

#### 16 **b. Forecast Method**

17 The forecast method developed for this cost category is Base Year recorded for both  
18 labor and non-labor. Due to unionization of the Generation technical workforce in 2025 the Base  
19 Year methodology was selected for labor forecasting. This method most accurately represents  
20 the labor expenses associated with maintaining and operating the facility at the new wage rates.

21 Over the last several years Miramar has experienced a decline in run hours which resulted  
22 in a reduction in O&M expenses. The Base Year method was selected for non-labor because it  
23 eliminates the higher run hour years and more accurately represents the current and forecasted  
24 operating profile of the facility.

#### 25 **c. Cost Drivers**

26 The cost drivers behind this forecast are related to maintaining the clean, safe, and  
27 reliable operation of the Miramar Energy Facility. Maintenance outages are a primary cost driver  
28 of the O&M request for Generation Plant Miramar. These outages are typically scheduled  
29 annually and range between 10 to 15 days in duration. The extent of the maintenance performed  
30 during the annual outage is dependent on the accumulated run hours of the equipment and the  
31 number of start-cycles the equipment experiences. Generally, more starts and more run hours

1 result in more required maintenance. Major maintenance outages are scheduled and conducted  
2 when the equipment reaches manufacturer designated hour milestones. Miramar is not expecting  
3 to perform major maintenance during this GRC cycle, however both units are projected to  
4 require major generator maintenance in 2030 (MEF 1) and 2031 (MEF 2). All planned outages  
5 are scheduled through CAISO well in advance of the maintenance event and outside of peak  
6 demand periods. Much of the required maintenance is performed during planned outages,  
7 however, minor routine and unplanned maintenance and inspection activities are experienced  
8 throughout the year.

#### 9 **4. Generation Plant Cuyamaca**

##### 10 **a. Description of Costs and Underlying Activities**

11 The O&M request for CPEP as shown in Table DAW-3 above includes labor and non-  
12 labor costs. The labor component includes salaries for supervision, support staff, and operations  
13 and maintenance personnel. The non-labor component includes, but is not limited to, contracted  
14 services, repair parts, water, chemicals, industrial gases, and miscellaneous consumables to  
15 support plant operations and maintenance. Maintenance is performed both during operation and  
16 during outages, planned and unplanned, as appropriate.

##### 17 **b. Forecast Method**

18 The forecast method developed for this cost category is Base Year recorded for both  
19 labor and non-labor. Due to unionization of the Generation technical workforce in 2025, the  
20 Base Year methodology was selected for labor forecasting. This method most accurately  
21 represents the labor expenses associated with maintaining and operating the facility at the new  
22 wage rates.

23 The Base Year methodology was selected for non-labor forecasting. This methodology  
24 most accurately represents the current and forecasted operating profile of the facility and  
25 associated expenses.

##### 26 **c. Cost Drivers**

27 The cost drivers behind this forecast relate to maintaining the clean, safe, and reliable  
28 operation of CPEP. Maintenance outages are a primary cost driver of the O&M request for  
29 CPEP. These outages are typically scheduled annually and range between 10 to 15 days in  
30 duration. The extent of the maintenance performed during the annual outage is dependent on the  
31 accumulated run hours of the equipment and the number of start-cycles the equipment

1 experiences. Generally, more starts and more run hours result in more required maintenance.  
2 Major maintenance outages are scheduled and conducted when the equipment reaches  
3 manufacturer designated hour milestones. Based on the forecasted run hours CPEP is expected  
4 to require a generator major and inspection in 2027, however these activities will not require  
5 additional funding beyond the forecasted amount. All planned outages are scheduled through  
6 CAISO well in advance of the maintenance event and outside of peak demand periods. Much of  
7 the required maintenance is performed during planned outages, however, minor routine and  
8 unplanned maintenance and inspection activities are experienced throughout the year.

9 **B. Distributed Energy Facilities Current and Future**

10 Distributed Energy Facilities - Current, located throughout San Diego County, include  
11 the following:

- 12 • Boulevard BESS
- 13 • Cameron Corners Solar
- 14 • Cameron Corners VRF BESS
- 15 • Clairemont BESS
- 16 • Dark Sky BESS
- 17 • El Cajon BESS
- 18 • Elliot BESS
- 19 • Escondido 1 BESS
- 20 • Escondido 2 BESS
- 21 • Escondido 3 BESS
- 22 • Fallbrook BESS
- 23 • Kearny North BESS
- 24 • Kearny South BESS
- 25 • Melrose 1 BESS
- 26 • Melrose 2 BESS
- 27 • Miguel VRF BESS
- 28 • Pala / Gomez Creek BESS
- 29 • Paradise BESS

- 1 • Ramona BESS
- 2 • Ramona Solar
- 3 • Top Gun BESS
- 4 • Westside Canal BESS
- 5 • Westside Canal 2B BESS

6 Distributed Energy Facilities - Future, located throughout San Diego County, include the  
7 following:

- 8 • Santee BESS
- 9 • Westside Canal 2A BESS

### 10 **C. Description of Costs and Underlying Activities**

11 The O&M request for DEF as shown in Table DAW-3 above consists of labor and non-  
12 labor costs. The labor component includes salaries for supervision, support staff and operations  
13 personnel. The non-labor component includes, but is not limited to, site maintenance and  
14 upkeep, telecommunications, and site and equipment monitoring not covered by the LTSAs.

#### 15 **1. Forecast Method**

16 The forecast method developed for this cost category is Base Year recorded for both  
17 labor and non-labor. Due to unionization of the Generation technical workforce in 2025 the Base  
18 Year Recorded methodology was selected for labor forecasting. This method most accurately  
19 represents the labor expenses associated with maintaining and operating the facilities at the new  
20 wage rates.

21 Due to the increase in the number of BESS over the last several years, including three  
22 new CAISO connected resources in 2025, the Base Year methodology was selected for non-labor  
23 forecasting. Using the Base Year methodology incorporates costs for all current CAISO  
24 connected resources.

#### 25 **2. Cost Drivers**

26 The cost drivers behind this forecast are site maintenance and upkeep,  
27 telecommunications, and site and equipment monitoring. These services are meant to maintain  
28 the clean, safe, and reliable operation of the facilities. Of the two new sites that are expected to  
29 be completed during this GRC cycle, only one site, Santee BESS, will require additional funding  
30 for these services. Santee is a stand-alone site while the other, Westside Canal 2A BESS, will be

1 added to an existing site and integrated into the current infrastructure, if approved. The  
 2 incremental costs associated with Santee BESS were derived using the average of actual costs  
 3 from 2022 to 2025 for Kearny BESS, a facility similar in size and output.

4 **TABLE DAW-4**  
 5 **Generation Administration O&M**

<b>B. Generation Administration</b>	<b>2025 Adjusted-Recorded (000s)</b>	<b>TY 2028 Est. (000s)</b>	<b>Change (000s)</b>
<b>1. General Administration</b>	<b>234</b>	<b>249</b>	<b>15</b>
<b>Total</b>	<b>234</b>	<b>249</b>	<b>15</b>

6  
 7 **D. Generation Administration**

8 **1. Description of Costs and Underlying Activities**

9 The O&M request for Generation Administration as shown in Table DAW-4 consists of  
 10 labor and non-labor costs. The labor component includes administrative salaries. The non-labor  
 11 component includes, but is not limited to, travel, supplies, and other miscellaneous  
 12 administrative activities.

13 **2. Forecast Method**

14 The forecast method developed for this cost category is Base Year recorded for both  
 15 labor and non-labor. This method is appropriate because it most accurately represents current  
 16 and future needs of the organization. Non-labor spending includes periodic travel to the Desert  
 17 Star Energy Center and other minor miscellaneous administrative expenses. The Base Year  
 18 methodology is a reasonable foundation for projecting the future needs of the organization.

19 **3. Cost Drivers**

20 There are no significant changes to this forecast.

21 **IV. CAPITAL**

22 Table DAW-5 summarizes the capital forecasts for 2026 through 2031. The particular in-  
 23 service date for the capital expenditures that underly these forecasts is provided in workpapers.  
 24 Appendix C to this testimony provides a table that illustrates the capital expenditures that are  
 25 estimated to have in-service dates between 2026 and Test Year 2028. Capital expenditures that  
 26 are in-service between 2026-2028 will contribute to the Test Year 2028 revenue requirement

request presented in the Summary of Earnings testimony (Ex. SDG&E-32). Capital expenditures with in-service dates in the post-test years (*i.e.*, 2029-2031) are also included in Appendix C. The post-test year revenue requirement request is included in the Post-Test Year Ratemaking testimony. (Ex. SDG&E-33).

**TABLE DAW-5**  
**Capital Expenditures Summary of Costs**

<b>ELECTRIC GENERATION (In 2025 \$)</b>							
<b>Categories of Management</b>	<b>2025 Adjusted-Recorded (000s)</b>	<b>Est. 2026 (000s)</b>	<b>Est. 2027 (000s)</b>	<b>Est. 2028 (000s)</b>	<b>Est. 2029 (000s)</b>	<b>Est. 2030 (000s)</b>	<b>Est. 2031 (000s)</b>
<b>Total CAPITAL</b>	<b>15,874</b>	<b>13,222</b>	<b>13,192</b>	<b>12,103</b>	<b>12,103</b>	<b>12,103</b>	<b>12,103</b>

**A. Introduction**

All capital projects being considered improve the overall safety, reliability and operability of the plants. Table DAW-5 summarizes the total capital forecasts for 2026 through 2031.

In addition to this testimony, please also refer to my capital workpapers, Ex. SDG&E-10-CWP, for additional information on the activities described herein.

**B. Capital Projects**

**TABLE DAW-6**  
**Capital Expenditures Summary of Costs**

<b>ELECTRIC GENERATION (In 2025 \$)</b>							
<b>Categories of Management</b>	<b>2025 Adjusted-Recorded (000s)</b>	<b>Est. 2026 (000s)</b>	<b>Est. 2027 (000s)</b>	<b>Est. 2028 (000s)</b>	<b>Est. 2029 (000s)</b>	<b>Est. 2030 (000s)</b>	<b>Est. 2031 (000s)</b>
A. Generation Capital Tools & Test Equipment	103	133	103	103	103	103	103
B. Generation Plant Operational Enhancements	15,700	13,089	13,089	12,000	12,000	12,000	12,000
C. Distributed Energy Resources Op Enhancements	72	0	0	0	0	0	0
<b>Total Capital</b>	<b>15,874</b>	<b>13,222</b>	<b>13,192</b>	<b>12,103</b>	<b>12,103</b>	<b>12,103</b>	<b>12,103</b>

1  
2

**TABLE DAW-7  
Capital Expenditures Cost Summary**

<b>ELECTRIC GENERATION (In 2025 \$)</b>							
A. Generation Capital Tools & Test Equipment	2025 Adjusted-Recorded (000s)	Est. 2026 (000s)	Est. 2027 (000s)	Est. 2028 (000s)	Est. 2029 (000s)	Est. 2030 (000s)	Est. 2031 (000s)
1. Generation Capital Tools & Test Equipment	103	133	103	103	103	103	103
<b>Total</b>	<b>103</b>	<b>133</b>	<b>103</b>	<b>103</b>	<b>103</b>	<b>103</b>	<b>103</b>
B. Generation Plant Operational Enhancements	2025 Adjusted-Recorded (000s)	Est. 2026 (000s)	Est. 2027 (000s)	Est. 2028 (000s)	Est. 2029 (000s)	Est. 2030 (000s)	Est. 2031 (000s)
1. Palomar Plant Operational Enhancements	4,681	4,682	4,682	4,682	4,682	4,682	4,682
2. Desert Star Plant Operational Enhancements	10,569	6,885	6,885	6,885	6,885	6,885	6,885
3. Miramar Plant Operational Enhancements	291	955	955	283	283	283	283
4. Cuyamaca Peak Plant Operational Enhancements	160	567	567	150	150	150	150
<b>Total</b>	<b>15,701</b>	<b>13,089</b>	<b>13,089</b>	<b>12,000</b>	<b>12,000</b>	<b>12,000</b>	<b>12,000</b>

3

C. Distributed Energy Resources Op Enhancements	2025 Adjusted-Recorded (000s)	Est. 2026 (000s)	Est. 2027 (000s)	Est. 2028 (000s)	Est. 2029 (000s)	Est. 2030 (000s)	Est. 2031 (000s)
3. Ramona Solar Plant Operational Enhancements	5	0	0	0	0	0	0
11. Miguel VRF BESS Plant Operational Enhancements	67	0	0	0	0	0	0
<b>Total</b>	<b>72</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

1  
2                   **1. Description of Costs and Underlying Activities**

3                   SDG&E does not propose a specific list of capital projects, but instead will plan,  
4 schedule, and perform capital projects, as appropriate, to best support the safe and reliable  
5 operation for Generation plants. To effectively manage the general capital budgets at each  
6 facility, SDG&E categorizes projects as either electrical, mechanical, instrumentation or safety  
7 related and allocates necessary funds to individual projects as needed. This approach allows  
8 flexibility and adaptability of capital projects to meet the current and future needs of the  
9 facilities. Capital projects are typically initiated in advance of, or in reaction to, equipment  
10 failure or obsolescence. Capital projects related to major maintenance activities or one-time  
11 upgrades are initiated as necessary. Examples of capital projects that are related to major  
12 maintenance activities or one-time upgrades include, but are not limited to, control system  
13 updates, large valve upgrades, turbine blade replacements, or combustion turbine exhaust system  
14 upgrades. The Capital Tools & Test Equipment budget is utilized to purchase tooling and  
15 equipment that is used by operations and maintenance personnel to efficiently and safely perform  
16 various job functions throughout the facilities.

17                   **2. Forecast Method**

18                   The forecast method developed for this cost category is Base Year recorded for Capital  
19 Tools and Test Equipment, Miramar Plant Operational Enhancements, Palomar Plant  
20 Operational Enhancement, and Cuyamaca Peak Energy Plant Operational Enhancements. This

1 method is most appropriate for these activities because it represents a variety of planned and  
2 unplanned enhancements required for the safe and reliable operation of the facilities.

3 The forecast method developed for Desert Star is the 5-Year Average. Due to the  
4 replacement of a major component in 2025, the Base Year does not represent a typical  
5 expenditure year. Utilizing the 5-Year Average blends typical and atypical expenditure years  
6 resulting in a reasonable foundation for forecasting future years.

### 7 **3. Cost Drivers**

8 The underlying cost drivers for general capital projects relate to maintaining the clean,  
9 safe, and reliable operation of the Generation assets. Capital improvements provide for  
10 equipment upgrades, replacing obsolete or damaged equipment, and improving safety and  
11 reliability to ensure plant availability.

12 Adjustments to forecast years 2026 and 2027 were included for one-time projects for  
13 control system updates at both Miramar and Cuyamaca. In addition, an adjustment for the one-  
14 time purchase of atypical Tools and Test Equipment at Desert Star was included in 2026.

### 15 **V. CONCLUSION**

16 This testimony describes the activities of SDG&E's Electric Generation and presents the  
17 forecast for both existing and reasonably anticipated new expenses for the GRC test year 2028.  
18 This testimony and my workpapers demonstrate the justification for the requested funding so that  
19 SDG&E can continue to meet its obligations to comply with applicable regulations and provide  
20 safe and reliable service. I request the Commission to approve funding for the expenses and  
21 projects presented here.

22 This concludes my prepared direct testimony.

1 **VI. WITNESS QUALIFICATIONS**

2 My name is Darren Weim. My business address is 2300 Harveson Place, San Diego,  
3 California, 92029. I am employed by SDG&E as the Director, Electric Generation. I have been  
4 employed by SDG&E/Sempra since 2000. I have over 25 years of experience in the utility  
5 industry. While with SDG&E, I have held various positions in the functional areas of  
6 Transmission Engineering, Electric Distribution Engineering, Major Projects, Substation  
7 Construction and Maintenance, Electric Regional Operations, and Generation.

8 Before starting my current position, I was the Director of Electric Regional Operations,  
9 Director of Transmission and Substation Operations, Director of Operations for Sempra  
10 Renewables, and Manager of Northeast Construction and Operations Center. Prior to these roles,  
11 I held various engineering leadership roles in the Electric Engineering department.

12 I earned a Bachelor of Science in Civil Engineering from California Polytechnic State  
13 University, San Luis Obispo. I am a registered Professional Engineer in California.

14 I have previously testified before the Commission.

**APPENDIX A – Glossary of Terms**

ACRONYM	DEFINITION
AB	Assembly Bill
BESS	Battery Energy Storage System
BLS	Bureau of Labor Statistics
CAISO	California Independent System Operator
CO	Carbon Monoxide
CPUC	California Public Utility Commission
CPEP	Cuyamaca Peak Energy Plant
CT	Combustion Turbine
DEF	Distributed Energy Facilities
DSEC	Desert Star Energy Center
GE	General Electric
GRC	General Rate Case
HRSG	Heat Recovery Steam Generator
IRP	Integrated Resource Plan
LTSA	Long Term Service Agreement
MEF	Miramar Energy Facility
MW	Megawatt
NEDO	New Energy and Industrial Technology Development Organization
NO <sub>x</sub>	Nitrogen Oxide
NSE	Non-Standard Escalation
O&M	Operations and Maintenance
OSHA	Occupational Safety and Health Admin.
PEC	Palomar Energy Center
PPA	Power Purchase Agreement
PSPS	Public Safety Power Shutoff
RSEP	Ramona Solar Energy Project
SCR	Selective Catalytic Reduction
SDG&E	San Diego Gas & Electric Company
ST	Steam Turbine
TY	Test Year
VPP	Voluntary Protection Program
VRF	Vanadium Redox Flow

## **APPENDIX B – Distributed Energy Facilities (Current)**

Facility Name	CAISO Power Capacity (MW)	Duration (Hours)	CAISO Energy Capacity (MWh)
Boulevard BESS	10	5	50.5
Cameron Corners Solar	0.84	N/A	N/A
Cameron Corners VRF BESS	0.46	8	4
Clairemont BESS	9	3	29
Dark Sky BESS	7.33	2	14.66
El Cajon BESS	7.5	4	30
Elliot BESS	10	5	50.5
Escondido 1 BESS	10	4	40
Escondido 2 BESS	10	4	40
Escondido 3 BESS	10	4	40
Fallbrook BESS	40	4	160
Kearny North BESS	10	4	40
Kearny South BESS	10	4	40
Melrose 1 BESS	10	4	40
Melrose 2 BESS	10	4	40
Miguel VRF BESS	2	4	8
Pala/ Gomez-Creek BESS	10	6	60
Paradise BESS	10	5	50.5
Ramona BESS	0.47	4	1.88
Ramona Solar	4.32	N/A	N/A
Top Gun BESS	30	4	120
Westside Canal BESS	131	4	524
Westside Canal 2B BESS	100	4	400

**Distributed Energy Facilities – Future**

Facility Name	CAISO Power Capacity (MW)	Duration (Hours)	CAISO Energy Capacity (MWh)
Santee BESS	10	4	40
Westside Canal 2A BESS	119	4	476

## **APPENDIX C – Capital Expenditures**

**San Diego Gas Electric Company  
Capital Expenditures  
(In Thousands of 2025 \$)**

<b>Electric Generation</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>	<b>2031</b>
<b>Total Capital</b>	<b>13,222</b>	<b>13,192</b>	<b>12,103</b>	<b>12,103</b>	<b>12,103</b>	<b>12,103</b>
2026 - 2028 Capital Request	13,222	13,192	12,103	-	-	-
Post-Test Year Capital Forecast	-	-	-	12,103	12,103	12,103

**San Diego Gas Electric Company**  
**Capital Expenditures**  
(In Thousands of 2025 \$)

**Electric Generation**  
**2026 - 2028 Capital Request**

Category	Workpaper Sub	Workpaper Description	In-Service Date	2026	2027	2028
Generation Capital Tools & Test Equipment	000060.001	GENERATION CAPITAL TOOLS & TEST EQPT.	Routine	133	103	103
<b>Generation Capital Tools &amp; Test Equipment Total</b>				<b>133</b>	<b>103</b>	<b>103</b>
Generation Plant Operational Enhancements	000080.001	MIRAMAR PLANT OPERATIONAL ENHANCEMENTS	Routine	955	955	283
	000090.001	PALOMAR PLANT OPERATIONAL ENHANCEMENTS	Routine	4,682	4,682	4,682
	000100.001	DESERT STAR ENERGY CTR OPER. ENHANCE.	Routine	6,885	6,885	6,885
	000110.001	CUYAMACA PEAK ENERGY PLANT OPER ENHANCE	Routine	567	567	150
<b>Generation Plant Operational Enhancements Total</b>				<b>13,089</b>	<b>13,089</b>	<b>12,000</b>
<b>Grand Total</b>				<b>13,222</b>	<b>13,192</b>	<b>12,103</b>

**San Diego Gas Electric Company**  
**Capital Expenditures**  
(In Thousands of 2025 \$)

<b>Electric Generation</b>									
<b>Post-Test Year Capital Forecast</b>									
Category	Workpaper Sub	Workpaper Description	In-Service Date	2026	2027	2028	2029	2030	2031
Generation Capital Tools & Test Equipment	000060.001	GENERATION CAPITAL TOOLS & TEST EQPT.	Routine	-	-	-	103	103	103
<b>Generation Capital Tools &amp; Test Equipment Total</b>				-	-	-	<b>103</b>	<b>103</b>	<b>103</b>
Generation Plant Operational Enhancements	000080.001	MIRAMAR PLANT OPERATIONAL ENHANCEMENTS	Routine	-	-	-	283	283	283
	000090.001	PALOMAR PLANT OPERATIONAL ENHANCEMENTS	Routine	-	-	-	4,682	4,682	4,682
	000100.001	DESERT STAR ENERGY CTR OPER. ENHANCE.	Routine	-	-	-	6,885	6,885	6,885
	000110.001	CUYAMACA PEAK ENERGY PLANT OPER ENHANCE	Routine	-	-	-	150	150	150
<b>Generation Plant Operational Enhancements Total</b>				-	-	-	<b>12,000</b>	<b>12,000</b>	<b>12,000</b>
<b>Grand Total</b>				-	-	-	<b>12,103</b>	<b>12,103</b>	<b>12,103</b>