

Application No.: A.24-06-XXX  
Exhibit No.: SDGE-6  
Witness: Kevin M. Counts

**PREPARED DIRECT TESTIMONY OF**

**KEVIN M. COUNTS**

**ON BEHALF OF**

**SAN DIEGO GAS & ELECTRIC COMPANY**

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



**JUNE 3, 2024**

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ACRONYM GLOSSARY

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**I. INTRODUCTION**

This testimony presents San Diego Gas & Electric Company’s (“SDG&E”) compliance with the California Public Utility Commission’s (“Commission”) Good Utility Practice, as discussed below, and reasonable manager standards as defined in Decision (“D.”) 02-12-069,<sup>1</sup> with respect to Utility Owned Generation (“UOG”) resources planned and unplanned outages during the record year period of January 1, 2023, through December 31, 2023.

**II. DESCRIPTION OF SDG&E-OWNED GENERATION**

SDG&E owns and operates two combined-cycle generating facilities: the Palomar Energy Center in Escondido, California and the Desert Star Energy Center in Boulder City, Nevada. SDG&E owns and operates two peaking plants: Miramar Energy Facility in San Diego, California and Cuyamaca Peak in El Cajon, California. SDG&E also owns and operates eight battery energy storage system projects: 30 MW/120 MWh Escondido Battery Energy Storage System (“BESS”), 7.5 MW/30 MWh El Cajon BESS, 30 MW/120 MWh Top Gun Energy Storage, 20 MW/40 MWh Kearny BESS, 2 MW/8 MWh Miguel Vanadium Redox Flow (“VRF”), 40 MW/160 MWh Fallbrook BESS, 131 MW/524 MWh Westside Canal BESS, and 0.47 MW/1.88 MWh Ramona Air Attack Base BESS.<sup>2</sup> Lastly, SDG&E owns and operates a solar energy project located in Ramona, California that can produce up to 4.32 MW using smart inverters and fixed photovoltaic panels.

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<sup>1</sup> See D.02-12-069, Attachment A-3 at 5.

<sup>2</sup> The MW ratings used in this Testimony are electric generation ratings and may differ from plant interconnect ratings used elsewhere.

1           **A.     Palomar Energy Center (“PEC”)**

2           The Palomar Energy Center (PEC) is a 588 megawatt gas-fired combined-cycle plant  
3 with 2 GE 7FA model combustion turbines and a GE steam turbine. The plant is equipped with  
4 inlet-air chillers and a thermal energy storage tank that allows the plant to produce energy at its  
5 capacity during the summer months. Recycled water is used for cooling plant equipment.

6           **B.     Desert Star Energy Center (“DSEC”)**

7           The Desert Star Energy Center<sup>3</sup> (DSEC), located in Boulder City, NV, is a 480 megawatt  
8 gas-fired combined-cycle plant with 2 Siemens 501-FC model combustion turbines and a  
9 Westinghouse steam turbine. This plant was acquired by SDG&E in October 2011 pursuant to  
10 D.07-11-046. This Decision permitted SDG&E to exercise an option to purchase the facility  
11 from El Dorado Energy, LLC, a subsidiary of Sempra Energy.

12           **C.     Miramar Energy Facility (“MEF”)**

13           The Miramar Energy Facility (MEF) is a peaking plant with two GE LM6000 model  
14 turbines that together produce 92 megawatts (MEF-1 and MEF-2). This site also provides black  
15 start services used for restoration of the electric grid. Operations and maintenance personnel  
16 based out of the Palomar Energy Center provide all plant services to this facility.

17           **D.     Cuyamaca Peak Energy Plant (“CPEP”)**

18           The Cuyamaca Peak Energy Plant (CPEP) is a peaking plant with a Pratt & Whitney FT8  
19 model turbine generator set that produces 45 megawatts. This site also provides black start  
20 services used for restoration of the electric grid. Operations and maintenance personnel based  
21 out of the Palomar Energy Center provide all plant services to this facility.

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<sup>3</sup> The current lease agreement expires in 2027, but SDG&E is exploring a potential lease extension, along with alternatives to convert the plant to a clean dispatchable resource. If these initiatives move forward, additional filings would be made in the future to seek applicable regulatory approvals.

1           **E.       Escondido Battery Energy Storage System (“Escondido BESS”)**

2           The Escondido Battery Energy Storage System (BESS) is a 120 megawatt-hour energy  
3 storage system with a maximum output of 30 megawatts for up to 4 hours. The energy storage  
4 system uses lithium-ion batteries. Pursuant to CPUC Resolution E-4791 on May 26, 2016<sup>4</sup>,  
5 SDG&E developed expedited energy storage projects to alleviate reliability issues associated  
6 with Aliso Canyon. CPUC approval was requested via Tier 3 Advice Letter 2924-E. The  
7 Advice Letter was approved in its entirety in CPUC Resolution E-4798 on August 18, 2016.  
8 Operations and maintenance personnel based out of the Palomar Energy Center provide all plant  
9 services to this facility.

10           **F.       El Cajon Battery Energy Storage System (“El Cajon BESS”)**

11           The El Cajon BESS was developed and constructed under the same authorization as the  
12 Escondido battery project and uses lithium-ion technology for the energy storage system. This  
13 energy storage system is rated at 30 megawatt-hours with a maximum output of 7.5 megawatts  
14 for up to 4 hours. Operations and maintenance personnel based out of the Palomar Energy  
15 Center provide all plant services to this facility.

16           **G.       Top Gun Battery Energy Storage System (“Top Gun BESS”)**

17           The Top Gun BESS was constructed pursuant to AB 2514 and uses lithium-ion battery  
18 technology energy storage.<sup>5</sup> This energy storage system is rated at 120 megawatt-hours with a

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<sup>4</sup> Resolution Authorizing Expedited Procurement of Storage Resources to Ensure Electric Reliability in the Los Angeles Basin due to Limited Operations of the Aliso Canyon Storage Facility), issued May 31, 2016. Available at: <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M162/K850/162850315.PDF>

<sup>5</sup> Assembly Bill (AB) 2514 (Skinner, Chapter 469, Statutes of 2010), amended by Assembly Bill 2227 (Bradford, Chapter 606, Statutes of 2012), was designed to encourage California to incorporate energy storage into the electricity grid, as codified at Public Utilities Code § 2835-2839 and § 9506. Energy storage can provide a multitude of benefits to California, including supporting the integration of greater amounts of renewable energy into the electric grid, deferring the need for new fossil-fueled

1 maximum output of 30 megawatts for up to 4 hours. Operations and maintenance personnel  
2 based out of the Palomar Energy Center provide all plant services to this facility.

3 **H. Kearny Battery Energy Storage System (“Kearny BESS”)**

4 The Kearny BESS was developed and constructed as part of SDG&E’s Integrated  
5 Resource Plan. This energy storage system uses two lithium-ion battery systems each rated at 40  
6 megawatt-hours with a maximum output of 10 megawatts for up to 4 hours. The combination  
7 provides a total of 80 megawatt-hours with a maximum output of 20 megawatts for up to 4  
8 hours. Operations and maintenance personnel based out of the Palomar Energy Center provide  
9 all plant services to this facility.

10 **I. Miguel Vanadium Redox Flow (“Miguel VRF”)**

11 The Miguel Vanadium Redox Flow (VRF) BESS was constructed as a demonstration  
12 project in partnership with Sumitomo, Japan’s New Energy, and Industrial Technology  
13 Development Organization (NEDO) and GO-Biz and uses flow technology. This energy storage  
14 system is rated at 8 megawatt-hours with a maximum output of 2 megawatts for up to 4 hours.  
15 Operations and maintenance personnel based out of the Palomar Energy Center provide all plant  
16 services to this facility.

17 **J. Fallbrook Battery Energy Storage (“Fallbrook BESS”)**

18 The Fallbrook BESS was constructed pursuant to AB 2514 and uses lithium-ion  
19 technology. This energy storage system is rated at 160 megawatt-hours with a maximum output  
20 of 40 megawatts for up to 4 hours. Operations and maintenance personnel based out of the  
21 Palomar Energy Center provide all plant services to this facility.

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power plants and transmission and distribution infrastructure, and reducing dependence on fossil fuel generation to meet peak loads.

1           **K.     Westside Canal Battery Energy Storage (“Westside Canal BESS”)**

2           The Westside Canal BESS was constructed to support the Emergency Reliability OIR  
3 R.20-11-003. This energy storage system uses lithium-ion technology and is rated at 524  
4 megawatt-hours with a maximum output of 131 megawatts for up to four hours. Operations and  
5 maintenance personnel based out of the Palomar Energy Center provide all plant services to this  
6 facility.

7           **L.     Ramona Air Attack Base Battery Energy Storage (“Ramona AA Base  
8            BESS”)**

9           This energy storage system uses lithium-ion battery systems rated at 1.88 megawatt-hours  
10 with a maximum output of 0.47 megawatts for up to 4 hours. Operations and maintenance  
11 personnel based out of the Palomar Energy Center provide all plant services to this facility.

12           **M.     Ramona Solar Energy Project (“RSEP”)**

13           The Ramona Solar Energy Project was developed and constructed pursuant to D.10-09-  
14 016 and SDG&E’s Advice Letter 2374E-A. The project is built with fixed photovoltaic panels  
15 and can produce up to 4.32 megawatts. Operations and maintenance personnel based out of the  
16 Palomar Energy Center provide all plant services to this facility.

17           **III.    COMMISSION STANDARDS RELATED TO SDG&E-OWNED GENERATION**

18           During the record period, SDG&E operated and maintained its UOG resources (Palomar,  
19 Desert Star, Miramar, and Cuyamaca; collectively, SDG&E’s “UOG units”) in a reasonable and

1 prudent manner, consistent with “Good Utility Practice” and the reasonable manager standard.<sup>6</sup>

2 The Commission defined “Good Utility Practice” in D.02-12-069:<sup>7</sup>

3 [A]ny of the practices, methods and acts engaged in or approved by a  
4 significant portion of the electric utility industry during the relevant time  
5 period, or any of the practices, methods and acts which, in the exercise of  
6 reasonable judgment in light of the facts known at the time the decision  
7 was made, could have been expected to accomplish the desired result at a  
8 reasonable cost consistent with good business practices, reliability, safety  
9 and expedition. Good Utility Practice does not require the optimum  
10 practice, method, or act to the exclusion of all others, but rather is intended  
11 to include acceptable practices, methods, or acts generally accepted in the  
12 Western Electric Coordinating Council region.

13 Consistent with “Good Utility Practice,” during 2023, SDG&E followed an established  
14 maintenance program to maximize the availability of the units as a primary “desired result.”

15 Specifically, this maintenance program factors in a number of considerations, including  
16 manufacturer guidelines, appropriate power industry practices, safety considerations, and good  
17 engineering and technical judgment to allocate resources most effectively to maximize  
18 availability of its UOG resources. Additionally, the SDG&E maintenance program incorporates  
19 practices that are generally accepted within the electric power generation industry and the  
20 Western Electricity Coordinating Council (“WECC”) and the North American Electric  
21 Reliability Corporation (“NERC”).

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<sup>6</sup> The Commission has explained the “reasonable manager” standard in ERRa compliance cases, as follows: Under the “reasonable manager standard, utilities are held to a standard of reasonableness based on the facts that are known or should have been known at the time. The act of the utility should comport with what a reasonable manager of sufficient education, training, experience, and skills using the tools and knowledge at his or her disposal would do when faced with a need to make a decision and act.” D.14-05-023 at 15. By meeting the “Good Utility Practice” standard and other Commission requirements stated herein, SDG&E maintains that likewise has met the “reasonable manager” standard during the 2022 record period. The Appendices to this testimony further provide SDG&E’s primary showing with respect to both standards. In addition, the Commission recently has confirmed that the compliance review to which various SDG&E accounts are subject in ERRa compliance proceedings are not “reasonableness reviews.” D.17-03-016 at 3 and Finding of Fact 2.

<sup>7</sup> See D.02-12-069, Attachment A-3 at 5.



1           Additionally, SDG&E is required to comply with the Commission’s General Order  
2 (“GO”) 167 - Enforcement of Maintenance and Operation Standards for Electric Generating  
3 Facilities.<sup>8</sup> Sections 10.0 and 11.0 of GO 167 specifically outline each generator owner’s  
4 obligation to provide information and cooperate with Commission audits, investigations and  
5 inspections. In addition, each outage may warrant the creation of internal documentation,  
6 including but not limited to, equipment affected, parts replaced, work required to accomplish  
7 outage-related tasks, costs of repairs, other recommended actions that may be taken to mitigate a  
8 repeat of the failure, change to operating procedures required to address component or plant  
9 issues, changes to maintenance practices to improve reliability, communications with an original  
10 equipment manufacturer, and implementation of upgrades to improve reliability. Evidence of the  
11 above may be found in parts of the Computerized Maintenance Management System (“CMMS”)   
12 ordering documents, as well as work orders, vendor invoices, investigation reports, management  
13 of change documents, and communications with vendors.

14           GO 167 also requires SDG&E to meet specific maintenance and operations standards,  
15 which also suggest guidance detailed for maintenance and operations programs. These standards  
16 and guidance are based on accepted power industry good practices. SDG&E is required to  
17 document and certify to these standards every two years and submit the documentation to the  
18 Commission Electric Safety and Reliability Branch (“ESRB”). The certification documentation  
19 includes a summary list of maintenance, operations and safety procedures that describe the  
20 programs and processes used in generation.

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<sup>8</sup> Public Utilities Commission of the State of California, General Order No. 167 Enforcement of Maintenance and Operation Standards for Electric Generating Facilities (Effective September 02, 2005). Available at [http://docs.cpuc.ca.gov/PUBLISHED/GENERAL\\_ORDER/108114.htm](http://docs.cpuc.ca.gov/PUBLISHED/GENERAL_ORDER/108114.htm).

1 **IV. ADDITIONAL REVIEW OF UOG OPERATIONS**

2 Additional review of SDG&E’s UOG operations is provided through Sempra Energy  
3 Internal Audit Department’s audits of SDG&E’s generating facilities. Consistent with auditing  
4 standards and industry best practices, the frequency and nature of such audits is determined  
5 based on the Internal Audit Department’s annual risk assessment, which determines the areas of  
6 the company, including utility operations, to be audited. This risk-based analysis may change  
7 from year to year.

8 Further, SDG&E’s Insurance Risk Consultants conduct site inspections to review and  
9 evaluate the plant’s physical condition, maintenance, and operations processes. These  
10 inspections are performed from a risk perspective and cover maintenance practices, operations  
11 practices, material condition, and fire protection. The report may offer recommendations for  
12 improvement to systems, facilities, and processes.

13 SDG&E is also required to meet certain electric reliability standards from the NERC and  
14 WECC. NERC and WECC perform periodic audits of SDG&E to ensure compliance with the  
15 reliability standards.

16 Furthermore, SDG&E generation plants are subject to site visits from various regulators  
17 concerning implementation of permits. There are periodic onsite inspections and data requests  
18 concerning the implementation of requirements for air permits, water permits, and water  
19 discharge permits. SDG&E’s Palomar Energy Center is also required to meet permit conditions  
20 detailed in the California Energy Commission (“CEC”) Operating Permit.

21 SDG&E’s Generation personnel have communicated with the following agencies in 2023:

- 22 • California Energy Commission (“CEC”)
- 23 • California Public Utilities Commission (“CPUC”)
- 24 • California Air Resource Board (“CARB”)

- 1 • U.S. Energy Information Administration (“US EIA”)
- 2 • Environmental Protection Agency (“EPA”) Region 9
- 3 • Clark County Department of Air Quality (“DAQ”)
- 4 • Nevada Division of Environmental Protection (“NDEP”)
- 5 • San Diego Air Pollution Control District (“APCD”)
- 6 • Regional Water Quality Control Board (“RWQCB”)
- 7 • CA-EPA State Water Board
- 8 • City of Escondido
- 9 • Western Electricity Coordinating Council (“WECC”)
- 10 • North American Electric Reliability Corporation (“NERC”)
- 11 • Certified Unified Program Agencies (“CUPA”)

12 **V. OUTAGES - UTILITY OWNED GENERATION**

13 Many preventive and corrective maintenance work activities require planned outages,  
14 whereas unplanned corrective maintenance is performed under short-notice or forced outages.

15 Appendix A, below, provides narratives for forced outages greater than 24 hours for all  
16 facilities 25 MW or larger. Appendix B, below, provides narratives for planned outages that are  
17 greater than 24 hours for all facilities 25 MW or larger, where the outage was extended by two  
18 weeks or fifty percent longer, whichever is greater, from its planned schedule. The narratives  
19 address, as applicable, the following points:

- 20 1. The nature of the outage.
- 21 2. The cause(s) of the outage, if known.
- 22 3. Possible steps to prevent similar occurrences.
- 23 4. Whether the outage may have prevented (or minimized the duration of) a future  
24 outage.

1 **VI. CONCLUSION**

2 My testimony describes SDG&E’s UOG resources located in San Diego County and  
3 Nevada. SDG&E consistently followed the Commission’s guidance and “Good Utility Practice”  
4 and met the “reasonable manager” standard during the 2023 record period.

5 This concludes my prepared direct testimony.

1 **VII. QUALIFICATIONS**

2 My name is Kevin M. Counts. My business address is 2300 Harveson Place, Escondido,  
3 CA 92029. I am currently employed by SDG&E as Production Manager for Palomar Energy  
4 Center, Miramar Energy Facility and Cuyamaca Peak Energy Plant. My responsibilities include  
5 overseeing a staff that operates these power plants.

6 I began employment at SDG&E in 2005 as an Operations Technician for Palomar Energy  
7 Center and Miramar Energy. My experience prior to employment at SDG&E (approximately 11  
8 years) includes various positions in the US Nuclear Navy and with Reliant Energy at the Bighorn  
9 Generating Station.

10 I hold a Bachelor of Science degree in Business from the University of Phoenix.

11 I have previously testified before the Commission.

## APPENDIX A

### SDG&E'S 2023 UOG FORCED OUTAGES GREATER THAN 24 HOURS FOR FACILITIES 25 MW OR LARGER

**1. Miramar Energy Facility (MEF) Gas Compressor Regulating Valve Fault – January 30, 2023, through January 31, 2023 – 1.03 Days**

On January 30, 2023, MEF-2 was shut down because it could not maintain minimum load due to low fuel gas pressure caused by pressure control valves that were not operating properly. Valve control parameters were corrected, and the plant was released on January 31, 2023. It is unlikely that this outage prevented or minimized the duration of a future outage.

**2. Cuyamaca Peak Energy Plant (CPEP) Failed Control System Card – March 6, 2023, through March 9, 2023 – 2.76 Days**

On March 6, 2023, following an outage to replace the 24-volt battery, an input/output card within the control system that controls the fuel gas driver was found to have failed. There was no replacement in stock, so a new card was ordered. After receiving the card, it was installed and the plant was released on March 9, 2023. To minimize future outage time a second input/output card was ordered and placed into stock.

**3. Miramar Energy Facility (MEF) BOP MCC2 Breaker Failed – March 28, 2023, through April 1, 2023 – 3.71 Days**

On March 2, 2023, during a plant startup, a 480V motor control center feeder breaker tripped open causing a loss of power to plant equipment. The tripped breaker was removed from the system and sent out for repair. Following the repair, the breaker was returned from the vendor and reinstalled. The plant was released on April 1, 2023. To reduce the risk of future outages due to future failure of this equipment, a full reconditioning of the breaker was performed by the vendor during the repair.

**4. Desert Star Energy Center (DSEC) Unit 2 Trip Forced Outage – April 26, 2023, through April 28, 2023 – 1.81 days.**

On April 26, 2023, CT2 tripped due to under excitation protection. It appears that the outage was caused by problems with the automatic voltage regulator power supply. The voltage regulator power supply was replaced, and a software modification was made. The CT was successfully restarted on April 28. The voltage regulator parameters are being monitored to prevent a similar occurrence in the future. It is unlikely that this outage prevented or minimized the duration of a future outage.

**5. Miramar Energy Facility (MEF) CEMS DAHS Not Collecting Data – June 13, 2023, through June 15, 2023 – 2.03 Days**

On June 13, 2023, while offline, the Continuous Emissions Monitoring System (CEMS) Data Acquisition and Handling System (DAHS) computer's data base was corrupted and was found to not be collecting data. MEF-2 was placed into a forced outage because the DAHS computer is critical to maintaining compliance with our air permit and the unit cannot be run without it functioning properly. The data base was recovered, and the DAHS was returned to service. The forced outage on MEF-2 was released on June 15, 2023.

**6. Desert Star Energy Center (DSEC) Full Plant Forced Outage – August 22, 2023, through August 26, 2023 – 3.93 days.**

On August 22, 2023, during routine maintenance of one of the plant fire protection systems, a large, pressurized gas cylinder experienced an unexpected discharge of pressure, propelling it into the plant 4160-volt switchgear. This event caused an electrical fault resulting in loss of AC power to the plant. Several repairs were completed on the damaged switchgear and associated components, and the plant was restarted on August 26. Future work near energized switchgear will be more stringently monitored in order to prevent similar occurrences.

**7. Palomar Energy Center (PEC) SCR Ammonia Nozzles Plugged – September 21, 2023, through September 23, 2023 – 1.95 Days.**

The results of a Continuous Emissions Monitoring System (CEMS) Relative Accuracy Test Audit (RATA) on CT2 indicated that ammonia slip level at the exhaust stack was above the air permit limit. This high ammonia level indicated a possible issue with the ammonia injection grid on the unit. On September 21, 2023, CT2 was placed in a forced outage to make entry into the Heat Recovery Steam Generator (HRSG) to inspect and clean the ammonia distribution grid piping. On September 23, 2023, following the cleaning, the unit was released from the forced outage. Following the outage the ammonia slip level at the stack was below permit limit while operating removing the need for future outages to continue to troubleshoot and remedy the issue.

**8. Desert Start Energy Center (DSEC) Steam Turbine trip forced outage – October 5, 2023, through October 8, 2023 – 2.88 days.**

On October 5, 2023, during start up, the steam turbine voltage regulator lost power, causing a full plant forced outage. The cause was determined to be the failure of critical power supply used by the ST voltage regulator internal circuitry. The faulty power supply was replaced, and the plant was started on October 8. To prevent similar occurrences, we have upgraded our automatic voltage regulator systems, which include these power supplies on all three generators. This outage contributed to the decision to upgrade the ST automatic voltage regulator system and reduce our exposure to future ageing component failures.

**9. Palomar Energy Center (PEC) STG Lube Oil Pump Failed Bearing – October 9, 2023, through October 13, 2023 – 3.06 Days.**

On October 9, 2023, the plant was placed into a forced outage due to a failed bearing on a Steam Turbine Lube Oil Pump. After the Steam Turbine temperatures were low enough to secure lube oil the pump was removed and replaced. On October 13, 2023, following the pump replacement, the plant was released from the forced outage.



**10. Palomar Energy Center (PEC) Exhaust Duct Pressure Instrument Fault – October 16, 2023, through October 18, 2023 – 1.50 Days**

On October 16, 2023, CT2 tripped on high exhaust duct pressure. The pressure switches were checked, and no faults were found, and the instrument lines were blown out to ensure no condensation was in them. Data from the trip was reviewed to ensure that it was safe to put the unit back in service and on October 18, 2023, the forced outage was released. A time delay was added to the trip logic for high exhaust pressure to help minimize future similar trips.

**11. Miramar Energy Facility (MEF) CEMS DAHS Not Collecting Data – November 27, 2023, through November 28, 2023 – 1.17 Days**

On November 27, 2023, while running, the Continuous Emissions Monitoring System (CEMS) Data Acquisition and Handling System (DAHS) computer failed. MEF-2 was shut down and placed into a forced outage because the DAHS computer is critical to maintaining compliance with our air permit and the unit cannot be run without it functioning properly. The computer was replaced, the database was recovered, and the DAHS was returned to service. On November 28, 2023, the forced outage on MEF-2 was released. Replacing the computer will help minimize future similar outages.

## APPENDIX B

### **PLANNED OUTAGES DURING 2023 THAT WERE 24 HOURS OR LONGER FOR ALL FACILITIES 25 MW OR LARGER THAT WERE EXTENDED BY TWO WEEKS OR FIFTY PERCENT LONGER, WHICHEVER IS GREATER, FROM ITS PLANNED SCHEDULE**

**1. Palomar Energy Center (PEC) Steam Turbine Major Inspection – March 11, 2023, through August 7, 2023 – 149.56 Days**

On March 11, 2023, PEC started a planned outage to perform a steam turbine major inspection that included a rotor straightening evolution and a generator major inspection. The original estimated duration of this outage was 50.5 days. The condition of the steam turbine rotor required more time to repair than originally estimated. Repairs were also found to be required from the generator inspection. These repairs required extra time to be added to the outage to accommodate. Following the return of the rotor, the steam turbine was reassembled. During reassembly, there were multiple failures of steam turbine flange bolts that required disassembly and repair. These failures also extended the outage. On August 7, 2023, the plant was released from the outage for a total of 149.56 days.

## ACRONYM GLOSSARY

APCD	San Diego Air Pollution Control District
BESS	Battery Energy Storage System
CARB	California Air Resource Board
CEC	California Energy Commission
CMMS	Computerized Maintenance Management System
CPEP	Cuyamaca Peak Energy Plant
CPUC	California Public Utilities Commission
CT	Combustion Turbine
CTG	Combustion Turbine Generator
CUPA	Certified Unified Program Agencies
GE	General Electric
D	Decision
DAQ	Clark County Department of Air Quality
DSEC	Desert Star Energy Center
ERRA	Energy Resource Recovery Account
ESRB	Electric Safety and Reliability Branch
GO	General Order
HRSG	Heat Recovery Steam Generator
LP	Low Pressure
MEF	Miramar Energy Center
MW	Megawatt
MWh	Megawatt hour
NDEP	Nevada Division of Environmental Protection
NERC	North American Electric Reliability Corporation
NO <sub>x</sub>	Nitrous Oxides
OEM	Original Equipment Manufacturer
ORA	Office of Ratepayer Advocates
PEC	Palomar Energy Center
RSEP	Ramona Solar Energy Plant
RWQCB	Regional Water Quality Control Board
SCR	Selective Catalytic Reduction
SDG&E	San Diego Gas & Electric
STG	Steam Turbine Generator
UOG	Utility Owned Generation
US EIA	U.S. Energy Information Administration
WECC	Western Electricity Coordinating Council