ENERGY SAFETY DATA REQUEST: OEIS-P-WMP-2024- SDGE-02
SDG&E RESPONSE

Date Received: April 23, 2024
Date Submitted: April 26, 2024
Date Question 5(a) Updated: April 29, 2024

I. GENERAL OBJECTIONS

1. SDG&E objects generally to each request to the extent that it seeks information protected by the attorney-client privilege, the attorney work product doctrine, or any other applicable privilege or evidentiary doctrine. No information protected by such privileges will be knowingly disclosed.

2. SDG&E objects generally to each request that is overly broad and unduly burdensome. As part of this objection, SDG&E objects to discovery requests that seek "all documents" or "each and every document" and similarly worded requests on the grounds that such requests are unreasonably cumulative and duplicative, fail to identify with specificity the information or material sought, and create an unreasonable burden compared to the likelihood of such requests leading to the discovery of admissible evidence. Notwithstanding this objection, SDG&E will produce all relevant, non-privileged information not otherwise objected to that it is able to locate after reasonable inquiry.

3. SDG&E objects generally to each request to the extent that the request is vague, unintelligible, or fails to identify with sufficient particularity the information or documents requested and, thus, is not susceptible to response at this time.

4. SDG&E objects generally to each request that: (1) asks for a legal conclusion to be drawn or legal research to be conducted on the grounds that such requests are not designed to elicit facts and, thus, violate the principles underlying discovery; (2) requires SDG&E to do legal research or perform additional analyses to respond to the request; or (3) seeks access to counsel's legal research, analyses or theories.

5. SDG&E objects generally to each request to the extent it seeks information or documents that are not reasonably calculated to lead to the discovery of admissible evidence.

6. SDG&E objects generally to each request to the extent that it is unreasonably duplicative or cumulative of other requests.

7. SDG&E objects generally to each request to the extent that it would require SDG&E to search its files for matters of public record such as filings, testimony, transcripts, decisions, orders, reports or other information, whether available in the public domain or through FERC or CPUC sources.

8. SDG&E objects generally to each request to the extent that it seeks information or documents that are not in the possession, custody or control of SDG&E.

9. SDG&E objects generally to each request to the extent that the request would impose an

undue burden on SDG&E by requiring it to perform studies, analyses or calculations or to create documents that do not currently exist.

10. SDG&E objects generally to each request that calls for information that contains trade secrets, is privileged or otherwise entitled to confidential protection by reference to statutory protection. SDG&E objects to providing such information absent an appropriate protective order.

II. EXPRESS RESERVATIONS

1. No response, objection, limitation or lack thereof, set forth in these responses and objections shall be deemed an admission or representation by SDG&E as to the existence or nonexistence of the requested information or that any such information is relevant or admissible.

2. SDG&E reserves the right to modify or supplement its responses and objections to each request, and the provision of any information pursuant to any request is not a waiver of that right.

3. SDG&E reserves the right to rely, at any time, upon subsequently discovered information.

4. These responses are made solely for the purpose of this proceeding and for no other purpose.

ENERGY SAFETY DATA REQUEST: OEIS-P-WMP-2024- SDGE-02
SDG&E RESPONSE

Date Received: April 23, 2024
Date Submitted: April 26, 2024
Date Question 5(a) Updated: April 29, 2024

III. RESPONSES

QUESTION 1

Q01. Regarding SDG&E's Response to SDGE-23-12 "Covered Conductor Inspection and Maintenance":

a. SDG&E states that "[in] 2024, new condition codes will be added to the SAP CMP specific to any damage or findings related to the health of primary covered conductors and their connection points on distribution electric overhead facilities" (p. 99, SDG&E 2025 Update).
   i. Provide a list of these condition codes, including a description of the damage or findings as well as the associated failure mode (if applicable).
   ii. Provide SDG&E's expected date of completion for implementation.

b. SDG&E states that part of the potential issues inspectors will be looking for include potential water intrusion via corrosion (p. 99, SDG&E 2025 Update).
   i. Please summarize the instructions SDG&E is giving inspectors for the process of identifying instances of covered conductor corrosion. Provide any supporting documentation available to explain this process.

c. SDG&E states that "a limited number of Distribution Infrared inspections (WMP.481) will be performed on existing covered conductor circuit segments to determine whether thermography may be useful in identifying any potential damage conditions to the covered conductor" (p. 99, SDG&E 2025 Update).
   i. Provide the circuit mileage for the associated infrared inspections on covered conductor segments as well as the associated expected completion dates.

RESPONSE 1

(a)(i) The two new codes added would have the following descriptions:

Covered Conductor	Surface damage with cover. Observed bulging, cracking, or other imperfections, potential water intrusion.
	Damage at connection points. Observed corrosion or damage to splice covers.

(a)(ii) December 2024 for implementation in January 2025

(b)(i) Training materials that will be provided to inspectors are still in development but are anticipated to include examples of potential damage observations that would fall under the two categories described above.

(c) The circuit segments and poles that will be a part of this pilot effort have not yet been identified, so we are unable to provide mileage information at this time.

ENERGY SAFETY DATA REQUEST: OEIS-P-WMP-2024- SDGE-02
SDG&E RESPONSE

Date Received: April 23, 2024
Date Submitted: April 26, 2024
Date Question 5(a) Updated: April 29, 2024

QUESTION 2

Q02. Regarding SDG&E's Regarding SDG&E's Response to SDGE-23-13 "QA/QC for Inspections":

a. SDG&E states that "trends will be monitored" through QA/QC inspections (p. 100, SDG&E 2025 Update).
   i. How is SDG&E monitoring these trends?
   ii. What trends has SDG&E observed in QA/QC audits performed from 2021-2023?
   iii. For each trend SDG&E has observed, describe how SDG&E modified its inspection process as a result.

b. SDG&E states that "[due] to the time between inspection and audit activity, there is no way to determine whether results of the audit were present at the time of inspection" (p. 100, SDG&E 2025 Update).
   i. How does SDG&E anticipate this may change due to the planned adjustments in its QA/QC program (i.e., "[g]oing forward, the program will be enhanced by having supervisors assess 50% of the issues identified during inspection within 1 month and documenting the results of those assessments," p. 100, 2025 Update)?
   ii. Has SDG&E made any adjustments to its procedures to ensure it properly captures findings through its QA/QC audits?
      (1) If yes, provide any available supporting documents for these modifications, including redlined or updated procedures.
      (2) If no, describe any plans SDG&E has to adjust its procedures to ensure it properly captures findings through its QA/QC audits, including a list of the procedures SDG&E is modifying and the expected completion dates.

c. SDG&E states that various QA/QC program changes will be made "[going] forward." By what date will these changes be implemented?
   i. Provide a list of QA/QC program changes and the expected implementation dates.
   ii. If any of the changes described in SDG&E's response to SDGE-23-13 have been completed, provide completion dates.
      (1) Additionally, provide a list of findings made during QA/QC audits since the completion of these changes, including a description of each finding including the associated equipment type.

d. SDGE-23-13 included the requirement that SDG&E provide data analysis on work orders found during QA/QC audits of asset inspections from 2021 to 2023, including the total number of findings and the rate of these findings. Provide the following information:
   i. The total number of findings from QA/QC audits from 2021 to the present, broken out by quarter.
   ii. The find rate from QA/QC audits from 2021 to the present, broken out by quarter.

RESPONSE 2

SDG&E objects to the request to the extent it is unduly burdensome and calls upon SDG&E to perform studies or analyses that do not currently exist. Subject to and without waiving the foregoing objections, SDG&E responds as follows:

(a)(i) As stated in the SDG&E 2025 Update, SDG&E is currently not monitoring these trends and is updating its QA/QC process for detailed overhead inspections to include pass/fail data, identify and monitor trends and provide feedback to the inspection teams. These updates are anticipated to be in place for 2025.

(a)(ii) SDG&E did not identify and monitor trends during QA/QC audits performed from 2021-2023, so there are no observations related to trends observed in QA/QC audits performed from 2021-2023.

(a)(iii) Since SDG&E did not make any observations related to trends observed in QA/QC audits performed from 2021-2023, we did not modify its inspection process as a result of trends observed.

(b)(i) By minimizing the time period between the inspection and the audit for both inspections with findings and overall inspections, we anticipate being able to document specific items that were missed or incorrectly identified by our inspectors.

(b)(ii)(1) No, as this is a new change, SDG&E has not made any adjustments to its procedures to ensure it properly captures findings through its QA/QC audits.

(b)(ii)(2) In addition to shortening the timeframes between inspection and QA/QC audit, SDG&E plans to adjust the technology used to collect QA/QC results from paper forms to a digital format to improve the documentation of findings from the QA/QC audits and monitor trends. In addition, SDG&E plans to make adjustments to the workforce performing the QA/QC audits of inspections. All of these changes are anticipated to be completed by December 2024 for implementation in January 2025.

(c) SDG&E will implement these changes by December 2024 for implementation in January 2025.

(c)(i) The changes described in SDG&E's response to SDGE-23-13 have not been completed.

(c)(ii) There are no findings to report as a result of the QA/QC audits since these changes have not been implemented.

(d) SDGE has not completed data analysis on the work orders found during QA/QC audits of asset inspections from 2021 to 2023. Please note that SDG&E started reporting the results of the QA/QC audits of detailed overhead inspections in 2023. Of the 150 audits performed in the HFTD in 2023, one issue was identified related to the inspector's observation that a pole was inaccessible due to a private property issue (e.g. locked gate or dog).

ENERGY SAFETY DATA REQUEST: OEIS-P-WMP-2024- SDGE-02
SDG&E RESPONSE

Date Received: April 23, 2024
Date Submitted: April 26, 2024
Date Question 5(a) Updated: April 29, 2024

QUESTION 3

Q03. Regarding SDG&E's Response to SDGE-23-15 "Evaluation of Sensitive Relay Profile in Highest Risk Areas":

Provide a list of the 0.7 percent overhead miles in the HFTD not currently covered by sensitive relay profile (SRP), including the following information for each circuit segment:

a. Circuit segment name.
b. Circuit segment mileage.
c. Percent not covered by SRP.
d. HFTD tier level.
e. Risk score.
f. Risk ranking.
g. Reason why it is not covered by SRP.

RESPONSE 3

SDG&E objects to the request to the extent it is unduly burdensome and calls upon SDG&E to perform studies or analyses that do not currently exist. Subject to and without waiving the foregoing objections, SDG&E responds as follows:

In preparing this statement in the 2025 WMP Update, SDG&E utilized its GIS system to perform a trace downstream of all devices capable of SRP. This query produced an output that included an overall number of circuit miles that are covered by SRP capable devices. This output was compared to SDG&E's most recent report on the number of overhead circuit miles within the HFTD which demonstrated that 99.3% of the overhead miles in the HFTD are covered by SRP capable devices. SDG&E provided the 99.3% coverage metric to demonstrate that additional coverage of SRP capable devices is not required or reasonable in response to ACI SDGE-23-15. SDG&E did not perform this analysis at the circuit level with an output capable of determining which specific portions of circuit segments are not covered by SRP. Thus, the breakdown requested by Energy Safety is currently unavailable. Additional analysis would require several weeks to complete.

Based on SME analysis, the majority of "uncovered" areas are likely to be the small segments of circuits between the substation circuit breaker and the first SCADA sectionalizing device on the circuit.

ENERGY SAFETY DATA REQUEST: OEIS-P-WMP-2024- SDGE-02
SDG&E RESPONSE

Date Received: April 23, 2024
Date Submitted: April 26, 2024
Date Question 5(a) Updated: April 29, 2024

QUESTION 4

Q04. Regarding SDG&E's Advanced Protection (WMP.463):

SDG&E states that its "2025 projected capital expenditures [for Advanced Protection] were decreased due to future projects having a smaller scope" (p. 24, Section 2.2.1.5 "Advanced Protection [WMP.463]," SDG&E 2025 Update). Energy Safety understands from SDG&E's 2025 Update that SDG&E is not changing its targets for number of circuits included for advanced protection. Given this, how is SDG&E reducing the scope for advanced protection?

RESPONSE 4

Future scope is expected to decrease because SDG&E will be near construction completion for Advanced Protection substation fire-hardening projects and will focus on distribution falling conductor protection projects.

ENERGY SAFETY DATA REQUEST: OEIS-P-WMP-2024- SDGE-02
SDG&E RESPONSE

Date Received: April 23, 2024
Date Submitted: April 26, 2024
Date Question 5(a) Updated: April 29, 2024

QUESTION 5

Q05. Regarding SDG&E's Strategic Undergrounding (WMP.473):

SDG&E is decreasing its target from 150 to 125 in 2025 (p. 20, Table 6 "Qualifying Changes in Targets and Expenditures," SDG&E 2025 Update). Provide a list of projects that comprise the 25 miles being removed from the scope for strategic undergrounding for 2025, including the following information for each circuit segment:

a. Provide a list of projects that comprise the 25 miles being removed from the scope for strategic undergrounding for 2025, including the following information for each circuit segment:
   i. Circuit segment name.
   ii. Circuit segment mileage planned initially for undergrounding.
   iii. Risk score.
   iv. Risk ranking.
   v. Current status of project (e.g., engineering).
   vi. Expected completion date (if applicable).
b. How did SDG&E determine which miles to remove from the scope for strategic undergrounding for 2025?

RESPONSE 5

a. Please see list of projects below.

Project	(i) Circuit Segment Name	(ii) Circuit Segment Mileage[1]	(iii) Risk Score[2]	(iv) Risk Ranking[2]	(v) Current Status of Project	(vi) Expected Completion Date
C0909 B	909-805R	0.55	0.0069859	2	Engineering Design	9/19/2025
C0221 C	CB OK1, 221-37AE, 221-824, CB SL1	7.78	0.0002601	320	Engineering Design	11/7/2025
C0220 A	220-288R	2.61	0.0001337	198	Engineering Design	11/26/2025
C0220 T	220-298R	2.08	0.0018868	18	Engineering Design	12/8/2025
C0220 V	220-298R	1.54	0.0018868	18	Engineering Design	12/10/2025
C0971 F	971-371R, 971-381R	1.90	0.0001366	434	Engineering Design	12/31/2025

[1] Reflects miles of underground conductor to be installed.
[2] Reflects pre-mitigation risk score and risk ranking. When there are multiple segments for one project, the wildfire risk score and risk ranking is the maximum value of those segments.

Project	(i) Circuit Segment Name	(ii) Circuit Segment Mileage[1]	(iii) Risk Score[2]	(iv) Risk Ranking[2]	(v) Current Status of Project	(vi) Expected Completion Date
C0971 G	971-371R, 971-381R	2.10	0.0001366	434	Engineering Design	12/31/2025
C0971 H	971-381R	2.00	0.0000048	434	Engineering Design	12/31/2025
C0971 I	971-381R	2.30	0.0000048	434	Engineering Design	1/14/2026
C0971 A	971-29R, CB 971	2.30	0.0005918	98	Engineering Design	1/23/2026
C0971 P	971-383R	2.50	0.0008778	48	Engineering Design	1/23/2026
C1215 H	1215-32R	4.21	0.0019926	16	Engineering Design	2/4/2026
C1215 I	1215-32R	3.03	0.0019926	16	Engineering Design	2/4/2026
C1215 J	1215-32R	3.10	0.0019926	16	Engineering Design	2/4/2026
C1215 K	1215-32R	4.30	0.0019926	16	Engineering Design	2/4/2026
C0220 O	220-298R	1.42	0.0018868	18	Engineering Design	3/2/2026
C0210 A	210-172R	3.60	0.0002797	134	Engineering Design	3/25/2026

b. The Strategic Under Grounding (SUG) Program anticipates about 1500 miles of overhead circuits being replaced with underground circuits and removed from service over the program's life. Of these, scoping has been prepared for approximately 780 of these miles, which are divided into approximately three hundred separate projects. Each project goes through the process of scheduling, survey, engineering and design, permitting, land acquisition, construction, and close out. There are many unknowns in this process which can delay completion. For example, design may be complex, permitting may be delayed, permitting requirements may change, land acquisition may be complex, geo-technical conditions may not be as expected (rock), supply chain problems may occur, weather or fire conditions may delay construction, or labor at some stage may be in short supply. In addition, in 2023 the Bureau of Indian Affairs informed the Program of their requirements for bundling submission for projects on tribal lands, causing the project to re-schedule these submissions to meet requirements.

   Given these challenges the SUG Program has adopted the strategy of over subscribing the schedule, understanding some projects will meet delays and not complete in the originally scheduled calendar year. The forecasts of 150 and then 125 miles in 2025 do not represent a list of committed projects expected to come in exactly as scheduled but a goal based on the estimated capacity of the project, which has been growing each year. The reduction from 150

to 125 miles in the forecast is based on the Project's assessment of how quickly capacity can be raised. As such, the projects listed in SDG&E's response to part "a" above exceed the 25-mile difference between the 150 and 125 forecast because it is expected that a subset of these projects will not be able to be constructed and energized in 2025.

ENERGY SAFETY DATA REQUEST: OEIS-P-WMP-2024- SDGE-02
SDG&E RESPONSE

Date Received: April 23, 2024
Date Submitted: April 26, 2024
Date Question 5(a) Updated: April 29, 2024

QUESTION 6

Q06. Regarding SDG&E's Distribution Overhead System Hardening (WMP.475):
SDG&E states that its "projected O&M expenditures for Distribution Overhead System Hardening were increased due [to] historical O&M cost trend indicators" (p. 27, SDG&E 2025 Update). According to SDG&E's 2025 Update, there is a projected 1,906 percent increase of 2025 O&M expenditure for this initiative (p. 20, Table 6 "Qualifying Changes in Targets and Expenditures," SDG&E 2025 Update). Provide further explanation of the "cost trend indicators" leading to this increase.

RESPONSE 6

The cost trend indicators are based on recent historical actual costs and due to most of the projects forecasted in 2025 being True-up remediation type projects, which are projects that are remediating issues found during our post construction engineering analysis and are predominantly O&M in nature.

ENERGY SAFETY DATA REQUEST: OEIS-P-WMP-2024- SDGE-02
SDG&E RESPONSE

Date Received: April 23, 2024
Date Submitted: April 26, 2024
Date Question 5(a) Updated: April 29, 2024

QUESTION 7

Q07. Regarding SDG&E's Qualitative Updates to Risk Models:

Provide the expected completion dates for all "Key Areas" with an "in progress" status in:

a. Table 3 "WiNGS-Planning Qualitative Risk Modeling Updates" (12 "Key Areas," SDG&E 2025 Update pp. 7-10).
b. Table 4 "WiNGS-Ops Risk Modeling Qualitative Updates" (16 "Key Areas," SDG&E 2025 Update pp. 10-14).

RESPONSE 7

The anticipated completion dates for each item are detailed in Table 3 and Table 4 below. Please note that these dates are subject to potential revisions and indicate the end of the respective quarter.

a) Table 3 "WiNGS-Planning Qualitative Risk Modeling Updates" expected Completion dates.

	Key Area	Update	Status	Expected Completion Date
1	Model enhancements	Automate hardening-informed PSPS wind speed threshold assessment	Complete	
2	Model Enhancements	Update starting constants	Complete	
3	Model Enhancements	Incorporate Social Vulnerability Index (SVI)	In progress	Q4 2024
4	Model Enhancements	Update tree strike model	In progress	Q2 2024
5	Model Enhancements	Incorporate egress when evaluating wildfire risk	In progress	Q2 2024
6	Model Enhancements	Initiate scenario analysis for different wind conditions	In progress	Q4 2024
7	Model Enhancements	Evaluate probability distributions instead of maximum values for consequence	In progress	Q1 2025
8	Model Enhancements	Retrain models and explore new methodologies	In progress	Q4 2024
9	Model Enhancements	Estimate of PSPS de-energization duration	In progress	Q1 2025
10	Data Governance and Data Architecture	Refactor WiNGS-Planning aggregation functions	Complete	

	Key Area	Update	Status	Expected Completion Date
11	Data Governance and Data Architecture	Repoint flat files to Enterprise data sources	Complete	
12	Data Governance and Data Architecture	Implement parallelization of model run tasks	Complete	
13	Data Governance and Data Architecture	Standardize model approach	In progress	Q4 2024
14	Data Governance and Data Architecture	Develop model documentation	Complete	
15	Data Governance and Data Architecture	Create/update technical model code with documentation	Complete	
16	Data Governance and Data Architecture	Integrate span level risk scores	In progress	Q2 2024
17	Data Governance and Data Architecture	Expand to full-territory model	In progress	Q2 2024
18	Data Governance and Data Architecture	Refactor WiNGS-Planning risk score functions	In progress	Q2 2024
19	Model Validation and User Acceptance	Formalize model validation and verification	Complete	
20	Visualization Platform	Continue improving and enhancing visualization platform	In progress	Q4 2024

b) Table 4: WiNGS-Ops Risk Modeling Qualitative Updates with expected completion dates

#	Key Area	Update	Status	Expected Completion Date
1	Model Enhancements	Model approach standardization	In progress	Q2 2025
2	Model Enhancements	Migrate historical weather station data to AWS	Complete	Complete
3	Model Enhancements	Retrain PoF and PoI models and explore new methodologies	In progress	Q3 2024
4	Model Enhancements	Retrain conductor model and explore new methodologies	In progress	Complete

#	Key Area	Update	Status	Expected Completion Date
5	Model Enhancements	Retrain vehicle model and explore new methodologies	Complete	Complete
6	Model Enhancements	Retrain vegetation model and explore new methodologies	In progress	Q3 2024
7	Model Enhancements	Retrain condition probability model and explore new methodologies	In progress	Q2 2024
8	Model Enhancements	Retrain consequence model and explore new methodologies	In progress	Q4 2024
9	Model Enhancements	Retrain consequence model and explore new methodologies	In progress	Q4 2024
10	Model Enhancements	Explore new weather forecast data sources	In progress	Complete
11	Model Enhancements	Incorporate wildfire spread forecasted consequence in PSPS decision-making	In progress	Complete
12	Data Governance and Data Architecture	Enhance model documentation	Complete	Complete
13	Data Governance and Data Architecture	Improve visibility into data refresh process	Complete	Complete
14	Data Governance and Data Architecture	Optimize model architecture and pipelines to allow for sensitivity analysis	In progress	Q4 2024
15	Data Governance and Data Architecture	Improve model pipeline architecture to enhance efficiency, scalability, and overall performance	Complete	Complete
16	Data Governance and Data Architecture	Document model	Complete	Complete
17	Model Validation and User Acceptance	Formalize model validation and verification	Complete	Complete
18	Model Validation and User Acceptance	Enhance data validation process	Complete	Complete
19	Model Validation and User Acceptance	Subject matter expert model review	Complete	Complete
20	Model Validation and	Track model error	In progress	Q4 2024

ENERGY SAFETY DATA REQUEST: OEIS-P-WMP-2024- SDGE-02
SDG&E RESPONSE

Date Received: April 23, 2024
Date Submitted: April 26, 2024
Date Question 5(a) Updated: April 29, 2024

#	Key Area	Update	Status	Expected Completion Date
	User Acceptance			
21	Model Validation and User Acceptance	Develop a more comprehensive procedure and maintain third-party reviews for all models	In progress	Q4 2024
22	Visualization Platform	Continue efforts to improve, expand, and enhance the visualization platform.	In progress	Q4 2024
23	Visualization Platform	Expand existing visualizations	In progress	Q4 2024
24	Visualization Platform	Institute subject matter expert visualization review	In progress	Complete
25	Visualization Platform	Implement automatic integration of wildfire spread forecasting into the PSPS decision-making process.	In progress	Q4 2024
26	Visualization Platform	Change data connections to APIs from extracts	Complete	Complete
27	Visualization Platform	Expand details on customers	Complete	Complete

ENERGY SAFETY DATA REQUEST: OEIS-P-WMP-2024- SDGE-02
SDG&E RESPONSE

Date Received: April 23, 2024
Date Submitted: April 26, 2024
Date Question 5(a) Updated: April 29, 2024

END OF REQUEST