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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.

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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.

Date Received: June 14, 2022
Date Submitted: June 17, 2022

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III.   RESPONSES

QUESTION 1:

Regarding SDG&E's response to Maturity Survey question A.IV.d ("How are ignition risk reduction impact assessment tool estimates assessed?" SDG&E response for present [2022]: "iv. Independent expert assessment, supported by historical data of incidents and near misses"):

a. Please provide the latest independent expert assessment referenced in SDG&E's response to Maturity Survey question A.IV.d.

     i. If the assessment is not available to share in a report format:

          (1) Explain what assessment was performed.
          (2) Describe who performed the assessment.
          (3) Summarize the findings from the assessment.
          (4) Explain how SDG&E addressed any findings.

     ii. If the response to this data request includes confidential information, please provide both a confidential version through the appropriate avenue (submit a confidential e-filing to the docket #2022-WMP-DRs) and a redacted public version as an attachment to the response to this data request.

b. How frequently does SDG&E perform these independent expert assessments?

RESPONSE 1:

SDG&E objects to the question on the grounds set forth in General Objections Nos. 3 and 9. Subject to the foregoing objections, SDG&E responds as follows:

SDG&E contracted Accenture to conduct an assessment as an independent expert. The assessment was not available in a report format. See response to the question below.

a.   i. If the assessment is not available to share in a report format:

(1) Explain what assessment was performed.
Third party assessment for 2022 WMP RSEs included:
     a.   Review existing RSE template formatting.
     b.   Identify data needs.
     c.   Review mitigation programs and risk reduction methodology with PM's and SME's.
     d.   Compare WMP RSE calculations and risk reduction methodologies against RAMP RSE's utilizing templates and RAMP data.

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  e. Meet with SDG&E PMs, SMEs to collect data including but not limited to: units and unit costs of mitigations by tier and by year, efficacy studies and data supporting mitigation effectiveness, underlying assumptions, mitigation lifetime benefit, and reliability data.
  f. Review MAVF framework with Enterprise Risk Management.
  g. Data quality check of actual and forecasted units and dollars against 2020 WMP and 2021 WMP.

(2) Describe who performed the assessment.
Accenture was contracted to perform the assessment.

(3) Summarize the findings from the assessment.
Below is the summary of findings from the assessment:
  a. Existing templates for risk spend efficiency calculations did not differentiate between different mitigation types.
  b. Incomplete data documentation (e.g., data source and assumptions for risk reduction data and methodology) due to personnel turnover.
  c. Some similar programs had different risk reduction methodologies.
  d. Recommended opportunities for consistency and alignment of WMP and RAMP RSE's
  e. Identified changes to MAVF framework post RAMP filing.
  f. Identified differences between forecasted and actual mitigation units, unit cost, and HFTD tier.

(4) Explain how SDG&E addressed any findings.
SDG&E addressed the finding in the following ways:
  a. Created templates that capture data by mitigation but differentiate between mitigation types (e.g., WF Risk, PSPS risk, WF+PSPS risk).
  b. Identified SDG&E person(s) including project managers, subject matter experts, enterprise risk management personnel, and data analysts responsible for providing data inputs to RSE templates.
  c. Aligned risk reduction methodologies for similar programs.
  d. Validated WMP RSE calculations and risk reduction methodologies against RAMP RSE's utilizing templates and RAMP data.
  e. Removed stakeholder satisfaction from MAVF framework.
  f. Updated units, unit costs, HFTD tier.

b. How frequently does SDG&E perform these independent expert assessments?
SDG&E performs these independent expert assessments on annual basis.

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QUESTION 2:

Regarding the Risk Assessment and Mapping Maturity Survey response that includes reference to a specific confidence level:

a. Please provide substantiation for SDG&E's response to the following Maturity Survey question, which references a specific confidence level:

>   i. (A.II.e) What confidence interval, in percent, does the utility use in its wildfire risk assessments? (SDG&E response for present: >80%)

RESPONSE 2:

SDG&E objects to the question on the grounds set forth in General Objections 2, 3, and 9. Subject to the foregoing objections, SDG&E responds as follows:

For SDG&E's wildfire risk models, >80% confidence levels are considered with respect to three areas:

1. **Feature selection for regression models.** As reported in Table 4-17 of SDG&E's 2022 WMP, two models used a "bottom-up p-value" approach to feature selection. This approach ensures that regression models include only features with statistically signification correlations based on the "p-value". The conventional threshold for statistical significance is a p-value of 0.05, which suggests with 95% confidence that the null hypothesis is false (i.e., there is a relation).
2. **Conductor failure probability inference.** As reported in Table 4-18 of SDG&E's 2022 WMP, SDG&E's uses the "r-squared" metric with respect to its conductor failure model. The reported value of 0.89 suggests that most of the variance in conductor failure probability can be explained by the model.
3. **Polynomial fit for wind gust relation.** As reported on page 95 of SDG&E's 2022 WMP, a cubic polynomial fit was performed on the total model outputs for each sectionalizing device in order to represent the total risk to that device as a function of only wind gust. Each of these fits have r-squared values as well as confidence intervals. SDG&E uses >80% confidence level when considering the confidence intervals for each of these fits and how the values are ultimately reported for wildfire risk. For example, the upper and lower bounds of the confidence intervals at 80% confidence level typically deviate from predicted values by only a few percent.

Several models developed by SDG&E for wildfire risk assessment leverage machine learning algorithms for which confidence intervals are less relevant. For example, tree-based algorithms, such as "random forests" or "gradient-boosted trees", are very useful for binary classification; the metrics of certainty for these models are derived from a "confusion matrix" rather than

statistical measures of variance. While it is possible to derive confidence intervals for the purposes of comparison (e.g., through processes like "bootstrapping"), this process may not be efficient given the high computational costs that this would incur. The metrics for these models are reported in Table 4-18 of SDG&E's WMP.

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END OF REQUEST