MUSSEY GRADE ROAD ALLIANCE DATA REQUEST: MGRA-SDGE-05
2021 WILDFIRE MITIGATION PLAN UPDATE
SDG&E RESPONSE

Date Received: March 12, 2021
Date Submitted: March 17, 2021

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.

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III. RESPONSES

QUESTION 1:

Please provide a table of all Utility Maturity Survey responses that have changed since 2020, how they have changed, and a description of why.

OBJECTION:

SDG&E objects to this request on the grounds set forth in General Objection Nos. 2, 5, and 9. Subject to the foregoing objections, SDG&E responds as follows.

RESPONSE 1:

Please see refer to the file titled: "MGRA DR 5 - SDGE UWMMA Survey 2021.pdf"

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QUESTION 2:

Regarding Table 6 – Weather Patterns: Please add further rows to Item 2 – Wind conditions to classify wind conditions into subcategories in the same manner as Red Flag Warnings in Item 1. In other words, add further subcategories for HFTD Zone 1, Zone 2, Zone 3, and Non-HFTD for High Wind Warning Overhead circuit-mile days.

OBJECTION:

SDG&E objects to this request on the grounds set forth in General Objection Nos. 2, 5, and 9. Subject to the foregoing objections, SDG&E responds as follows.

RESPONSE 2:

Please refer to the attachment titled: "2021 WMP MGRA-SDGE-DR5 Table Q2.xlsx"

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QUESTION 3:

Is the Technosylva suite used in any way for calculating consequences of wildfire for the purposes of MAVF/RSE calculations? If so how, and what assumptions regarding weather, fuel, or burn duration are used? If not, are there plans to use it in this fashion?

OBJECTION:

SDG&E objects to this request on the grounds set forth in General Objection Nos. 2, 5, and 9. Subject to the foregoing objections, SDG&E responds as follows.

RESPONSE 3:

For the 2021 WMP filing, data from Technosylva is used to estimate consequences of wildfire at different regions (non HFTD, Tier 2 and Tier 3) based on the location of assets and their assessed conditional impacts from the WRRM model. It is also used to estimate RSEs for a subset of system hardening projects. The WiNGS model currently uses a consequence value from the Wildfire Risk Reduction Model (WRRM) which is built using Technosylva information. The consequence information in WiNGS focused on the maximum consequence for each distribution segment, which represents the worst case weather and vegetation. The WiNGS model will evolve as new information and data become available and as modeling techniques become more mature.

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QUESTION 4:

If only historical data is used for Monte Carlo modeling, then is the distribution based on wildfire size or financial loss? What assumptions are made regarding the relationship between wildfire size and financial losses?

OBJECTION:

SDG&E objects to this request on the grounds set forth in General Objection Nos. 2, 5, and 9. Subject to the foregoing objections, SDG&E responds as follows.

RESPONSE 4:
For overall wildfire risk modeling, SDG&E focused on the natural units that are represented in its Risk Quantification Framework, namely safety, reliability, and financial. The most recent Risk Quantification Framework includes Acres Burned as a part of the safety attribute.

The general process for the top-down wildfire risk modeling was to consider the financial damage from large fires, using a) historical fires associated to SDG&E equipment, and b) adjustments to the likelihood that attempt to take into account differences and uncertainties between the present time frame and the time period of the historical fire data. Both a) and b) above contain uncertainty. Monte Carlo modeling was them performed to understand the range (or probability distribution) of the likelihood of a large fire. For the purposes of the RAMP and WMP RSE calculations, the expected value of likelihood obtained from the Monte Carlo modeling was used. This expected value is the one applied to the CoRE function for the risk score.

SDG&E makes no assumptions regarding a relationship between wildfire size and financial losses.

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QUESTION 5:

If the historical data for wildfire sizes or losses is modelled by a function, please provide that function, its parameters, and description. Is there a maximum size / loss used for the function?

OBJECTION:

SDG&E objects to this request on the grounds set forth in General Objection Nos. 2, 5, and 9. Subject to the foregoing objections, SDG&E responds as follows.

RESPONSE 5:

Based on historical data, and attempts to quantify risks, SDG&E currently uses a decision-tree logic for its wildfire modeling. SDG&E believes there is no perfect single probability distribution to capture the large number of ultra-low-impact wildfires while containing wildfires that can exceed $5 Billion in damages. Statistical "fitting" techniques do not resolve well for SDG&E's wildfire dataset. The majority of SDG&E's reportable wildfires have not resulted in significant financial, safety, or reliability impacts. Of note, since January 2008, with an average of 20-30 reportable wildfires per year, only one non-utility structure has been partially damaged. The decision-tree technique allows SDG&E to focus on the potential damage from large, destructive wildfires while being realistic regarding the number of non-damaging fires. For wildfires that do have significant damage, the probability distribution for financial impact used in the Monte Carlo model was gamma(3, 0.8). The current model assumes that approximately 1 in every 220 reportable wildfires will have significant damage. Both the decision-tree logic and the probability distributions used are subject to annual reviews of their efficacy, and SDG&E is willing to work with outside entities to discuss improvements to the model.

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QUESTION 6:

Regarding the Ignition Rate table on page 53 that indicates that ignition rate substantially increases during Extreme weather conditions, has SDG&E studied whether this is due to the kind of fault that occurs during elevated and extreme conditions or whether it is because of increased likelihood of any fault becoming an ignition? If both of these factors contribute what is the estimated contribution of both?

OBJECTION:

SDG&E objects to this request on the grounds set forth in General Objection Nos. 2, 5, and 9. Subject to the foregoing objections, SDG&E responds as follows.

RESPONSE 6:

When SDG&E investigated the types of faults that become ignitions during extreme conditions, it was not able to identify a specific type of fault that is causing increased ignitions during elevated conditions. Instead, most fault drivers show an increased likelihood of becoming an ignition during elevated conditions. Due to the small number of extreme days in a given year, the dataset of risk events and resultant ignitions is much smaller. Looking at the historical dataset, the ignition rate does not increase for all drivers on extreme days since SDG&E has not recorded risk events for all drivers. However, when comparing the ignition rates of faults across all drivers on extreme days, a pattern of increased likelihood is apparent.

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Regarding the file MGRA-SDGE DR4 Q1.zip, provided in response to MGRA-SDGE-04 RESPONSE 1:

QUESTION 7:

One of the enclosed presentations states that: "As indicated in Rob's paper, extreme wind event always happens when RN is around zero". Please provide a copy of or public reference to Rob's paper.

OBJECTION:

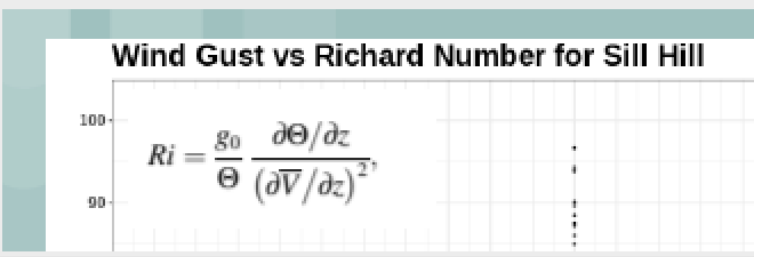
SDG&E objects to this request on the grounds set forth in General Objection Nos. 2, 5, and 9. Subject to the foregoing objections, SDG&E responds as follows.

RESPONSE 7:

The paper referenced, written in part by Dr. Robert Fovell, can be found at http://www.atmos.albany.edu/facstaff/rfovell/papers/2018-gutierriez-fovell.pdf.

QUESTION 8:

The following relationship is shown on one of the graphs:



Please provide definitions of and the method for obtaining the values for the Richard Number Ri, g0, Theta, V-bar, and z. If these are fully described in "Rob's paper", that will be adequate.

OBJECTION:

SDG&E objects to this request on the grounds set forth in General Objection Nos. 2, 5, and 9. Subject to the foregoing objections, SDG&E responds as follows.

RESPONSE 8:

The definitions and methodologies are fully described in the paper referenced in Q7.

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QUESTION 9:

In the file provided to MGRA as part 2021 WMP MGRA-SDGE DR3 Q1-Q5 - jwm.xlsx, the line 8, "Number of ignitions", appears to have calculation errors. The columns HWW&RFW and HWW&^RFW (high wind warning without red flag warning) should add up to the number in the column HWW. There are inconsistencies between these numbers. The other rows tally correctly. Please send a corrected version of this row.

OBJECTION:

SDG&E objects to this request on the grounds set forth in General Objection Nos. 2, 5, and 9. Subject to the foregoing objections, SDG&E responds as follows.

RESPONSE 9:

Please refer to the updated file titled "2021 WMP – MGRA DR 5 – Q9.xlsx" with the corrected row 8 data.