

**PUBLIC ADVOCATES OFFICE DATA REQUEST:
CALADVOCATES-SDGE-2022 WMP-06
SDG&E RESPONSE**

**Date Received: February 18, 2022
Date Submitted: February 24, 2022**

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

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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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The following questions relate to your 2022 WMP Update submission.

QUESTION 1

On page (p.) 20 of SDG&E’s 2022 WMP, SDG&E states that, “Ability to underground certain areas can be heavily contingent upon effective alignment with telecommunication companies. Ongoing discussions with stakeholders are important to continue to pave the path for future mitigation efforts.” With that context:

- a.) Please provide and explain SDG&E’s current policies or procedures when engaging with telecommunication companies to achieve undergrounding mitigation goals.
- b.) Does SDG&E coordinate with telecommunication companies regarding all undergrounding areas?
- c.) Does SDG&E coordinate on a case-by-case basis with telecommunication companies regarding undergrounding?
- d.) Please describe, if applicable, the circumstances when SDG&E coordinates on a case-by-case basis with telecommunication companies regarding undergrounding.

RESPONSE 1

SDG&E objects to Question 1 on the grounds set forth in General Objections Nos. 2, 3, and 5. Specifically, as each engagement with telecommunications companies is unique to the set of circumstances at hand, it is not necessarily possible to generally provide a response to the questions that is applicable in every circumstance. Subject to the foregoing objections, SDG&E responds as follows:

- a) During preliminary design phase, SDG&E identifies the telecommunication company or companies that are in the existing overhead electric pole lines and reaches out to those companies to inform them of the undergrounding project that could affect the overhead electric facilities and inquire regarding their in co-locating with the undergrounding efforts. If the telecommunication company is amenable, the following steps and coordination below are generally taken.
 - 1. SDG&E coordinates and meets to discuss details of the project.
 - 2. SDG&E provides a preliminary sketch of the project scope and location.
 - 3. The telecommunication company will put together their communication requirements and submit a Joint Trench Offer (JTO) that has line-item quantities and the agreed pricing.
 - 4. SDG&E will review and confirm and provide a countersigned offer.

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5. If there is more than one Telecommunication company (i.e. ATT or Cox) in the trench that can affect the pricing, all parties must review prior to any countersigning.
 6. Once the agreement is in place, telecommunication company needs to make a 50% initial payment for their portion of costs, which will be credited towards the project, and their designs will be included in the construction package.
 7. Once the civil construction is complete, SDG&E provides the Telecommunication company with the as-builts so they can complete their cabling designs. The as-builts are also reconciled by SDG&E so that the remaining invoicing and payments can be made.
- b) Yes, SDG&E does coordinate with telecommunication companies regarding undergrounding areas but not all underground areas and not with all telecommunication providers. In the HFTD area, which is where the undergrounding is taking place, AT&T is the largest communication provider and SDG&E has met with AT&T on multiple occasions to share current and future undergrounding plans and exchange information.
- c) Yes, SDG&E coordinates on a case-by-case, or project basis, with telecommunication companies regarding undergrounding projects. For more information, see the response to Question 1(a).
- d) As explained in the response to Question 1(a), SDG&E identifies and contacts telecommunications companies who may have equipment impacted by planned undergrounding. As described above, if the telecommunications company shares the goal to underground equipment, SDG&E will further coordinate on the project as agreed upon in a joint trench offer (JTO).

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QUESTION 2

On page (p.) 20 of SDG&E's 2022 WMP, SDG&E states that, "Undergrounding can be completed at shallower depths." Regarding this statement:

- a.) What measurement or range of depths is "shallower depths"?
- b.) Please provide and explain SDG&E's construction requirements for undergrounding at the shallower depths that SDG&E mentions.

RESPONSE 2

SDG&E objects to Question 2 on the grounds set forth in General Objections Nos. 2, 3, and 5. Subject to the foregoing objections, SDG&E responds as follows:

- a) SDG&E has implemented 24 inch minimum trench cover instead of 30 inches, which reduces overall trench depth by 6 inches. Depending on field conditions, the size of the conduit package, permitting requirements, and environmental constraints, the depth of trench may vary. In situations where telecommunication lines are co-located during the undergrounding project, the 24" minimum trench cover will not be applicable as General Order 128 requires an additional 12" clearance between communication and electric utilities.
- b) A minimum of 24 inches of cover is required from finished surface to the top of the electric conduit package over primary electric cable when such cover is allowed by the governing agency and field conditions.

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QUESTION 3

Page (p.) 211 of SDG&E's 2022 WMP provides a grid hardening flowchart showing, "...how WiNGS-Planning is used to inform scoping, selection, and implementation of underground and covered conductor projects." Explain, in detail, SDG&E's time frame and process in which you input finished construction/as-built drawings for projects into your GIS database.

RESPONSE 3

SDG&E objects to Question 3 on the grounds set forth in General Objections Nos. 2, 3, and 5. Subject to the foregoing objections, SDG&E responds as follows:

SDG&E's time frame and process to input finished construction/as-built drawings for projects into the GIS database depends on how quickly final as-builts drawings are obtained from the internal and external construction teams. Overhead and underground projects are pre-digitized in SDG&E's enterprise GIS before the project goes to construction. Once construction has been completed and facilities are ready to be commissioned, the GIS is updated within 48-hours of completion of switching to energize the facilities. The finished construction/as-built drawings for a project can take up to 126 business days to be entered into our GIS system; however as noted above, the vast majority of the GIS data is entered into the GIS system before the start of construction.

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QUESTION 4

In section 7.3.3 of SDG&E's 2022 WMP titled "Grid Design and System Hardening," risk reduction estimations are given for several mitigation initiatives.

Explain why SDG&E utilizes different risk scoring formats for their mitigation initiatives in section 7.3.3 of its 2022 WMP update. For example, for the SCADA Capacitors Program, SDG&E uses "Average Ignition Rate" while in the Covered Conductor Program, SDG&E uses "Ignition Rate."

RESPONSE 4

These two numbers are the same, and represent the Average Ignition Rate. The Covered Conductor Program risk reduction table should read "Average Ignition Rate."

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QUESTION 5

Page (p.) 214 of SDG&E’s 2022 WMP states “The Covered Conductor Program has the potential to raise the threshold for PSPS events to higher wind speeds compared to bare conductor hardening; however, as of the end of 2021 the threshold for PSPS events has not been raised on any circuits with covered conductor installed as there have not yet been any circuit segments fully hardened with covered conductor.”

Please explain why SDG&E had not completed covered conductor installations on any full circuit segments by end of 2021.

RESPONSE 5

SDG&E objects to Question 5 on the grounds set forth in General Objections Nos. 2, 3, and 5. Subject to the foregoing objections, SDG&E responds as follows:

SDG&E had not completed covered conductor installations on any full circuit segments by the end of 2021 due to the way projects were developed and executed. SDG&E has not historically scoped projects based on circuit segmentation as modeled by WiNGS. The size and scope of projects are developed based on various factors including land type (Private, Caltrans, County, California State Park, Bureau of Indian Affairs, etc.), construction constraints, engineering constraints, and environmental constraints. Generally, projects are not issued to construction until all facilities in the scope of the project are construction ready, which can include obtaining land rights, environmental releases, and permits. This can take longer depending on the size of the project and the more constraints it is affected by. Overhead projects are typically sized to approximately 30 poles, but the total number of poles can vary depending on the circumstances. In many cases circuit segments are large and contain more than 30 poles in a segment and require multiple projects to complete a circuit segment. As of the end of 2021, the covered conductor installations by project did not result in covered conductor hardening for full circuit segments. Thus, in some cases the circuit segments still had a combination of covered conductor installations and previously traditionally hardened (bare conductor) projects, meaning that the limiting factor in that circuit-section remained the bare conductor section and would not allow for a change in PSPS operation.

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QUESTION 6

On page (p.) 214 of SDG&E's 2022 WMP, Table 7-6: Risk Reduction Estimation for Covered Conductors SDG&E reports Ignition Rates for Tier 3 and Tier 2 of 2.69% and 3.29% respectively.

On p. 217, Table 7-7: Risk Reduction for the Expulsion Fuse Replacement Program, SDG&E reports an average Ignition Rate of 0.11% for both Tier 3 and Tier 2.

- a) Please explain why SDG&E uses different ignition rates for covered conductor and for fuse mitigation in its 2022 WMP update.
- b) Explain the meaning of the aforementioned Tier 3 ignition rate of 2.69% noted on p. 214.
- c) Explain the meaning of the aforementioned Tier 2 ignition rate of 3.29% noted on p. 214.
- d) Explain the meaning of the aforementioned ignition rate of 0.11% noted on p. 21

RESPONSE 6

SDG&E objects to Question 6 on the grounds set forth in General Objections Nos. 2, 3, 6 and 7. Subject to the foregoing objections, SDG&E responds as follows:

- a) SDG&E is using different ignition rates due to the difference in risk event drivers for these two programs. Covered conductor addresses multiple risk event types, and therefore the average ignition rate across all risk events was chosen. Fuse replacements only mitigates the ignition risk due to fuse operations. SDG&E used the historical ignition rate related specifically to fuse operations in an effort to more specifically calculate the risk reduction that can be attributed to the program.
- b) The Tier 3 ignition rate is the average ignition rate from all risk events that occurred in the HFTD Tier 3 over the five-year period from 2015-2019. This time period is the pre-mitigation time period prior to the implementation of the three-year 2020-2022 WMP.
- c) The Tier 2 ignition rate is the average ignition rate from all risk events that occurred in the HFTD Tier 2 over the five-year period from 2015-2019. This time period is the pre-mitigation time period prior to the implementation of the three-year 2020-2022 WMP.
- d) The ignition rate of 0.11% is the rate at which fuse operations led to an ignition.

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QUESTION 7

Page (p.) 215 of SDG&E’s 2022 WMP states, “The Covered Conductor Program met its targets for 2021 and has set a target of 60 miles for 2022.” In reference to this statement:

- a.) Explain why SDG&E has set a target of 60 miles of covered conductor installation in 2022 when it has only completed 21 miles in the previous two years of 2020 and 2021¹.
- b.) How will SDG&E increase its rate of covered conductor installation in 2022 to meet its target of 60 miles? Please identify specific circumstances or programmatic changes that make this target feasible

RESPONSE 7

SDG&E objects to Question 5 on the grounds set forth in General Objections Nos. 2, 3, 6 and 7. Subject to the foregoing objections, SDG&E responds as follows:

- a) SDG&E set a target of 60 miles of covered conductor installations in 2022 based (1) on our experience with overhead projects since 2013, and (2) reallocation of some resources from traditional hardening to covered conductor. As a result of the observed benefits of the use of covered conductor, SDG&E is expanding its use of covered conductor installation as a wildfire mitigation initiative. Because the engineering, design, permitting, environmental, land and construction processes for covered conductor and traditional hardening are the same, SDG&E use traditional hardening schedules to estimate covered conductor installation for 2022. The only appreciable difference with covered conductor installations as compared to bare conductor is the covered conductor material and hardware. The overhead resources used in 2021 were able to design and build a total of 120 miles of overhead facilities (100 miles of Traditional Hardening and 20 miles of Covered Conductor Hardening). These same resources are available to design and build a total of 65 miles of overhead facilities (60 miles of Covered Conductor and 5 miles of Traditional Hardening).
- b) SDG&E is able to increase its rate of covered conductor installations in 2022 to meet its target of 60 miles based on our experience and available resources that were used to design and build the 120 miles of overhead facilities in 2021. As stated above the only appreciable difference between Traditional Hardening and Covered Conductor Hardening is the covered conductor material and hardware. All the other processes are basically the same. The goal of 60 miles of installation is made possible by reallocating resources from traditional hardening efforts. There were no programmatic changes to make this target feasible.

¹ Per Cal Advocates calculation in SDG&E’s 2022 WMP Attachment B Tables 1-12.xlsx, adding together both cell AF27 and cell AM2.

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QUESTION 8

Section 7.3.3.16 of SDG&E's 2022 WMP ("Undergrounding of electric lines and/or equipment") lists progress on the initiative including, "Technology Alignment" and "Business Effectiveness":

- a.) Explain the "new trench method" SDG&E employed for its undergrounding efforts.
- b.) Has SDG&E used horizontal directional drilling (HDD) as a primary source of construction for an undergrounding project in 2021?
- c.) Does SDG&E plan to use horizontal directional drilling as for any undergrounding projects in 2022?

RESPONSE 8

SDG&E objects to Question 5 on the grounds set forth in General Objections Nos. 2, 3, 5, 6 and 7. Subject to the foregoing objections, SDG&E responds as follows:

- a) See answer to Question 2b.
- b) Horizontal directional drilling (HDD) was not used as a primary source of construction for Strategic Undergrounding.
- c) HDD will be used as needed per project design/construction requirement to avoid environmental constraints and sensitivities, fulfill permitting requirements, and accommodate field conditions.

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QUESTION 9

Regarding Section 7.3.3.16 of SDG&E’s 2022 WMP (“Undergrounding of electric lines and/or equipment”):

- a.) Provide a list of SDG&E’s internal teams that are involved in its undergrounding effort.
- b.) Provide a list of external agencies or partners that SDG&E is collaborating with for its undergrounding effort

RESPONSE 9

SDG&E objects to Question 5 on the grounds set forth in General Objections Nos. 2, 3, and 5. Subject to the foregoing objections, SDG&E responds as follows:

- a) Teams involved in the undergrounding effort include, but may not be limited to: Program/Project Management, Engineering and Design, Construction Services, Environmental Group, Standards Team, Supply Management, GIS Group, Accounting, Public Affairs, Regulatory Affairs, Procurement and Logistics, Land Services, Permitting, Service Conversion Group, and Portfolio Management.
- b) External parties involved in undergrounding efforts include, but may not be limited to: County of San Diego; Various Tribal Governance Offices (Rincon, San Pasqual, Jamul, Viejas, Santa Ysabel, Ewiiapaayp); BIA; CNF; Caltrans; BLM; COX; Valley Center Municipal Water Districts; City of Escondido; Critical facilities in back county such as, schools, fire stations, police stations, post offices, library, community resource center, etc., and Division of the State Architect.

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QUESTION 10

In section 4.4.2.3 of SDG&E’s 2022 WMP titled “Impact of Overhead Distribution Hardening at Reducing Overhead Faults,” SDG&E provides a graph in section 6 titled, “Faults By Cause Type” that highlights events caused by certain faults before and after hardening efforts. SDG&E states: “On average, the unhardened system saw an average of 13.50 risk events per 100 miles per operating year while the hardened system saw an average of 7.49 risk events per 100 miles per operating year. This represents a 45 percent reduction in risk in hardened system areas.”

- (a) Explain why SDG&E uses “per 100 miles per operating year” figures in section 4.4.2.3 of its 2022 WMP.
- (b) Explain why SDG&E’s graph in section 6 of section 4.4.2.3 of SDG&E’s 2022 WMP is not shown as a per 100 mile basis.

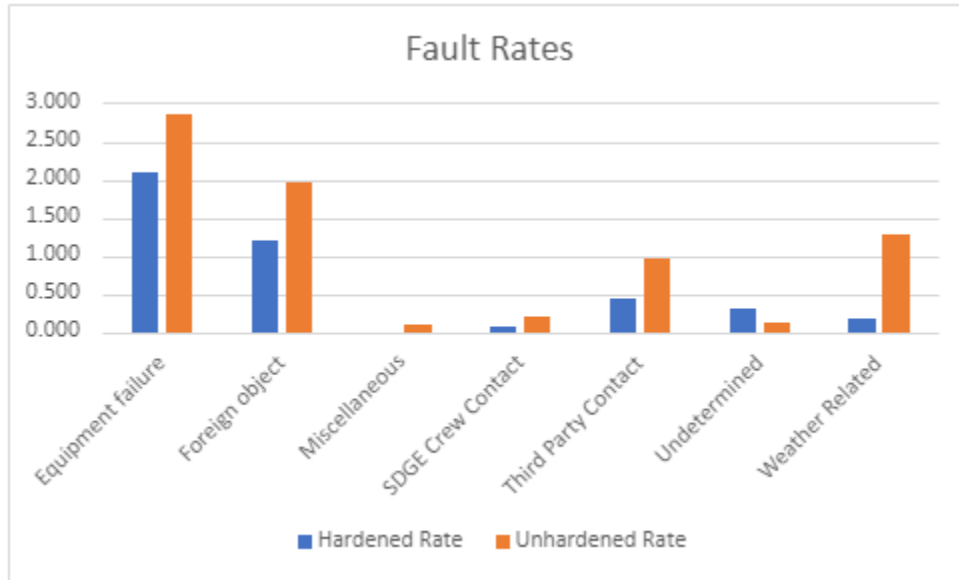
RESPONSE 10

SDG&E objects to Question 5 on the grounds set forth in General Objections Nos. 2, 3, and 5. Subject to the foregoing objections, SDG&E responds as follows:

- a) SDG&E uses faults per 100 miles per operating year to better directly compare the before and after effects of hardening efforts. Using a set number of miles per operating year allows data to be normalized for a comparison between hardened and unhardened circuits.
- b) SDG&E shows the graph of faults by cause type over the five-year study period to demonstrate the reduction by driver. These can be converted into a per 100 miles per operating year rate. A graph that has been normalized is provided below:

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END OF REQUEST