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SDG&E RESPONSE

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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.

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

General Response and Background Information:

As you will see in the process map which we provided in response to question 13, SDG&E does not organize our project development process in the same manner as PG&E, whose processes we assume influenced the structure of this data request, and thus the arrangement of the questions does not provide a proper outline to describe certain important information that is relevant to an effective understanding of SDG&E's project development process. Therefore, we are providing this information independently in order to clarify certain references in our direct responses to questions.

- For the purposes of the Strategic Undergrounding Program, SDG&E defines a Project as a continuous segment of new-to-be-installed underground distribution facilities, inclusive of all Primary, Secondary, and Service cabling from the design energizing point to the customer meters contained within that segment, and to the design terminating point.
- Within a Project (as defined above) are discrete "job levels" which are used to separate the work into trade classifications for use in contracting and management of information during the preparation of the design. The required levels are:
    - Trench and Conduit (T&C), the base design level which details the routing of conduits and the locations of structures.
    - Cable and Connections (C&C), the design level which applies the electrical system components for the proposed underground system.
    - These levels, or their combination, Civil and Electric (C&E), a combination level containing both the Trench & conduit design and cabling design, occur on every project.

  Some projects also contain certain additional levels which provide design for other aspects of the work which are not required for every project. These are:
    - Cable Pole (CP), a design level required when the project must install one or more new poles for up or down feed cable risers.
    - SCADA, a design level required when the project must install new utility owned communications infrastructure to facilitate operations or monitoring.
    - Overhead Remove-From-Service (OH RFS), a design level required when the project provides for the deactivation and removal of existing Overhead distribution assets which are replaced by one or more undergrounding projects.
- Prior to 2022, SDG&E developed project designs with the T&C and C&C levels combined on a single design plan, with information being developed in stages between the 30% and 60% design steps. SDG&E planned to return to this combined level in Q4 of 2024. Projects developed between these periods used separate levels.
- SDG&E's design process for all projects begins with the development of the Civil, or T&C, design, providing for the physical routing of the work and allowing for the development of

permit applications and land rights acquisition documents. The electrical design is implemented onto the civil design once constructability review has confirmed that all loads in the subject area of the design are served by the new routing and the energizing and terminating points for the Project are feasible.

- The supplemental design levels are developed after the initial development of the underground system electrical design.
- The permitting phase begins at the midpoint of the design phase and runs concurrently. The permitting phase also includes land rights acquisition and environmental compliance review.
- Each design development step is followed by a Quality Assurance review by a second qualified individual who checks for compliance with certain technical requirements in the design before passing the design to the next development step.
- SDG&E occasionally allows Projects to continue development, including advancing to Construction, while individual elements of previous stages remain underway, with the expectation of completion of those elements and the project a later date. SDG&E may also further divide a proposed undergrounding Project into multiple Projects after the start of development and at any stage prior to completion for various engineering and technical reasons related to the ability to construct and energize the project to provide for wildfire mitigation and/or PSPS reduction.
- SDG&E's project development process includes definition of the boundaries of a Project as the to-be-constructed underground segment before the design is developed. SDG&E permits the revision of these boundaries, including the separation of the proposed Project into multiple proposed Projects at any stage prior to completion.

SDG&E expects that some of these practices will be modified or changed as a part of the development and implementation of an EUP, if one is approved under the SB-884 framework. We have responded to these questions based on SDG&E's current and historical practices on the Strategic Undergrounding Program, except where noted.

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QUESTION 1

Provide a description of SDG&E's cost reporting platform.

a. What types of documents are located within SDG&E's cost reporting platform?
    i. Provide a summary description of each document type

RESPONSE 1

SDG&E uses a combination of SAP tools which contain cost data about projects and SDG&E's general operations as our Cost Reporting Platform.

For the purposes of the Strategic Undergrounding Program, the Cost Reporting Platform is the system of record for project and non-project costs. Within this context these are integrated systems which record data but do not host separate documents.

Reports can be generated which provide cost details for project and non-project budget codes.

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QUESTION 2

Provide a description of SDG&E's project management platform.
a. What types of documents are located within SDG&E's project management platform?
i. Provide a summary description of each document type

RESPONSE 2

For the Strategic Undergrounding Program, SDG&E uses Primavera P6, Procore, and certain SAP tools to constitute its Project Management Platform during the development and construction of Projects. Once a project is completed and closed out, certain documents considered records are archived in OpenText, and the remaining documents are not retained.

Primavera P6 contains the Project Schedule for each Project.

The SAP tools contain:

- Integrated data for certain key project dates
- Integrated data for certain project costs
- Project approval notifications
- Duplicate copies of certain documents used during the work process

Procore contains:

- Design submittals at each stage of the design process
- Environmental compliance review submittals at certain stages of the design process
- Formal communication (RFIs) documenting questions and clarifications about project design and construction which require a formal answer to be documented (this is an integrated function not contained in a specific document)
- Final, Issued for Construction Design and Compliance Documents
- Other non-record documents and communications

SDG&E performs other project development functions using digital tools which are not a part of the "Project Management Platform".

Prior to the use of Procore, SDG&E used the Microsoft File Environment (Sharepoint) and email communications for the document retention and workflow steps currently performed in Procore.

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QUESTION 3

Describe every step taken in the scoping phase of an undergrounding project from the moment a risk model informs the decision that an overhead line should be undergrounded to the beginning of the design phase.

RESPONSE 3

The decision to underground an overhead line for wildfire risk mitigation is informed by SDG&E's WiNGS Planning model and subject to secondary feasibility analysis by subject matter experts. Upon selecting a segment for Strategic Undergrounding, the scoping process is assigned to a dedicated team of scoping engineers who will develop the preliminary routing and specifications for each circuit segment.

The preliminary routing and specifications for each circuit segment are developed through a desktop analysis that considers wildfire and PSPS risk, and route feasibility. Additionally, a Subject Matter Expertise Review is conducted. The preliminary routing and specifications are formalized in a Design Input Transmittal.

Preliminary Routing
A desktop analysis is first performed that includes geospatially accurate information to assess optimal routing and terrain considerations for feasibility. The scoping engineers work to optimize routes, providing service to customers in the most efficient manner possible. Optimization includes following existing rights of way and avoiding known environmental or permitting challenges where possible. For example, strategic underground routing is best achieved along existing roads. Additionally, awareness of rivers and streams helps avoid costly or prohibited water crossings.

Subject Matter Expertise Review
After the preliminary layout of the circuit-segment has been selected, a subject matter expert review is conducted that includes a loading analysis, a construction standards review, an environmental assessment, an operational and reliability evaluation, identification of permitting and easement constraints, and the definition of project sections.

- Engineers check for the current and projected capacity needs of the associated circuit. Upgrades or reconfigurations may be brought into scope to ensure that current and future loads are served.
- A review of construction standards is also conducted, which dictates the available cable and conductor sizes.
- Segments, and portions thereof, are reviewed for environmental constraints that could negatively impact the schedule, such as impacts to cultural resources, water resources, and biological resources.

- The engineering team determines whether engineering enhancements to improve system and circuit reliability are necessary. These enhancements may include additional or improved circuit ties or additional sectionalizing.
- Permitting requirements are identified as early as possible. Agencies such as Cleveland National Forest, California Department of Transportation (Caltrans), and the Bureau of Indian Affairs typically have longer permit lead times compared to those for San Diego County permits.
- With consideration for environmental, permitting, and land jurisdiction issues, a completely undergrounded circuit segment will be divided into sections. Ultimately, the schedule for the project will reflect these project sections.

Finalize and Bid

The Design Input Transmittal, which includes the preliminary routing, project sections, and conduit and conductor sizing, as well as any reliability enhancements, is then distributed to design contractors for bid.

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QUESTION 4

For each step taken in the scoping phase of an undergrounding project described in Question 3, respond to the following:

a. Indicate the information contained within SDG&E's project management platform for Project Order Numbers ESH C0221 DUG 1 SUG, ESH C0972 DUG A SUG, and ESH
C1458 1A SUG.

b. Create a summary description for the information indicated in SDG&E's response to Question 4a.

c. Provide financial information from SDG&E's cost reporting platform for Project Order Numbers ESH C0221 DUG 1 SUG, ESH C0972 DUG A SUG, and ESH C1458 1A SUG.

d. Provide any additional financial information for Project Order Numbers ESH C0221 DUG 1 SUG, ESH C0972 DUG A SUG, and ESH C1458 1A SUG that is not captured in SDG&E's response to Question 4c.

e. e. Provide an aggregate of the financial information for Project Order Numbers ESH C0221 DUG 1 SUG, ESH C0972 DUG A SUG, and ESH C1458 1A SUG for the entire scoping phase.

RESPONSE 4

Because SDG&E scopes multiple undergrounding projects simultaneously, work is not tracked to any specific single SUG project. SDG&E records costs for the scoping phase in an Overhead Pool, consistent with the process authorized in SDG&E's applicable General Rate Case. The Overhead Pool reflects the costs that originate from all scoping activities including preliminary routing, engineering capacity studies, reliability analysis, and any preliminary design work. These costs are spread to projects when they are constructed.

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QUESTION 5

Describe every step taken in the design phase of an undergrounding project from the end of the scoping phase to the beginning of the permitting phase.

RESPONSE 5

The design phase of the project includes three subordinate phases, including the following work:

Survey / Planning:

1. Development of the Utility Design Base Map, including topographic survey and drafting.
2. Preliminary (10%) Design development (T&C Only)

Preliminary Design:

3. 30% Design Development (Routing and Equipment) (T&C Only)
4. Constructability Fielding and Corrections, QA/QC Process for Same
5. 60% Design Development (Basic Detailing), QA/QC Process for Same
6. Development of the supported job levels (C&C, CP, SCADA, OH RFS)

Final Design:

7. 90% Design Development, QA/QC Process for Same. All Levels
8. 100% Design, QA/QC Process for Same. All Levels

SDG&E operates the Design and Permitting/Land Rights phases concurrently, with agency permitting applications beginning from the 60% design development step and completing concurrently with the finalization of the design prior to construction. These steps are interrelated and this concurrency approach facilitates cost-control for design revisions resulting from Agency comments during permitting.

SDG&E made significant changes to its approach to the alignment of the design and permitting/ land rights phases during the period from Q4-2023 to Q2-2024 which were aimed at reducing the number and frequency of design revisions resultant from landowner negotiations and Agency permitting comments by preventing most designs from advancing into the 90% design development step until discretionary Agency permits are approved and land rights acquired. This is the process that is in effect today and shown in the process map provided in response to question 13. The projects identified in this data request were designed and constructed prior to those changes taking effect.

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QUESTION 6

For each step taken in the design phase of an undergrounding project described in Question 5, respond to the following:

a. Indicate the information contained within SDG&E's project management platform for Project Order Numbers ESH C0221 DUG 1 SUG, ESH C0972 DUG A SUG, and ESH C1458 1A SUG.

b. Create a summary description for the information indicated in SDG&E's response to Question 6a.

c. Provide financial information from SDG&E's cost reporting platform for Project Order Numbers ESH C0221 DUG 1 SUG, ESH C0972 DUG A SUG, and ESH C1458 1A SUG.

d. Provide any additional financial information for Project Order Numbers ESH C0221 DUG 1 SUG, ESH C0972 DUG A SUG, and ESH C1458 1A SUG that is not captured in SDG&E's response to Question 6c.

e. Provide an aggregate of the financial information for Project Order Numbers ESH C0221 DUG 1 SUG, ESH C0972 DUG A SUG, and ESH C1458 1A SUG for the entire design phase.

RESPONSE 6

a. The Project Management Platform contains the following information during the design phase:
    i. Interim design development submittals at the 30%, 60%, 90%, and 100% development stage for the T&C or C&E level.
    ii. Interim design development submittals at the 60%, 90%, and 100% development stage for the C&C, CP, OH RFS, and SCADA levels.
    iii. The Project Schedule with progress updates.
    iv. After the 60% design development submittal, the accounting charge codes for all to-be-developed job levels.
b. Summary Description: Design development information, project schedule information, and project identification information.
c. The attached spreadsheet entitled "*SDGE Response SPD-SDGE-SB884-007_Financial Information.xlsx"* contains this information.
d. Please note that only project charged costs are included in this report, which does not account for costs which are retained in SDG&E's Overhead Pool for the entire program. Included in this Overhead Pool are all design and engineering costs, as

these costs are drawn from contracts which include a high number of related and unrelated projects.

e. The provided spreadsheet entitled "*SDGE Response SPD-SDGE-SB884-007_Financial Information.xlsx"* contains all available information which is able to be reported on a per project basis.

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QUESTION 7

Describe every step taken in the permitting phase of an undergrounding project from the end of the design phase to the beginning of the construction phase.

RESPONSE 7

As discussed in Question 5, SDG&E integrates the Permitting & Land Rights Acquisition process so that they run concurrently with the later steps in the design process. This alignment is intended to reduce the overall project schedule and improve the design revision process.

The steps in this process include:

1. Evaluation of Needs (Follows from the 30% Design Development Step)
    a. Determine if/where the project crosses Agency controlled lands which will require a discretionary or ministerial permit and document.
    b. Determine if/where the project crosses privately owned parcels for the purpose of serving other parcels or potentially subdivided parcels.
    c. Determine if/where the project crosses tribally owned lands and if those lands are held in trust with the Bureau of Indian Affairs (BIA).
    Where this is applicable, initiate discussion of the project and its design with the Tribal Government.
2. Initial Applications (Follows the 60% Design Development Step)
    Prior to 2024, projects were allowed to proceed to completion of the design regardless of the status of permits and land rights. For projects started after 2024, progression of the design is held at the 60% development step until permits are approved and land rights acquired.
    a. Prepare and submit initial permit applications for discretionary agency permits (U.S. Forest Service; California Department of Transportation (Caltrans), Tribal Governments and the BIA; Bureau of Land Management; California State Parks; lands conserved or controlled by other federal or state agencies).
    b. Engage all landowners from whom an easement will be required with a formal request to grant such an easement.
3. Revision and Negotiation Cycles
    a. For all agency permits, receive agency comments and/or design change requests and respond with corrections or explanations as appropriate. Resubmit the application with these corrections or explanations. Repeat this process until the design is accepted by the agency for permitting.
    b. For landowners who do not grant easements on the first ask, proceed with a progressive series of negotiation steps, stopping when the easement is obtained
        i. Initial Request for general “strip” easement along future to be proposed alignment.

ii. Request with demonstration of the proposed design.
iii. Request with allowance for landowner requests for changes to the design alignment to avoid current or future improvements.
iv. Request with additional allowance for landowner requests related to other project conditions on the property.
v. Request with offer of monetary compensation for inconvenience of granting a new easement.
vi. Condemnation or disconnection proceedings.

c. For Tribal lands, presentation of the design incorporating Tribal Gov't input from the 30% Design Step consultations for action by the Tribal Gov't to grant a tribal resolution, which is a precursor to the grant of an easement by the BIA.

4. Tribal and Institutional Landowners – Easement Preparation Process
Where an easement is required from a Tribal Government (BIA), a municipal or agency landowner, or another government agency (such as a school board).
   a. Prepare a Plat and Legal Description of the proposed and accepted design.
   b. Prepare the Agency's application documents.
   c. Submit both a. and b. for review.
   d. Receive comments from the agency and respond with corrections or explanations and resubmittals. Repeat until easement is granted.
5. Ministerial Permit Applications (Follows the 90% Design Development Step)
Prepare and submit applications for ministerial permits (County of San Diego, certain state and federal regulatory agencies). Respond to any comments with corrections or explanations with resubmittals.
6. SDG&E's Internal Environmental Release (Follows the 90% Design Development Step)
Prepare the environmental compliance instructions for construction.

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QUESTION 8

For each step taken in the permitting phase of an undergrounding project described in Question 7, respond to the following:

a. Indicate the information contained within SDG&E's project management platform for Project Order Numbers ESH C0221 DUG 1 SUG, ESH C0972 DUG A SUG, and ESH C1458 1A SUG.

b. Create a summary description for the information indicated in SDG&E's response to Question 8a.

c. Provide financial information from SDG&E's cost reporting platform for Project Order Numbers ESH C0221 DUG 1 SUG, ESH C0972 DUG A SUG, and ESH C1458 1A SUG.

d. Provide any additional financial information for Project Order Numbers ESH C0221 DUG 1 SUG, ESH C0972 DUG A SUG, and ESH C1458 1A SUG that is not captured in SDG&E's response to Question 8c.

e. Provide an aggregate of the financial information for Project Order Numbers ESH C0221 DUG 1 SUG, ESH C0972 DUG A SUG, and ESH C1458 1A SUG for the entire permitting phase.

RESPONSE 8

a. The Project Management Platform contains the following information during the permitting phase:
    i. Interim environmental compliance data 30%, 60%, and 90%, development stage for the T&C or C&E level.
    ii. Permit applications for agency permits.
b. Summary Description: Permitting and environmental compliance preparation documents.
c. The attached spreadsheet entitled "*SDGE Response SPD-SDGE-SB884-007_Financial Information.xlsx"* contains this information.
d. Please note that only project charged costs are included in this report, which does not account for costs which are retained in SDG&E's Overhead Pool for the entire program. Permitting and environmental compliance work is categorized in the Project Support, Miscellaneous, and Internal Labor categories.
e. The provided spreadsheet entitled "*SDGE Response SPD-SDGE-SB884-007_Financial Information.xlsx"* contains all available information which is available on an on-demand basis.

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QUESTION 9

Describe every step taken in the construction phase of an undergrounding project from the end of the permitting phase to the beginning of the post-construction phase.

RESPONSE 9

Following completion of both the Design and Permitting/Land Rights steps, the project is prepared to advance to construction.

Historically, SDG&E has elected to move projects into the construction phase with some aspects of the permitting/land rights phase still underway.

In the Construction Phase, the following steps occur:

1. Project Manager verification of remaining items from the Permitting/Land Rights phase and confirmation of other required items to facilitate construction.
2. Award of the Civil (Trench and Conduit) portion of the construction.
3. Civil Construction and Pavement Repair.
4. Award of the Electrical Construction (Cable & Connections, Cable Poles, MSERV (Service Orders for meter cutovers), Overhead Remove-from-Service)
5. Electrical Construction.
6. SCADA construction.

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QUESTION 10

For each step taken in the construction phase of an undergrounding project described in Question 9, respond to the following:

a. Indicate the information contained within SDG&E's project management platform for Project Order Numbers ESH C0221 DUG 1 SUG, ESH C0972 DUG A SUG, and ESH C1458 1A SUG.

b. Create a summary description for the information indicated in SDG&E's response to Question 10a.

c. Provide financial information from SDG&E's cost reporting platform for Project Order Numbers ESH C0221 DUG 1 SUG, ESH C0972 DUG A SUG, and ESH C1458 1A SUG.

d. Provide any additional financial information for Project Order Numbers ESH C0221 DUG 1 SUG, ESH C0972 DUG A SUG, and ESH C1458 1A SUG that is not captured in SDG&E's response to Question 10c.

e. Provide an aggregate of the financial information for Project Order Numbers ESH C0221 DUG 1 SUG, ESH C0972 DUG A SUG, and ESH C1458 1A SUG for the entire construction phase.

RESPONSE 10

a. The Project Management Platform contains the following information during the construction phase:
    i. Approved, final, Issued for Construction Design Documents
    ii. Approved, final, issued for construction environmental compliance and land rights documents.
    iii. Copies of approved permits.
    iv. Construction as-built redlines documents.
b. Summary Description: Construction documents and post-construction as-built redlines.
c. The attached spreadsheet entitled "*SDGE Response SPD-SDGE-SB884-007_Financial Information.xlsx"* contains this information.
d. Please note that only project charged costs are included in this report, which does not account for costs which are retained in SDG&E's Overhead Pool for the entire program. Construction costs are divided into the Civil and Electrical components.

e. The provided spreadsheet entitled "*SDGE Response SPD-SDGE-SB884-007_Financial Information.xlsx"* contains all available information which is available on an on-demand basis.

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QUESTION 11

Describe every step taken in the post-construction phase of an undergrounding project from the end of the construction phase to the beginning of the operative phase of the asset.

RESPONSE 11

The operative phase of the asset begins as soon as the new underground system is energized and individual customer services are moved to the new asset. All work in the post-construction phase described below occurs AFTER the asset is installed and operational.

Once all construction activities on all aspects of the project are completed, the project moves to the post construction phase. The steps in the post construction phase are:

1. Reconciliation of construction as-built notes.
2. Post construction field inspection (where called for in our operating plans) and corrections of items found.
3. Final payments of all invoices.
4. Financial closeout of the project.
5. Documentation closeout of the project and removal of access to project files from operational systems.

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QUESTION 12

For each step taken in the post-construction phase of an undergrounding project described in Question 11, respond to the following:

a. Indicate the information contained within SDG&E's project management platform for Project Order Numbers ESH C0221 DUG 1 SUG, ESH C0972 DUG A SUG, and ESH C1458 1A SUG.

b. Create a summary description for the information indicated in SDG&E's response to Question 12a.

c. Provide financial information from SDG&E's cost reporting platform for Project Order Numbers ESH C0221 DUG 1 SUG, ESH C0972 DUG A SUG, and ESH C1458 1A SUG.

d. Provide any additional financial information for Project Order Numbers ESH C0221 DUG 1 SUG, ESH C0972 DUG A SUG, and ESH C1458 1A SUG that is not captured in SDG&E's response to Question 12c.

e. Provide an aggregate of the financial information for Project Order Numbers ESH C0221 DUG 1 SUG, ESH C0972 DUG A SUG, and ESH C1458 1A SUG for the entire post-construction phase.

RESPONSE 12

a. The Project Management Platform contains the following information during the post-construction phase:
    i. Confirmation of actions taken.
b. Summary Description: The only information included in our Project Management System for this phase is completion notification in our SAP tool.
c. The attached spreadsheet entitled "*SDGE Response SPD-SDGE-SB884-007_Financial Information.xlsx"* contains this information.
d. Please note that only project charged costs are included in this report, which does not account for costs which are retained in SDG&E's Overhead Pool for the entire program. Post construction work is categorized in the Project Support, Miscellaneous, and Internal Labor categories.
e. The provided spreadsheet entitled "*SDGE Response SPD-SDGE-SB884-007_Financial Information.xlsx"* contains all available information which is available on an on-demand basis.

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QUESTION 13

Produce a process map that explains how decisions are made within each of the steps listed in each phase described in Questions 3, 5, 7, 9 and 11.1 Indicate the key documents listed in Questions 4, 6, 8, 10 and 12 that inform the decisions within the process map and include them in a compressed zip file. Use the following folder hierarchy to organize the zip file:

a. Project Order Number (ESH C0221 DUG 1 SUG, ESH C0972 DUG A SUG, and ESH C1458
   1A SUG)
b. Source (SDG&E's cost reporting platform and SDG&E's project management platform)
c. Document Type as specified in Question 1 and 2.

RESPONSE 13

We have provided a process flow map which is current as of today's approach to the delivery of projects in SDG&E's Strategic Undergrounding Program. As we noted in earlier responses, this process has been improved upon over the life of the program, and earlier projects allowed certain steps to proceed concurrently. The process map is contained in the file "*SDGE Response SPD-SDGE-SB884-007_Question 13 Process Map.pdf"* provided with this response.

The key documents required for each discipline in each phase are identified in the documents table found in the file "*SDGE Response SPD-SDGE-SB884-007_Question 13 Documents Table.xlsx"* provided with this response.

SDG&E has provided documentation in a zipped folder titled "CONFIDENTIAL_ SDGE Response SPD-SDGE-SB884-007_Key Documents_Q13.zip" of the information contained within our cost reporting system. This is an integrated system which contains information inside the module, which has been printed for the purpose of review. SDG&E has also provided all documents which are readily available in its Project Management System. The volume of documents is variable by project, particularly as these projects date from the earlier period of development of SDG&E's program. This variability is also impacted by the complexity of the design, with more complex designs having a greater volume of documents. Given the voluminous number of documents, SDG&E will not be posting these confidential documents on its SB 884 website, however, these documents will be available upon request via electronic data transfer and subject to confidentiality limitations.

The phases in the table are numbered sequentially to illustrate the sequence and concurrence of certain steps. This numbering does not correspond to numbering of the same information elsewhere in this document.

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QUESTION 14

In response to Data Request OEIS- EUP-24-05 Question 2a., SDG&E stated the following:

"During the scoping phase of a project, a desktop feasibility study is conducted to examine in detail the environmental and logistical limitations for mitigations proposed by the WiNGS Planning model. For instance, if a proposed undergrounding mitigation proves to be too costly for particular sections of a segment, then SDG&E may evaluate an alternative mitigation strategy (including but not limited to covered conductor, line removal, or additional sectionalizing depending on engineering and SME recommendations) for those areas. In addition to being an uncommon occurrence, instances of dual mitigation in SDG&E's SUG program (to the extent they exist) are typically a small percentage of the total circuit segment."

a. Provide a list of any Project Order Numbers where dual mitigation has occurred in SDG&E's SUG program.

    i. For each Project Order Numbers, list the milage that is undergrounded and the milage that is not undergrounded.

b. Provide a narrative explanation for why dual mitigation has occurred on an isolatable circuit segment in the Project Order Numbers in Question 14a.

RESPONSE 14

To the extent that SDG&E defines a Project as the proposed new-to-be-installed underground system, "dual mitigation" does not exist on SDG&E's projects under the Strategic Undergrounding Program, because any location where the mitigation method is something other than undergrounding would be separated from the Undergrounding project and developed as an independent Project for that location.

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QUESTION 15

In response to Data Request OEIS- EUP-24-05 Question 2f., SDG&E stated that undergrounding would cost $2.3 M/mile and covered conductor would cost $1.5 M/mile.

a. Provide any workpapers that support SDG&E's cost estimates for these two mitigations
    i. The workpapers must include evidence from already completed projects listed in SDG&E's cost reporting platform.

RESPONSE 15

Please reference document "SDGE Response SPD-SDGE-SB884-07_Q15_UG.xlsx" for undergrounding. The $2.3 M/mile for undergrounding previously provided by SDG&E in Data Request OEIS- EUP-24-05 Question 2f is based on projects completed in 2023.

Please reference document "SDGE Response SPD-SDGE-SB884-07_Q15_CC.xlsx" for covered conductor. The $1.5 M/mile for covered conductor previously provided by SDG&E in Data Request OEIS- EUP-24-05 Question 2f is based on projects completed in 2023.

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QUESTION 16

In response to Data Request OEIS- EUP-24-05 Question 3d., SDG&E stated the following: "Typically, a single isolatable segment is planned, designed, and constructed as a single project, but there may be exceptions where a single project is constructed as one or more phases due to non-engineering project constraints such as land rights acquisition."

a. Provide a detailed narrative explanation for why land rights acquisition would result in more than one phase of construction.

b. What other non-engineering project constraints would result in more than one phase of construction.

c. Provide a list of any Project Order Numbers where more than one phase of construction was needed to complete the order.
    i. For each Project Order Numbers, list the number of phases that was required to complete the order.
    ii. For each Project Order Numbers, list the non-engineering project constraint listed in Question 16b. that required the order number to be completed in more than one phase of construction
    iii. For each phase of construction for each order number, list the amount of time that was used to complete that phase of construction
    iv. For each phase of construction for each Project Order Numbers, list the milage that was undergrounded and the milage that is not undergrounded.

RESPONSE 16

For the purposes of responding to this question, SDG&E has interpreted "phase of construction" to mean the complete schedule sequence of performing all installation work for a Project, and not the separation between different crews or trades who work concurrently.

a. As discussed above in earlier responses, SDG&E has prioritized work on the Strategic Undergrounding Program to facilitate the most time efficient transition of operational facilities from the Overhead to the new Underground system to support incremental reductions in wildfire risk and PSPS events through the elimination of overhead facilities.

   In support of this objective, SDG&E advances projects which have been fully designed and where a majority of the project has necessary land rights and agency permits in place to allow for construction to proceed efficiently while work continues to obtain remaining land rights.

   By following this approach, SDG&E has been able to complete construction of some

projects noticeably earlier than would have been possible had the project waited to begin construction until all final land rights were completed.

This process introduces the risk that construction will complete on all available work and the remaining landowners will not have agreed to grant necessary easements to SDG&E for the project. In such cases, SDG&E may either:

i. Demobilize the contractor or construction crew and then return them at a later time to complete the work.
OR
ii. Modify the design to separate the then presently constructable portion of the project from the portion that cannot be constructed at that time, placing this remaining portion into a separate Project for later construction.

b. In addition to acquisition of land rights, approval of certain discretionary agency permits (Caltrans and BIA/Tribal Government) have resulted in re-segmentation of projects in the past. Although it has not occurred to date, this type of re-segmentation could also result from interactions with other discretionary permit agencies (State Parks, BLM, etc.).

   SDG&E may also consider cost, schedule, and delivery quality impacts to construction in the development of Project segmentation, and may re-segment a Project at a later stage of design development or during construction to promote more favorable cost or schedule outcomes as determined by project staff during performance. Examples of this include isolating a bridge crossing as an independent project in order to contract separately to obtain lower overall costs, higher performance quality, or better schedule performance on the segmented Projects.

c. SDG&E's process for performing is type of re-segmentation results in the creation of separate, unique Project Order Numbers for each of the Projects that result from the re-segmentation process. No data table has been provided at this time.

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QUESTION 17

In response to Data Request OEIS- EUP-24-05 Question 3e., SDG&E stated the following:

"Both configurations are possible and regularly employed. The decision to configure projects in this manner is related to the positioning of sectionalizing equipment, location of customer meters, and other non-engineering factors."

a. Explain why the configuration of "a subproject include multiple, disconnected sections" is possible and regularly employed, when dual mitigation is described as an uncommon occurrence in response to OEIS- EUP-24-05 Question 2a.

b. List the non-engineering factors that result in a subproject including multiple disconnected sections.

c. Provide a narrative explanation of how SDG&E understands the term "subproject".
    i. Include an example of a constructed project along with visual diagrams and GIS data to support SDG&E's response to Question 17c.

RESPONSE 17

a. Refer to SDG&E's "General Response and Background Information" above which clarifies and enumerates SDG&E's version of a Project. SDG&E's project development process, including re-segmentation resulting in multiple Projects, often includes projects which provide mitigation to certain overhead line segments which are connected in the overhead configuration but not in the underground configuration on that Project, and may or may not be connected in an underground configuration by another Project to be constructed at a later time (or which was constructed at an earlier time).

   SDG&E also occasionally groups discrete line segments which are recommended for mitigation into a single Project, while other line segments between them are not being mitigated at that time, as an administrative process.

b. Non-engineering factors that could result in this type of configuration with a Project consisting of multiple, disconnected segments include:
    i. Land rights acquisition
    ii. Discretionary agency permitting
    iii. Facilitation of contracting (to create a project large enough to gain the economy of scale in contracting for construction)
    iv. Construction sequencing
    v. Pace of mitigation

c. At the present time, SDG&E understands the term "subproject" to mean a subordinate grouping of work which is contained within the same Project Order Number which provides mitigation or modification to one portion of a line segment.

As previously noted, SDG&E does not define a Project in the same manner as PG&E, and considers each proposed Undergrounding design sub-segment to be a Project. Therefore, no example exists from SDG&E's current program to illustrate a "subproject".

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QUESTION 18

In response to Data Request OEIS- EUP-24-05 Question 3j., SDG&E stated the following:

"SDG&E currently quantifies risk at the circuit segment level. The circuit segment risk is then used to prioritize construction projects, which are subsequently broken into different job packages. There are no risk scores quantified at the job package level as these groupings are designated in the design process after risk is quantified."

a. Provide a narrative description of how SDG&E will calculate the following variables for Projects submitted in its EUP
   i. Pre-mitigated likelihood of ignition,
   ii. Pre-mitigated safety consequence of ignition,
   iii. Pre-mitigated reliability consequence of ignition,
   iv. Pre-mitigated financial consequence of ignition,
   v. Pre-mitigated likelihood of outage program,
   vi. Pre-mitigated safety consequence of outage program,
   vii. Pre-mitigated reliability consequence of outage program,
   viii. Pre-mitigated financial consequence of outage program,
   ix. Post-mitigated likelihood of ignition,
   x. Post-mitigated safety consequence of ignition,
   xi. Post-mitigated reliability consequence of ignition,
   xii. Post-mitigated financial consequence of ignition,
   xiii. Post-mitigated likelihood of outage program,
   xiv. Post-mitigated safety consequence of outage program,
   xv. Post-mitigated reliability consequence of outage program,
   xvi. Post-mitigated financial consequence of outage program,
   xvii. Ignition risk
   xviii. Outage Program risk
   xix. Overall Utility Risk
   xx. Ignition risk reduction
   xxi. Outage Program risk reduction
   xxii. Overall Utility Risk reduction
   xxiii. Present Value Benefit

b. For responses to Question 18a., explain what aspects of these calculations as they are currently implemented may change in order to conform with the EUP requirements.

RESPONSE 18

a. The WiNGS-Planning model is employed to assess the likelihood and consequences of wildfire, PSPS, and PEDS for each attribute (safety, reliability, and financial) in terms of the current baseline risk (Pre-mitigated) in dollars. It also evaluates the potential risk

reduction (Post-mitigated) achieved through the deployment of Strategic Undergrounding and Combined Covered Conductor grid-hardening mitigation initiatives.

The WiNGS-Planning risk framework is built upon the Cost-Benefit Framework developed for the 2025 RAMP filing. It evaluates risk as a probability distribution of estimated cost incurred at the conductor-span granularity level, which is then aggregated to the feeder-segment granularity level to perform decision optimization for grid-hardening mitigation selections. The model output is used to guide investment decisions by helping prioritize mitigation selections based on a cost-benefit analysis framework with the goal of implementing a cost-effective approach to minimize the expected impact of wildfires, PSPS de-energization, and PEDS-driven outages on the grid.

The latest information regarding SDG&E's WiNGS-Planning methodology, assumptions, inputs, and outputs can be found in SDG&E's 2026-2028 Base Wildfire Mitigation Plan (WMP), specifically in Sections 5 and 6, as well as Appendix B. Specific sections from WMP are listed below. Please note that SDG&E will submit its 2026-2028 WMP on May 2, 2025.

i. Pre-mitigated likelihood of ignition - Section 5.2.2.1, SDG&E Table 5-7, OEIS Table 5-4, Figure 5-6, and Appendix B, of WMP
ii. Pre-mitigated safety consequence of ignition - Section 5.1.1, Section 5.2.2.2, SDG&E Table 5-7, OEIS Table 5-4, Figure 5-6, and Appendix B, of WMP
iii. Pre-mitigated reliability consequence of ignition - Section 5.1.1, Section 5.2.2.2, SDG&E Table 5-7, OEIS Table 5-4, Figure 5-6, and Appendix B, of WMP
iv. Pre-mitigated financial consequence of ignition - Section 5.1.1, Section 5.2.2.2, SDG&E Table 5-7, OEIS Table 5-4, Figure 5-6, and Appendix B, of WMP
v. Pre-mitigated likelihood of outage program - Section 5.2.2.1, SDG&E Table 5-7, OEIS Table 5-4, Figure 5-6, and Appendix B, of WMP
vi. Pre-mitigated safety consequence of outage program - Section 5.1.1, Section 5.2.2.2, SDG&E Table 5-7, OEIS Table 5-4, Figure 5-6, and Appendix B, of WMP
vii. Pre-mitigated reliability consequence of outage program - Section 5.1.1, Section 5.2.2.2, SDG&E Table 5-7, OEIS Table 5-4, Figure 5-6, and Appendix B, of WMP
viii. Pre-mitigated financial consequence of outage program - Section 5.1.1, Section 5.2.2.2, SDG&E Table 5-7, OEIS Table 5-4, Figure 5-6, and Appendix B, of WMP
ix. Post-mitigated likelihood of ignition - Section 5.2.2.1, Section 6.1.3.3.5, SDG&E Table 5-7, OEIS Table 5-4, Figure 5-6, and Appendix B, of WMP
x. Post-mitigated safety consequence of ignition - Section 5.1.1, Section 5.2.2.2, SDG&E Table 5-7, OEIS Table 5-4, Figure 5-6, and Appendix B, of WMP
xi. Post-mitigated reliability consequence of ignition - Section 5.1.1, Section 5.2.2.2, SDG&E Table 5-7, OEIS Table 5-4, Figure 5-6, and Appendix B, of WMP
xii. Post-mitigated financial consequence of ignition - Section 5.1.1, Section 5.2.2.2, SDG&E Table 5-7, OEIS Table 5-4, Figure 5-6, and Appendix B, of WMP
xiii. Post-mitigated likelihood of outage program - Section 5.2.2.1, Section 6.1.3.3.5, SDG&E Table 5-7, OEIS Table 5-4, Figure 5-6, and Appendix B, of WMP
xiv. Post-mitigated safety consequence of outage program - Section 5.1.1, Section 5.2.2.2,

SDG&E Table 5-7, OEIS Table 5-4, Figure 5-6, and Appendix B, of WMP

xv. Post-mitigated reliability consequence of outage program - Section 5.1.1, Section 5.2.2.2, SDG&E Table 5-7, OEIS Table 5-4, Figure 5-6, and Appendix B, of WMP

xvi. Post-mitigated financial consequence of outage program - Section 5.1.1, Section 5.2.2.2, SDG&E Table 5-7, OEIS Table 5-4, Figure 5-6, and Appendix B, of WMP

xvii. Ignition risk - Section 5.1.1, Section 5.2.2.2, SDG&E Table 5-7, OEIS Table 5-4, Figure 5-6, and Appendix B, of WMP

xviii. Outage Program risk - Section 5.1.1, Section 5.2.2.2, SDG&E Table 5-7, OEIS Table 5-4, Figure 5-6, and Appendix B, of WMP

xix. Overall Utility Risk - Section 5.1.1, Section 5.2.2.2, SDG&E Table 5-7, OEIS Table 5-4, Figure 5-6, and Appendix B, of WMP

xx. Ignition risk reduction - Section 5.1.1, Section 5.2.2.2, Section 6.1.3.3.5, SDG&E Table 5-7, OEIS Table 5-4, Figure 5-6, and Appendix B, of WMP

xxi. Outage Program risk reduction - Section 5.1.1, Section 5.2.2.2, Section 6.1.3.3.5, SDG&E Table 5-7, OEIS Table 5-4, Figure 5-6, and Appendix B, of WMP

xxii. Overall Utility Risk reduction - Section 5.1.1, Section 5.2.2.2, Section 6.1.3.3.5, SDG&E Table 5-7, OEIS Table 5-4, Figure 5-6, and Appendix B, of WMP

xxiii. Present Value Benefit – Section 6.1.3 of WMP

b. SDG&E does not anticipate any significant updates or modifications to the WiNGS-Planning calculations for pre- and post-mitigated likelihood and consequences of wildfire, PSPS, and PEDS to comply with the EUP, WMP, and RAMP requirements. However, SDG&E is currently reviewing its calculations to ensure full alignment and accuracy. Any changes or improvements in the risk methodology will be detailed in SDG&E's submission.

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QUESTION 19

Provide responses to Questions 1-18 to the best of your ability with the information currently available to SDG&E. Provide an update for each question in this data request on May 30 2025 and June 30 2025.

RESPONSE 19

SDG&E respectfully requests that SPD issue a new data request on May 30, 2025 and June 30, 2025 to ensure that the records keeping process is maintained.

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END OF REQUEST