Shivani Sidhar
Regulatory Case Manager
San Diego Gas and Electric Company
8330 Century Park Court
San Diego, CA 92123-1530

January 10, 2017

Sent Via Electronic Mail and FedEx

A.15-09-010
Wildfire Expense Memorandum Account

Nils Stannik
Office of Ratepayer Advocates
505 Van Ness Avenue, Room 4108
San Francisco, CA 94102

Re: SDG&E Response to ORA Data Request 18 – Wildfire Expense Memorandum Account

Dear Mr. Stannik,

Attached please find SDG&E's response to ORA Data Request 18 (ORA-SDG&E-A.15-09-010-18), dated December 22, 2016. SDG&E's response includes general objections and narrative responses and one confidential attachment.

If you have any questions or require additional information, please feel free to contact me by phone at (858) 637-7914 or e-mail: **SSidhar@semprautilities.com**.

Sincerely,

Signed

Shivani Sidhar
Regulatory Case Manager

Enclosures

cc: Chris Lyons – SDG&E
Stacie Atkinson – SDG&E
Ed Moldavsky - ORA

ORA DATA REQUEST
ORA-SDG&E DR-18, Q1-12
SDG&E WEMA PROCEEDING - A.15-09-010
SDG&E RESPONSE
DATE RECEIVED: December 22, 2016
DATE RESPONDED: Janaury 10, 2017

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, statutory mediation confidentiality (see Cal. Evid. Code §§ 1115-28) 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. With respect to the Office of Ratepayer Advocates, however, SDG&E will produce such information subject to the requirements of Public Utilities Code Section 583 and General Order 66-C.

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 (A.15-09-010) and for no other purpose.

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Request 1:

At the time of the 2007 Fires, did any SDG&E policy allow or prescribe the de-energizing of tielines without knowing the cause of a trip, fault, or other warning? If so, please provide a copy of such policy.

Response:

At the time of the 2007 wildfires, there was no policy that prescribed the de-energizing of tielines without knowing the cause of a trip or fault. Thus, it would have been "allowed."

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Request 2:

On page 3 of his rebuttal testimony, Mr. Yari states that TL637 had 150 poles supporting three conductors at the time of the 2007 wildfires. How many poles and conductors does TL637 currently have?

Objection: SDG&E objects to this request on the grounds set forth in General Objection 5. Subject to the foregoing objection, SDG&E responds as follows.

Response: 156 poles (including transmission and distribution) and three conductors.

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Request 3:

On lines 18-20 on page 5 of Mr. Yari's rebuttal testimony, SDG&E states "But it is believed that the extreme winds altered the facilities and caused the conductors to come into contact with one another."

a. Please describe what "altered the facilities" means in this context.
b. Please explain what "believed" means in this context. Is this solely Mr. Yari's belief?
c. Has SDG&E previously discussed such an alternation of facilities in this proceeding? If so, please provide a reference to SDG&E's application or opening testimony that previously discussed the alteration of the facilities related to the ignition of the Witch Fire.

Response:

a. In Mr. Yari's rebuttal testimony, "altered the facilities" means the post fire/wind event condition of the facilities was different than the condition prior to the extreme winds.

SDG&E personnel who observed TL637 during the extreme wind conditions and after the fire had occurred, saw evidence that showed that the transmission lines were subjected to a tremendous amount of stress during the extreme wind event. For example, during a site visit after the fire, personnel on site noticed gaps between the soil and the wood poles, which is not a common occurrence when poles are subjected to normal winds. Gerry Akin discussed this in his OII testimony.

> "There was evidence of wind-induced pole motion at the butts of the poles. There was also evidence of possible movement of the insulators, or twisting of the poles. The hardware was all intact. The conductors were all connected to the insulator clamps, and there was no obvious mechanical failure except for the loss of tension in the phase C conductor. Based on the post-fire survey and modeling, the C phase conductor experienced a loss of tension that resulted in a reduction in conductor clearances in the span between poles Z416675 and Z416676. The tension of the C phase conductor was found to be at about two-thirds of the tension we would have expected per the design. Per the design, the C phase conductor should have been at the same tension as the A and B phases, and the vertical clearance between the conductors should have been at least four feet."

b. Overhead lines are part of a dynamic system, a system which Mr. Yari and others believe was changed from its original state due to the extreme winds.

c. Mr. Darren Weim discussed the facilities linked by Cal Fire to the Witch Fire ignition in his direct testimony, as did Mr. Geier.

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Request 4:

On page 8 of Mr. Yari's rebuttal testimony, SDG&E states "As discussed below, SDG&E generally initiates a patrol within one business day in this type of situation."

a. Please define and quantify the term "generally initiates" as used in this context.
b. Please define the term "this type of situation" as used in this context.
c. Why was a patrolman (Ray Nechocea) dispatched to the Santa Ysabel substation within minutes of the first trip of TL637, given that SDG&E "generally initiates a patrol within one business day"?

Objection: SDG&E objects to this request on the grounds set forth in General Objections 2, 3, 5 and 9. Subject to the foregoing objections, SDG&E responds as follows.

Response:

Mr. Yari means that when there is a transmission line fault, the standard practice is to send out a patrol within one business day. The determination to initiate a patrol is made by Grid Operations personnel based on the circumstances. Ray Necochea was a troubleshooter, not a patrolman. He was sent to gather information on the fault from the Santa Ysabel substation.

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Request 5:

At the time of the 2007 wildfires, did SDG&E have a Transmission Monitoring & Control (TMC) Procedure (or similar procedure or protocol) for multiple trips of a tie-line within a certain time period? If so, please provide.

Objection: SDG&E objects to this request on the grounds set forth in General Objection 3. Subject to the foregoing objections, SDG&E responds as follows.

Response:

There was no such procedure at the time of the 2007 wildfires.

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Request 6:

Please provide a map of the zones of TL637 as of October 2007, as described on pages 8-9 of Mr. Yari's rebuttal testimony.

Objection: SDG&E objects to this request on the grounds set forth in General Objection 10. Subject to the foregoing objections, SDG&E responds as follows.

Response:

See the attached TL637 circuit map, showing the line distance defined as Zone 1. Zone 1 would include the portion of TL637 from the TL637 circuit breaker at Santa Ysabel Substation to Pole Z710801, located near Sargeant Road in Ramona. As noted in Mr. Yari's testimony, the total line distance covered by Zone 1 is more than 11 miles. The location of Pole Z416676 is noted on the map. **This map is CONFIDENTIAL.**

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Request 7:

At the time of the 2007 wildfires, did the Creelman and Santa Ysabel substations have SCADA (or other automatic/remote) reclosing technologies installed? If so, please describe.

Response:

At the time of the 2007 wildfires, SCADA control of reclosing (enable/disable) was provided at Santa Ysabel for TL637, but was not provided at Creelman Substation. At Santa Ysabel, TL637 was equipped with automatic reclosing. Through the Santa Ysabel SCADA Remote Terminal Unit (RTU), the automatic reclose function could be enabled or disabled via remote control. Local control was also available at Santa Ysabel through a recloser cutout switch. SCADA control of automatic reclosing was not provided at Creelman, but there was a local recloser cutout switch to provide local control.

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Request 8:

Was SDG&E's disabling of automatic reclosing on TL637 on October 21, 2007 motivated solely by the danger from burning wood poles, as described on lines 7-10 of page 12 of Mr. Yari's rebuttal testimony? If not, please describe what other factors motivated the disabling of automatic reclosing of TL637.

Response:
The danger from burning wood poles was part of a larger safety concern. The concern was that if the poles burned, the conductors could fall to the ground and remain energized, which could be dangerous to firefighters or other people in the area.

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Request 9:

Is SDG&E aware of any studies or analyses of utility response times to transmission line faults? If so, please provide.

Response:
No. Mr. Yari's understanding of the reasonableness of SDG&E's response to faults is informed by his professional experience.

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Request 10:

Please describe and quantify the risk of "power outages to customers" (as stated on line 16 of page 15 of Mr. Yari's rebuttal testimony) were TL637 to have been de-energized on October 21, 2007.

Response:

In general, SDG&E's transmission system is a networked high voltage system. The basic design is for the transmission system - operating from 69kV to 230kV - to energize "distribution substations". The distribution substations energize the distribution system, typically at 12kV. The distribution system brings power to customers.

Substations can be responsible for providing power to a large number of customers, ranging up to approximately 50,000 customers. For this reason, the majority of substations have multiple transmission lines networked to them, providing redundancy of power to the substation. Considering the large number of customers affected by loss of electricity at substations, redundancy is a key element in a reliable system. Because of this redundancy, it is not common for customers to lose power due solely to transmission issues. However, the redundancy may disappear if a transmission line is de-energized.

The likelihood of customers losing power increases significantly when a transmission line becomes de-energized. If a transmission line is de-energized, a substation could be in a condition where it relies on a single transmission line for the power to the substation and therefore to the thousands of customers. The exact reliability impact when a line is de-energized is different for each transmission line, each substation, and for each set of environmental conditions present at the time. Additionally, the transmission system in the "backcountry" of SDG&E service territory has a limited number of transmission lines providing power to the group of backcountry substations. TL637 is an important transmission line to ensure reliable power to that region.

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Request 11:

On lines 11-12 on page 19 of Mr. Yari's rebuttal testimony, SDG&E states "it is well known that particles within smoke from a fire can create a path between electric conductors that can lead to faults."

a. Is SDG&E aware of any evidence that such conditions caused or contributed to the tripping of TL637 on October 21, 2007? If so, please provide.
b. Is SDG&E aware of any evidence that such conditions have ever caused or contributed to the tripping of any transmission or distribution lines on its system? If so, please provide.

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

Response:

a. In his testimony, Mr. Yari was not suggesting that the smoke from the Witch Fire caused faults on TL 637 on October 21, 2007. Rather, he was explaining that, based on the information available to SDG&E in real time (which Mr. Stannik mischaracterized), SDG&E personnel made statements that indicated that the smoke from the fire in the vicinity of TL 637 had caused the faults.

b. SDG&E is aware of plenty of instances where multiple trips resulted from smoke burning under powerlines. In connection with the October 2003 wildfires, for example, there were more than 20 such trips on 69 kV powerlines. Smoke particles on insulators can also cause flashover.

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Request 12:

On lines 11 to 17 on page 19 of Mr. Yari's rebuttal testimony, SDG&E states:

> *"…it is well known that particles within smoke from a fire can create a path between electric conductors that can lead to faults. That is why the 'Manager' in the excerpt above, after being informed of the fire, said 'That must have been the reason it was tripping, huh? And we just didn't know it.' When the manager says 'That,' he means the fire, and he is clearly saying the fire is the reason it was tripping, and not the other way around. It may be that Mr. Stannik reached the wrong interpretation of this statement because of his confusion about the timeline regarding the audio recordings."*

Did SDG&E consult with "the manager" quoted above to confirm Mr. Yari's theory of the manager's use of "that" as a pronoun to describe the fire? If so, please provide the manager's response and any documentation of such a conversation or discussion. Please identify the manager by name and title.

Response:

No. The "Manager" was Ken Fussel, who is retired from SDG&E. His understanding of the call is primarily based on the language used on the call, and the fact that smoke can cause faults.