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

September 2, 2016

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 Supplemental Response to ORA Data Request 12 – Wildfire Expense Memorandum Account

Dear Mr. Stannik,

Attached please find SDG&E's supplemental response to ORA Data Request 12 (ORA-SDG&E-A.15-09-010-10), dated August 17, 2016. The attached contains SDG&E's response to Request #8, which was the only response SDG&E was not able to complete in the responses SDG&E transmitted to you on August 31, 2016. With this response, SDG&E has now fully responded to ORA-SDG&E DR-12.

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-12, Q1-15
SDG&E WEMA PROCEEDING - A.15-09-010
SDG&E SUPPLEMENTAL RESPONSE
DATE RECEIVED: August 17, 1016
DATE RESPONDED: September 2, 2016

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.

ORA DATA REQUEST
ORA-SDG&E DR-12, Q1-15
SDG&E WEMA PROCEEDING - A.15-09-010
SDG&E SUPPLEMENTAL RESPONSE
DATE RECEIVED: August 17, 1016
DATE RESPONDED: September 2, 2016

III. RESPONSES

Request 1:

Can tie-lines between substations be disconnected or de-energized from either substation? If not or if only in some cases, please explain.

Response:

Typically, tie-lines are connected between substations that have more than one tie-line connected to each substation. In those cases, a tie-line between substations cannot be disconnected or de-energized from either substation alone, unless the other tie-lines connected to the other substation are also de-energized. With all lines in service, a tie-line must open at both terminals to de-energize the line.

ORA DATA REQUEST
ORA-SDG&E DR-12, Q1-15
SDG&E WEMA PROCEEDING - A.15-09-010
SDG&E SUPPLEMENTAL RESPONSE
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DATE RESPONDED: September 2, 2016

Request 2:

As of October 2007, could TL637 be de-energized from either the Santa Ysabel or Creelman substations? If not, please explain.

Response:

As of October 2007, TL637 could not be de-energized from either Santa Ysabel or Creelman Substations alone, so long as the other tie-lines connected at Santa Ysabel and Creelman Substations were energized (the normal case). With multiple energized tie-line sources, both Santa Ysabel and Creelman terminals must open to de-energize TL637.

ORA DATA REQUEST
ORA-SDG&E DR-12, Q1-15
SDG&E WEMA PROCEEDING - A.15-09-010
SDG&E SUPPLEMENTAL RESPONSE
DATE RECEIVED: August 17, 1016
DATE RESPONDED: September 2, 2016

Request 3:

Currently, can the tie line between Santa Ysabel and Creelman substations be de-energized from either the Santa Ysabel or Creelman substations? If not, please explain.

Response:

Currently, TL637 cannot be de-energized from either Santa Ysabel or Creelman Substations alone, so long as the other tie-lines connected at Santa Ysabel and Creelman are energized (the normal case). With multiple energized tie-line sources, both Santa Ysabel and Creelman terminals must open to de-energize TL637.

ORA DATA REQUEST
ORA-SDG&E DR-12, Q1-15
SDG&E WEMA PROCEEDING - A.15-09-010
SDG&E SUPPLEMENTAL RESPONSE
DATE RECEIVED: August 17, 1016
DATE RESPONDED: September 2, 2016

Request 4:

When responding to reports of a line trip/fault, why did SDG&E elect to send a troubleman to the Santa Ysabel substation after the 8:53am trip but not to the Creelman substation?

Response:

As mentioned on page 3 of the "Direct Testimony of David L. Geier, San Diego Gas & Electric Company (Witch and Rice Fires)" in I.08-11-006, troubleshooters were dispatched to both the Santa Ysabel and Creelman substations after the 8:53 am fault to investigate the fault and report back regarding the fault indicators. See also the 2007 Wildfire Litigation deposition transcripts of Ray Necochea and Michael Higbee, which SDG&E provided to ORA in its response to Request 2 of ORA-SDG&E DR-02 on April 29, 2016.

ORA DATA REQUEST
ORA-SDG&E DR-12, Q1-15
SDG&E WEMA PROCEEDING - A.15-09-010
SDG&E SUPPLEMENTAL RESPONSE
DATE RECEIVED: August 17, 1016
DATE RESPONDED: September 2, 2016

Request 5:

When responding to reports of a line trip/fault, why did SDG&E elect to send troublemen to both the Santa Ysabel substation and the Creelman substation after the 11:22am trip?

Response:

As mentioned on page 4 of the "Direct Testimony of David L. Geier, San Diego Gas & Electric Company (Witch and Rice Fires)" in I.08-11-006, troubleshooters were dispatched to both the Santa Ysabel and Creelman substations after the 11:22 am fault because it was SDG&E's standard practice to gather information from the substation equipment following a fault.

ORA DATA REQUEST
ORA-SDG&E DR-12, Q1-15
SDG&E WEMA PROCEEDING - A.15-09-010
SDG&E SUPPLEMENTAL RESPONSE
DATE RECEIVED: August 17, 1016
DATE RESPONDED: September 2, 2016

Request 6:

In an audio recording provided in response to ORA data request ORA-02, a station manager discusses being "super busy with the 500." Please describe any non-standard events, occurrences, or issues that occurred on October 20-22, 2007 regarding the facilities that "the 500" refers to.

The audio recording name and location are provided below: \SDGE PRODS\AUDIO_NATIVE FILES\SDGE230\2007_1021\SDGE0208962_STM_jcampbel_datarequest_10-21-2007_1B7.wav

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

Response:

On October 21, 2007, the Harris Fire broke out and threatened SDG&E's Southwest Power Link, a 500 kV line. This situation is further discussed in the 2007 Wildfire Litigation deposition transcripts of Sean Long, Jim Minton and Bret Ball, which SDG&E provided to ORA in its response to Request 2 of ORA-SDG&E DR-02 on April 29, 2016.

ORA DATA REQUEST
ORA-SDG&E DR-12, Q1-15
SDG&E WEMA PROCEEDING - A.15-09-010
SDG&E SUPPLEMENTAL RESPONSE
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DATE RESPONDED: September 2, 2016

Request 7:

What type of anchor points were used at the facilities allegedly involved in the ignition of the Witch and Guejito fires?

Response:

On August 29, 2016, counsel for ORA provided clarification on Request 7, as follows: "SDG&E can interpret the question to refer to where the wires attach to the poles/insulators. Thus, for the Witch fire, the span between poles Z416675 and Z416676, and the spans to either end of that span, including all four poles, would be captured by the data request. Likewise, for the Guejito fire, the span between poles P196387 and P196394, and the spans to either end of that span, including all four poles, would be captured by the data request."

Accordingly, SDG&E provides the following response.

"Span between poles Z416675 and Z416676, and the spans to either end of that span"

Z416674 – At the time of the fire, this pole was what is referred to as a deadend structure. The "anchor points," or points where the wire was mechanically affixed to the structure, consisted of bolted strain clamps, which were attached with hardware to the insulators, which were affixed to the crossarms mounted on the pole.

Z416675 – At the time of the fire, this pole was what is referred to as a tangent structure. The "anchor points," or points where the wire was mechanically affixed to the structure, consisted of bolted trunnion clamps at the end of post insulators, which were mounted directly onto the pole.

Z416676 – At the time of the fire, this pole was what is referred to as a tangent structure. The "anchor points," or points where the wire was mechanically affixed to the structure, consisted of bolted trunnion clamps at the end of post insulators, which were mounted directly onto the pole.

Z416677 – At the time of the fire, this pole was what is referred to as a tangent structure. The "anchor points," or points where the wire was mechanically affixed to the structure, consisted of bolted trunnion clamps at the end of post insulators, which were mounted directly onto the pole.

"Span between poles P196387 and P196394, and the spans to either end of that span"

P196387 – At the time of the fire, this pole was what is referred to as a tangent structure. The "anchor points," or points where the wire was mechanically affixed to the structure, consisted of a

double stop-tie connection, where the conductors were tied to cap and pin insulators with top-ties, or tie wires.

P196394 – At the time of the fire, the pole configuration was what is referred to as a deadend configuration for the span heading from this pole to P196387, and tangent construction for the spans heading to P196403 and P410064. For the span heading to P196387, the "anchor points," or points where the wire was mechanically affixed to the structure, consisted of bolted strain clamps, which were attached with hardware to the insulators, which were affixed to the crossarms mounted on the pole. For the spans heading to P196403 and P410064, the conductors were tied to cap and pin insulators with top-ties, or tie wires.

P196386 – At the time of the fire, this pole was what is referred to as a deadend structure. The "anchor points," or points where the wire was mechanically affixed to the structure, consisted of bolted strain clamps, which were attached with hardware to the insulators, which were affixed to the crossarms mounted on the pole.

ORA DATA REQUEST
ORA-SDG&E DR-12, Q1-15
SDG&E WEMA PROCEEDING - A.15-09-010
SDG&E SUPPLEMENTAL RESPONSE
DATE RECEIVED: August 17, 1016
DATE RESPONDED: September 2, 2016

Request 8:

Please provide the following specifications for the electric conductors allegedly involved in the ignition of the Witch and Guejito fires:

a. Weight per unit length;
b. Yield strength;
c. Ultimate strength;
d. Young's modulus of elasticity (in psi or MPa);
e. Equivalent cross-sectional area; and
f. Drag coefficient

Response:

a. Weight per unit length - .2308 LBS./FT
b. Yield strength – The information is not available.
c. Ultimate strength – 6620 LBS.
d. Young's modulus of elasticity (in psi or MPa) – Core 40,300 psi/100 – Outer 73,200 psi/100
e. Equivalent cross-sectional area - .1537 [in^2]
f. Drag coefficient - 1

ORA DATA REQUEST
ORA-SDG&E DR-12, Q1-15
SDG&E WEMA PROCEEDING - A.15-09-010
SDG&E SUPPLEMENTAL RESPONSE
DATE RECEIVED: August 17, 1016
DATE RESPONDED: September 2, 2016

Request 9:

Please provide the elevations of poles Z416675, Z416676, P196394, and P196387 as of October 2007.

Objection: SDG&E objects to this request on the grounds set forth in General Objections 6 and 7. Subject to the foregoing objections, SDG&E responds as follows.

Response:

Survey information regarding poles Z416675 and Z416676 is incorporated in Exhibit 2-B to the June 22, 2009 "Rebuttal Testimony of the Consumer Protection and Safety Division to the Direct Testimony of San Diego Gas & Electric Company Regarding the Formal Witch and Rice Fire Investigations." Ground clearance and other information regarding these facilities is included in Exhibit 2-E to that CPSD testimony. SDG&E made this information available to the parties in this proceeding in April 2016.

Survey information regarding poles P196394 and P196387 was previously produced to ORA in response to ORA-SDG&E DR-02. Additionally, in response to Request 15 of ORA-SDG&E DR-04, SDG&E identified the bates range of these survey materials (SDGE123654-123719). Ground clearance and other information regarding these facilities is included in Exhibit 2-D to the June 8, 2009 "Rebuttal Testimony of the Consumer Protection and Safety Division to the Direct Testimony of Cox Communications and San Diego Gas & Electric Company Regarding the Formal Guejito Fire Investigation." SDG&E made this information available to the parties in this proceeding in April 2016.

ORA DATA REQUEST
ORA-SDG&E DR-12, Q1-15
SDG&E WEMA PROCEEDING - A.15-09-010
SDG&E SUPPLEMENTAL RESPONSE
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Request 10:

Please provide (as of October 2007):

a. The horizontal distance between poles Z416675 and Z416676;
b. The horizontal distance between poles P196394 and P196387;
c. The horizontal distance of the spans on either side of the span described in part (a); and
d. The horizontal distance of the spans on either side of the span described in part (b).

Objection: SDG&E objects to this request on the grounds set forth in General Objections 6 and 7. SDG&E objects to subparts (c) and (d) of this request on the grounds set forth in General Objection 5. Subject to the foregoing objections, SDG&E responds as follows.

Response:

See the surveys referenced in response to Request 9, above. Further, as noted in the "Direct Testimony of Gerry Akin, San Diego Gas & Electric Company (Witch Fire)" in I.08-11-006, the distance between poles Z416675 and Z416676 was approximately 613 feet. As noted in the "Direct Testimony of Paul Alvarado, San Diego Gas & Electric Company (Guejito Fire)" In I.08-11-007, the distance between poles P196394 and P196387 was 872.5 feet.

ORA DATA REQUEST
ORA-SDG&E DR-12, Q1-15
SDG&E WEMA PROCEEDING - A.15-09-010
SDG&E SUPPLEMENTAL RESPONSE
DATE RECEIVED: August 17, 1016
DATE RESPONDED: September 2, 2016

Request 11:

What is the maximum recorded sag of the conductors allegedly involved in the ignition of the Witch and Guejito fires?

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

Response:

See the surveys referenced in response to Request 9, above. SDG&E is willing to further discuss this request if those surveys do not provide the information ORA seeks.

ORA DATA REQUEST
ORA-SDG&E DR-12, Q1-15
SDG&E WEMA PROCEEDING - A.15-09-010
SDG&E SUPPLEMENTAL RESPONSE
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DATE RESPONDED: September 2, 2016

Request 12:

Given equipment and software installed as of October 2007, would SDG&E have been able to detect faults/trips that occurred between the time a circuit breaker automatically opened and when it automatically reclosed?

Response:

From the time a circuit breaker opens to the time it recloses, the protected circuit is de-energized. Faults cannot occur on a de-energized circuit, so there is no fault event to detect in the de-energized condition, regardless of the monitoring capability.

ORA DATA REQUEST
ORA-SDG&E DR-12, Q1-15
SDG&E WEMA PROCEEDING - A.15-09-010
SDG&E SUPPLEMENTAL RESPONSE
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DATE RESPONDED: September 2, 2016

Request 13:

Given equipment and software installed as of October 2007, would SDG&E have been able to detect faults/trips that occurred while a circuit breaker was automatically opening or reclosing?

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

Response:

SDG&E would have been able to detect faults/trips while a circuit breaker was automatically opening or reclosing. See also the response ot Request 12, above.

ORA DATA REQUEST
ORA-SDG&E DR-12, Q1-15
SDG&E WEMA PROCEEDING - A.15-09-010
SDG&E SUPPLEMENTAL RESPONSE
DATE RECEIVED: August 17, 1016
DATE RESPONDED: September 2, 2016

Request 14:

Is SDG&E aware of any documentation or indication that any trips/faults occurred on TL637 while circuit breakers were opening or closing, or between the automatic opening and reclosing of circuit breakers? If so, please provide.

Response:

No.

ORA DATA REQUEST
ORA-SDG&E DR-12, Q1-15
SDG&E WEMA PROCEEDING - A.15-09-010
SDG&E SUPPLEMENTAL RESPONSE
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DATE RESPONDED: September 2, 2016

Request 15:

On page 5, lines 19-22 of Mr. Vanderburg's testimony, SDG&E states that it has "installed five Remote Automated Weather Stations (or RAWS)." Please provide the names of the five RAWS stations.

Response:

SDG&E now has six Remote Automated Weather Stations: Aliso Laguna, Barrett, Mission Valley, Mountain Springs Grade, Pala, and San Pasqual. Please note: the Mountain Springs Grade RAWS was originally in Santa Ysabel from 2009-2014 and the Mission Valley RAWS was originally in Boulevard from 2009-2013. Both were relocated due to encroachment from utility-related construction projects.