

**ORA DATA REQUEST**  
**ORA-SDGE-Oral-DR003-TLG**  
**SDG&E 2019 GRC – A.17-10-007**  
**SDG&E RESPONSE**  
**DATE RECEIVED: MARCH 09, 2018**  
**DATE RESPONDED: MARCH 27, 2018**

**Exhibit Reference:** SDG&E-15 Electric Distribution O&M

**SDG&E Witnesses:** Will Speer

**Subject:** Various questions during conference call

During a conference call held on March 9 between SDG&E witness Will Speer, members of his support staff, Pete Girard and Tamera Godfrey/ORA, SDG&E agreed to provide additional information on several topics within the SDG&E-15 Electric Distribution O&M testimony.

**1. Asset Management:**

In response to the conference call held on 3/9/2018, the SDG&E Electric Distribution O&M rate case team would like to clarify some discussion regarding Asset Management. As stated in data request response, ORA-SDG&E-66 question 1.i, only two groups are being moved over into Asset Management: the Technology Solutions & Reliability Group, and the Compliance Management Group. There is no movement from ERO, the 19 backfilled positions discussed on page 2 of the Power Point slide showing a model org chart stated the move from ERO in error.

By moving those two groups over, 61 employees are now in the Asset Management group. Only 19 of those individuals perform complementary functions with asset management functions associated with aligning with ISO 55000 conformance. As stated in our testimony, and highlighted by the model org chart sent, we have 20 incremental positions associated with Asset Management and an additional 11 associated with Records Management that are incremental to our current staffing to support ISO 55000 conformance. These incremental positions make up the entire \$4.2M request in the Asset Management Group testimony and workpapers. We are still requesting funding for the Compliance Management Group and the Technology Solutions & Reliability Group as those organizations will require the same level of staffing and funding to perform their roles, they have simply moved organizations.

**Updated proposed org chart:** Attached is an updated org chart of the one that was used for discussion purposes during the conference call, “ORA-SDGE-Oral-DR003-TLG Asset Mgmt Dept Org Chart.pptx”. This version is not confidential.

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**2. GO 165 Overhead Inspection and Maintenance, current pole loading requirements, FiRM, and PRiME:**

In response to the conference call held on 3/9/2018, the SDG&E Electric Distribution O&M rate case team would like to clarify the differences between the Programs above, and when pole loading calculations are performed.

**The GO 165 Inspection and Maintenance program:**

The GO 165 Inspection and Maintenance program, sometimes called the Corrective Maintenance Program (CMP) involves three different types of inspections including patrols, detailed overhead inspections, and intrusive wood pole inspections:

**Patrols** are performed annually on every facility (pole) in SDG&E's system and are a limited visual inspection to identify conditions and hazards that could adversely impact public or employee safety. These inspections are performed quickly and identify a small subset of potential infractions, but include the most significant safety items such as a leaning or damaged pole, damaged cross arm, or obvious clearance violation. If an issue is an immediate safety concern, the inspector will call a crew to remedy the issue and will not leave the structure until it can be made safe. If an issue is found that can be remedied with a follow up maintenance order, then the item is logged and a crew will be back within one year to make the repairs per SDG&E's filed maintenance plan.

**Detailed overhead inspections** are performed on every overhead structure once every five years. These inspections take longer to complete and include the same infractions identified on patrols, but also include many other such as missing ground molding or high voltage signs, either vegetation or 3<sup>rd</sup> part encroachment on facilities, climbing space issues, issues with Communication Infrastructure Providers (CIPs), and many more. As with the patrol infraction, if the inspector finds an issue that is an immediate safety concern, the inspector will call a crew to remedy the issue and will not leave the structure until it can be made safe. If the infractions found can be remedied with a follow up maintenance order, then the infractions are logged and a crew will be back within one year to make the repairs per SDG&E's filed maintenance plan.

**The intrusive wood pole inspection** is performed on every distribution wood pole once every 10 years. SDG&E hires a contractor to perform these inspections that include boring into the base of the pole to determine if there are substantial cavities within the structure reducing the structural integrity. If the structure is determined to be beyond a certain threshold, it is recommended for replacement. These capital pole replacements typically occur within one year of the intrusive inspection, however, if a pole is found to be substantially deteriorated, a crew will be called to replace the pole.

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**Response to Question 2-Continued**

These three inspections and associated follow up maintenance or capital replacements are part of our filed maintenance practice, we have been performing them since the mandated programs of General Order 165 were enacted in 1998.

**Pole Loading:**

SDG&E performs pole loading calculations per General Order 95 Rule 44.1 and Rule 44.2, which requires pole loading calculations to be completed upon the installation of a new structure, or any existing structure modification that impacts load on a structure. This means that SDG&E is not currently required to have pole loading calculations on every pole in its system, or perform pole loading calculations on many follow up maintenance orders such as the replacement of high voltage signs and ground molding, as these do not significantly impact structure loading. Pole loading calculations are performed on a new pole replacement to ensure the new pole meets design load requirements, or when a pole undergoes modifications such as the addition or replacement of conductor with larger diameter or new line angles. This also applies with the addition of 3<sup>rd</sup> party attachments like telecommunications conductors or antennae, or the addition of equipment like an overhead transformer or switch. These calculations have typically been performed using a software application called O-CALC in the past, SDG&E has been moving towards a more advanced application called PLS-CADD that can be used models when more precise survey data is available. SDG&E does not currently have a pole loading program capable of retroactively performing pole loading calculations on existing structures, thus the need for PRiME.

**Pole Risk Mitigation and Engineering (PRiME):**

As described in detail in SDG&E-15, the Pole Risk Mitigation and Engineering program will be the first program to evaluate and perform pole loading calculations on existing structures, independently and without the trigger of a structure modification such as adding additional equipment or replacing conductor (for conductor replacement see the FiRM program below). As described in the testimony, this will not be based on visual inspections like the GO165 programs, but will utilize a Light Detection and Ranging (LiDAR) survey and 3-D design models using PLS-CADD to perform the structure analysis. LiDAR data gathering is accomplished with a special device attached to an airborne platform such as an airplane, helicopter or drone. Once the analysis is performed, issues found in the analysis are addressed in a number of ways, including capital pole replacements or O&M solutions such as additional guys and anchors.

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**Response to Question 2-Continued**

**Fire Risk Mitigation (FiRM):**

Our Fire Risk Mitigation Program (FiRM) is a program designed to replace small conductors that lack steel supporting strands with known high failure rates, in the areas with the highest risk of causing a wildfire. Examples of such conductors are #2 copper that is found on very old circuits. Once the circuits with the small wire are identified and prioritized, the FiRM program performs a LiDAR survey and creates a PLS-CADD design model to determine the loads of the new conductor on the existing structures. This can result in pole change-outs as the existing structure may not have sufficient remaining capacity for the new loading requirements of the larger diameter conductor being installed.

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**3. Difference between the \$16M allocated by the commission and the \$5M actual spend in 2016 for the Construction Services workpaper:**

In response to the conference call held on 3/9/2018, the SDG&E Electric Distribution O&M rate case team would like to explain the difference between the \$16M allocated by the commission and the \$5M dollar actual spend. There were several drivers behind the lower than authorized spending in 2016. Two organizations that were part of the Construction Services Workpaper during the 2016 GRC are now included in a different workpaper. Specifically, the Aviation Services Department and the Fire Coordination & Prevention organizations are now within the Emergency Management workpaper. Together, these two groups had a combined spend of \$2.225M.

A reprioritization of efforts related to the Fire Risk Mitigation (FiRM) program has led to a shift from O&M-intensive activities to Capital-intensive activities, which attributed to the majority of the underrun. Specifically, at the time of the TY2016 forecast, FiRM had planned to do a large-scale O&M survey and engineering analysis on the lines and structures within the HRFA. However, as the project ramped up, the primary risk reduction activity of replacing conductor with known high failure rates became the priority over the analysis, which was primarily capital activity. ORA-SDGE-073-Q1a shows how the underruns were reallocated to new workgroups or workgroups with overruns.

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**4. Functional differences and cost estimates for programs that have work components performed in multiple workpapers:**

In response to the conference call held on 3/9/2018, the SDG&E Electric Distribution O&M rate case team would like to clarify the functional differences and cost estimates for programs that have work components performed in multiple workpapers. The following programs have work components, and thus costs, in multiple workgroups:

- Switch Replacement Projects
  - Overhead Switch Replacement
  - Underground Switch Replacement
- PRiME

**Switch Replacement Projects:**

Costs for the Overhead and Underground Switch Replacement projects have components in both 1ED002 – Construction Services and 1ED011 – Electric Regional Operations (ERO). These projects each have an inspection component, and a construction component (see SDGE-15-WP p.35).

SDG&E will use internal labor from its Electric Regional Operations department to inspect all non-FMO (Field Maintenance Only) switches. The inspections will consist of the Qualified Electrical Worker performing a visual inspection of the switch, and whenever feasible, operating the switch to ensure it operates per specification. The labor costs associated with these inspections are captured in 1ED011 – Electric Regional Operations.

Switches that fail the inspection performed by ERO will initiate a construction project to replace the switch using contract labor from Construction Services. The construction job will involve obtaining permits, procuring material, scheduling the work, the removal of the existing switch, and the installation of the new switch. These tasks are better suited to be performed by Construction Services, as they have the necessary resources to perform this type of work. Electric Regional Operations is more focused on maintenance and compliance activities. These non-labor construction costs are captured in 1ED002 – Construction Services.

**PRiME**

Costs for the PRiME project have components in both 1ED002 – Construction Services and 1ED018 – Distribution and Engineering. This project has an engineering analysis component (see SDGE-15-WP p.201), and a construction component (see SDGE-15-WP p.36). SDG&E will use contract labor to perform the pole-loading analysis and design work associated with pole replacements and rearrangements. An engineering firm will be chosen to perform the detailed loading analysis of the poles including PLS-CADD modeling and as-builts where required. When the loading analysis demonstrates that a pole is loaded beyond our specifications, a contract design firm will create a design package for the pole replacement. The design package will include the necessary permits and construction drawings required for construction crews to complete the project.

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**Response to Question 4-Continued**

These are the non-labor costs captured in 1ED018 – Distribution and Engineering. SDG&E will also use internal labor to perform project management functions such as tracking the progress of pole analysis, contractor oversight, and associated reporting. These are the labor costs captured in 1ED018 – Distribution and Engineering.

SDG&E will use contract labor through its Construction Services department to perform the construction projects generated from the analysis. The construction projects will consist of procuring material, scheduling the work, removing the existing pole and conductor, and installing the new pole and conductor. These tasks are better suited to Construction Services, as they have contracts with qualified electrical workers that are trained to perform and oversee this type of work. These non-labor construction costs are captured in 1ED002 – Construction Services.

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**5. Related to the Electric Distribution Operations workpaper, clarification of linear forecasting and explanation of exempt materials as a driver for cost increases:**

In response to the conference call held on 3/9/2018, the SDG&E Electric Distribution O&M rate case team would like to explain the cost drivers and impact of the 3 year linear forecast. The “Forecast Method” section of the testimony, which can be found on SDG&E-15 pages 30,31 provides a comprehensive description- with examples- of exempt materials, and explains why SDG&E expects this linear trend to continue

Additionally, please see attached “EDO Forecast.xlsx” for an illustration and explanation of ‘linear trend’ forecasting.

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**6. Labor/Non-Labor breakdown of \$330k change in the forecast for the Emergency Services workpaper:**

In response to the conference call held on 3/9/2018, the SDG&E Electric Distribution O&M rate case team would like to clarify the labor/non-labor breakdown of the \$300k in changes to the Emergency Services workpaper. The discrepancy of \$0.330 million is attributed to the net of the following: correcting an erroneous entry of \$220k for materials for Emergency Mobile Command Trailers (EMCTs), the reduction of \$20k for costs related to RAMP Weather Stations, the addition of \$220k for Cloud Computing for Meteorology, the addition of \$300k for Software Programming Services, and the addition of \$50k for the Sprinter Van Outfit. The entirety of these costs is non-labor. This information was also provided as part of the response to ORA-SDGE-064-TLG Q1b.

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**7. Variation in the overall historical costs from 2012-2016:**

In response to the conference call held on 3/9/2018, the SDG&E Electric Distribution O&M rate case team would like to clarify the variation in the (overall) historical costs 2012-2016. In nearly every O&M workgroup, the amount of O&M spend will change on annual basis due significant variables in the workload. Variables such as extreme weather, storms and red flag warnings will cause O&M numbers to rise and fall depending on the number of occurrences. The number of outages, types of outages, the time of the outage occurrence (on-hours versus off-hours) will drive O&M up and down depending on the types and frequencies. Maintenance, including the number of required inspections and the number and types of maintenance follow-up work required, will have variable impacts on O&M. The amount of Capital versus O&M work a workgroup performs in a year will impact the O&M output depending on the actual work ratio. For these reasons, historical cost averages were typically used as the baseline estimates, as they smooth the peaks and valleys that occur due to work variability and provide reasonable forecasts. In the instances where methodologies other than averages were used for the base estimate, such as base-year costs, linear trends, or zero-based estimates, the specific reason for the selection of that other methodology is described in the ‘methodology’ section of the testimony.

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**8. Discrepancy between the \$20,690k stated in the testimony within Table WS-8 and the \$19,167k stated within Table WS-6:**

In response to the conference call held on 3/9/2018, the SDG&E Electric Distribution O&M rate case team would like to clarify the discrepancy between the \$20,690k stated in the testimony within Table WS-8 and the \$19,167k stated within Table WS-6. Table WS-8 on page WHS-19 reads \$20,690k. The correct amount is the \$19,167k amount shown in table WS-6 and in the workpapers. The error was caused by a late addition adjustment in fueling our future (FOF) savings of \$1,523k. This information was also provided as part of the response to ORA-SDGE-064-TLG Q1c.