SDG&E 2019 GRC Phase II, Public Advocates Office DR 1; Master Data Request

**SDG&E Responses to Question 16-22, 28**

**May 31, 2019**

For the following distribution related questions, please make sure that the answers are consistent with the FERC and CPUC adopted delineation between transmission and distribution facilities, and that they are consistent with the CPUC adopted policy with respect to further unbundling of the distribution function, such as billing and metering. Provide material to verify this is so.

1. For distribution marginal cost analysis, provide, by FERC Account number, 10 years of recorded and five years of forecast non-TSM distribution plant expenses, net of replacement, reliability, or safety related costs. Indicate investment accounts and dollar amounts related to load growth in both nominal and test year dollars. Describe how forecasts of expenses are made. Break down investment related to load growth into primary and secondary distribution; and explain how that breakdown was accomplished.

**SDG&E Response:**

The “Distrib Capital Historic Data” and “Distrib Capital Forecast Data” tabs in the “2019 GRC P2 Marg Dist Demand Costs (Chapter 5 Workpaper)” file provides 13 years (2005-2017) of recorded capital costs by FERC Account number and 3 years (2017-2019) of forecasted distribution capital costs, respectively, in nominal dollars. As described on pages 4-6 of the SDG&E’s 2019 GRC Phase 2 Chapter 5 direct testimony only three years (2017-2019) of forecasted distribution capital costs was available for this filing. The “Marg F&LD Cost Cal” and “Marg Substation Cost Cal” tabs of the workpaper file provides the Feeder & Local Distribution and Substation capital investment in test-year (2017) dollars in Column E of those tabs. The Feeder & Local Distribution and Substation capital investments presented in these tabs reflect the total distribution capital costs because these costs are not broken down between secondary and primary investments.

1. Segregate distribution investment that is time-varying and non-time varying and explain how SDG&E demarcates the two categories.

**SDG&E Response:**

The “Distrib Class EPMC Rates & Rev” tab in the “2019 GRC P2 Dist Rev Alloc (Chapter 5 Workpaper)” file previously provided presents the distribution demand costs that are on-peak related versus non-coincident related. The non-coincident demand costs are not associated with the given time that the customer uses the demand.

* 1. Provide a description of how time-varying distribution-demand costs are allocated to TOU periods, as well as any underlying models, model inputs, and model outputs.

**SDG&E Response:**

As described on pages 12-13 of the SDG&E’s 2019 GRC Phase 2 Chapter 5 direct testimony, the portion of SDG&E’s distribution demand costs that is allocated to the on-peak time-period is based on the results of SDG&E’s distribution demand study required by Ordering Paragraph (“OP”) 33 of D.17‑08‑030.

1. For the most recent year for which data is available, please provide the top 10 annual maximum demands of each of SDG&E’s substations and circuits. Please label the circuit or substation ID number, its normal rating (MW), emergency operating rating (MW), the date and time, and the level of demand (MW).

**SDG&E Response:**

The attached “CalPA DR-01 (Question 16c)-CONFIDENTIAL” pdf provides the information requested for SDG&E’s circuits and substations. Also included is a confidentiality declaration. **This response includes confidential data**.

1. Provide 10 years of recorded and five year of forecast system load and data appropriate for use in performing a NERA regression analysis for primary and secondary distribution marginal costs at the distribution division level.

**SDG&E Response:**

The “Marg F&LD Cost Cal” and “Marg Substation Cost Cal” tabs in the “2019 GRC P2 Marg Dist Demand Costs (Chapter 5 Workpaper)” file provides the distribution capital investment and distribution load data used to calculate the marginal Feeder & Local Distribution and Substation costs, respectively, under the NERA regression method. The capital investment and load data represent the total distribution data because this data is not separated into secondary and primary.

1. Describe how the load data for primary and secondary distribution, is calculated. In that description, indicate whether the load data used is measured at the substations, final line transformers, customer meters, or whether it is some blend of loads at these points.

**SDG&E Response:**

As described on page 4 of SDG&E’s 2019 GRC Phase 2 Chapter 5 direct testimony, the distribution load data used in the marginal distribution demand NERA analysis is based on distribution planning forecasted circuit and substation loads from 2005-2019. As explained above, this load data represents the total load data since the load data is not separated in secondary and primary.

1. For the recorded load data, please indicate whether they were weather-normalized or not. If not, please explain the rationale.

**SDG&E Response:**

Yes, the distribution planning forecasted load data is weather-normalized.

Please provide a compliance filing based on the marginal cost and revenue allocation process that uses the NERA regression methodology for marginal demand costs and the New Customer Only (NCO) methodology for marginal customer costs. Also, please provide a comparison of the compliance filing and SDG&E’s proposed methodology for marginal cost and revenue allocation in this proceeding. Please provide all supporting databases and computer programs so that the Public Advocates Office can replicate SDG&E’s analysis.

**SDG&E Response:**

Pages 3-6 of SDG&E’s 2019 GRC Phase 2 Chapter 5 direct testimony describes the NERA regression methodology SDG&E used to calculate the proposed marginal distribution demand costs. The NERA marginal distribution demand cost calculations are presented in the “2019 GRC P2 Marg Dist Demand Costs (Chapter 5 Workpaper)” file, with these proposed distribution demand costs used in the development of SDG&E’s proposed distribution revenue allocations as presented in the “2019 GRC P2 Dist Rev Alloc (Chapter 5 Workpaper)” file. Also, for comparison purposes SDG&E presented the marginal customer costs based on the NCO method as described on pages 10-11 of SDG&E’s 2019 GRC Phase 2 Chapter 5 direct testimony, with the NCO marginal cost calculations presented in the “2019 GRC P2 NCO Marg Cust Costs for Non-School Class (Chapter 5 Workpaper)” and “2019 GRC P2 NCO Marg Cust Costs for Non-School Class (Chapter 5 Workpaper)” files previously provided.

Provide the historic annual recorded number of customer connections**[[1]](#footnote-2)** installed for the last 10 recorded years available, as well 5 forecast years for each customer class. Provide historic data that includes the total number of new connections net of any negative growth caused by deactivated or otherwise subtracted customer connections, as well as the gross total number of annual customer connections.

**SDG&E Response:**

The “Cal-PA DR-01 (Question 18)” file provides the number of new meter installations installed in years 2009-2018. SDG&E does not track the new meter installation data by non-residential customer class which is the reason the meter data provided was aggregated for non-residential customers. Forecasted new meters expected to be installed for years 2019-2023 are not available. However, the “Cal-PA DR-01 (Question 20) file provided in response to Question 20 provides the average forecasted number of customers by customer class in years 2019-2023, which can be used to identify the growth in customers by customer class for each year.



Additionally, please explain how these forecasts were developed and include any data that was used in the process. Where possible, please indicate the source from which this data originated.

**SDG&E Response:**

As stated above in response to Question 18, forecasted new meter installation data is not available. The response to Question 20 explains how the forecasted average customer growth data was developed.

Please provide a total number of existing customer connections for each class of customers, which can be applied to the number of customers connections installed each year listed in Question 18, to calculate new connection rates.

**SDG&E Response:**

The “Cal-PA DR-01 (Question 20) file provided in response to Question 20 provides the average number of customers by customer class for each year.

**Question 20**

Provide the historic recorded total annual average number of customers**[[2]](#footnote-3)** taking service from SDG&E for the last 10 years available, as well as 5 years of the forecasted annual average number of customers for each customer class. Please explain how these forecasts were developed and include any data that was used in the process. Where possible, please indicate the source from which this data originated.

**SDG&E Response:**

The attached “Cal-PA DR-01 (Q20)” file provides the average number of historical recorded customers by customer class taking service from SDG&E for the 10-year period 2008-2017 and the average number of forecasted customers by customer class expected to take service from SDG&E for the 5-year period 2019-2022.  The electric customer forecast was developed in SDG&E’s 2019 GRC Phase 1.



Testimony for the 2019 GRC Phase 1 Customer Forecast can be found at the following link (Under “SDG&E-38 Direct Testimony of Kenneth Schiermeyer – Electric Customer Forecast”):

<https://www.sdge.com/regulatory-filing/22261/sdge-2019-general-rate-case>

Workpapers for the 2019 GRC Phase 1 Customer Forecast can be found at the following link (Under “SDG&E 38 – Electric Customer Forecast WP”):

<https://www.sdge.com/regulatory-filing/22261/sdge-2019-general-rate-case>

Please note that the GRC Phase 1 customer forecast only went out to the year 2019.  SDG&E is including a set of workpapers, based on the TY 2019 GRC Phase 1 Customer Forecast, extended out to 2022.  Please see attached File “CustomerForecastWorkpapers-GRC2022-08072017-WithFormulas.xlsx”.

Provide the percentage of new connections that were infills (i.e., no transformer was required because one existed nearby) for the last three years, and whether and how the typical customer cost estimates used to develop marginal customer costs were adjusted to net out infills.

**SDG&E Response:**

SDG&E does not track the percentage of new connections that utilize an existing transformer in a given year. The transformer costs shown in the “2019 GRC P2 Marg Cust Costs for Non School Class (Chapter 5 Workpaper)” and “2019 GRC P2 Marg Cust Costs for School Class (Chapter 5 Workpaper)” files present the estimated costs of new transformers installed based on the customer type, customer size, and service voltage level, and based on the average number of customers by transformer.

Provide the percentage of new connections where the transformer is shared by more than one customer class, and whether and how the typical customer cost estimates used to develop marginal customer costs were adjusted to allocate the transformer costs to the classes served.

**SDG&E Response:**

SDG&E does not track the percentage of new connections where the transformer is shared by more than one customer class. The transformer costs shown in the “2019 GRC P2 Marg Cust Costs for Non School Class (Chapter 5 Workpaper)” and “2019 GRC P2 Marg Cust Costs for School Class (Chapter 5 Workpaper)” files present the estimated costs of new transformers installed, including the number of customers by the given customer class that are estimated to share the new transformer.

Provide a cost breakdown of the various activities (e.g. billing, call centers, etc.) that are used in determining the total customer service costs which are used in computing marginal customer access costs. For each of these activities, please explain why SDG&E believes these costs are marginal and are appropriate in consideration for marginal customer access costs.

**SDG&E Response:**

As stated on page 9 of SDG&E’s 2019 GRC Phase 2 direct testimony, the customer service costs SDG&E included in its proposed marginal distribution customer costs reflect costs for activities that are associated with providing electric service to customers such as customer service field, advanced metering, billing, credit & collections, postage, branch office, customer contact center, residential customer services, business services, marketing and communication, and customer programs. The cost breakdown of these activities, including the appropriate allocation of each of these costs, is presented in the attached “Customer Service Cost Allocations” source file.



1. I.e., Customer hook-ups. [↑](#footnote-ref-2)
2. I.e., metered connections. [↑](#footnote-ref-3)