*The following questions refer to Chapter 3 the Revised Prepared Direct Testimony of Gwendolyn R. Morien on rate design and the associated workpaper: Chapter 3 WP #1, referred to as the “rate model workpaper.”*

1. Please refer to Table GM-3 showing cost-based and current monthly service fees. Why do monthly service fees vary by customer maximum demand level instead of using one low monthly service fee for each class and placing the demand-related cost portion into demand charges?

**SDG&E Response:**

Monthly service fees vary by customer demand level because they are based on marginal distribution costs. As displayed in the workpapers of SDG&E Witness William Saxe (Chapter 5), as well as in Table GM-3, the marginal distribution customer costs (cost basis) vary by customer demand. SDG&E’s monthly service fees do not exceed cost basis. One of the Commission’s rate design principles is that rates be based on marginal costs. Additionally, there are no demand charges for small commercial or small agricultural customers; therefore, it would not be possible to place the demand-related cost portion into demand charges under the current rate structure.

1. Please refer to the “Determinants” tab of the rate model workpaper. Many rows have blank cells in columns Q through W where billing determinants are recorded. Do such blank cells mean the billing determinants are zero for the labeled amount? If not, please explain where these billing determinants are provided.

**SDG&E Response:**

Referring to the “Determinants” tab of the rate model workpaper, if there are blank cells for specific rate schedules then there are no billing determinants for that rate schedule or rate component.

1. Please refer to the “Determinants (3P)” tab of the rate model workpaper, at cells U2393 and U2394. Are the determinants in these cells representative of NCD (SOP) for the entire agricultural class? If not, please explain what NCD (SOP) is represented in these cells.

**SDG&E Response:**

The billing determinants in cells U2393:U2394 on the “Determinants (3P)” tab of the rate model workpaper represent the entirety of super off-peak exemption (“NCD (SOP)”) System Net billing determinants for the entire agricultural class.

*The following questions refer to Chapter 5, the Revised Prepared Direct Testimony of William G. Saxe.*

1. Why do marginal customer costs include costs that vary by customer maximum demand level?

**SDG&E Response:**

The kilowatt (kW) level of the customer at the time of electric service hook-up determines the type of customer hook-ups (final-line transformers, service drops, and meters [TSM]) required to serve the customer. For instance, the kW level of the customer at the time of hook-up determines the type of transformer needed to serve the customer as well as the number of customers that can be served on the transformer.

1. Please refer to page WGS-7, which states that cost estimates for transformers were “based on transformer size and the average number of customers per transformer.”
   1. What are the average number of customers per transformer for each customer class?

**SDG&E Response:**

The average number of customers per transformer depends on the kW size of the customer and the transformer type, as shown in the “2019 GRC Phase 2 – TSM Costs” file, tab “Avg TXFMR Costs”, provided in response to Question 9a below. For residential customers the number of customers served on a transformer varies from 60 customers to 1 customer per transformer. For the non-residential customers the number of customers served on a transformer varies from 42 customers to 1 customer per transformer.

* 1. How were the average number of customers per transformer determined?

**SDG&E Response:**

Average number of customers per transformer were determined based on engineering design estimates by the size of the customer and the type and size of the transformer to serve the customer.

* 1. How does the number of customers per transformer impact the calculation of marginal customer cost?

**SDG&E Response:**

As shown in Tab “Avg TXFMR Costs” of the “2019 GRC P2 TSM Costs” file provided in response to Question 9a below, the number of customers to be served on a transformer determines the cost per customer for the transformer.

1. Does “number of runs” (see WGS-7 at 22) refer to the number of meters connected to each service drop? If not, please define this term.

**SDG&E Response:**

No. The “number of runs” refers to the number of service drop wire lengths needed to serve a customer. For instance, a wire service length could be 100 feet and two runs mean that 200 feet of wire is needed to hook-up the customer for electric service.

1. Please define “compression lug wire” (see WGS-7 at 22) and explain how this affects the unit cost of services.

**SDG&E Response:**

Compression lug wires are clamps needed to connect cables to electrical equipment such as other cables or meters and transformers.

1. Please refer to pages WGS-8 to 9, which states that “In order to develop a per-customer O&M cost allocation, SDG&E analyzed the Federal Energy Regulatory Commission (“FERC”) Form 1 Distribution O&M account costs (580 to 598) to determine which portion of each account relates to distribution demand and which relates to customer connection.” What portion of each account was determined to be related to customer connection and how was this determined?

**SDG&E Response:**

As stated on page WGS-9 of the direct testimony of Witness Saxe, the distribution O&M costs were allocated to “..the various rate schedules by using a factor derived from each schedule’s percentage of the grand total of the estimated TSM cost. These amounts are then adjusted by an A&G factor before calculating the per-customer O&M cost.”

The following questions refer to Chapter 5 WP #2, which calculates marginal distribution customer costs.

1. Please provide the source file(s) for the input data in blue font for the following tabs:
   1. Non-Residential TSM UC
   2. Street Light Cust Cost Summary
   3. Distribution O&M Allocations
   4. Cust Service Cost Allocations

**SDG&E Response:**

* 1. The Transformer, Service, and Meter costs identified in tab “Non-Residential TSM UC” can be found in the accompanying “2019 GRC Phase 2 – TSM Costs” file.



* 1. The Transformer and Service costs identified in the “Street Light Cust Cost Summary” tab, Cells B8 and B9, can be found in the accompanying “2019 GRC Phase 2 – Streetlighting TSM Costs” file, “Summary” tab.



The Number of Lamps and Customers in the “Street Light Cust Cost Summary” tab, Cells B29 and B30, can be found in the accompanying “2019 GRC Phase 2 – Streetlighting Determinants” and “2019 GRC Phase 2 – Streetlighting Determinants (Schools)” files, “Summary” tab.  


The $4.73 in O&M Expenses in the “Street Light Cust Cost Summary” tab, Cell B34, reflects the sum of the O&M costs for street lighting of $725,143 found on Cell J33 of the “Distribution O&M Allocations” tab of the workpaper multiplied by the 2020 O&M Escalator of 1.0535 found on Cell C13 of the “Inputs” tab of the workpaper divided by the number of lamps (1,938,421 divided by 12) found on Cell B8 of the “Summary” tab of the “2019 GRC Phase 2 – Streetlighting Determinants” file attached above.

The $1.13 Customer Account/Services Expenses in the “Street Light Cust Cost Summary” tab, Cell B38, reflects the sum of the Customer Account/Services dollars assigned to Street Lighting of $170,020 found on Cell AG74 of the “Customer Service Cost Allocation” tab of the workpaper multiplied by the 2020 Customer Acct/Services Escalator of 1.0752 found on Cell C14 of the “Inputs” tab of the workpaper divided by the number of lamps (1,938,421 divided by 12) found on Cell B8 of the “Summary” tab of the “2019 GRC Phase 2 – Streetlighting Determinants” file attached above.

* 1. The Distribution O&M Expenses identified in the “Distribution O&M Allocations” tab, Cells J31 and J32, can be found in the accompanying “2019 GRC Phase 2 – FERC Electric Cust OM 5-Yr Avg Allocation.xls]5 Yr Avg Dist OM Calc” file.



* 1. The Customer Service Cost Allocation percentages and dollars identified in the “Customer Service Cost Allocations” tab, can be found in the accompanying “2019 GRC Phase 2 - Customer Service Cost Allocations” file. In addition, the number of School Lighting customers found in Row 9 of the “Customer Service Cost Allocations” tab can be found in the “2019 GRC Phase 2 – Streetlighting Determinants (Schools)” file, “Summary” tab, attached above.



1. Please define what a service line is for primary and transmission-level customers.

**SDG&E Response:**

Service lines for primary-level customers typically reflect service lines for larger Commercial & Industrial (C&I) customers taking service at higher voltage levels. Primary electric lines supply power to a distribution circuit usually between the substation or point of supply and the center of distribution system. Large industrial customers take their power from the transmission system. Transmission-level lines represent high-voltage (69,000 volts or greater) overhead line, usually strung from steel towers or tall wood poles, that carries power from power plants to substations.

1. Why do unit costs for services (as shown on the tab labeled Non-Residential TSM UC) vary with maximum demand at the secondary level but do not at the primary and transmission levels (except there is an increase in unit cost for primary and transmission services serving customers with maximum annual demand greater than 3 MW).

**SDG&E Response:**

Primary-level service is service taking at higher voltage levels and for that reason there is not as much variance in the size of the service lines used to serve the customer, which is why there is not as much variance in the costs to serve customers based on their kW demand level.

Contact:

Greg Anderson

San Diego Gas & Electric

Regulatory Affairs

Office: (858) 654-1717

GAnderson@SempraUtilities.com