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

**SDG&E Responses to Questions 1 & 2 & 10 - 15**

1. Please provide a description of the process that SDG&E will employ to determine each of its marginal cost components, the allocation determinants (e.g., number of new customers and/or total customers, coincident peak, loss of load probability, etc.), and the process for allocating the revenues to customer classes.

**SDG&E Response:**

Distribution Marginal Costs: pages 3-9 of SDG&E’s 2019 GRC Phase 2 Chapter 5 direct testimony describes the process for calculating the marginal distribution demand costs and marginal distribution customer costs. The calculation of the proposed marginal distribution costs, including the determinants used to calculate the marginal costs, are presented in the Chapter 5 workpapers previously provided: (a) marginal distribution demand costs are found in the “2019 GRC P2 Marg Dist Demand Costs (Chapter 5 Workpaper)” file; (b) marginal distribution customer costs for non-schools are found in the “2019 GRC P2 Marg Dist Cust Costs for Non School Class (Chapter 5 Workpaper)” file; and (c) marginal distribution customer costs for schools are found in the “2019 GRC P2 Marg Dist Cust Costs for School Class (Chapter 5 Workpaper) file”.

Generation Marginal Costs: pages 3-8 of SDG&E GRC Phase 2 Chapter 6 direct testimony describes the process for calculating the marginal energy costs and the marginal generation capacity costs. Pages 8-10 describe the process for allocating commodity revenue to customer classes and the allocation of CTC revenue to customer classes. The calculations and allocations of these marginal costs are presented in the workpapers entitled “CONFIDENTIAL\_2019 GRC P2- Marg Gen Comm Cost (Chapter 6 Workpaper)” and “CONFIDENTIAL\_2019 GRC P2- CTC Allocations (Chapter 6 Workpaper)”.

1. Are the 2019 billing determinants consistent with the 2019 ERRA forecast?

**SDG&E Response:** No, SDG&E’s billing determinants in its 2019 GRC Phase 2 Application are not consistent with the 2019 ERRA forecast.

* 1. If yes, please show the data for validation.

**SDG&E Response:** N/A

* 1. If not, please explain the discrepancies.

**SDG&E Response:** The 2019 ERRA forecast (A.18-04-004) was filed on April 13, 2018 and used the current, authorized sales / billing determinants that existed at that time – those adopted in SDG&E’s 2016 GRC Phase 2 D.17-08-030. The current sales/billing determinants that represent current rates in SDG&E’s 2019 GRC Phase 2 filing are those adopted in D.18-11-035, authorized in SDG&E’s 2019 Sales Forecast Application, A.18-03-003.



For marginal energy costs, please identify specific ancillary services and/or RPS adders, and the methodologies and data used in developing them. Please also provide all supporting databases and computer programs so that the Public Advocates Office can replicate SDG&E’s analysis.

1. Did SDG&E use a production cost modeling software such as PLEXOS to forecast hourly marginal energy costs (MECs)? If so, please provide the model and all input files (including the load, behind-the-meter solar generation, and fuel price files) in comma separated value (csv) file format or in another format that can be opened using Excel.

**SDG&E Response:** SDG&E does not use a production cost model to forecast marginal energy costs. The description of how SDG&E develops its marginal energy cost is presented on pages 3-7 of SDG&E’s “GRC Phase 2 Chapter 6 direct testimony”. The calculations of these marginal energy costs are presented in the workpaper entitled “CONFIDENTIAL\_2019 GRC P2- Marg Gen Comm Cost (Chapter 6 Workpaper).” The Net Load calculation is performed in the “CONFIDENTIAL\_2020 Net Load Workpaper” and is input to the “Net load” tab of the MGCC workpaper. The hourly net load is then converted to an hourly profile (tab “Monthly Load Shape”) which is applied to a forward price curve (tab “Long Prices”) and then an RPS adder is applied (tab “Prices Summary”) to produce final marginal energy prices per TOU period.

1. If the answer to a is “yes,” do the load forecasts and behind-the-meter solar generation forecasts match the “mid” forecasts in the 2019 Integrated Energy Policy Research (IEPR) report? If not, please describe the data sources and processes that SDG&E used to produce its forecasts. Please provide workpapers showing all underlying calculations and data sources.

**SDG&E Response:** Answered “no” to Q.2a.

Please provide a listing of the resources that received RMR or CPM contracts over the last two years in SDG&E’s service area, the kW of load each one covered, and its price in $/kW-month.

**SDG&E Response:**

The following links are to CAISO CPM designation market notices and RMR extensions. As noted there were no RMR extensions in the San Diego area over the past two years.

May 23, 2019

[http://www.caiso.com/Documents/CapacityProcurementMechanismDesignation-052319.html](http://www.caiso.com/Documents/CapacityProcurementMechanismDesignation-052319.html#search=capacity%20procurement%20mechanism%20designation)

2018 CPM designation reports

<http://www.caiso.com/Pages/documentsbygroup.aspx?GroupID=883F7D08-5AA6-42A2-8B34-82D70E5653F5>

2017 CPM designation reports

<http://www.caiso.com/Pages/documentsbygroup.aspx?GroupID=6B413850-85A2-42A8-8C45-8F23A3B7E91E>

2019 RMR extensions – none in San Diego

[http://www.caiso.com/Documents/Update-Results-RMRContractExtensions-2019-Nov2018.pdf](http://www.caiso.com/Documents/Update-Results-RMRContractExtensions-2019-Nov2018.pdf#search=RMR)

2018 RMR extensions – none in San Diego

<http://www.caiso.com/Documents/Update_Results_RMR_ContractExtensions_2018-Nov2017.pdf>

Please list any resources, about which SDG&E is aware, where the owner has threatened to shut down the resource in the near future because short-run bilateral contracts will not support their operations, and they cannot obtain an RMR, CPM, or other kind of contract for backstop capacity.[[1]](#footnote-2) For each resource, indicate the capacity deficit that would be produced, and whether SDG&E has plans to fill that deficit.

**SDG&E Response:** . SDG&E is not aware of any 3rd party resources that have threatened to shut down based on the reasons provided in the question.  The CAISO provides a list of resources that have requested to shut down in the link below.

<http://www.caiso.com/Documents/AnnouncedRetirementAndMothballList.xlsx>

Based on the latest FRACMOO2 proposals, are there any existing resources that can be expected to shut down because their operational characteristics will not meet the anticipated new FRACMOO2 requirements? If so, list each resource, provide the capacity deficit that will be produced by each, and explain how will SDG&E fill that deficit.

**SDG&E Response:** CAISO’s Flexible Resource Adequacy Must Offer Obligation Phase 2 initiative has been suspended and therefore the FRACMOO 2 requirements are not being implemented.  In any event, SDG&E also is not aware of any 3rd party resources that are expected to shut down.

<http://www.caiso.com/informed/Pages/StakeholderProcesses/FlexibleResourceAdequacyCriteria-MustOfferObligations.aspx>

Provide complete documentation for any energy benefit or gross margin adjustment made to marginal generation capacity costs. Describe the methodology and justification. Provide the numerical inputs and the set of calculations that led to the results.

**SDG&E Response:**

Page 8 of SDG&E GRC Phase 2 Chapter 6 direct testimony describes how the net cost of capacity is calculated by deducting the projected market earnings from California’s energy markets from the annualized cost of a Combustion Turbine. SDG&E uses an average of three scenarios of SP-15 net revenues (energy revenues minus operating costs) from the CAISO Department of Market Monitoring Annual Report on Market Issues & Performance. Source: California ISO, *2016 Annual Report on Market Issues & Performance* (May 2017) at 57, Table 1.8 Financial analysis of new combustion turbine (2016). From Table 1.8, the three scenario values for net revenue are $12.50, $13.87, and $17.29. Averaging these three values equals $16.26. This represents the net market earnings for a CT in the SP-15 zone and was subtracted from the short term marginal cost of a combustion turbine to arrive at a final marginal generation capacity cost.

Provide a description of how generation capacity costs are allocated to TOU periods, as well as any underlying models, model inputs, and model outputs.

**SDG&E Response:** Pages 3-8 of SDG&E GRC Phase 2 Chapter 6 direct testimony describes the process for allocating marginal generation capacity costs to TOU periods. A description of the LOLE analysis and the model used to produce it is on pages 11-12 of the testimony.

Please provide the variable renewable energy contract data that SDG&E provided to the California Independent System Operator for each of the years 2016-2019 and which the CAISO uses in calculating annual flexible capacity needs. Please provide the workpapers that SDG&E submitted to the CAISO for each year. An example of the workpaper can be found at following link and is labeled “[2019 Flexible Capacity Requirement Assessment Data Request Template](http://www.caiso.com/Documents/2019FlexibleCapacityRequirementAssessmentDataRequestTemplate.xlsx).xlsx”:<http://www.caiso.com/informed/Pages/StakeholderProcesses/FlexibleCapacityNeedsAssessmentProcess.aspx>

**SDG&E Response:**

Please see the attached files:



1. For example, La Paloma filed for bankruptcy, citing suppressed CAISO market prices due to increasing renewable generation (Reuters, December 6, 2016, “California gas power plant La Paloma files for bankruptcy” <http://www.reuters.com/article/us-la-paloma-bankruptcy-idUSKBN13V2PY>). The Commission approved Calpine’s request to place its Sutter plant into cold layup because it could not get an RA contract (Resolution ESRB-6). [↑](#footnote-ref-2)