1. Please refer to SDG&E’s Response to CalPA Data Request #17 Q4. Please explain how the approximately 200 MW change in SDG&E’s conventional portfolio referenced in that response would lead to the significant flattening of loss of load that occurring in SDG&E’s 2020 LOLP analysis as compared to its 2016 GRC Phase 2 analysis.

**SDG&E Response:**

The reduction of dispatchable generation, however slight, could potentially add loss of load to hours of the year that previously had no loss of load. This would have the effect of diminishing the % share of loss of load observed in the top 100 hours.

1. Please refer to SDG&E’s Response to CalPA Data Request #17 Q4. Please identify any additional factors SDG&E is aware of beyond the change in SDG&E’s conventional portfolio that may have contributed to the flattening of loss of load identified by CalPA. If SDG&E is not aware of any additional contributing factors, please so state.

**SDG&E Response:**

SDG&E is aware of two additional factors that may have contributed to the re-distribution of loss of load in 2020 relative to 2016. While SDG&E’s generation portfolio remained relatively stable from 2016 to 2020, there was an increase in behind the meter solar generation which flattened the mid-day load profile and shifted the loss of load to non-solar hours. Second, the 2020 load forecast included additional electric vehicle load in the evening hours that was not included in the 2016 forecast.

1. SDG&E’s Marginal Generation Capacity Cost workpapers (Excel file Ch\_6\_WP#1\_Marg Gen Comm Cost\_Confidential) incorporate customer class-specific hourly loads weighted by LOLP (see tab “Top 100 Hours – 2020” at cells AP3:AV8788). Please respond to the following questions with respect to this data.
   1. Please provide comparable data for SDG&E’s 2016 GRC Phase 2.
   2. Does SDG&E expect that the relative share of Top 100 Hour LOLP-weighted loads for each customer class have changed due to the flattening of loss of load addressed in Question 1 and Question 2? Please explain why or why not.
   3. If SDG&E’s response to Question 3(b) is not an unqualified yes or no, please explain whether the flattening of loss of load addressed in Question 1 and Question 2 could theoretically result in changes to each customer class’ relative share of Top 100 Hour LOLP-weighted loads and why.
   4. Has SDG&E performed any analyses of changes in each customer class’ Top 100 Hour LOLP-weighted loads between SDG&E’s prior GRC Phase 2 and the current proceeding and the drivers of any such changes? If so, please describe the analyses and results and provide the quantitative results of SDG&E’s analyses.

**SDG&E Response:**

1. See the embedded Excel Workbook below.



1. The expected relative share of Top 100 Hour LOLP-weighted loads for each customer class has changed only slightly despite the changes addressed in Question 1 and Question 2. The % share of LOLP weighted load by customer class is within 1% difference for each class. Part of this difference may be attributed to the addition of the “Schools” class:



1. Changes to the load profile, to the size of generation resources, and/or the hours generation resources generate could potentially shift the loss of load into hours that have different shares of load by customer class.
2. Yes. In responding to question 3d, SDG&E performed the analysis in the embedded Excel workbook below. ***This response contains confidential information and has been redacted.***

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1. SDG&E’s Marginal Generation Capacity Cost workpapers (Excel file Ch\_6\_WP#1\_Marg Gen Comm Cost\_Confidential) incorporate 2020 forecasted hourly load by customer class. Please respond to the following questions with respect to these forecasts.
   1. Please explain how SDG&E developed these forecasts and identify any specific assumptions that SDG&E incorporated regarding changes in customer class load shapes between SDG&E’s prior GRC Phase 2 and the current proceeding.
   2. Please state whether SDG&E incorporated any adjustments to its forecasted load shapes designed to reflect expected customer responses to changes in mandatory TOU period definitions used in rate design.

**SDG&E Response:**

1. Econometric models were used to develop hourly forecast shapes for the residential, small commercial, medium/large commercial/industrial, agricultural, and lighting classes.  These models incorporate the impacts of rooftop photovoltaic installations and electric vehicles as well as various weather concepts, calendar and seasonal variables, customer count information and other related concepts. The results of the hourly model were then calibrated to the California Energy Commission’s 2018 California Energy Demand Update forecast.
2. SDG&E did not incorporate the impacts of TOU period definitions in the hourly shape.