NRDC DATA REQUEST No. NRDC-A.17-01-021-SDG&E001

CPUC DOCKET A.17-01-020, A.17-01-021, and A.17-01-022

TO: JOHN A. PACHECO

FROM: MAX BAUMHEFNER

DATE: MAY 2, 2017

RE: NRDC DATA REQUEST NO. NRDC-A.17-01-020-SDG&E001
RESPONSE REQUESTED: MAY 12, 2017

Please provide electronic responses to the following questions related to San Diego Gas & Electric's Application 17-01-020, *Application of San Diego Gas & Electric Company (U 902-E) For Authority to Implement Priority Review and Standard Review Proposals to Accelerate Widespread Transportation Electrification.*

If partial responses are available prior to the response date specified above, please provide them as they become available. If any of the questions below are not clear or are otherwise objectionable, please contact me so that we may clarify or resolve any issues.

Responses should be provided to myself at *mbaumhefner@nrdc.org* and Melissa Whited at *mwhited@synapse-energy.com*.

Thank you,

Max Baumhefner
Natural Resources Defense Council
111 Sutter Street, 21st Floor
San Francisco, California 94104
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Questions:

1) Please provide confidential responses to the following:

    a. ORA-02-Q1

    b. ORA-02-Q5

2) Refer to the response to ORA-02-Q6. Please provide the data used to generate the weighted peak load frequency figure.

3) For each circuit, please provide the event trigger hours (i.e., the hours in which the D-CPP would be applied) for years 2014 – 2016.

4) For each circuit, please provide the number of customers served by that circuit. If data are available, please report the number of customers by class, and by EV rate.

5) For the system, please provide the event trigger hours (i.e., the hours in which the C-CPP would be applied) for years 2014 – 2016.

6) Refer to the Direct Testimony of Cynthia Fang, page CF-17 at 7-11. If the "forecasted load exceeds an established threshold" for more than 150 hours in a given year, what is SDG&E's proposed "true-up" process for ensuring that it does not over- or under-collect revenue from its Commodity CPP Adder?

7) Refer to the Direct Testimony of Cynthia Fang, page CF-22 at 10-15. If the forecasted load exceeds the relevant threshold for more than 200 hours in a given year, what is SDG&E's proposed "true-up" process for ensuring that it does not over- or under-collect revenue from its D-CPP Adder?

8) Refer to the Direct Testimony of Cynthia Fang, page CF-26 at 1-2.
    a. Confirm that the Company proposes to determine Grid Integration Charges for each customer using discrete demand bins, as shown in Diagram 5-5. If not confirmed, please describe the process the Company will use to calculate the Grid Integration Charge from maximum annual demand for customers in each rate class.
    b. Confirm that the Grid Integration kW bins shown in Diagram 5-5 are the demand bins that the Company proposes to use in setting residential Grid Integration Charges. If not confirmed, please identify the demand bins that the Company proposes to use.
    c. Please provide any analyses, reports, or other documents that justify the use of a fixed charge greater than $29 per month for customers who do not consume any electricity.

9) Separately for the EV-TOU and EV-TOU 2 rates, for each EV customer for which data are available, please provide the hourly 8760 load for each customer for 2016.

10) Separately for the EV-TOU and EV-TOU-2 rates, please provide the billing determinants, rates, and revenues for 2016.

11) Refer to the Prepared Direct Testimony of Cynthia Fang, page CF-15. Please confirm that all SDG&E customers will face day-ahead hourly prices based on SDG&E's Default Load Aggregation Point, rather than some other load aggregation point.

12) Refer to the Direct Testimony of Cynthia Fang on Behalf of San Diego Gas & Electric Company ("SDG&E"), page CF-7 at 3-8. Please provide the Cost of Service Study underlying the Company's statement that "only a fraction (one-third) of the services recovered in electric utility rates are driven by the kilowatt-hour (kWh) energy usage of customers."

13) Is it the Company's position that cost causation as determined through a Cost of Service Study is the sole appropriate basis for rate design? If so, please explain why. If not, describe the other factors that the Company considers to be appropriate grounds for rate design?

14) Please describe the Company's cost allocation methodology related to distribution costs, and how the demand allocators are developed for each class.

15) Please refer to the Prepared Direct Testimony of Cynthia Fang, page 18, line 8.

    a. Please discuss how transformers are sized.

    b. Please provide a copy of the Company's standard approach for sizing transformers for residential customers.

16) Please refer to the Prepared Direct Testimony of Cynthia Fang, pages 17-19.

    a. For residential customers, please identify which distribution demand costs are driven by local (e.g., circuit) coincident peak demand and identify the portion of total distribution system costs that these represent.

    b. For residential customers, please identify which distribution demand costs are driven by an individual's non-coincident annual peak demand, and identify the portion of total distribution system costs that these represent.

17) Refer to the Prepared Direct Testimony of Cynthia Fang, chart 5-1.

    a. Please provide a similar chart for each class, indicating both the percentage and dollar amount of each category.

    b. Please include the workpapers used to produce such charts.

18) Refer to the Direct Testimony of Cynthia Fang, page CF-21 at 5-6. Please provide all workpapers and data underlying Chart 5-2.

19) Regarding TOU time periods and the Grid Integration Rate (GIR):

    a. Would the only applicable TOU period be the super-off-peak period (defined as midnight to 6 a.m. on weekdays and midnight to 2 p.m. on weekends and holidays), as used to determine the GIC? If not, please provide a table showing the TOU time periods proposed, and what rate components of the GIR would be dependent upon such time periods.

    b. Please discuss whether the TOU time periods proposed for the GIR would be the same as those proposed in the Company's February 2016 GRC Phase 2 filing (A. 15-04-012).

    c. Please refer to the "Joint Motion of San Diego Gas & Electric Company (U 902 E), The Office of Ratepayer Advocates, The City of San Diego and the California City-County Street Light Association for Leave to Submit Joint Supplemental Testimony on

Residential And Small Commercial Customer Issues" filed on November 16, 2016 in A. 15-04-012.

i. Please provide a copy of the "Joint Supplemental Testimony on Residential and Small Commercial Customer Issues" or a link to such testimony.

ii. Please discuss whether the TOU time periods proposed by SDG&E in the instant proceeding are consistent with the "Joint Supplemental Testimony on Residential and Small Commercial Customer Issues" filed on November 16, 2016 in A. 15-04-012. If they are not consistent, please explain why not.

20) Refer to Refer to the prepared testimony of Randy Schimka, Chapter 4, Figure 4-4: Annual fuel costs comparison of Electricity and Gasoline.

a. Holding the other assumptions specified in footnote 24 constant, what would be the estimated annual fuel cost for an "unmanaged" and a "managed" customer, both taking service on the residential GIR?

b. Please provide the data, assumptions, and workpapers used to generate this graph.

21) Has the Company conducted a total annual bill impact analysis for residential EV customers that switch from a whole-house EV TOU rate to the residential GIR, under both "managed" and "unmanaged" charging scenarios? If so, please provide such analysis, including all workpapers.

22) Please describe and provide any analyses or studies the Company or its consultants has performed to determine the degree to which the proposed rates will encourage EV adoption. If no such analyses or studies have been performed, please explain why not.

23) Refer to the prepared testimony of Randy Schimka, Chapter 4, page RS-18.

a. Please describe the "enabling technology tool" that SDG&E is planning to provide to customers.

b. Please specify whether the tool will be made available to customers not enrolling in the GIR. If not, please explain why not.

24) Refer to the prepared testimony of Randy Schimka, Chapter 4, page RS-19.

a. Please describe the customer education and outreach that SDG&E has undertaken in order to encourage EV customers to enroll in an EV-TOU or EV-TOU2 rate.

b. Please discuss the reasons why only 38% of EV customers have enrolled in an EV TOU rate.

c. Please provide all studies, survey results, or other supporting materials regarding the reasons that more customers have not enrolled in the current EV-TOU and EV-TOU2 rates.

25) Regarding the proposed residential GIR structure featuring a Grid Integration Charge (GIC) that varies based on customer size or demand:

    a. Please indicate whether the Company or its consultants have conducted any studies (including but not limited to surveys, focus groups, or similar) regarding customers' understanding, acceptance, or preferences regarding a rate based on a customer's maximum demand. If so, please provide the results of such studies.

    b. Please identify and describe the currently available enabling technologies or services that SDG&E is aware of that enable residential customers to monitor their total household hourly kW demand in real time.

    c. Please identify and describe the currently available enabling technologies or services that SDG&E is aware of that enable residential customers to automatically control their energy use in real time, including, but not limited to, electric vehicle supply equipment controls.

26) Regarding the proposed residential GIR structure featuring a dynamic energy charge:

    a. Please indicate whether the Company or its consultants have conducted any studies (including but not limited to surveys, focus groups, or similar) regarding customers' understanding, acceptance, or preferences regarding a dynamic hourly energy charge. If so, please provide the results of such studies.

    b. Please identify and describe the currently available technologies or services that SDG&E is aware of that provide residential customers with day-ahead hourly energy rates.

    c. Please identify and describe the currently available technologies or services that SDG&E is aware of that enable residential customers to monitor their total household hourly energy use in real time.

27) Regarding the proposed residential GIR structure featuring a circuit-specific dynamic adder:

    a. Please indicate whether the Company or its consultants have conducted any studies (including but not limited to surveys, focus groups, and pilot EV rates) regarding customers' understanding of circuit-specific charges. If so, please provide the results of such studies.

    b. Please describe how customers would be notified regarding the D-CPP hourly adder going into effect the next day.

    c. Please identify and describe the currently available technologies or services that SDG&E is aware of that provide residential customers with information regarding what circuit they are currently on, depending on their location (and updating if the customer changes location).

    d. Please identify and describe the currently available technologies or services that SDG&E is aware of that provide residential customers with information regarding whether the D-

CPP adder will apply any time that day to the circuit that the customer is currently on (and updating if the customer changes location).

e. Please identify and describe the currently available technologies or services that SDG&E is aware of that would enable a residential customer to see the hourly energy rates for the current day and following day (including the D-CPP adder) anywhere in SDG&E's territory.

f. Please indicate whether SDG&E is planning to provide any technologies or services described in response to (c), (d), and (e) to customers enrolling in the residential Grid Integration Rate. If not, please explain why not.

g. Please discuss whether SDG&E has sought input from third-party EVSE service providers to develop this rate structure, and if so, what input has been received.

28) Please discuss whether the commercial GIR structure was developed taking into account input from the EV community, such as input from manufacturers of EVSEs and EVSE service providers. If so, please describe the input received and how the GIR was developed to take such input into account.

29) Please provide the following information regarding the Vehicle Grid Integration (VGI) pilot, being implemented as "Power Your Drive":

a. The number of customers who have expressed an intention to participate

b. The number of customers that have expressed an intention to select the VGI Rate-to-Driver billing option versus the VGI Rate-to-Host billing option to date

c. Load management plans submitted to date

d. All interim reports regarding the pilot implementation, evaluation, or informal findings.

30) Regarding EV charging stations that are currently installed at commercial customers' premises that are not part of the VGI pilot:

a. Please identify how many commercial customers (employers or property owners) have installed EV charging stations.

b. Please identify what rate structures such customers are currently on, and provide the number of customers with EV chargers on each.

c. Please provide all informational materials (such as workplace charging seminar presentations, guidebooks, pamphlets, bill calculators, and websites) that the Company provides to commercial customers to help customers determine bill impacts, evaluate rate options, and choose EV supply equipment.

31) Refer to the Prepared Direct Testimony of Cynthia Fang, page CF-22. Please provide:

a. A description of the variables used in the model

b. The forecast model specification and coefficient values

c. Statistical significance of the overall model and each variable

d. The data used to specify the model (i.e., the historical hourly load at the circuit level, local weather, and calendar-based variables)

32) Please refer to the Prepared Direct Testimony of Cynthia Fang, page CF-28 regarding the public charging GIR.

a. Do any public EV charging stations currently exist at similar locations as targeted by the public charging GIR (e.g., Caltrans Park-and-Ride locations)?

b. If the response to (a) is yes, please identify the rate structures under which these charging stations currently operate.

c. Please discuss whether SDG&E has sought input from third-party EVSE service providers to develop this rate structure, and if so, what input has been received.

33) Please refer to the response to SDAP-02-Q45. Please confirm that a residential customer would be billed on the basis of 15 kW demand if their highest demand were 15 kW over 30 minutes but 0 kW for the rest of the hour. In other words, if residential demand is based on the customer's maximum hourly demand, would it not average 15 kW and 0 kW demand over the 60 minute interval?