**A.17-01-020**

**SDG&E Senate Bill 350 Transportation Electrification Program**

**TURN Data Request**

**Data Request Number:** TURN-07

**Date Sent: September 13, 2017**

**Response Due: September 22, 2017 (Excluding Question 5 – 9/20 Response Date Requested)**

Please provide an electronic response to the following question. A hard copy response is unnecessary. The response should be provided on a CD sent by mail or as attachments sent by e-mail to the following:

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| --- | --- | --- | --- |
| Haley de Genova The Utility Reform Network785 Market Street, Suite 1400San Francisco, CA 94103legalassistant@turn.org | Elise TorresThe Utility Reform Network785 Market Street, Suite 1400San Francisco, CA 94103etorres@turn.org  | Eric BordenThe Utility Reform Network785 Market Street, Suite 1400San Francisco, CA 94103eborden@turn.org |  |

For each question, please provide the name of each person who materially contributed to the preparation of the response. If different, **please also identify the SDG&E witness who would be prepared to respond to cross-examination questions regarding the response.**

For any questions requesting numerical recorded data, please provide all responses in working Excel spreadsheet format if so available, with cells and formulae functioning.

For any question requesting documents, please interpret the term broadly to include any and all hard copy or electronic documents or records in SDG&E’s possession.

1. SDG&E’s response to DR TURN-01, question 10(c), states “This workbook shows the net marginal electricity supply cost benefit of Level 2 charging with the GIR rate, relative to Level 1 charging with the DR and EV-TOU-2 rate.” Related to this response and the accompanying workpaper:
	1. What percentage of EV drivers in the “absent program” case are on a “DR” and/or “tiered” rate?
	2. What percentage of EV drivers in the “absent program” case are on the EV-TOU-2 rate?
	3. Please provide the assumptions regarding the percentage of load charged on peak separately for the DR (tiered) rate and EV-TOU-2 rate. Please explain how these were derived and provide a supporting Excel workbook that demonstrates any calculations or assumptions. Please also provide the definition of “on-peak” including the specific time period.
	4. If all customers in the “absent program” case were on the EV-TOU-2 rate (0% of customers on the DR or tiered rate) what would the load shifting benefit of SDG&E’s program be? Please provide the same calculation with this new assumption included in the workpaper attached to DR-01 “Res Results Scenario A with TURN DR1 Q10dc Analysis.”
	5. If all customers in the “absent program” case were on a whole house TOU rate please provide the load shifting benefits of the program. Please provide the same calculation with this new assumption included in the workpaper attached to DR-01 “Res Results Scenario A with TURN DR1 Q10dc Analysis.” Please describe and provide all supporting workpapers and studies for assumptions regarding on-peak EV load on a whole house TOU rate.
2. SDG&E’s opening testimony, Chapter 8, Appendix A, p. 24, states:



* 1. Please explain how and where these different assumptions (70%/30% and 42%/58% DR vs. TOU rates, respectively) are used in the net impacts analysis.
	2. Please explain how these assumptions effect the results of SDG&E’s cost-effectiveness analysis.
	3. Please explain and describe which assumption is used in the “reference case” – 70% of EV drivers on a tiered rate or 42% on a tiered rate?
1. The rebuttal testimony of JC Martin at page JCM-8 states “Default TOU is an assumption already included in the Reference Case which is used to calculate net impacts.”
	1. Please confirm and explain whether the net impacts analysis assumes 70% of participants would be on a tiered rate and 30% on a TOU rate as stated in opening testimony, Chapter 8, Appendix A, p. 24. Please explain the response.
	2. Please confirm that the load shifting benefits analysis referenced in question 1 and provided in DR-01 attachment “Res Results Scenario A with TURN DR1 Q10dc Analysis” does not incorporate a “default TOU” scenario whereby virtually no customers will be on a tiered rate absent the program.
	3. Please confirm that in fact “Default TOU,” defined as defaulting all or most customers from tiered rates onto default TOU rates, has not been considered in SDG&E’s cost-effectiveness or load-shifting benefit analysis because 70% of participants would have been on a tiered rate absent SDG&E’s program. Please explain the response.
2. In the rebuttal testimony of Cynthia Fang, Tables CF- 1 and 2 present rate impacts of the Modified Residential Charging Program and the Illustrative Case. Please reproduce these tables to provide the rate impacts through the last year of installation for the program, 2026.

The following questions relate to the Rebuttal testimony of Randy Schimka.

1. Please provide the Excel workpapers with all assumptions for Tables RS-1 and RS-2.
	1. Please define and explain in detail what activates, equipment, etc. each line item in the tables covers or refers to.
	2. For the EVSE Costs and Installation line item please provide and explain which portions of the total relate to the allowances for EVSE, installation and SDG&E’s installation of the 240 volt circuit.
2. On page RS-13 SDG&E states “L1 charging using a standard 120-volt outlet can have safety issues for customers.” Please provide additional information about this statement including the following:
	1. The number and percentage of EV drivers in SDG&E’s territory that have experienced a safety issue due to L1 charging.
	2. The number and percentage of EV drivers in California that have experienced a safety issue due to L1 charging.
	3. The number and percentage of EV drivers in California that have experienced a safety issue due to L2 charging.
	4. To SDG&E’s knowledge has anyone in California or SDG&E’s territory been injured by a L1 or L2 charging station? Please explain and provide all relevant sources.
	5. To SDG&E’s knowledge has anyone in California or SDG&E’s territory experienced property damage as the result of a L1 or L2 charging station? Please explain, provide estimated costs and provide all relevant sources.
	6. What resources does SDG&E currently provide customers to mitigate safety issues with installation of Level 1 and Level 2 charging stations? Please provide all links and documents.
	7. What electrical appliance is the number one cause of safety incidences in SDG&E’s territory?
	8.
3. Regarding Tables RS-1 and RS-2, pages RS-15 and RS-16:
	1. Both tables show a proposed budget of $22,500,000 for “Maintenance (Service Calls)” under both a 100% ownership and 50%/50% Ownership scenario. Please explain what this cost is for and provide support for how it was developed.
	2. Why is the “Maintenance (Service calls)” cost the same under the 100% ownership and 50% ownerships scenario? Based on the statement that under the customer ownership scenario where the “customer chooses to own and maintain the EVSE” and “the customer will be responsible for contacting the EVSP for repair …” it seems the costs should be lower, please explain this discrepancy. (P. RS-7)
	3. In Table RS-2 please explain what costs the line item “Utility EVSE Allowance 45K Customer Owned” includes.
		1. Does this include the warranty costs for the customer owned EVSE? Please explain.
4. Regarding page RS-6 states “In either case, SDG&E would still install, own, and maintain the 240-volt circuit from the customer’s electric panel to the EVSE.”
	1. Does this mean that SDG&E employee will install the 240-volt circuit and not the licensed and trained contractor who will install the EVSE?
	2. Does the $1,425 or $1,500 (for DAC and low-income customers) installation allowance include the cost of SDG&E installing the 240-volt circuit?
	3. Is the permit discussed on pages RS-11 – RS-12 necessary for the installation of the 240-volt circuit or the installation of the EVSE?’
	4. On page RS-12 it states that the contractor will “perform load calculations” to determine if the “charging station load can be added to the existing electric panel and not overload it”, will SDG&E do similar load calculations before installing the 240-volt circuit?
	5. Attachment 2 lists the average cost installation detail which includes the item “Install 40 amp charging circuit & EVSE”, is this in addition to the 240-volt circuit SDG&E will install and run from the customers electric panel to the EVSE?
		1. Please explain the difference between the 240-volt circuit and the 40 amp charging circuit?
	6. Do the EV Project L2 EVSE installation costs discussed on page RS-11 assume the 240-volt circuit has already been installed?
5. Page RS-7 states: “For customers who choose SDG&E to own and maintain the EVSE, SDG&E will repair or replace failed units. In the case where the customer chooses to own and maintain the EVSE, SDG&E will contribute a fixed amount to the EVSP at the time of purchase for an extended warranty for the customer (if needed).” Under the scenario where the customer owns the EVSE:
	1. Please define and explain what extended warranty means? How many years must the warranty be valid for?
	2. Will SDG&E contribute a fixed amount for an extended warranty if a warranty is included in cost of EVSE?
	3. How will SDG&E ensure the warranty is purchased?
	4. If a warranty is purchased why do ratepayers need to pay for maintenance costs? Please explain how the purchase of a warranty affects SDG&E’s calculation of maintenance costs.
	5. How much does SDG&E expect this fixed amount to be, please explain and provide any supporting documentation. Will the amount vary if the EVSE comes with a warranty but not an “extended warranty” that meets SDG&E’s specifications?
	6. Has SDG&E considered limiting the RFP to EVSE’s that include a standard warranty?
	7. How would removing the extra payment to EVSPs for warranties affect the overall cost of the program?
	8. Is the cost for warranties included in Table RS-1 and/or RS-2? If so please explain which line item it is represented under and the amount in each table.