

SDAP DATA REQUEST
SDAP-DR 01, REQUEST 1
Application for Approval of Electric Vehicle High Power Charging Rate (A.19-07-006)
SDG&E RESPONSE
DATE RECEIVED: November 22, 2019
DATE RESPONDED: December 12, 2019

1. According to testimony of William Saxe, p. WS-1, the standard (otherwise applicable) UDC rate for customers who qualify for EV-HP would be SDG&E's AL-TOU rate. Please confirm that EV-HP is designed to be "revenue-neutral" to AL-TOU, in the sense that, if all customers currently on AL-TOU were hypothetically switched to EV-HP, the total UDC revenue from these customers would be essentially unchanged.

SDG&E Response: Yes, the EV-HP rate is designed to be revenue neutral because the EV-HP rates are designed to collect the allocated costs for Schedule AL-TOU based on adopted determinants for Schedule AL-TOU, as described on pages WS-1 through WS-7 of the prepared direct testimony of William Saxe.

2. If EV-HP is not revenue neutral to AL-TOU in the sense described above, please explain.

SDG&E Response: Please see response to Question 1.

3. On August 21, 2019, SDG&E's response to a CAL PA data request (Q.13 of CAL PA-SDG&E-DR-03) included the following:

"SDG&E A.19-03-002 used load forecasts from the California Energy Commission 2018 Integrated Energy Policy Report (IEPR). The 2018 IEPR incorporated light-duty EV load forecasts but did not include MD/HD EV load."

1. Please confirm that the load forecasts that SDG&E submitted in A.19-03-002 did not include MD/HD EV load.

SDG&E Response: Yes, the 2018 IEPR incorporated light-duty EV load forecasts but did not include MD/HD EV load.

2. Please confirm that SDG&E's currently authorized revenue requirements do not include revenue requirements resulting from MD/HD EV load.

SDG&E Response: The 2018 IEPR forecasts do not incorporate future MD/HD EV load but SDG&E authorized revenue requirements may incorporate costs incurred due to existing MD/HD EV load.

4. On August 21, 2019, SDG&E's response to a CAL PA data request (Q.14 of CAL PA-SDG&E-DR-03) included the following:

"SDG&E did not estimate revenue shortfall associated with the EV-HP rate, as defined as revenue SDG&E would have earned from customers who opt for the EV-HP rate as compared to the existing rates these customers otherwise would have taken service on, since EV-HP customers are expected to primarily be new load and uncertainty around

these future customer's load characteristics and which existing rates these customers would have taken service on, if at all.”

Please confirm that the words “if at all” in the above sentence are intended to convey the meaning that some potential EV-HP customers might choose not to take service from SDG&E, if only SDG&E's currently existing rates were available. Additionally, please define your meaning of “if at all”.

SDG&E Response: Yes, some customers who take service on the proposed EV-HP rate may not have chosen to adopt MD/HD EVs or deploy DCFC charging installations in the absence of the EV-HP rate.

5. On October 24, 2019, SDG&E's response to a CAL PA data request (Q.6 of CAL PA-SDG&E-DR-05) included the following:

“GRC Phase 2 proceedings develop marginal distribution costs based on the usage and demand characteristics of the customers SDG&E serves.”

Please confirm that both SDG&E's current AL-TOU rate and its proposed EV-HP rates are expected to provide distribution revenues that exceed the marginal distribution costs that were developed in SDG&E's previous GRC Phase 2 proceeding (A.15-04-012).

SDG&E Response: Yes, both the current AL-TOU and proposed EV-HP rates are developed to recover SDG&E's Commission authorized distribution revenues, which exceed SDG&E's marginal distribution costs. When developing SDG&E's electric rates, SDG&E's marginal distribution costs are scaled up or down by a single factor called the Equal Percent of Marginal Cost (EPMC) factor to ensure recovery of SDG&E's authorized distribution revenues based on those rates.

6. The CPUC typically defines “Contribution to Margin” (or “CTM”) as the difference between revenue at an authorized rate, and marginal cost. Under normal circumstances, CTM is positive. Q.5., above, asks SDG&E to confirm that both AL-TOU and EV-HP rate schedules are expected to provide positive distribution CTM. Specifically, for AL-TOU, based on SDG&E's billing determinants, please provide SDG&E's estimated annual distribution CTM:

1. Please provide AL-TOU annual distribution CTM in dollars.

SDG&E Response: The Commission recently used the CTM calculations in decisions addressing the adoption of Economic Development Rates (EDR) programs. In Decision 19-07-003 adopting the EDR program for SDG&E the Commission stated that the CTM should be the difference between the revenues at the authorized rate versus the applicable marginal costs and non-bypassable charges. For SDG&E the marginal costs reflect distribution and commodity marginal costs and the non-bypassable charges consist of all other non-distribution and non-commodity electric charges (e.g., transmission, public purpose program (PPP), nuclear decommissioning (ND), ongoing competition

transition charges (CTC), local generation charge (LGC), reliability services (RS), and department of water resources bond charge (DWC-BC)). For this reason, the annual CTM revenues for secondary and primary service levels calculated for Schedule AL-TOU represent AL-TOU non-distribution and non-commodity revenues plus the marginal distribution and marginal commodity revenues for AL-TOU, as shown in the table below. The only distribution revenues in this annual CTM calculation is the marginal distribution cost revenues, which consists of marginal distribution customer and marginal distribution demand revenues.

Schedule AL-TOU CTM Revenues		
	<u>Secondary Service</u>	<u>Primary Service</u>
Total AL-TOU Revenues	\$1,356,009,946	\$171,899,839
Distribution Revenues	\$458,113,521	\$60,874,909
Commodity Revenues	<u>\$525,661,945</u>	<u>\$57,130,820</u>
Non-Distribution and Non-Commodity Revenues	\$372,234,480	\$53,894,110
Marginal Distribution Cost Revenues	\$195,492,984	\$22,369,877
Marginal Commodity Cost Revenues	<u>\$309,795,721</u>	<u>\$33,531,882</u>
Total Marginal Cost Revenues	\$505,288,705	\$55,901,759
CTM Related Revenues	\$877,523,185	\$109,795,869
Sources:		
(1) Schedule AL-TOU Revenues are based on the rates effective June 1, 2019, per Advice Letter 3377-E.		
(2) Schedule AL-TOU marginal cost revenues are based on SDG&E's marginal cost rates from its 2016 GRC Phase 2 proceeding multiplied by the 2019 determines used to develop the June 1, 2019, electric rates.		

2. Please provide AL-TOU annual distribution CTM in dollars, as a percentage of allocated AL-TOU distribution revenue.

SDG&E Response: As shown in the table above in response to Question 6.1, the Schedule AL-TOU annual distribution revenues reflected in the CTM calculation is the \$195,492,984 for secondary service and \$22,369,877 for primary service in marginal distribution cost revenues. Dividing \$195,492,984 by the total Schedule AL-TOU annual distribution secondary revenues of \$458,113,521 derives a percentage of approximately 42.67% for secondary service. Dividing \$22,369,877 by the total Schedule AL-TOU annual distribution primary revenues of \$60,874,909 derives a percentage of approximately 36.75% for primary service

3. Please provide annual average AL-TOU annual distribution CTM in cents/kWh.

SDG&E Response: As shown in the table above in response to Question 6.1, the Schedule AL-TOU annual distribution revenues reflected in the CTM calculation is the \$195,492,984 for secondary service and \$22,369,877 for primary service in marginal distribution cost revenues. Dividing \$195,492,984 by the Schedule AL-TOU adopted annual total kWh distribution usage for secondary service of 6,213,465,926 derives a cents/kWh of approximately 3.15 cents/kWh for secondary service. Dividing \$22,369,877 by the Schedule AL-TOU adopted annual total kWh distribution usage for primary service of 1,029,788,094 derives a cents/kWh of approximately 2.17 cents/kWh for primary service.

7. The concept of “Contribution to Margin” (or “CTM”) also applies to commodity (or generation) costs. According to testimony of William Saxe, p. WS-1, the standard (otherwise applicable) commodity rate for customers who qualify for EV-HP would be SDG&E’s Schedule EECC-CPP-D (Electric Energy Commodity Cost Critical Peak Pricing Default) for commodity rates. For commodity, the applicable marginal costs would be the marginal generation capacity costs and marginal energy costs developed in SDG&E’s last GRC Phase 2 (A.15-04-012). Based on SDG&E’s billing determinants, please provide SDG&E’s estimated annual commodity/generation CTM for Schedule EECC-CPP-D:

1. Please provide annual Schedule EECC-CPP-D commodity/generation CTM in dollars.

SDG&E Response: The annual EECC-CPP-D commodity/generation CTM for Schedule AL-TOU is the marginal commodity cost revenues shown in the table provided in response to Question 6.1 above of \$309,795,721 for secondary service and \$33,531,882 for primary service.

2. Please provide annual Schedule EECC-CPP-D commodity/generation CTM in dollars, as a percentage of allocated Schedule EECC-CPP-D revenue.

SDG&E Response: As shown in the table above in response to Question 6.1, the Schedule AL-TOU annual commodity revenues reflected in the CTM calculation is the \$309,795,721 for secondary service and \$33,531,882 for primary service in marginal commodity cost revenues. Dividing \$309,795,721 by the total Schedule AL-TOU annual commodity revenues for secondary service of \$525,661,945 derives a percentage of approximately 58.93% for secondary service. Dividing \$33,531,882 by the total Schedule AL-TOU annual commodity revenues for primary service of \$57,130,820 derives a percentage of approximately 58.69% primary service.

3. Please provide annual average Schedule EECC-CPP-D CTM in cents/kWh.

SDG&E Response: [As noted below, portions of the following response (redacted) are CONFIDENTIAL and considered Protected Material subject to the applicable NDA.]

As shown in the table above in response to Question 6.1, the Schedule AL-TOU

annual commodity revenues reflected in the CTM calculation is \$309,795,721 for secondary service and \$33,531,882 for primary service in marginal commodity cost revenues. Dividing \$309,795,721 by the [REDACTED]

[REDACTED] for secondary service. Dividing \$33,531,882 by the [REDACTED].

Please note that the annual commodity usage data and the cents/kWh commodity rate based on that usage data provided in this response is considered Confidential pursuant to Section V.C. of the IOU Confidentiality Matrix, adopted as Appendix 1 of D.06-06-066.

4. Please provide the following CTM calculations for TOU-M:

SDG&E Response: The table below provides the annual CTM revenues calculation for Schedule TOU-M.

Schedule TOU-M CTM Secondary Revenues	
Total TOU-M Revenues	\$1,898,939
Distribution Revenues	\$663,660
Commodity Revenues	<u>\$710,862</u>
Non-Distribution and Non-Commodity Revenues	\$524,417
Marginal Distribution Cost Revenues	\$298,716
Marginal Commodity Cost Revenues	<u>\$474,678</u>
Total Marginal Cost Revenues	\$773,394
CTM Related Revenues	\$1,297,811
Sources:	
(1) Schedule TOU-M Revenues are based on the rates effective June 1, 2019, per Advice Letter 3377-E.	
(2) Schedule TOU-M marginal cost revenue is based on SDG&E marginal cost rates from its 2016 GRC Phase 2 proceeding multiplied by the 2019 determinants used to developed the June 1, 2019 electric rates	

5. Please provide TOU-M annual distribution CTM in dollars.

SDG&E Response: As shown in the table above in response to Question 6.4, the Schedule TOU-M annual distribution revenues reflected in the CTM calculation is the \$298,716 in marginal distribution cost revenues.

6. Please provide TOU-M annual distribution CTM in dollars, as a percentage of allocated TOU-M distribution revenue.

SDG&E Response: Dividing \$298,716 by the total Schedule TOU-M annual distribution revenues of \$663,660 derives a percentage of approximately 45.01%.

7. Please provide TOU-M annual average distribution CTM in cents/kWh.

SDG&E Response: As shown in the table above in response to Question 6.4, the Schedule TOU-M annual distribution revenues reflected in the CTM calculation is the \$298,716 in marginal distribution cost revenues. Dividing \$298,716 by the Schedule TOU-M adopted annual 2019 total kWh distribution usage of 9,237,163 derives a cents/kWh of approximately 3.23 cents/kWh.

8. Please provide annual commodity/generation CTM in dollars, for the commodity rate schedule associated with TOU-M.

SDG&E Response: The annual commodity/generation CTM is the marginal commodity cost revenues shown in the table provided in response to Question 6.4 above of \$474,678.

9. Please provide annual commodity/generation CTM in dollars, as a percentage of allocated revenue for the commodity rate schedule associated with TOU-M.

SDG&E Response: As shown in the table above in response to Question 6.4, the Schedule TOU-M annual commodity revenues reflected in the CTM calculation is the \$474,678 in marginal commodity cost revenues. Dividing \$474,678 by the total Schedule TOU-M annual commodity revenues of \$710,862 derives a percentage of approximately 66.78%.

10. Please provide annual average CTM in cents/kWh for the commodity rate schedule associated with TOU-M.

SDG&E Response: [As noted below, portions of the following response (redacted are CONFIDENTIAL and considered Protected Material subject to the applicable NDA.)]

As shown in the table above in response to Question 6.4, the Schedule TOU-M annual commodity revenues reflected in the CTM calculation is the \$474,678 in marginal commodity cost revenues. Dividing \$474,678 by the [REDACTED]

Please note that the annual commodity usage data and the cents/kWh commodity rate based on that usage data provided in this response is considered Confidential pursuant to Section V.C. of the IOU Confidentiality Matrix, adopted as Appendix 1 of D.06-06-066.

8. Transmission: According to the Work papers the transmission rate is a flat 2.724 cents in each TOU period. Did SDGE consider making this a TOU rate varying the TOU in each period, if not, why not.

SDG&E Response: SDG&E did not consider making the transmission charge included in the proposed EV-HP rate time varying because transmission costs are based on demand not energy usage and thus, there is no basis for TOU transmission energy rates. For this reason, the proposed EV-HP transmission energy charges reflect the base transmission energy charges approved for the Vehicle Grid Integration Pilot Program rate (Schedule VGI), which are developed by dividing the allocated Medium/Large Commercial & Industrial base transmission costs by the Medium/Large Commercial & Industrial total transmission kWh energy usage.

9. PPP: According to the Work papers the PPP rate is a flat 1.476 cents in each TOU period. Did SDGE consider making this a TOU rate varying the TOU in each period, if now, why not.

SDG&E Response: SDG&E did not consider making the PPP charges included in the proposed EV-HP rate time varying because PPP costs are not time varying and thus, there is no basis for TOU PPP rates.

10. SCE: Decision 1805040 pp 112, there is a discussion of a TOU transmission rate for Commercial EV Charging. Please indicate if SCE sought FERC approval for a TOU transmission rate, if so, please provide communication to FERC and their response, if SCE has not applied for a TOU rate with FERC do you intend to do so, if not, why not?

SDG&E Response: SDG&E is not aware of the status of any FERC application by SCE. SDG&E does not plan on seeking FERC approval for a time-varying transmission charge to include in the EV-HP rate.

11. Why did you not use any Class 1-4 vehicles in your use cases?

SDG&E Response: The illustrative customers considered in the EV-HP Chapter 3 workpapers include Class 1 vehicles in the DC fast charging example (Sheet 5).

12. SDGE Use Case 1&2: MD Depot for large and small, why are you using different fuel prices for each of these use cases?

SDG&E Response: Both the Large and Small MD EV examples (Sheet 1 and 2) use a diesel price of \$3.92 per gallon.

13. SDGE Use Case 5, DCFC: please provide a version that includes the cost of gasoline for the fuel efficiency of passenger cars and for TNC's fleets. Please use the current fuel efficiency for both technologies, a new Honda Civic gasoline car at 33 mpg and a new EV Nissan Leaf car at 3.5 miles per kWh. Show this information in work paper format.

SDG&E Response: SDG&E has shared the EV-HP prepared testimony Chapter 3 workbooks per a previous data request. This model can be adjusted to estimate different illustrative charging scenarios by altering its inputs and calculation fields.

14. SDGE Use Case 1 & 2: please provide a version of these use cases that includes a Class 2b diesel sprinter Mercedes van with a fuel efficiency of 20 mpg and a Class 3 Shuttle at 1.3 miles per kWh and a Class 4 at 1 mile per kWh. Show this information in work paper format.

SDG&E Response: See the response to Question 13.

15. Priority Review Pilot D.18-01-024: Please indicate the following EV fuel economy for these pilot sites and validate the information listed below and or correct it as necessary. These sites were required to procure EV vehicles and includes the following entities, EV vehicle manufacturer, Class size of MHD vehicle, and Quantity of EV's for each pilot project.

1. UPS: Workhorse, Class 6, Qty 60, among 3 sites.
2. Amazon: Lightning Systems, Class 3, Qty 15
3. Aladdin: Lightning Systems, Class 3, Qty 4
4. San Diego Airport Parking Company: Green Power, Class 4, Qty 2 and Zenith Class 3, Qty 2 were already existing.
5. Illumina: EVT, Class 2b, Qty 6
6. Port of San Diego: Forklifts, Qty _____
7. Pasha: BYD, Class 8, Qty 3
8. Dole: BYD and Transpower, Class 8, Qty 4
9. Four Season: BYD, Class 8, Qty 1

SDG&E Response: SDG&E does not possess the efficiency statistics for the vehicles listed above.

- Fleet Delivery:
 - UPS San Diego – Workhorse, Class 5, Qty 20
 - UPS Chula Vista – Workhorse, Class 5, Qty 20
 - UPS San Marcos – Workhorse, Class 5, Qty 20
 - Amazon – Lightning Systems, Class 4, Qty 15
- Green Shuttles:
 - San Diego Airport Parking – Green Power, Class 4, Qty 2. Zenith, Class 3, Qty 2
 - Illumina – Briton, Class 4, Qty 6
 - Aladdin – Briton, Class 4, Qty 4
- Port Electrification:
 - Pasha – BYD, Class 8, Qty 3
 - Cruise Ship Terminal – Forklifts, Qty 9
- Airport GSE
 - San Diego International Airport – Ground Service Equipment, Qty 31

16. Priority Review Pilot D.18-01-024: Please indicate the following EVSE fueling infrastructure for each pilot site, who is the EVSE manufacturer, what is the power level of the EVSE and what is the quantity of EVSE's at each site. Some of this information is listed below, please confirm the information and answer as necessary when any of this information is not listed below for the entity.

1. Cal Trans: (20) Level-2 chargers at 6.6 kW ea and (2) DCFC chargers at 62.5 kW ea, 4 sites with the same infrastructure at each site.
2. UPS: (63) Level-2 chargers at 16.8 kW ea among 3 sites. Please indicate the quantity at each site.
3. Amazon: (16) Level-2 chargers at 16.8 kW ea
4. Aladdin: (2) DCFC chargers at 62.5 kW ea and (5) Level-2 chargers at 6.6 kW ea from previous installation for customer charging.
5. San Diego Airport Parking Company: (2) DCFC chargers at 62.5 kW ea (2) and (10) Level-2 chargers at 6.6 kW ea from the PYD pilot for customer charging.
6. Illumina: (6) Level-2 chargers at 16.8 kW ea
7. San Diego International Airport: (16) Level-2 chargers at 10 kW ea
8. Port of San Diego: (9) Level-2 chargers at 10 kW ea
9. Pasha: Please provide the Quantity and power level of EVSE infrastructure.
10. Dole: Please provide the Quantity and power level of EVSE infrastructure.
11. Four Season: Please provide the Quantity and power level of EVSE infrastructure.

SDG&E Response:

- Electrify Local Highways:
 - Chula Vista – (12) Level 2 ChargePoint units with (20) ports at 7.2 kW each. (2) DCFC ChargePoint units with (2) ports at 62.5 kW each.
 - El Cajon – (12) Level 2 ChargePoint units with (20) ports at 7.2 kW each. (2) DCFC ChargePoint units with (2) ports at 62.5 kW each.
 - National City – (12) Level 2 ChargePoint units with (20) ports at 7.2 kW each. (2) DCFC ChargePoint units with (2) ports at 62.5 kW each.
 - Oceanside – (11) Level 2 ChargePoint units with (20) ports at 7.2 kW each. (2) DCFC ChargePoint units with (2) ports at 62.5 kW each.
- Fleet Delivery:
 - UPS Chula Vista – (15) Level 2 BTC units with (15) ports at 16.8 kW each.
 - UPS San Diego – (33) Level 2 BTC units with (33) ports at 16.8 kW each.
 - UPS San Marcos – (15) Level 2 BTC units with (15) ports at 16.8 kW each.
 - Amazon – (16) Level 2 BTC units with (15) ports at 16.8 kW each.
- Green Shuttles:
 - San Diego Airport Parking – (2) DCFC ChargePoint units with (2) ports at 62.5 kW each.
 - Illumina – (6) Level 2 BTC units with (6) ports at 16.8 kW each.
 - Aladdin – (2) DCFC ChargePoint units with (2) ports at 62.5 kW each.
- Port Electrification:
 - Cruise Ship Terminal – (9) Level 2 Webasto units with (9) ports at 10 kW each.
 - Pasha – (2) DCFC BYD units with (2) ports at 100 kW each. (1) DCFC BYD unit with (1) port at 80 kW.

- Airport GSE
 - San Diego International Airport – (3) DCFC Webasto units with (6) ports at 40 kW each. (5) DCFC Webasto units with (10) ports at 60 kW each.

17. Please provide a use case version of each entity above in item 16. Show this information in work paper format.

SDG&E Response: See response to Question 13.

18. Please provide a use case version for customer charging of Level-2 chargers at 6.6 kW ea for entities 4 and 5 listed in item 16. Show this information in work paper format.

SDG&E Response: See response to Question 13.

19. Did SDGE do a robust analysis to determine real world use cases?

SDG&E Response: The sample customers presented in the EV-HP prepared testimony Chapter 3 workpapers are illustrative examples with charging and vehicle usage patterns that SDG&E believes to be realistic but individual customer behavior and requirements may differ.

1. If so, please explain and if not, why not.

SDG&E Response: See response to Question 19.

20. Use Case Impact: For each use case, show how the interim TOU M Rate would affect the cost comparison with the applicable fossil fuel.

1. Show AL-TOU,
2. Show undiscounted EVHP Rate and 50% Discounted EVHP Rate.
3. Show this information in each use case and work paper format.

SDG&E Response: See attached workpapers SDAP-SDG&E-DR-01-1 and the EV-HP prepared testimony Chapter 3 workpapers.

21. Did any of the MHD fleets have Class Size changes due to the EV technology? In other words, did they have to change from a Class 2 to a Class 4 in vehicles classification due to EV's being heavier vehicles than liquid fueled vehicles.

SDG&E Response: SDG&E is aware that some site hosts changed their vehicle specifications but not to what extent this was due to increased EV weight rating. SDG&E did not participate in negotiations pertaining to vehicle procurement.

22. How much heavier are EV vehicles than Diesel or Gasoline? Are they heavier?

SDG&E Response: SDG&E does not have information on the exact weight difference

between different fossil-fueled and EV vehicle models.

23. SDGE is the Owner of EVSE's in D.1801024; therefore, are you subject to the subscription and maintenance fees by the EVSE provider?

SDG&E Response: Yes, SDG&E is subject to subscription and maintenance fees by EV Service Providers in the Priority Review Projects authorized by D.18-01-024.

1. What cost are you paying Green lots and Chargepoint in these pilot programs, please provide in details of the fees for the subscription, the maintenance and other user or transactions fees that may apply.

SDG&E Response: The contracted subscription and maintenance fees paid as part of the Priority Review Projects is confidential.

2. Explain how this differs between rate to driver sites and rate to host sites.

SDG&E Response: There are no Rate to Driver sites in the Priority Review Projects.

3. Please provide the listed cost for each model as it will vary depending on the Power Level and indicate the power level of each EVSE.

SDG&E Response: See response to Question 23.1. The power level of relevant EVSE is supplied in Question 15.

4. Please provide this in a table form.

SDG&E Response: See response to Question 23.1.

24. SDGE MHD Make Ready Pilots per D1908026, do the pilots require EVSE's to be separately metered or can you install on existing meter.

SDG&E Response: Participating sites in the Medium-Duty/Heavy-Duty Program as authorized by D.18-08-026 are not required to be separately-metered.

1. Please explain if it varies and why.

SDG&E Response: See response to Question 24.

2. Please explain how the EVHP rate for a customer in the MHD pilot in D1908026 could NOT qualify for the EVHP Rate.

SDG&E Response: If a participating MD/HD site host chooses to install vehicle charging equipment on an existing service that does not serve only EV and associated load the customer would not be eligible for the EV-HP rate.

25. SBUA DR 2 Q9: A Question regarding EVSE quantity and vehicle deployment was answered by SDGE.

1. For clarity, does SDGE assume that each use case will have one EVSE for each EV vehicle?

SDG&E Response: Question 2 in SBUA DR 2 does not specify the number of vehicles associated with each EVSE.

The MD/HD illustrative customer use cases presented in the EV-HP Chapter 3 workpapers assume one vehicle to one EVSE.

2. Why did SDGE assume a ratio of one to one for each vehicle?

SDG&E Response: The MD/HD illustrative customer use cases presented in the EV-HP Chapter 3 are assumed to charge overnight at a single charger per vehicle.

3. Do you think this is reasonable to assume that each vehicle will need an EVSE? If so, why?

SDG&E Response: The MD/HD illustrative customer use cases presented in the EV-HP Chapter 3 workpapers are illustrative only. Customers will have differing charging behavior.

26. How does the Phased-out Discount structure Impact the Use cases?

SDG&E Response: The modeling presented in the EV-HP prepared testimony Chapter 3 workpapers estimate the monthly and seasonal bills for five representative customers under the full proposed EV-HP rates, and under the proposed EV-HP rate with the proposed initial 50% subscription charge discount. Estimated bills after the subscription charge discount has begun to phase down (i.e., in the second year after the EV-HP rate is approved and opened to customers the subscription charge discount will be 45%) will be higher than when the 50% discount is in effect but lower than after it is entirely phased out.

27. Please calculate the proposed use cases with another version of the EV HP commodity rates using the following time-of-use (TOU) periods:

	Summer Weekdays	Summer Weekends	Winter Weekdays	Winter Weekends
Peak	6 PM – 10 PM	6 PM – 10 PM	6 PM – 10 PM	6 PM – 10 PM
Off-Peak	10 PM – 8 AM, 4 PM – 6 PM	10 PM – 8 AM, 4 PM – 6 PM	10 PM – 8 AM, 4 PM – 6 PM	10 PM – 8 AM, 4 PM – 6 PM
Super Off-Peak	8 AM – 4 PM	8 AM – 4 PM	8 AM – 4 PM	8 AM – 4 PM

SDG&E Response: Per the discussion with Lisa McGhee and Robert Levin, SDG&E will not be providing a response to this question at this time.

28. What impact will using San Diego Gas and Electric Company's (SDG&E) 2019 marginal generation costs have on the use case results.

SDG&E Response: The attached file (SDAP-SDG&E-DR-01-02) provides the illustrative proposed EV-HP rates based on the proposed Schedule AL-TOU rates presented in SDG&E's 2019 General Rate Case (GRC) Phase 2 (Application 19-03-002) Revised Direct Testimony submitted on May 8, 2019. The proposed Schedule AL-TOU rates in the 2019 GRC Phase 2 filing reflect SDG&E's proposed updated marginal generation costs. The illustrative customer bill estimates shown in the EV-HP prepared testimony Chapter 3 workpapers are updated in the attached SDAP-SDG&E-DR-01-03.

29. EMFAC Database: Please show your EMFAC Data Filters and Report.

SDG&E Response: See below.

1. How did you determine your vehicle count, is this by cumulative sales over registered vehicles in San Diego or what data concludes the count of vehicles?

SDG&E Response: Public Advocates Office DR 3 Question 9 requested an "order of magnitude" estimate of the number of MD/HD EVs in SDG&E service territory. SDG&E responded that according to the 2017 Mobile Source Emissions Inventory there are approximately 337 electric Class 2-8 vehicles in San Diego County, which roughly aligns with SDG&E service territory.

2. What is your definition of the EMFAC data as it relates to registered vehicles in San Diego?

SDG&E Response: SDG&E accessed the 2017 EMFAC database to compile this estimate.

3. Do you agree that this is accurate and current data?

SDG&E Response: As a third-party data source SDG&E cannot vouch for the accuracy of the EMFAC estimates.

4. Is 2019 forecasted data?

SDG&E Response: Yes, 2019 estimates in the EMFAC 2017 emissions inventory are forecasts.

5. What are the filter dates that you used?

SDG&E Response: SDG&E applied the following filters to the 2017 EMFAC database:

- Data type: Emissions
- Region: San Diego County
- Calendar year: 2019
- Season: Annual
- Vehicle category: EMFAC2007 categories, All
- Model year: Aggregated
- Speed: Aggregated
- Fuel: Electric

All electric Class 2-8 vehicles forecasted by the 2017 EMFAC database are Medium-Duty Trucks (GVWR 6,000-8,500lb)

6. Do you know when the EMFAC 2017 was last updated.

SDG&E Response: As a third-party database SDG&E is not aware when the EMFAC 2017 database was last updated.

30. SDGE's response to CAP PA DR3 Q9, states that currently there are about 337 MHD EV's in San Diego county. Please explain this answer, please provide the quantity of how many vehicles are in each classification (Class 2-8).

1. How did you determine this sum from the EMFAC?

SDG&E Response: See response to Question 29.5.

2. Does the EMFAC count vehicles that use the roadways in San Diego regardless or registration address?

SDG&E Response: SDG&E is not aware of the details of the 2017 EMFAC database, a third-party dataset not produced by SDG&E.

3. Please explain how your answer is formulated from the data and provide the data and report in Excel format.

SDG&E Response: See response to Question 29.5 and attached workpaper SDAP-SDG&E-DR-01-04.

4. Please name the cells and rows as to how you obtained the answered.

SDG&E Response: See response to Question 29.5

5. Please explain how you filtered your information to obtain the results.

SDG&E Response: See response to Question 29.5

31. Did you validate your answer in CAP PA DR3 Q9 Response or Cross reference to DMV data or any of the HVIP or other CARB analysis on MHD vehicle sales data?

SDG&E Response: SDG&E did not validate the data provided in Public Advocates Office DR 3 Question 9.

1. Did you do any robust analysis for facts on MHD EV sales in San Diego?

SDG&E Response: SDG&E did not perform further analysis in order to answer Public Advocates Office DR 3 Question 9.

2. If so, please explain and show the data and name the resources.

SDG&E Response: See response to Question 31.1.

3. If not, why not?

SDG&E Response: Public Advocates Office DR 3 Question 9 requested an “order of magnitude” estimate of the number of MD/HD EVs in SDG&E service territory.

32. What is the California fuel tax cost per gallon for gasoline?

SDG&E Response: According to the California Department of Tax and Fee Administration the current excise tax rate for gasoline fuel is \$0.473 per gallon.¹

33. What is the California fuel tax cost per gallon for Diesel?

SDG&E Response: According to the California Department of Tax and Fee Administration the current excise tax rate for diesel fuel is \$ \$0.36 per gallon.²

34. What is the fuel economy of a brand-new gasoline car small car?

SDG&E Response: The fuel economy of new gasoline vehicles varies by make and model. According to the Bureau of Transportation Statistics the average fuel economy of new light-duty passenger vehicles in 2016 was 38 miles per gallon (MPG), the latest year that data was available.³

35. What is the fuel economy of a brand new EV car, like a Nissan Leaf?

SDG&E Response: The fuel economy of new EVs varies by make and model. According

¹ California Department of Tax and Fee Administration, “Sales Tax Rates for Fuels,” accessed December 3, 2019, <http://www.cdtfa.ca.gov/taxes-and-fees/sales-tax-rates-for-fuels.htm>.

² California Department of Tax and Fee Administration, “Sales Tax Rates for Fuels,” accessed December 3, 2019, <http://www.cdtfa.ca.gov/taxes-and-fees/sales-tax-rates-for-fuels.htm>.

³ Bureau of Transportation Statistics, “Average Fuel Economy of US Light Duty Vehicles,” accessed December 3, 2019, <https://www.bts.gov/content/average-fuel-efficiency-us-light-duty-vehicles>.

to the chosenissan.com website a new Nissan Leaf has a combined city/highway fuel economy of up to 112 miles per gallon of gasoline-equivalent (MPGe).

36. How many Multi Unit Dwellings are on the Site to Host plan with PYD.

SDG&E Response: As of December 2, 2019, there is one Power Your Drive Multi-Unit Dwelling site on the Rate-to-Host billing option.

37. How many Workplace sites are on the Site to Host plan with PYD?

SDG&E Response: As of December 2, 2019, there are 51 Power Your Drive workplace sites on the Rate-to-Host billing option.

38. Can a Charging station provider or commercial site qualify for the rate if they only have Level 2 or Level 1 charging and are separately metered? This includes MUD, Workplace sites. If not, please explain why not.

SDG&E Response: Level 2 charging for Light Duty vehicles is not eligible for the proposed EV-HP rate, which is restricted to separately-metered DC fast charging and MD/HD EV charging.

39. Are there any requirements for networked EVSE's as it relates to the HPEV Rate qualifications? Please explain, if yes. If not, why do they not qualify?

SDG&E Response: There is no requirement that an EVSE be networked to take service on the EV-HP rate.