

SDAP DATA REQUEST
SDAP-SDG&E-DR-02
SDG&E SB 350 TRANSPORTATION ELECTRIFICATION PROPOSALS (A.17-01-020)
SDG&E RESPONSE
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DATE RESPONDED: March 7, 2017

DATA REQUEST

1. Are all rates shown in this filing mainly for illustrative purposes only as answered per DR1; as such, is it likely that these rates will actually end up increasing by the time they are implemented?

SDG&E Response:

All rates presented in SDG&E's application and the testimony of Cynthia Fang as a part of this proceeding are illustrative, and would change as rates change for all customers.

2. The kWh prices throughout the day are not tiered, correct?

SDG&E Response:

The three GIRs presented in SDG&E's application and in the testimony of Cynthia Fang are un-tiered.

3. The hourly base rate is the same add day long is that correct?
 1. I know it is different in each GIR rate; however, it is the same for the entire day and 365 days per year, is that correct?
 2. With the exception of the super off peak in residential.

SDG&E Response:

The Hourly Base Rate is an hourly rate, and will therefore vary hourly, due to the CAISO day-ahead price which is included in the Hourly Base Rate. The Residential GIR Hourly Base Rate will also vary between the Super Off-Peak Hours and All Other Hours.

4. What are the drivers of the hourly base rate (not including the Casio day ahead)?

SDG&E Response:

The Hourly Base Rate for all three proposed GIRs includes recovery of costs associated with Public Purpose Programs (PPP), Nuclear Decommissioning (ND), Competition Transition Charge (CTC), Local Generation Charge (LGC), the Department of Water Resources Bond Charge (DWR-BC), FERC-jurisdictional rates, which include

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Transmission and Reliability Services (RS) and a portion of Commodity costs. For the Public GIR, the Hourly Base Rate also includes recovery of Distribution costs.

5. Do you believe this rate will increase by the time this program is implemented?
1. If so...why and what will make it increase?

SDG&E Response:

SDG&E's rates will change as authorized revenue requirements change. SDG&E cannot predict any rate changes that will occur between the time the application was filed, and the time that any approved rates are implemented.

6. The Casio Day Ahead kWh rates will change hourly, is that correct?

SDG&E Response:

The CAISO day-ahead hourly price will be taken from the CAISO, and will vary hourly.

7. What is the Average Casio Day Ahead kWh rate?
1. What is the average Summer rate?
 2. What is the average Winter rate?
 3. What is the average rate from Midnight to 6am? (Summer and Winter)
 4. What is the average rate from noon to 4pm? (Summer and Winter)
 5. What is the average rate from 4pm to noon? (Summer and Winter)
 6. What is the average rate from 6am to noon? (Summer and Winter)

SDG&E Response:

CAISO Day ahead kWh prices can be found in "2016 CAISO Day Ahead Pricing_Rev" which SDG&E provided in response to Question 16, in San Diego Airport Parking's Data Request #1.

8. The Residential GIR schedule is the only GIR that has the Super Off Peak kWh base rate, is that correct?
1. Is this the correct price? (this price does not include the Casio base rate): 7.013 cents.

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SDG&E Response:

The Residential GIR has a lower Super Off-Peak hourly base rate, while the Commercial and Public GIRs do not. The Illustrative Hourly Base Rate values for SDG&E's proposed Residential GIR can be found on page CF-26 of the Testimony of Cynthia Fang.

9. Each GIR schedule has a fixed kWh base rate that is different, is that correct? Are the following correct prices? (these prices do not include the Casio base rate)
1. Commercial GIR = 9.690 cents
 2. Public GIR = 13.871 cents
 3. Residential GIR = 13.543 cents or Super off Peak at 7.013 cents.

SDG&E Response:

As noted in the testimony of Cynthia Fang, at page CF-15, lines 16-18, the three proposed GIRs are different, because they are modified to best fit the respective, applicable customer groups. As such, each proposed GIR has its own hourly base rate. The Commercial GIR hourly base rate (9.690 ¢/kWh), before the CAISO day ahead hourly price is added, can be found on page CF-24 of the testimony of Cynthia Fang. The Residential GIR hourly base rate, for both Super Off-Peak and All Other Hours (7.013 ¢/kWh and 13.543 ¢/kWh, respectively), before the CAISO day ahead hourly price is added, can be found on page CF-26. The Public GIR hourly base rate (13.871 ¢/kWh), before the CAISO day ahead hourly price is added, can be found on page CF-28. These values would be expected to change as rates change for all customers.

10. Each GIR schedule will have the same kWh Casio Day Ahead Rate Prices that will vary hourly and is coupled with the fixed base rate in the specific GIR, is that correct?

SDG&E Response:

The CAISO day-ahead hourly rate is not different between the GIRs, and therefore, for each specific hour, the CAISO day ahead hourly price will be the same value for each of the proposed GIRs.

11. The residential GIR Vs the Commercial or Public GIR schedule has a different fixed kWh CCPP rate, is that correct? Are the following correct prices? (these prices do not include the base rate(s))
1. Commercial GIR = 50.535 cents

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2. Public GIR = 50.535 cents
3. Residential GIR = 69.348 cents

SDG&E Response:

As noted in the testimony of Cynthia Fang, at page CF-15, lines 16-18, the three proposed GIRs are different, because they are modified to best fit the respective, applicable customer groups. As such, each proposed GIR has its own C-CPP Adder. The Commercial GIR C-CPP Adder (50.535 ¢/kWh) can be found on page CF-24 of the testimony of Cynthia Fang. The Residential GIR C-CPP Adder (69.348 ¢/kWh) can be found on page CF-26. The Public GIR C-CPP Adder (50.535 ¢/kWh) can be found on page CF-28. These values would be expected to change as rates change for all customers.

12. The residential GIR Vs the Commercial or Public GIR schedule has a different fixed kWh DCPP rate, is that correct? Are the following correct prices? (these prices do not include the base rate(s))
 1. Commercial GIR = 18.656 cents
 2. Public GIR = 18.656 cents
 3. Residential GIR = 18.780 cents

SDG&E Response:

As noted in the testimony of Cynthia Fang, at page CF-15, lines 16-18, the three proposed GIRs are different, because they are modified to best fit the respective, applicable customer groups. As such, each proposed GIR has its own D-CPP Adder. The Commercial GIR D-CPP Adder (18.656 ¢/kWh) can be found on page CF-24 of the testimony of Cynthia Fang. The Residential GIR D-CPP Adder (18.780 ¢/kWh) can be found on page CF-26. The Public GIR D-CPP Adder (18.656 ¢/kWh) can be found on page CF-28. These values would be expected to change as rates change for all customers.

13. What are the drivers of the CCPP and DCPP rates?

SDG&E Response:

The C-CPP Hourly Adder recovers 50% of generation capacity-related costs, and is therefore driven by those costs, while the D-CPP Hourly adder recovers 20% of distribution demand-related costs, and is therefore driven by those costs, as stated on page CF-15 of the testimony of Cynthia Fang.

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14. What the drivers of any future rate changes?

SDG&E Response:

Please see the response to Question #5.

15. What are the drivers for a CCPP event rate?

SDG&E Response:

Please see the response to Question #13.

16. What were the top 150 system hours from the previous year?

1. How many system event hours occurred last year?

SDG&E Response:

Please see the attached file “SDAP DR02 – Question 16.xlsx.”

SDG&E’s VGI rate, as outlined in Advice Letter (AL) 2877-E, was approved by the California Public Utilities Commission (CPUC) Energy Division (ED) on December 16, 2016.¹ The first charging stations that will utilize the VGI rate have not yet been installed. Therefore, no data regarding system event hours is available at this time.

17. What were the top 150 system hours from the previous year for my meter?

SDG&E Response:

System event hours do not vary by circuit. Please see the response to Question #16.

18. What are the drivers for a DCP event rate?

SDG&E Response:

Please see the response to Question #16.

19. What were the top 200 circuit hours from the previous year?

1. How many circuit event hours occurred last year?

¹ <http://regarchive.sdge.com/tm2/pdf/2877-E.pdf>

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SDG&E Response:

The top 200 hours varies by circuit. Please see the response to Question #16¹ as to why event information for 2016 is not available.

20. What were the top 200 circuit hours from the previous year on my circuit?

SDG&E Response:

Please see the attached file “SDAP DR02 – Question 20.xlsx.”

21. Can you be billed more than 150 CCPP hours annually if the threshold is crossed? (yes or no)

1. Is this the anticipated number of event hours per year that you believe will occur?
2. Why?

SDG&E Response:

Yes, the C-CPP adder will be applied to any hour which is forecasted (on a day-ahead basis), to exceed the established threshold, even if the total number of hours for the year has already reached 150.

22. Can you be billed more than 200 DCPP hours annually if the threshold is crossed? (yes or no)

1. Is this the anticipated number of event hours per year that you believe will occur?
2. Why?

SDG&E Response:

Yes, the D-CPP adder will be applied to any hour which is forecasted (on a day-ahead basis), to exceed the established threshold for a given circuit, even if the total number of hours for the year has already reached 200.

23. Both D-CPP and CCPP event hours can occur at any hour of any day, is this correct? (yes or no)

SDG&E Response:

Both the D-CPP and C-CPP event adders may be applied to any individual hour within

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any day of the year.

24. Both D-CPP and CCPP event hours can occur with no limit, no cap and no maximum number of hours in the year, is this correct? (yes or no)

SDG&E Response:

Both the D-CPP and C-CPP event adders will be applied to any hour which is forecasted to exceed the established threshold, with no specific limit to the number of event hours annually.

25. Top 150 hours of System peak: If you can have more than 150 hours annually, they why is it called the Top 150 hours?

SDG&E Response:

The C-CPP event hour threshold is based on a historic reference point that is established using the top 150 system peak hours.

26. Top 200 hours of Circuit Peak: If you can have more than 200 hours annually, they why is it called the Top 200 hours?

SDG&E Response:

The D-CPP event hour threshold is based on a historic reference point that is established using the top 200 circuit peak hours.

27. 150 System Peak hours = 200 Circuit Peak hours = 350 hours.

1. If you divided 350 event hours by 12 months you would an average of 29 event hours per month.
 1. Would this be a correct calculation?
 2. If not then what is the average event hours per month?
 3. What was the average number of event hours monthly last year?

SDG&E Response:

The top 150 and top 200 hour thresholds are designed to incorporate characteristics of system and individual circuits, and would not be expected to be averaged monthly.

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28. Wouldn't it be more than likely that both event hours are likely to occur at typically the hours of 2-6pm as has been called out as the CPP event period hours for the new CPP hour rates in the 15-04-012 rate case proceeding?
1. And wouldn't it also be more than likely to be the peak time periods of 4-9pm?
 2. Or please explain.

SDG&E Response:

Event hours will be the hours forecasted to exceed the established threshold level for either the system or the individual circuit. The system (C-CPP) event hours would likely align with SDG&E's proposed updated CPP and On-Peak hours. The circuit (D-CPP) event hours depend on the energy consumption and demand patterns of the customers and meters located on a given circuit. It is possible that they will align with system event hours, but it is also possible that they will not.

29. Does the Power your Driver VGI rates and program have a "Cap" on the number of CCPP and DCCPP hours annually that you can incur the dynamic adder rates? (yes or no)
1. What is the capped number of hours for each, if yes?

SDG&E Response:

The three GIRs proposed in this proceeding are set up the same way as the VGI rate. There is no cap on the number of C-CPP and D-CPP event hours for the VGI rate.

30. Based on the 2016 Casio Day Ahead historic kWh prices, the range is between: 0.923 ¢/kWh to 19.453 ¢/kWh. is this correct?
1. How did you get the calculation of 19.453 cents, please provide details of this rate.
 2. Where is the .923 cents or is this simply just the Casio day ahead kWh rate all by itself?

SDG&E Response:

As noted in SDG&E's response to Questions 14 of San Diego Airport Parking's Data Request #1, the range is **negative** 0.923 (-0.923) to 19.453 ¢/kWh. These numbers were taken from the "2016 CAISO Day Ahead Pricing_Rev" file, which was pulled from the CAISO's website, attached in response to Questions 16 of the same data request. They can be found by sorting the data within the file by Column E, and looking at the lowest value, and the highest value.

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31. Casio Day Ahead kWh rates:

1. What months were typically the most expensive?
2. What hours are typically the most expensive?
3. What dates in 2016 were the most expensive?

SDG&E Response:

CAISO Day ahead kWh prices can be found in “2016 CAISO Day Ahead Pricing_Rev” which SDG&E provided in response to Question 16, in San Diego Airport Parking’s Data Request #1.

32. What happens to the pricing when you go into a different hour that has different pricing, please provide an example of the pricing and how it is calculated?

1. Is it averaged?

SDG&E Response:

Customers will be billed for the number of kWh that they use in each hour.

33. SDG&E proposes no changes to taxes and fees, is that correct?

1. When will the customer see the taxes and fees that they are being billed?
2. Will this be in a monthly statement?
3. Will this be at the time of charging?
4. Will this show in their kWh rate?
5. It appears in this case the taxes are not being included in the advertised or displayed kWh rate, is that correct?
6. When you fill up with conventional gasoline at a gas station the advertised price of the fuel includes all fees and displays the entire price of a gallon of gas; however, in this case the price of a kWh will actually end up being more due to the taxes and other fees, is that correct?

SDG&E Response:

1. Taxes and fees will be presented by applicable jurisdiction and/or fee assessment type on the customer’s monthly summary bill and in total on the Detail Charging Statement.
2. Yes
3. No
4. No

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5. Yes
6. That is correct. Due to the fact that commodity rates are generated that are five places to the right of the decimal point, rounding errors develop when those taxes are applied at the session level. Therefore, SDG&E believes that the best customer experience is to not have session charges total to an amount different than that at the summary level that applies taxes to all sessions in a particular tax jurisdiction in a month.

34. If my vehicle miles traveled daily are more than my range, how does the super off peak exemption benefit me?

SDG&E Response:

The Super Off-Peak exemption provides a benefit to charging in the Super Off-Peak period, irrespective of miles traveled.

35. If I plug in two vehicles at the night time at 50kW and then plug in two vehicles at the same time during the day time at 50kW, essentially the super off peak exemption provides me no benefit, would that be correct?

SDG&E Response:

On the proposed GIRs, a customer's GIC will be calculated using the customer's maximum demand outside of the Super Off-Peak hours, regardless of what their maximum demand is during the Super Off-Peak hours.

36. How is a fleet operator's annual demand tracked in the commercial GIR when they plug in more than one at a time on a different meter?

1. What if there is more than one meter on the property?

SDG&E Response:

Demand is measured as demand at each meter, irrespective of the total number of meters on a property.

37. What if the Commercial GIR customer plugs in at the same amount of kW during the day time that they use at the Super the off Peak period in the month?

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1. This would essentially mean that there is no exemption for this customer in the KW demand for the month as they are using the same demand outside of the Super Off Peak exemption period, is that correct?

SDG&E Response:

On the proposed GIRs, a customer's GIC will be calculated using the customer's maximum demand outside of the Super Off-Peak hours, regardless of what their maximum demand is during the Super Off-Peak hours.

38. If a Commercial GIR customer plugs into a 100 kW charger for 15 mins over a one hour period at noon, what is the electric kWh rate? (Using the 2016 Casio history)
 1. Also, what is the kW demand number? Is this 100 kW?
 2. How many kWh will I use in 15 mins of charging?
 3. If it was a Residential GIR customer what would the kW demand number be? Is it 25kW?

SDG&E Response:

1. Per testimony, the GIC for the Commercial GIR "will be applied to a customer's maximum annual demand" (Page CF-24 of the Testimony of Cynthia Fang) and based on 15-minute interval data. Please see the definition of Maximum Demand on SDG&E's Electric Rule 1, which can be found at the website link provided in footnote 25 on page CF-24 of the Testimony of Cynthia Fang.
2. Per testimony, the GIC for the Commercial GIR "will be applied to a customer's maximum annual demand" (Page CF-24 of the Testimony of Cynthia Fang) and based on 15-minute interval data. Please see the definition of Maximum Demand on SDG&E's Electric Rule 1, which can be found at the website link provided in footnote 25 on page CF-24 of the Testimony of Cynthia Fang.
3. For the Residential GIR "the GIC will be applied to maximum annual demand, but based on average hourly demand rather than demand based on 15-minute interval data" (Page CF-26 of the Testimony of Cynthia Fang).

39. What if the Commercial GIR customer plugs in two 100 kW chargers for 5 mins at the same time what is my demand kW amount?

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1. Is my demand 33.3 kW for 5 mins?
2. Is my demand 66.6 kW for 5 mins?
3. Also, what is the GIC fee for this amount of kW assuming this is the most kW that I used in the month?

SDG&E Response:

1. Assuming a Commercial GIR customer plugs in two 100 kW chargers for 5 minutes at the same time and assuming no other loads and assuming the demand for the purposes of evaluating Minimum Demand is the average kilowatt input during a fifteen-minute interval $[(100 \text{ kW} \times 2 \text{ chargers} \times 5 \text{ minutes}) / 15 \text{ minutes} = 66.67 \text{ kW}]$.
2. Please see answer to question 39.1 above.
3. Per testimony, the GIC for the Commercial GIR “will be applied to a customer’s maximum annual demand” (Page CF-24 of the Testimony of Cynthia Fang) and based on 15-minute interval data. Please see the definition of Maximum Demand on SDG&E’s Electric Rule 1, which can be found at the website link provided in footnote 25 on page CF-24 of the Testimony of Cynthia Fang.

See Diagram 5-4 on page CF-24 of the Testimony of Cynthia Fang for the Illustrative Commercial GIC values. SDG&E proposes to “include a fixed monthly incentive which in Year 1 provides a 25% reduction in the GIC and will be phased out by Year 5, at which time the GIC will have reached cost-based levels” (Page CF-24 – CF-25 of the Testimony of Cynthia Fang).

40. What if the Commercial GIR customer plugs into two 20 kW chargers for 10 mins at the same time what is my demand kW amount?
 4. Is my demand 13.3 kW for 10 mins?
 5. Is my demand 26.6 kW for 10 mins?
 6. Also, what is the GIC fee for this amount of kW assuming this is the most kW that I used in the month?

SDG&E Response:

4. Assuming a Commercial GIR customer plugs in two 20 kW chargers for 10 minutes at the same time and assuming no other loads and assuming the demand for the purposes of evaluating Minimum Demand is the average kilowatt input during a fifteen-minute interval, then your demand would be $[(20 \text{ kW} \times 2 \text{ chargers} \times 10 \text{ minutes}) / 15 \text{ minutes} = 26.67 \text{ kW}]$.
5. Please see answer to Question #40.4 above.
6. Please see the response to Question #39.

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41. If I plug into a 100 kW charger VS a 15 kW charger for 15 mins ---will I be assessed more kWh?

1. How many kWh for the 100 kW charger for 15 mins will I be assessed?
2. How many kWh for the 15 kW charger for 15 mins will I be assessed?

SDG&E Response:

Yes, charging at a higher level of power (as compared to a lower level of power) will consume more kWh on the electric meter in the same given time, assuming that the vehicle's on-board charger can accept the higher power level. The amount of energy (kWh) consumed in an electric vehicle charging session depends on the maximum power capability of the charging station (in kW), and the charging rate capability of the vehicle (in kW).

- 1) Assuming that the charging station can deliver 100 kW and the vehicle in question has an on-board charger that can accept the full 100 kW in the example, a 15 minute charging session at 100 kW would result in 25 kWh of metered energy.
- 2) Assuming that the charging station can deliver 15 kW and the vehicle in question has an on-board charger that can accept the full 15 kW in the example, a 15 minute charging session at 15 kW would result in 3.75 kWh of metered energy.

42. Drivers average 200 miles per day in one bus, how many hours will I have to plug in for the day when I have a 15 kW charger?

1. My range is 85 miles per charge.
2. My on board charger is 62 kWh
3. Would I have to plug in during the day to get a 200 mile range?

SDG&E Response:

Assumptions:

- The bus is fully charged at the beginning of the work day
- The bus can be charged at 15 kW
- The battery size is 62 kWh (from Zenith website)²
- The bus can travel 1.4 miles per kWh of energy (85 miles range divided by 62 kWh battery size)

²

<http://www.zenith-motors.com/wp-content/uploads/2013/05/Zenith0516.pdf>

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In order to drive 200 miles in one day, the bus will start fully charged and drive approximately 85 miles before recharging is needed. An additional 115 miles of charging will be needed for the bus to complete the requirement of 200 miles in one day, which would require 5.5 hours at a charging rate of 15 kW. The 5.5 hours of charging will result in 82 kWh added, but will need to be spread over 2 charging sessions due to the 62 kWh size of the battery. This charging can be done anytime during the day as dictated by driving needs and energy prices.

After the 200 daily miles are driven, the bus will need to be recharged to a full battery condition (85 miles) to be ready for the next day. At 15 kW, that will take approximately 4.5 hours of charging to get ready for the next day (if charging from empty).

43. If the maximum range of the vehicle is 85 miles. Does this mean once I fill-up at night, and then use up all 85 miles of the range by 1pm --- then, I must plug in during the day in order to stay on the road for the remaining miles?
1. How does the bus stay on the road for 200 vehicle miles traveled daily?
 2. Is there where you must top off in between trips to lengthen your range during the day?
 3. If I do NOT plug in after I filled-up at night and I average 14 miles for every hour worked, then at what time will I end up empty, driver shift starts at 4am.
 4. How long will it take to fill it up again?
 5. The person in shift 2 starts right after me at 2pm, will this driver have enough range for his shift of 100 miles?

SDG&E Response:

Yes, additional range beyond what the 85 mile vehicle battery can provide would require charging during the day.

- 1) Please see the sample charging calculations in Question #42.
- 2) Incomplete question: "is there where". Yes, the bus will need additional charging during the day after driving the initial 85 miles to get to 200 miles, as presented in the example.
- 3) Assuming a start time of 4:00 am, and using 14 miles of battery range per hour, after 6 hours the 85 mile battery range would be exhausted. It may be advantageous to recharge the bus before the initial charge is exhausted due to driving schedules or attractive hourly pricing.
- 4) To fill up the battery again, at a charging rate of 15 kW, it would take 4.5 hours to fill the battery (please see the sample charging calculations in Question #42).

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- 5) Since the range of the bus is only 85 miles when full, the 2nd shift driver will not have enough battery range at the beginning of their shift to drive 100 miles. Recharging will be necessary at some point during the shift, and can be dictated by driving needs and energy prices.
44. What about a fleet operator that will be plugged in with more than one vehicle at the same time ---- How is the dynamic adder fees applied (adder)?
1. Is there only one “adder” for each fleet?
 2. What if the fleet plugs into another meter at another location, how is the “adder” fee affected?
 3. What if the fleet plugs in two or more vehicles at one time, do you have more than one “adder “fee?
 4. What if the fleet plugs in two or more vehicles at one time under a different meter, do you have more than one “adder” fee for that fleet?

SDG&E Response:

Energy rate (kWh) is a single price applied to usage within a given hour. This includes any applicable adders, and the applicable CAISO Day-Ahead hourly price.

45. For Residential GIR with a demand interval of 1 hour, if I plug in with a 15kW charger for 30 mins, what is the amount of my kilowatts for that that one charging period?
1. Is it 15kW?
 2. Is it 7.5kW?
 3. Or if not one of the above, what is the number of kW?

SDG&E Response:

The use of a 15 kW charger would result in a demand of 15 kW.

46. Would a commercial operator with their own DC faster Charger be eligible for any of the GIR rates?

SDG&E Response:

As stated on page CF-4 of the Testimony of Cynthia Fang, SDG&E’s proposed GIRs will be made available to all customers.

47. Why are you not opening up the rates for all EV drivers?

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SDG&E Response:

Please see the response to Question #46.

48. Helping accelerate adoption includes providing rates for all EV's drivers, if you are not going to provide other EV drivers this rate...they is SDGE going to offer another rate?

1. Commercial EV drivers
 1. Small commercial
 2. Medium commercial
 3. Large commercial

SDG&E Response:

Please see the response to Question #46.

49. Use case to please profile to get the results of this CCPP + DCCP billing impact:

Both Dynamic Adders are triggered one hour daily on the Public GIR rate. The fleet has a vehicle plugged in during this hour each day of the month with the following charging power: What is the monthly billing impact from this charging power with this use when both events are triggered?

1. 25 kW charging for one hour at 1pm-2pm, each day of the month:
 1. kWh for one hour = 25 kWh
 2. Base rate + Casio Day Ahead + CCPP + DCCP = 0.87 cents (4 cents per kWh for each Casio kWh)
 3. Each CPP kWh = 0.87 cents
 4. 25 kWh daily x 30 days = 750 kWh monthly
 5. 87 cents x 750 kWh = \$652.50
 1. Is this the correct billing impact, if not what is it?
2. If the miles per kWh are the following, is this the price per mile when plugged in during a triggered event hour (as per the above scenario above)?
 1. Medium Duty commercial vehicle = 1.5 miles per kilowatt hour
 2. 750 kWh x 1.5 miles per kWh = 1,125 miles
 3. \$652.5 divided by 1,125 miles = 0.58 cents per mile
 4. Each CPP mile = 0.58 cents
 - OR ---
 5. Heavy Duty commercial vehicle = 0.50 miles per kilowatt hour
 6. 750 kWh x 0.50 miles per kWh = 375 miles
 7. \$652.5 divided by 375 miles = \$1.74 cents per mile

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8. Each CPP mile = \$1.74
1. Total CPP billing impact = 750 kWh and \$652.5 per month
 2. MD vehicle price per mile = .58 cents
 3. HD vehicle price per mile = \$1.74

SDG&E Response:

	Usage (kWh)*	Public Charging GIR (¢/kWh)	Total (\$)
Grid Integration Charge (GIC)	N/A	N/A	N/A
Base Rate	750	13.871	\$ 104.03
CAISO Day Ahead Hourly Price**	750	4.000	\$ 30.00
C-CPP (System Top 150 Hours)	750	50.535	\$ 379.01
D-CPP (Circuit Top 200 Hours)	750	18.656	\$ 139.92
Illustrative Total Bill During Event Hours			\$ 645.61
Illustrative Total Base + CAISO Rate			\$ 126.68
Illustrative Total Monthly Adder Impact***			\$ 518.93

*Assumes 30 day Month, per #1.4.

**Assumes 4 ¢/kWh CAISO Day Ahead Hourly Rate, per #1.2.

***Assumes 1 event hour daily, per Question 49.

The GIR provides pricing for charging needs, irrespective of miles driven.

50. Use case to please profile to get the results of this Monthly billing impact:

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1. Public Shuttle GIR Rate
2. 12,000 Total kWh per month.
3. Base kWh = 11,183
 1. Base rate + Casio rate = 18 cents kWh (4 cents per kWh for each Casio kWh)
 2. $11,183 \times 18 = \$2,012.94$
4. CCPP + DCPD triggered events kWh = 817
 1. Base rate + Casio Day Ahead + CCPP + DCPD = 0.87 cents kWh
 2. $817 \times 87 = \$710.79$
5. Total billing for month (no taxes & other fees) = \$2,723.73
6. Please advise if these results of the billing and the details of electricity use and fees in this use case are correct, if not, then please provide details.

SDG&E Response:

	Usage (kWh)	Public Charging GIR (¢/kWh)	
Grid Integration Charge (GIC)	N/A	N/A	N/A
Base Rate	12,000	13.871	\$ 1,664.52
CAISO Day Ahead Hourly Price*	12,000	4.000	\$ 480.00
C-CPP (System Top 150 Hours)**	817	50.535	\$ 412.87
D-CPP (Circuit Top 200 Hours)**	817	18.656	\$ 152.42
Illustrative Total Monthly Bill			\$ 2,709.81

*Assumes 4 ¢/kWh CAISO Day Ahead Hourly Rate, per #3.1.

**Assumes all event hours have both C-CPP and D-DPP adders applied, per #4.

51. Use case to please profile to get the results of this Monthly billing impact:
 1. Public Shuttle GIR Rate
 2. 93,500 Total kWh per month.

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3. Base kWh = 86,208
 1. Base rate + Casio rate = 18 cents kWh (4 cents per kWh for each Casio kWh)
 2. $86,208 \times 18 = \$15,517.44$
4. CCPP + DCCP triggered events kWh = 7,292
 1. Base rate + Casio Day Ahead + CCPP + DCCP = 0.87 cents kWh
 2. $7,292 \times 87 = \$6,344.04$
5. Total billing for month (no taxes & other fees) = \$21,861.48
6. Please advise if these results of the billing and the details of electricity use and fees in this use case are correct, if not, then please provide details.

SDG&E Response:

	Usage (kWh)	Public Charging GIR (¢/kWh)	Total (\$)
Grid Integration Charge (GIC)	N/A	N/A	N/A
Base Rate	93,500	0.13871	\$ 12,969.39
CAISO Day Ahead Hourly Price*	93,500	0.04	\$ 3,740.00
C-CPP (System Top 150 Hours)**	7,292	0.50535	\$ 3,685.01
D-CPP (Circuit Top 200 Hours)**	7,292	0.18656	\$ 1,360.40
Illustrative Total Monthly Bill			\$ 21,754.79

*Assumes 4 ¢/kWh CAISO Day Ahead Hourly Rate, per #3.1.

**Assumes all event hours have both C-CPP and D-DPP adders applied, per #4.

52. Why are some accounts assessed a 'Franchise Fees on Electric Energy Supplied by Others' from a rate as low as 1.10 % to as high as 5.78%? (Only interested in an explanation for the fee variance for the standard commercial customer this is not a CARE or discounted customer).

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1. What triggers this variance of over 400% between commercial customers that are both in the AL TOU schedule?
2. What is the lowest % and what is the highest % for a commercial customer in the AL TOU Schedule, ML/CI schedule, Small Business commercial schedule, Public GIR or Commercial GIR for this rate?
3. What are the drivers of this rate for a commercial customer that is not a CARE customer or discounted customer?

SDG&E Response:

1. Franchise Fees on Energy Supplied by others is 1.10%. The City of San Diego Franchise Differential is 5.78%.
 2. Franchise Fees on Energy Supplied by others is 1.10%.
 3. If the customer is assessed the DWR-Bond Charge. This charge covers the repayment of bonds issued by the California Department of Water Resources (DWR) to cover their costs in purchasing energy for California customers.
53. Why are some accounts assessed a 'City of San Diego Franchise Fee Differential' of as high as 6.88% and others have NO fee? (Only interested in an explanation for the fee variance for the standard commercial customer this is not a CARE or discounted customer).
1. What triggers this variance of over 1,000% between commercial customers that are in the AL TOU schedule?
 2. What is the lowest % and what is the highest % for a commercial customer in the AL TOU Schedule, ML/CI schedule, Small Business commercial schedule, Public GIR or Commercial GIR for this rate?
 3. What are the drivers of this rate for a commercial customer that is not a CARE customer or discounted customer?

SDG&E Response:

1. The City of San Diego Franchise Differential is 5.78%. For customers within the City of San Diego city limits, the DWR-Bond Charge shows as 6.88% (1.1% + 5.78%)
 2. The City of San Diego Franchise Differential is 5.78%.
 3. The location of the meter. The City of San Diego Franchise Free Differential is only applicable to customers within the City of San Diego city limits.
54. What is the load and history of Circuit 0491?

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1. What were the 2016 Event Trigger dates and times?
2. Based on history and facts...Do you see this circuit incurring more Events in 2017?
3. Based on the two Dynamic Hours of CCPP and DCCP what would have been the 2016 Event Trigger dates and times if this circuit had another 50 kW on it?

SDG&E Response:

Please see the attached file “SDAP DR02 – Question 20.xlsx.

Please see the response to question #16 for an explanation of why no event history is available.

Circuit event hours are determined using a threshold value, which is established based on historical circuit information from the prior year. SDG&E is unable to predict when future circuit events will occur, as they depend on the actual circuit load and its shape.

SDG&E cannot determine any potential impact of increased load on a specific circuit without knowledge of the load profile of that incremental load.