**TURN DATA REQUEST**

1. For all Power Your Drive (PYD) pilot sites where charging stations and make-ready infrastructure is completed, or final cost estimates have been accomplished, please provide the following information, separately for each site, with all information contained in separate columns in Excel:
   1. Site name (company/site host name, etc.);
   2. Site unique identifier (for anonymous identification in proceeding);
   3. Type of site – e.g. workplace, multi-unit dwelling;
   4. Number of employees (workplace) or tenants (MuD);
   5. Whether the site was enrolled in the “rate to driver” or “rate to host” VGI rate option;
   6. EV site rate schedule (if not VGI);
   7. Charging station company selected (e.g. ChargePoint);
   8. Census tract where site is located;
   9. Whether it is a DAC or non-DAC site;
   10. Total utility-side costs of installation;
   11. Total customer-side cost of installation (behind the meter, in dollars);
   12. Total cost of charging stations;
   13. Total other costs, with definition of what these costs are;
   14. Total cost of installation;
   15. Participation payment amount (total $);
   16. Total ratepayer costs;
   17. Number of charging ports installed;
   18. Number of charging stations installed;
   19. Maximum technical charging power (kW) of each port installed at site;
   20. Number of ports previously installed at site before PYD;
   21. Date site applied to PYD program;
   22. Date site construction started;
   23. Date site construction ended;
   24. Load management plan (if applicable). Can be provided in text rather than Excel.
   25. Incremental number of electric vehicles purchased at site over the course of the pilot. Please include supporting explanation and calculations for how this was determined.

**SDG&E Response**: The attached file (TURN DR-01 Q1 (PUBLIC).xlsx) provides the available answers to the above questions with the following notations. All costs are based on spend through July 31st, 2019 in alignment with the most recent semi-annual report. Site-level costs are subject to change as remaining program costs are received and site-level allocations are finalized.

1. The site name is confidential and cannot be shared.
2. For Power Your Drive Pilot, SDG&E did not track site costs based on which side of the utility meter the infrastructure is on. Alternatively, we have provided the captured direct costs per site. These costs are inclusive of the engineering design, construction, and materials categories as outlined in the semi-annual report.
3. The costs for charging stations are confidential and cannot be shared without an executed nondisclosure agreement.
4. Total other costs include the environmental testing, internal labor (SDG&E employees), IT billing system upgrade, third party project support, other (miscellaneous costs including market studies), and all non-direct costs (loaders, AFUDC, capitalized property taxes) categories listed in the semi-annual report.
5. To address the total cost of installation and total ratepayer costs, SDG&E has all provided all implementation costs for the program with program-wide costs apportioned to each site. This includes all cost categories included in the semi-annual report.
6. Throughout the deployment of the Power Your Drive Pilot, it became apparent that there are multiple definitions of a “site”. These different definitions have impacts on the user experience, metrics, and deployment of the pilot. For the purpose of this data request, each row is a different site based on how SDG&E’s data warehouse aggregates user registrations. Within each of these sites, multiple “sites” may exist for the purpose of construction and deployment. This is usually due to a single construction job needing to span across a larger footprint than what users would want to enroll in. For example, WP170032 had chargers installed at three separate locations on the workplace campus. These three locations required three separate construction activities. An employee at this campus would not want to register at three separate locations, so they are combined into one. Therefore, one row (by user registration) can have multiple sites (column Q).
7. Most of the Power Your Drive chargers have a maximum charging power of 7.2 kW. For the purpose of this calculation, all chargers are assumed to have a maximum charging power of 7.2 kW.
8. Due to the site identification described in note #6 above, there may be multiple construction and energization dates associated with a specific row. The first construction and energization dates are given. Additionally, as we close out the pilot, we are reviewing our documentation and some of these dates may change as we validate how these dates were tracked.
9. The calculation for incremental drivers is determined by counting the number of drivers whose first charge occurred 90 days after the site was available for use. The count of incremental drivers provided is as of December 1, 2019.
10. For each site identified in question 1, using the same unique identifiers, please provide all hourly utilization data in Excel. In other words, please provide separate load (kW) data for each hour, separately for each site.

**SDG&E Response**: The hourly utilization (load in kW) data by site unique identifiers is customer confidential information and cannot be shared.

1. Please explain and quantify all cost overruns from the PYD pilot relative to what the Commission authorized for the pilot. Please provide all supporting documents and workpapers in Excel.

**SDG&E Response**: The categorization and explanation of the cost overruns from the PYD pilot can be found in the executive summary of the March 2019 PYD Semi-Annual report ([linked here](https://www.sdge.com/sites/default/files/regulatory/March%202019%20PYD%20Report%20Final_0.pdf)).

1. Regarding question 3 please explain whether SDG&E has requested cost recovery for any cost overruns relative to what the Commission authorized for the pilot. If so, please provide the application number and relative page references. If not, please explain how and whether SDG&E will request these funds from ratepayers.

**SDG&E Response**: SDG&E has not requested cost recovery for any cost overruns relative to what the Commission authorized for the pilot. SDG&E has not determined whether or where it will request recovery of any cost overruns.

1. In Excel, separately for all years and times when chargers were operational during the PYD pilot, please provide the following with regard to the VGI rate:
2. Month, days, and hours when the system Critical Peak Price (CPP) occurred;
3. Month, days, and hours when the distribution circuit-level critical peak pricing (Distribution Critical Peak Pricing Hourly Adder or D-CPP Hourly Adder), occurred, indicating which sites the various D-CPP hours apply to, using the unique site identifiers provided in question 1.
4. The day-ahead CAISO price charged;
5. The price per kWh charged for the CPP and D-CPP during the times identified in parts (a) and (b) of this question.

**SDG&E Response**:

a,b. The attached file (TURN DR-01 Q5ab.xlsx) provides the month, days, and hours when the system and distribution circuit-level adders occurred.

c. The attached file (TURN DR-01 Q5c.xlsx) provides the 2017 and 2018 CASIO day ahead prices used in the calculations for those time frames.

d. The attached file (TURN DR-01, Q5d) provides the Schedule VGI C-CPP and D-CPP Day-Ahead Hourly Adders since the inception of VGI.

1. Please explain how SDG&E determined the CPP and D-CPP prices for the VGI rate. Please provide an explanation and quantitative example.

**SDG&E Response**:

As stated in SDG&E’s Advice Letter 3056-E that implemented the electric vehicle-grid integration (“VGI”) pilot program rate adopted in California Public Utilities Commission Decision 16-01-045, Schedule VGI has a C-CPP commodity hourly adder and a D-CPP distribution hourly adder. The C-CPP commodity hourly adder is applied on a day-ahead basis when the CAISO day-ahead demand forecast exceeds the estimated top 150 hours on the SDG&E system based on the prior year. The D-CPP distribution hourly adder is applied on a day-ahead basis to the estimated top 200 annual hours of peak demand for the individual circuit feeding the VGI charging station based on the prior year. The attached file (TURN DR-01, Q6) provides the calculation of the current C-CPP and D-CPP hourly adders being applied under Schedule VGI.

1. In Excel, please provide the average dollar per kWh price charged to PYD participants, separated by workplace and MuD charging. Please provide all supporting data/workpapers/calculations in Excel.

**SDG&E Response**: The attached file (TURN DR-01 Q7.xlsx) provides the requested price per kWh per site per hour that pricing was enabled.

1. In Excel, please provide SDG&E’s estimate of the marginal cost of providing electricity in SDG&E’s territory, by hour, month and year if available for 2014-2025.

**SDG&E Response**:

SDG&E’s estimate of the marginal cost of providing electricity in SDG&E’s territory for 2014-2025 is included in the attached spreadsheet “Marginal Energy Cost\_2014\_25.” Marginal costs for 2014 through present are recorded hourly day ahead SDG&E DLAP prices. The marginal energy costs for 2020-2024 are the marginal energy price forecast that SDG&E developed for its 2019 CEC IEPR filing.

1. Please provide a list of sites for which distribution-level capacity upgrades were performed due to the incremental load expected at a site, using unique identifiers described above.
2. Please provide the average cost of these upgrades.
3. Please explain how SDG&E models on-peak load, including how a particular circuit or equipment is calculated as having sufficient or insufficient capacity.
4. Please explain whether and how (if applicable) SDG&E’s modelling of on-peak load for distribution circuit capacity was altered to incorporate PYD sites or the VGI rate charged to these sites, compared with how other new load is modelled.

**SDG&E Response**:

1. Specific design and construction costs related to distribution system upgrades were not broken out separately and tracked for the PYD pilot. Out of the total 254 sites, 127 of the sites had transformer upgrade related costs averaging approximately $3000.
2. The distribution planning process typically begins with assessing the Historical Peak Load Review for circuits and banks, to establish a reference point for future forecast projections. Once the actual peak loads and timestamps have been determined for circuits and substation transformer banks, the historical peak is evaluated considering factors such as anticipated new load additions, load transfers, loss of a generator, weather conditions at the time of the historical peak, etc. A third-party proprietary software forecast toolset from Integral Analytics, Inc. (LoadSEER) is used to incorporate the disaggregated CEC forecast load/DER additions to the circuit level and to include adjustments based on the factors listed above. Power flow models are generated by extracting circuit models from Geographic Information System (GIS), removing data discrepancies and populating the model with forecast loads from LoadSEER. Once the power flow models are finalized, distribution planning engineers identify conventional distribution projects that mitigate forecasted circuit performance issues revealed by the power flow results (i.e., “distribution needs”).
3. VGI includes CPP adders for the top 200 hours of forecasted circuit load, rather than circuit peak load during the on-peak period.  The load forecast for circuits with PYD sites are developed separately.  Hourly load models are developed for each circuit using historical weather, calendar information, and number of daylight hours.  A Distribution Critical Peak Pricing (D-CPP) load threshold for each circuit is determined at the beginning of the year and is defined as the 200th-highest hourly load on that circuit during the previous year. The circuit load models are then used in conjunction with daily weather forecasts to create day-ahead load forecasts for each circuit. The D-CPP adder is charged to PYD customers during any hour in which the day-ahead load forecast for their circuit exceeds their D-CPP threshold.
4. Please provide all cost estimation workpapers in Excel that support SDG&E’s cost estimate for PYD 2.

**SDG&E Response**: SDG&E’s workpapers are available at: <https://www.sdge.com/rates-and-regulations/proceedings/extend-modify-pyd-pilot>

1. Please provide all revenue requirement workpapers in Excel that support SDG&E’s revenue requirement estimate for PYD 2.

**SDG&E Response**: SDG&E’s workpapers are available at: <https://www.sdge.com/rates-and-regulations/proceedings/extend-modify-pyd-pilot>

1. SDG&E’s testimony at Chapter 1, p. BAS-2, lines 18-19, states “To build upon the success of the PYD Pilot, SDG&E requests authority to deploy approximately 2,000 additional Level 2 charging ports.” Please define “success” and provide all supporting workpapers, studies, and analyses, in Excel where possible, to support why the PYD pilot was “successful.”

**SDG&E Response**: As detailed further in SDG&E’s Power Your Drive Semi-Annual reports, the pilot has successfully supported the State of California’s GHG reduction and transportation electrification policies with customers’ interests in the following ways:

* deploying over 3,000 charging ports in the SDG&E region
* providing visible and accessible charging ports for workplace and MUD locations
* educating consumers about the benefits of EVs
* starting the process of solving “the chicken and egg” paradox
* reducing GHG and other air emissions;
* integrating renewable energy and decreasing the need to dispatch conventional peaking generation;
* leveraging existing resources and grid assets;
* lowering consumer fuel costs and increase the use of electricity as a transportation fuel; and
* increasing investments and deployment of infrastructure in disadvantaged communities.

Further detail and analysis supporting the above successes can be viewed in the Power Your Drive Semi-Annual reports available at: <https://www.sdge.com/regulatory-filing/10676/sdge-electric-vehicle-grid-integration-pilot-program>

1. SDG&E’s testimony at Chapter 1, p. BAS-7, lines 3-4, state that there was “data suggesting that forty-three percent (43%) of PYD Pilot participants adopted their EV after PYD Pilot charging equipment was installed at their residence or workplace.” Please provide an explanation for how the 43% was derived, and all supporting data, workpapers, and calculations in Excel, where possible. Please include the unique identifier (see Question 1) for each site referenced in the supporting data or workpapers.

**SDG&E Response**: As described in question 1 above, the calculation for incremental drivers is determined by counting the number of drivers whose first charge occurred 90 days after the site was available for use. As of July 31, 2019, 1,090 of the 2,577 drivers fall into this categorization. Therefore, 43% of the PYD Pilot participants adopted their EV after the PYD Pilot charging equipment was installed.

1. Regarding the previous question, please translate the 43% into a number of electric vehicles in total and per site, separately. Please provide a supporting explanation and all supporting workpapers and calculations (in Excel where possible). Please include the unique identifier (see Question 1) for each site referenced in the supporting data or workpapers. Please also provide the total number of unique EVs that charged at SDG&E’s PYD sites.

**SDG&E Response**: This data is contained in the spreadsheet for question 1 in column Z.

1. Please provide the types of EVs that charged at SDG&E’s PYD sites, including model, company (e.g Tesla), and range (total electric miles, if known).

**SDG&E Response**: The specific EV types and EV ranges are not tracked as a part of PYD.

1. In Excel, please provide the list of census tracts located in SDG&E’s territory and indicate which are in a disadvantaged community (top 25%) if using the statewide definition, and separately, the utility-wide definition of DAC.

**SDG&E Response**: The attached file (TURN DR-01 Q16.xlsx) provides the available answers to the above question.

1. Please provide the percentage of PYD sites located in disadvantaged communities if applying the statewide definition of DAC (top 25% statewide). Please provide supporting calculations/data/workpapers in Excel.

**SDG&E Response**: The attached file (TURN DR-01 Q17.xlsx) provides the available answers to the above question.

1. In Excel, for all drivers that participated in the PYD pilot, please provide the census tract and zip code (separately) where the driver’s *residence* is located (even if charging at a PYD workplace site). This should be aggregated by census tract and zip code, respectively (e.g. number of PYD vehicles located in a certain census tract, separately by census tract).

**SDG&E Response**: SDG&E does not track PYD driver’s residences.

1. Please provide all underlying workpapers, calculations, and data, in Excel where possible, to support the statement that “Seventy-eight percent (78%) of PYD Pilot electricity usage is from renewable sources, higher than SDG&E’s overall generation mix” (Testimony Chapter 1, p. BAS-8, lines 14-15).

**SDG&E Response**: The hourly generation mix and hourly PYD kWh consumption is confidential information. Therefore, this information cannot be shared.

1. In Excel, on an annual basis from 2010-2019 (YTD), please provide electric vehicle sales data by model of vehicle for SDG&E’s service territory.

**SDG&E Response**: SDG&E has not tracked historical data by model vehicle for this time frame.

1. In Excel, on an annual basis from 2014-2019 (YTD), please provide the number of public, workplace, and MuD charging ports, separately, available in SDG&E’s service territory. Please provide all supporting workpapers, calculations, and sources.

**SDG&E Response**: SDG&E only stores the current number of public chargers (as of November 30, 2019) and the workplace and MUD chargers as a part of PYD. These numbers are included in the attached file (TURN DR-01 Q21.xlsx).

1. SDG&E’s testimony, Chapter 6, p. JP-1, lines 11-12, states the utility “proposes a two-way interest bearing balancing account to record the authorized revenue requirement.” If SDG&E spends more than what is authorized by the Commission, please explain how this is treated in the two-way balancing account, separately for capital and expense costs. Please include whether and how reasonableness review of the overspending would occur under this proposal.

**SDG&E Response**:

SDG&E is proposing to address the disposition of the balance of this two-way balancing account in its Annual Regulatory Account Balance Update Filing. However, to reduce rate instability and for the benefit of the ratepayers, SDG&E is proposing to carry forward any over/undercollection of this two-way balancing account until the end of the installation period.

If SDG&E spends more than what is authorized by the Commission, which will result in an undercollection, the operations & maintenance (O&M) and capital-related costs recorded in the balancing account will be subject to Commission review during the Annual Regulatory Account Balance Update process through a Tier 2 Advice Letter.