CPUC Data Dashboard
Network Support Services

The status of network programs and services to assess California's progress toward a more interactive and resilient electric grid

California Public Utilities Commission
San Francisco, CA

Policy & Planning Division

Purpose of the Data Dashboard Project

✓ Publish key datasets in 9 general data categories to shed light on utility performance in a publicly accessible manner.

1. Residential electric usage and bill data
2. Customer satisfaction
3. Customer engagement
4. System efficiency
5. Safety
6. Network support services
7. Environmental goals performance
8. Utility workforce
9. Research and development projects

✓ Enable customers to have visibility to how their usage and rates compare with others and gain insights into the overall energy infrastructure and performance in the state
✓ Provide policy makers an added tool to better guide their decision-making and to increase the transparency on utility activities in areas that impact the public.

Network Support Services

To assess the progress, Policy & Planning Division (PPD) selected two metrics to measure:

1. Progress of distributed generation (DG) interconnection
   - Number of net-energy metering (NEM) customers interconnected in 2016
   - Interconnection timeliness

2. Energy data access
   - Options for customers to access their own energy data
   - Percentage of customers who authorized a 3rd party to access their energy data
   - Number of unique third parties authorized to receive customer energy data
   - Granularity and speed of energy data access.

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Interconnection of Distributed Generation

✓ To measure customer participation in supplying generation to the electric grid, PPD identified the number of distributed generation customers and interconnections.

Number of Net Energy Metering (NEM) Customers and Interconnections

Electric Utility	Standard NEM (≤ 30 kW)	Expanded NEM (> 30 kW)	Other NEM Tariffs	2016 Total Customers	Overall Total NEM Connections to Date
PG&E	66,910	981	133	68,024	250,584
SCE	52,791	536	89	53,416	187,787
SDG&E	29,664	718	14	30,396	90,144

Timeliness of Interconnection

✓ To measure the timeliness of distributed generation interconnection, PPD identified the average number of days needed to complete the interconnection process. This process includes the time from interconnection application completion (including the receipt of electrical clearance from the local permitting authority) to the utility's issuance of a Permit to Operate (PTO). The 2016 statistics on interconnection timeliness are provided below.

Average Days of Customer Interconnection Process

Electric Utility	NEM	Exporting	Non-exporting
PG&E	3 days	114 days	19 days
SCE	4 days	71 days	71 days
SDG&E	3 days	3 days	3 days

Energy Data Access

✓ When the large energy utilities' completed smart meter deployment, customers were provided with an array of tools to access their energy data. Generally, there are two ways for a customer to access his/her data: (1) direct download of energy usage data through the utility's website after logging into the customer account, or (2) authorize a 3rd party organization to receive and process the energy data on the customer's behalf subject to CPUC data access rules. The 2016 statistics on data access are provided below.

Percentage of Customers Authorizing 3rd Party Access to Their Energy Data

Electric Utility	Percentage of customers who authorized a third party to access their energy data
PG&E	1.70%
SCE	1.01%
SDG&E	2.14%

Energy Management Services

✓ Throughout the course of the CPUC's smart grid rulemaking proceeding, a consistent theme developed to enable ~~providing ways for~~ 3rd party vendors to ~~obtain~~ conditionally access customer energy data to support expanded on site ~~premise~~ energy or load management services. To assess the progress on supporting ~~such~~ this ecosystem of 3rd party vendors, PPD has provided ~~the following~~ 2016 statistics on the number of customer authorized vendors for each of the three large energy IOUs.

Number of Unique Third Parties Authorized to Access Customer Energy Data

Electric Utility	Number of unique 3rd parties authorized by customers to receive individual energy data usage information
PG&E	6,100
SCE	190
SDG&E	353

Energy Interval Data

✓ Energy usage data generated through the advanced metering infrastructure is made available to customers in 15 minute intervals and available in 24 hour through the customers' online account. Each utility employs data visualization tools to help customers better understand the usage data. For residential customers, 15 minute interval data is available in 24 hours, as confirmed by CPUC decisions on advanced metering deployment.

Granularity and speed of residential customer data access

Electric Utility	Granularity of customer energy data	Speed of availability
PG&E	15-minute interval	24 hours
SCE	15-minute interval	24 hours
SDG&E	15 minute interval	24 hours