SELF-GENERATION INCENTIVE PROGRAM
Monthly PBI Performance Report
Field Descriptions

About this Report

This report includes all SGIP projects since 2011 that are required to provide monthly performance-based incentive (PBI) data. PBI data is aggregated from 15-minute intervals into monthly performance metrics in this report. Each project with a Rated Capacity greater than 30 kW is required to submit PBI data for 5 years.

Field Descriptions

Listed in the order of the exported report columns from left to right.

Identifier

Each project is uniquely identified by this number. Each project has one row per month of data (up to 60 rows for 5 years' worth of data).

Program Administrator

The investor-owned utility administrating over the project are referenced as the Program Administrator (PA). The SGIP PAs are Pacific Gas and Electric (PG&E), Southern California Edison (SCE), the Southern California Gas Company (SoCal Gas) and the Center for Sustainable Energy® (CSE) on behalf of San Diego Gas & Electric (SDG&E). A project's site address must be in the corresponding PA's service territory.

Program Year

The year in which the SGIP application was initially submitted.

Host Customer Sector

The host customer is the entity who owns the site where the project is installed. The host customer sector refers to the purpose of the property and is categorized as:

- Commercial
- Government
- Non-Profit
- Residential

Sectors that are eligible for Equity Budget incentives are:

- State or Local Government
- Non-Profit

- Small Business
- Educational Institution
- Single Family Low-Income
- Multifamily Low-Income

Equipment Type
The equipment that is being monitored for SGIP PBI. Equipment types are:
- Fuel Cell Electric
- Fuel Cell CHP
- Wind Turbine
- Microturbine
- Pressure Reduction Turbine
- Gas Turbine
- Steam Turbine
- Internal Combustion
- Waste Heat to Power
- Electrochemical Storage
- Mechanical Storage
- Thermal Storage

Equipment Manufacturer
The installed equipment's manufacturer, as identified in the SGIP application.

Rated Capacity [kW]
The installed equipment's rated capacity. The generating system rated capacity is the net continuous power output of the packaged prime mover/generator under the conditions defined for each technology. The rated capacity for storage projects is calculated based on equipment type. See the Program Handbook for full details on calculating rated capacity for generation and storage systems.

Interconnection Date
All systems receiving incentives under the SGIP that discharge electricity must be connected to the local electric utility's distribution system and must be installed on the Host Customer's side of the electric utility meter. The interconnection date is the date of utility permission to operate the system.

Performance Month
Data is recorded in 15-minute intervals and provided in monthly batch files. The database aggregates the intervals into monthly performance metrics. The performance month refers to the month associated with this row of data.

Hours in Month

The total number of hours in the Performance Month (24 hours a day * number of days in the month). This is **not** the hours of equipment operation.

Count of Operating Intervals

The total number of 15-minute intervals in the Performance Month that contain some amount of energy generated or discharged for the month.

Fuel Type

The fuel type utilized by the system. System may use a blend of fuels, the fuel type listed here is the primary fuel type, however the Fuel Consumption is the total consumption of all fuels. The entry is empty for non-fueled equipment. Fuel Types include:

- Digester Gas
- Landfill Gas
- Gas Derived from Biomass
- Natural Gas
- Waste Gas
- Propane Gas
- Synthetic Fuel
- Gasoline

Biogas Source

The source is either directed or onsite for biogas fueled equipment. Projects using directed renewable fuel must attest that it is procured complying with all applicable rules of the SGIP, see the Program Handbook for complete rules. Onsite fuel sources are produced and utilized onsite.

Btu Content of Fuel (Btu/SCF)

The Btu content and basis (HHV/LHV) of the fuel is provided by the PA during commissioning either through data provided by the gas company or determined by analysis. The field is only provided for non-renewable fueled systems.

Net Energy Generated (kWh)

The net energy generated by the system for the performance month.

Average Real Power Delivered (kW)

The average instantaneous kW delivered over a 15-minute interval. The SGIP Database calculates a monthly average value of Net Real Power Delivered as the average over all non-zero production intervals provided.

Fuel Consumption (SCF)

The fuel consumed by the system for the performance month. Projects submitted prior to the 2017 program year were considered "renewable" if at least 75% of fuel was from a renewable source, these projects were not required to submit fuel consumption data. Systems may use a blend of fuels, the fuel type listed here is the primary fuel type, however the Fuel Consumption is the total consumption of all fuels for projects after 2012 program year. The units are in Standard Cubic Feet.

Useful Waste Heat Recovered (MBtu)

The amount of useful waste heat recovered for combined heat and power (CHP) systems.

Capacity Factor (%)

Energy output by the system as a percentage of full rated capacity. Storage systems are expected to perform at about 10%, wind at 25%, and 80% for all other generation types. The ratio of Net Energy Generated to the Rated Capacity times Hours in Month.

$$Capacity\ Factor = \frac{Net\ Energy\ Generated\ kWh}{(Rated\ Capacity\ kW) * (Hours\ in\ Month)} * 100\%$$

Gross GHG Emissions (kg CO2)

Green House Gas emissions are calculated by the SGIP database according to the equation below. The Emissions Factor for Natural Gas is 53.02 $kgCO_2$/MMBtu

$Gross\ GHG\ Emissions\ (kgCO_2)$

$$= \frac{Fuel\ Consumption\ (SCF) * Btu\ Content\ of\ Fuel\left(\frac{Btu}{SCF}\right) * Emissions\ Factor\left(\frac{kgCO_2}{MMBtu}\right)}{1,000,000\ \frac{Btu}{MMBtu}}$$

Avoided GHG Emissions from Heat Recovery (kg CO2)

Emissions avoided from useful waste heat recovery are calculated by the SGIP database according to the equation below. Boiler Efficiency is assumed at 80%.

$Avoided\ GHG\ Emissions\ (kgCO_2)$

$$= \frac{Useful\ Waste\ Heat\ Recovered\ (MBtu) * EmissionsFactor\left(\frac{kgCO_2}{MMBtu}\right)}{Boiler\ Efficiency * 1,000\ \frac{MBtu}{MMBtu}}$$

Net GHG Emissions (kg CO2)

The Net GHG Emissions is the difference between the Gross GHG Emissions and the Avoided Emissions from Heat Recovery. The SGIP database calculates Net GHG Emissions as follows:

$Net\ GHG\ Emissions\ (kg\ CO_2)$
$$= Gross\ GHG\ Emissions\ (kgCO_2) - Avoided\ GHG\ Emissions\ (kgCO_2)$$

Storage Energy Charged (kWh AC)

The sum total of AC energy charged by the storage system during the performance month. Charge data may include ancillary load drawn by the inverter or other ancillary equipment. Applicable to storage systems only.

Storage Energy Discharged (kWh AC)

The sum total of AC energy charged by the storage system during the performance month. Discharge data may include ancillary load drawn by the inverter or other ancillary equipment. Applicable to storage systems only.

Round Trip Efficiency (%) (for AES)

The ratio of Energy Discharged to Energy Charged. Applicable to storage systems only.