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GLOSSARY

Abbreviations & Acronyms

Term	Definition
AES	Advanced Energy Storage
CAISO	California Independent System Operator
CEC	California Energy Commission
CSE	Center for Sustainable Energy
CO ₂	Carbon dioxide
CO ₂ eq	CO ₂ equivalent
CPUC	California Public Utilities Commission
DER	Distributed energy resource
FC	Fuel cell
GT	Gas turbine
ICE	Internal combustion engine
IOU	Investor-owned utility
MCS	Monte Carlo Simulation
MT	Microturbine
NEM	Net energy metering
NO _x	Nitric oxide (NO) and nitrogen dioxide (NO ₂)
PA	Program Administrator
PBI	Performance based incentive
PG&E	Pacific Gas and Electric Company
PM ₁₀	Particulate matter (PM) with diameter of 10 micrometers or less
PPA	Power Purchase Agreement
PRT	Pressure reduction turbine
PY	Program Year
SCE	Southern California Edison Company
SCG	Southern California Gas Company
SDG&E	San Diego Gas and Electric Company
SO ₂	Sulfur Dioxide
SGIP	Self-Generation Incentive Program
WD	Wind turbine



Key Terms

Term	Definition
Applicant	The entity, either the Host Customer, System Owner, or third party designated by the Host Customer, that is responsible for the development and submission of the SGIP application materials and is the main contact for the SGIP Program Administrator for a specific SGIP application.
Biogas	A gas composed primarily of methane and carbon dioxide produced by the anaerobic digestion of organic matter. This is a renewable fuel. Biogas is typically produced in landfills, and in digesters at wastewater treatment plants, food processing facilities, and dairies.
Biogas Baseline	The assumed treatment of biogas fuel in the absence of the SGIP generator. See <i>Flaring</i> and <i>Venting</i> .
California Independent System Operator (CAISO)	A non-profit public benefit corporation charged with operating the majority of California's high-voltage wholesale power grid.
Capacity Factor	A measure of system utilization that is calculated as the ratio of electrical energy generated to the electrical energy that would be produced by the generating system at rebated capacity during the same period (e.g., hourly, annually)
Combined Heat and Power (CHP)	A system that produces both electricity and useful heat simultaneously; sometimes referred to as "cogeneration."
CO ₂ Equivalent (CO ₂ eq)	When reporting emission impacts from different types of greenhouse gases, total GHG emissions are reported in terms of tons of CO ₂ equivalent so that direct comparisons can be made. To calculate CO ₂ eq, the global warming potential of a gas as compared to that of CO ₂ is used as the conversion factor (e.g., the global warming potential (GWP) of CH ₄ is 21 times that of CO ₂). Thus, the CO ₂ eq of a given amount of CH ₄ is calculated as the product of the GWP factor (21) and the amount of CH ₄ .
Commercial	Non-manufacturing business establishments, including hotels, motels, restaurants, wholesale businesses, retail stores, and for-profit health, social, and educational institutions.
Completed	Projects that have been installed and begun operating, have passed their SGIP eligibility inspection, and were issued an incentive payment.
Confidence Interval	A particular kind of interval estimate of a population parameter (such as the mean value) used to indicate the reliability of the estimate. It is an observed interval (i.e., calculated from observations) that frequently includes the parameter of interest. How frequently the observed interval contains the parameter is determined by the confidence level or confidence coefficient. A confidence interval with a particular confidence level is intended to give the assurance that, if the statistical model is correct, then taken over all the data that might have been obtained, the procedure for constructing the interval would deliver a confidence interval that included the true value of the parameter the proportion of the time set by the confidence level.



Term	Definition
Confidence Level (also Confidence Coefficient)	The degree of accuracy resulting from the use of a statistical sample. For example, if a sample is designed at the 90/10 confidence (or precision) level, resultant sample estimates will be within ± 10 percent of the true value, 90 percent of the time.
Decommissioned	Projects that have been retired from service and the equipment removed.
Directed Biogas	Biogas delivered through a natural gas pipeline system and its nominal equivalent used at a distant customer's site. Within the SGIP, this is classified as a renewable fuel.
Electrical Conversion Efficiency	The ratio of electrical energy produced to the fuel energy used (lower heating value).
Flaring (of Biogas)	A flaring baseline means that there is <i>prior</i> legal code, law or regulation requiring capture and flaring of the biogas. In this event an SGIP project cannot be credited with GHG emission reductions due to capture of methane in the biogas. A project cannot take credit for a prior action required by legal code, law or regulation. <i>See also: Venting (of Biogas).</i>
Greenhouse Gas (GHG) Emissions	For the purposes of this analysis GHG emissions refer specifically to those of CO ₂ and CH ₄ , expressed as CO ₂ eq.
Heat Rate	The amount of input energy used by an electrical generator to generate one kilowatt-hour (kWh) of electricity. Heat rate is commonly defined using units such as Btu/kWh.
Higher Heating Value (HHV)	The amount of heat released from combustion of fuel when all the products of combustion are brought back to the original pre-combustion temperature, and in particular condensing any vapor produced. Units of HHV are typically Btu/SCF of fuel.
Lower Heating Value (LHV)	The amount of heat released from combustion of fuel assuming that the water produced during the combustion process remains in a vapor state at the end of combustion. Units of LHV are typically Btu/SCF of fuel.
Load	Either the device or appliance which consumes electric power, or the amount of electric power drawn at a specific time from an electrical system, or the total power drawn from the system. Peak load is the amount of power drawn at the time of highest system demand.
Marginal Heat Rate	The marginal heat rate is the amount of source energy that is saved as a result of a change in generation.
Metric Ton	Common international measurement for the quantity of greenhouse gas emissions. A metric ton is equal to 2,205 pounds.
Offline	Projects with an annual capacity factor less than 0.05.
Online	Projects with an annual capacity factor of at least 0.05. Online projects are considered connected to the grid and providing power to the grid.
Onsite Biogas	Biogas projects where the biogas source is located directly at the host site where the SGIP system is located. <i>See also: Directed Biogas.</i>
Performance	A general reference to the operational effectiveness of an SGIP system. <i>See also: electrical conversion efficiency and utilization.</i>



Term	Definition
Prime Mover	A device or system that imparts power or motion to another device such as an electrical generator. Examples of prime movers in the SGIP include gas turbines, IC engines, and wind turbines.
Rebated Capacity	The capacity rating associated with the rebate (incentive) provided to the program participant. The rebated capacity may be lower than the manufacturer's nominal "nameplate" system size rating. <i>See also: system size.</i>
Recoverable Heat	The amount of heat available for recovery from a CHP system after generation of electricity. If heat load at the host site is lower than the amount of recoverable heat, the useful heat will be less than the recoverable heat.
System Efficiency	The unit-less ratio of useful energy produced to the fuel energy used (lower heating value).
System Owner	The owner of the SGIP system at the time the incentive is paid. For example, in the case when a vendor sells a turnkey system to a Host Customer, the Host Customer is the System Owner. In the case of a leased system, the lessor is the System Owner.
System Size	The manufacturer rated nominal size that approximates the generator's highest capacity to generate electricity under specified conditions.
Useful Heat	Recovered heat actually delivered and used to satisfy the on-site heating demand for a specific process or application at the host site. Useful heat may differ significantly from recoverable heat rates included in CHP manufacturer specifications.
Utilization	A general reference to how much an SGIP system is used. <i>See also: capacity factor, decommissioned, online, and offline.</i>
Venting (of biogas)	A venting baseline means that there is no prior legal code, law or regulation requiring capture and flaring of the biogas. Only in this event can an SGIP project be credited with GHG emission reductions due to capture of methane in the biogas. A project cannot take credit for a prior action required by legal code, law or regulation. <i>See also: Flaring (of Biogas).</i>