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[California Electricity Data](#)

2019 Total System Electric Generation

Contact

[Michael Nyberg](#)

Energy Assessments Division

916-654-5968

[2018 Total System Electric Generation and previous years](#)

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Fuel Type	California In-State Generation (GWh)	Percent of California In-State Generation	Northwest Imports (GWh)	Southwest Imports (GWh)	Total Imports (GWh)	Percent of Imports	Total California Energy Mix (GWh)	Total California Power Mix
Coal	248	0.12%	219	7,765	7,985	10.34%	8,233	2.96%
Natural Gas	86,136	42.97%	62	8,859	8,921	11.55%	95,057	34.23%
Oil	36	0.02%	0	0	0	0.00%	36	0.01%
Other (Waste Heat / Petroleum Coke)	411	0.20%	0	11	11	0.01%	422	0.15%
Nuclear	16,163	8.06%	39	8,743	8,782	11.37%	24,945	8.98%
Large Hydro	33,145	16.53%	6,387	1,071	7,458	9.66%	40,603	14.62%
Unspecified	0	0.00%	6,609	13,767	20,376	26.38%	20,376	7.34%
Non-Renewables and Unspecified Totals	136,139	67.91%	13,315	40,218	53,533	69.32%	189,672	68.30%

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Biomass	5,851	2.92%	903	33	936	1.21%	6,787	2.44%
Geothermal	10,943	5.46%	99	2,218	2,318	3.00%	13,260	4.77%
Small Hydro	5,349	2.67%	292	4	296	0.38%	5,646	2.03%
Solar	28,513	14.22%	282	5,295	5,577	7.22%	34,090	12.28%
Wind	13,680	6.82%	9,038	5,531	14,569	18.87%	28,249	10.17%
Renewables Totals	64,336	32.09%	10,615	13,081	23,696	30.68%	88,032	31.70%
System Totals	200,475	100.00%	23,930	53,299	77,229	100.00%	277,704	100.00%

Total System Electric Generation and Methodology

Total system electric generation is the sum of all utility-scale in-state generation plus net electricity imports. In 2019, total generation for California was 277,704 gigawatt-hours (GWh), down 2.7 percent, or 7,784 GWh, from 2018. California's non-carbon dioxide emitting electric generation categories (nuclear, large hydroelectric, and renewables) accounted for 57 percent of its generation, compared to 55 percent in 2018. As a result, in-state generation increased by 3 percent (5,633 GWh) to 200,475 GWh. This increase was due, in large part, to increased generation from in-state large hydroelectric power plants, up 11,049 GWh (50 percent) from 2018. The gain from hydroelectric generation was offset by a 15 percent decrease in net imports to 77,229 GWh, down 13,418 GWh from 90,647 GWh in 2018.

The California Code of Regulations (Title 20, Division 2, Chapter 2, Section 1304 (a)(1)-(2)) requires owners of power plants that are 1 MW or larger in California or within a control area with end users inside California to file data on electric generation, fuel use, and environmental attributes. Reports are submitted to the Energy Commission on a quarterly and annual basis. These reports cover all forms of electric generation including renewables, hydroelectric, natural gas, and others. The reporting requirement includes electricity from facilities that generate for onsite usage such as refineries and university campuses. Additionally, loads from hydroelectric facilities that are equipped with reversible turbines (a combined pump and turbine generator) are taken into account. Pumping-generating facilities use electricity to meet water storage, water transfer, and water delivery requirements, while pumped storage facilities use electricity to transfer water from one reservoir to another, usually during off-peak hours at night, so that electricity can be generated during the next day to help peak electricity demand. Energy Commission staff collect and verify these reports to compile a statewide accounting of all electric generation serving California.

Quarterly data reports submitted by balancing authorities for energy imports and exports are used to determine the net energy imports for California. Imports are tracked for two geographical regions: the Northwest and the Southwest. The allocation of fuel types is based on Power Source Disclosure reports from LSEs such as investor-owned utilities, publicly owned utilities, and community-choice aggregators.

What is Unspecified Power?

Unspecified power refers to electricity that is not traceable to a specific generating facility, such as electricity traded through open market transactions. Unspecified sources of power are typically a mix of resource types, and may include renewables. This category can also include spot market purchases, wholesale energy purchases, and purchases from pools of electricity where the original source of fuel can no longer be determined. As mentioned, it can also include renewable energy from a certified renewable facility that has been sold separately from its renewable attributes, or RECs. Renewable energy without its corresponding RECs is sometimes referred to as “null energy.”

Definitions

California Energy Mix: Total in-state electric generation plus Northwest and Southwest energy imports

California Power Mix: Percentage of specified fuel types derived from the California Energy Mix for use on the annual Power Content Label

In-State Generation: Energy from power plants physically located in the state of California

Northwest Imports: Energy imports from Alberta, British Columbia, Idaho, Montana, Oregon, South Dakota, Washington, and Wyoming

Southwest Imports: Energy imports from Arizona, Baja California, Colorado, Mexico, Nevada, New Mexico, Texas, and Utah

Total System Electric Generation: Used interchangeably with California Energy Mix

Total System Power: Original terminology used to describe California’s annual electric generation.

CONTACT

California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

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