

KEY STATISTICS

Peaks for December 2018









Energy Imbalance Market



Historical stats

Historical peak demand **50,270 MW** - July 24, 2006 at 2:44 p.m.

PREVIOUS RECORDS

50,116 MW - September 1, 2017 at 3:58 p.m. **48,615 MW** - August 31, 2007 at 3:27 p.m. Renewables served demand **73.9%** - May 26, 2018 at 2:12 p.m.

PREVIOUS RECORDS

72.7% - April 28, 2018 at 1:25 p.m. **70.5%** - February 18, 2017 at 2:09 p.m.

California Independent System Operator

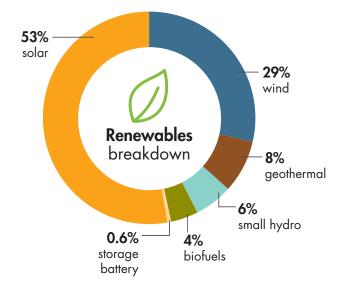


KEY STATISTICS

Demand & resources

Resource adequacy net qualifying capacity (NQC) = 44,586 MW Does not include current outages

Installed renewable resources (as of 1/08/2019)



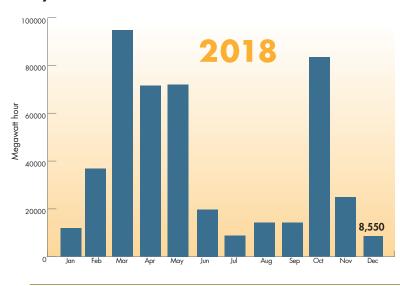
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🔆 Solar	11,868
⇒ Wind	6,505
ន Small hydro	1,237
Geothermal	1,785
A Biofuels	953
Storage battery	136*
TOTAL	22,484

Megawatts

<u>Click here</u> for Today's Outlook

NOTE — Reporting Net Dependable Capacity only (numbers are rounded). Only fully commercial units are counted, not partials or test energy, as reported via the Master Generating File and captured in the Master Control Area Generating Capability List found on <u>OASIS</u> under "Atlas Reference".

*Includes 20 MW of storage integrated with power plants



Key curtailment totals

Record peaks

SOLAR 10,739 MW - June 29, 2018, 12:33 p.m.

WIND 5,193 MW - June 8, 2018, 9:04 p.m.

PREVIOUS SOLAR RECORD

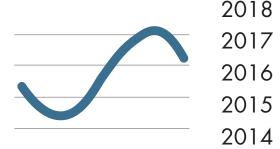
10,735 MW - June 8, 2018 at 12:33 p.m.

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KEY STATISTICS

Annual peak demand



July 25, 5:27 p.m. 46,424 MW September 1,3:58 p.m. 50,116 MW 46,232 MW July 27, 4:51 p.m. 47,358 MW September 10, 4:53 p.m. 45,089 MW September15, 4:53 p.m.

<u>Click here</u> to see historical peak demand

2017 Energy use as percentage of total resources available

- Natural gas = 28%Down 5% from previous year
- Net imports = 21% Down 3% from previous year
- △ Nuclear = 10% Slightly less from previous year
- Total hydro = 15%Up 11% from previous year
- Non-hydro renewables = 24%Up 22% from previous year
- Solar increased 22% and accounted for 11%



- $\int Geothermal = 4\%$, about the same from previous year
- **Biofuels = 2%**, a slight increase from previous year

- Other mostly evergreen facts
- 30 million California consumers
- 1 MW serves about 750-1,000 homes
- 25,685 (or about 26,000) circuit miles of transmission
- 9,696 Pnodes (pricing nodes) (ISO & all EIM entities as of Apr. 4, 2018) ISO only Pnodes = 4,119
- Serve ~80% of California demand
- ISO serves ~33% of WECC demand
- 211 market participants
- 17 participating transmission owners
- Market transactions for 2017 = 31,208 (2016 = 29,651) daily average
- MWh of demand served for 2017 = 239M
- Total estimated wholesale cost of serving demand in 2017 = \$9.4 billion or about \$42/MWh*
- Total estimated wholesale cost of serving demand in 2016 = \$7.4 billion or about \$34/MWh

*Note higher cost mostly due to higher natural gas prices. After normalizing for natural gas prices and greenhouse gas compliance costs, total wholesale energy costs increased by about 4 percent.

California Independent System Operator