

KEY STATISTICS

Peaks for December 2019



31,230 MW

Peak demand
December 4

Previous month:
29,818 MW



4,908 MW

Peak served by renewables
December 14

Previous month:
4,013 MW



8,268 MW

Solar peak
December 16

Previous month:
9,083 MW



4,173 MW

Wind peak
December 14

Previous month:
4,275 MW

Historical stats & records



11,473 MW

Solar peak
July 2, 2019 at 12:53 p.m.

Previous record:
11,435 MW on July 1, 2019



5,309 MW

Wind peak
May 8, 2019 at 3:21 a.m.

Previous record:
5,193 MW on June 8, 2018



80.3%

Demand served by renewables
May 15, 2019 at 2:45 p.m.

Previous record:
78% on April 20, 2019



50,270 MW

Peak demand
July 24, 2006 at 2:44 P.M.

Next highest:
50,116 MW on September 1, 2017



15,639 MW

Steepest ramp over 3-hour period
January 1, 2019 at 2:25 P.M.

Next steepest:
15,070 MW on Mar 17, 2019 at 4:07 p.m.

Western Energy Imbalance Market (EIM) benefits [Read ISO EIM Benefits Report Q3 here](#)

ECONOMIC

2019 Q3 benefits:
\$64.81 million

Total benefits:
\$801.07 million
since 2014 launch

ENVIRONMENTAL

Q3 avoided curtailments:
33,843 MWh

Q3 ISO GHG savings:
14,485 mTCO₂

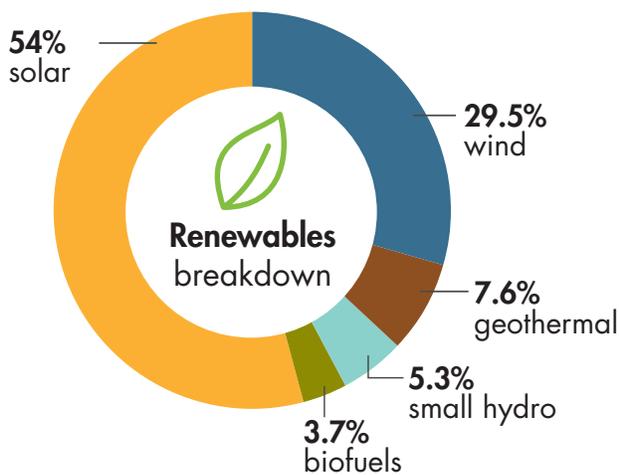
Total ISO GHG savings:
418,031 mTCO₂
from avoided curtailment since 2014

Equivalent to removing emissions
from **87,889** passenger cars

Demand & resources (as of 1/01/2020)

Resource adequacy net qualifying capacity (NQC) = **46,454 MW**
 Does not include current outages

Installed Renewable resources (as of 1/01/2020)



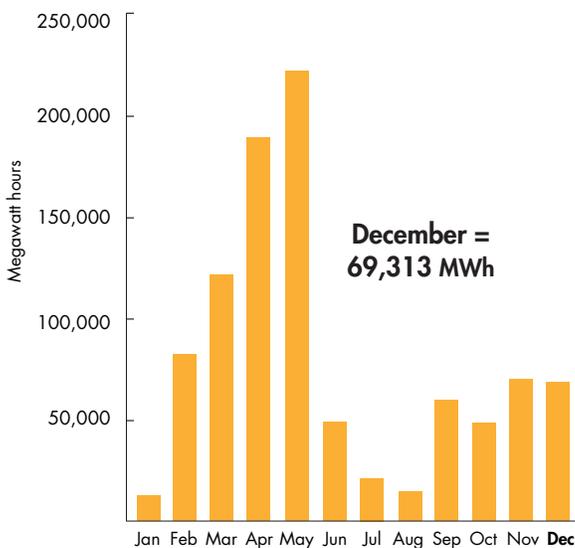
	Megawatts
Solar	12,697
Wind	6,927
Geothermal	1,785
Small hydro	1,244
Biofuels	861
TOTAL	23,514

[See Today's Outlook](#)

NOTE — 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 [OASIS](#) under "Atlas Reference".

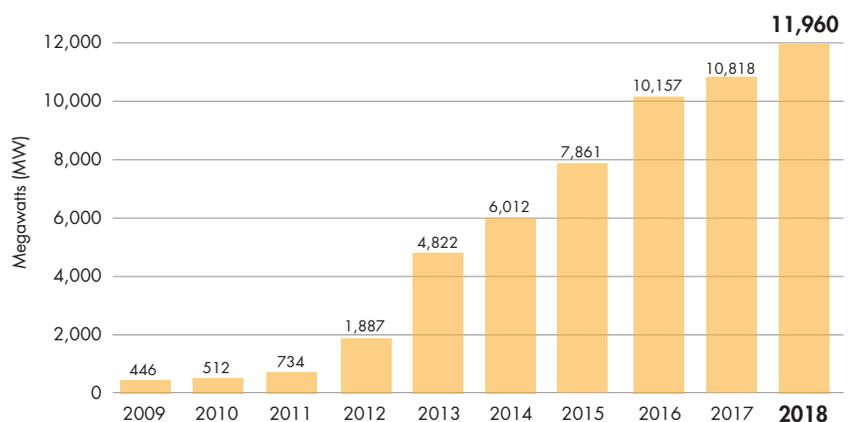
Wind and solar curtailment totals

For more on oversupply, [visit here](#).



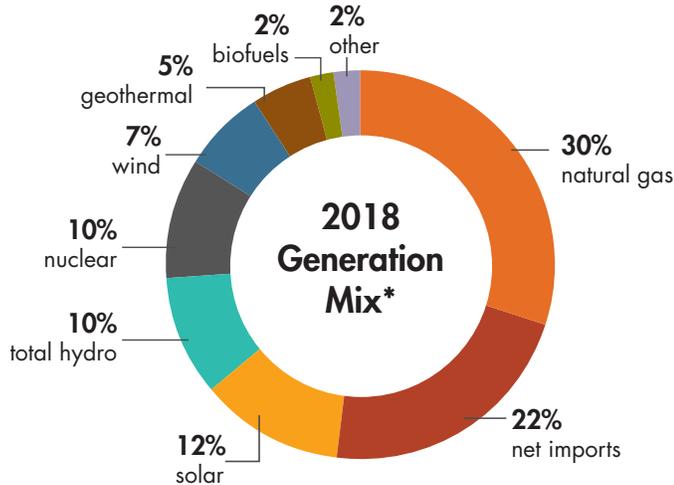
Installed solar growth

Solar capacity growth in the California ISO balancing area. Stay informed on how we are greening the grid [here](#).





KEY STATISTICS



*Approximate percentages based on 2018 average hourly generation (MWh) from the [2018 Annual Report on Market Issues and Performance](#)

Annual peak demand

2019: 44,301 MW
Aug 15 at 5:50 p.m.

2018: 46,427 MW
Jul 25 at 5:33 p.m.

2017: 50,116 MW
Sep 1 at 3:58 p.m.

2016: 46,232 MW
Jul 27 at 4:51 p.m.

2018 Energy use (as percentage of total resources available)

Natural gas = 30% Up 2% from previous year	Total hydro = 10% Down 7% from previous year	Wind = 7% Up 19% from previous year
Net imports = 22% unchanged from previous year	Non-hydro renewables = 26% Up 3% from previous year	Geothermal = 4% Down 2% from previous year
Nuclear = 10% unchanged from previous year	Solar = 12% Up 9% from previous year	Biofuels = 2% , a slight increase from previous year

Other facts

- 32 million consumers
- Serve ~80% of California demand
- Serve ~33% of WECC demand within the ISO balancing authority
- MWh of load served for 2018 = 232.9 million
- Total estimated wholesale cost of serving demand in 2018 = \$10.8 billion or about \$50/MWh*
- Total estimated wholesale cost of serving demand in 2017 = \$9.4 billion or about \$42/MWh*
- 1 MW serves about 750-1,000 homes (1 MWh = 1 million watts used for one hour)
- 18 participating transmission owners
- 25,715 (or about 26,000) circuit miles of transmission
- 217 market participants
- MWh of market transactions for 2018 = 32,635 (2017 = 31,208)
 - Daily average electricity delivered for 2018 = 222.8M MWh
- 9,696 pricing nodes for ISO & all EIM entities as of Apr. 4, 2018. ISO has 4,119 pricing nodes
- Western EIM has 9 active participants serving customers in 8 states
- RC West is the reliability coordinator for 41 entities across 14 western states and northern Mexico

*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.