

KEY STATISTICS

Peaks for September 2019



44,158 MW

Peak demand
September 3

Previous month:
44,301 MW



14,747 MW

Peak served by renewables
September 9

Previous month:
14,766 MW



11,090 MW

Solar peak
September 10

Previous month:
11,193 MW



4,675 MW

Wind peak
September 27

Previous month:
4,739 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 P.M.

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



78%

Demand served by renewables
April 20, 2019 at 12:40 P.M.

Previous record:
73.9% on May 26, 2018



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 Q2 here](#)

ECONOMIC

2019 Q2 benefits:
\$86 million

Total benefits:
\$736.26 million
since 2014 launch

ENVIRONMENTAL

Q2 avoided curtailments:
132,937 MWh

Q2 ISO GHG savings:
56,897 mTCO₂

Total ISO GHG savings:
403,546 mTCO₂

from avoided curtailment since 2014

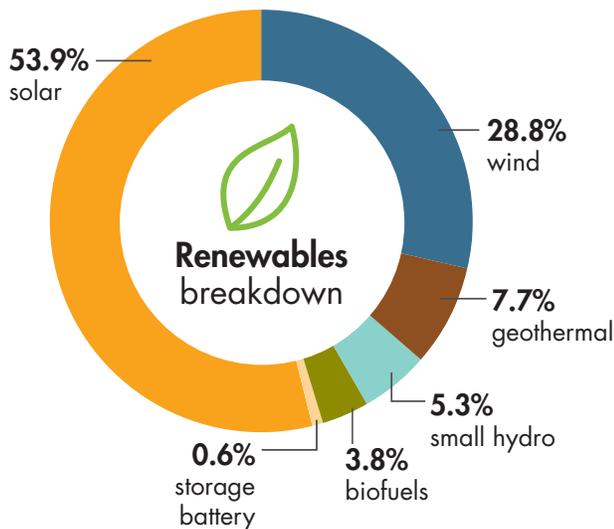
Equivalent to removing emissions
from **84,844** passenger cars

Demand & resources (as of 10/01/2019)

Resource adequacy net qualifying capacity (NQC) = **50,898 MW**

Does not include current outages

Renewable resources (as of 10/01/2019)



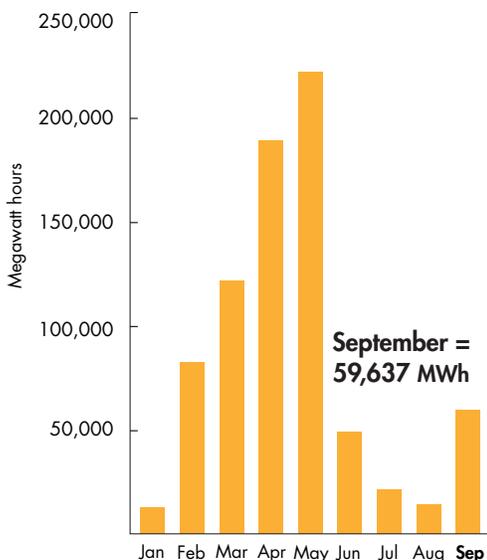
	Megawatts
Solar	12,572
Wind	6,714
Small hydro	1,244
Geothermal	1,785
Biofuels	880
Storage battery*	136
TOTAL	23,331

[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". *Includes stand-alone and hybrid units.

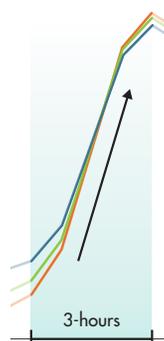
Wind and solar curtailment totals

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



Steepest ramp over 3-hour period

As daily demand for energy increases and solar generation decreases, grid operators must call on flexible resources to meet the upward ramp in demand. For more on ramping, [visit here](#).



12,758 MW
Sep 29 starting at 3:53 p.m.

Previous months:

11,981 MW on Aug 18 starting at 4:09 p.m.

10,981 MW on Jul 8 starting at 4:37 p.m.

12,744 MW on Jun 9 starting at 4:11 p.m.

KEY STATISTICS

Annual peak demand

NEW!

2019: 44,301 MW

Aug 15 at 5:50 p.m.

2018: 46,427 MW

Jul 25 at 5:33 p.m.

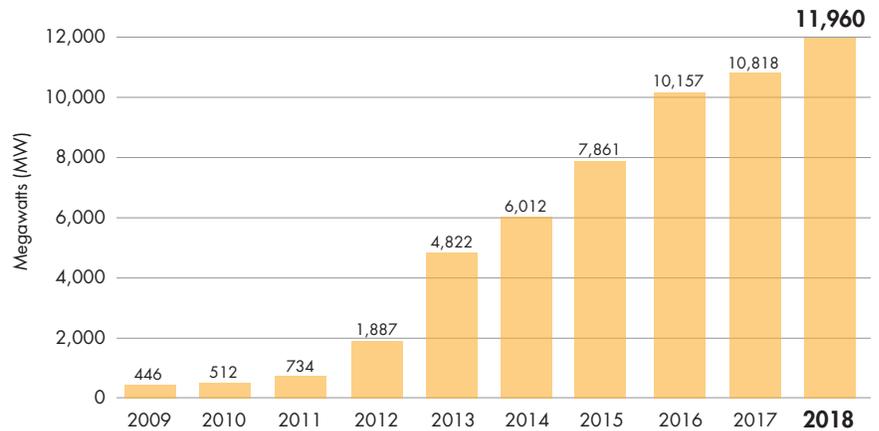
2017: 50,116 MW

Sep 1 at 3:58 p.m.

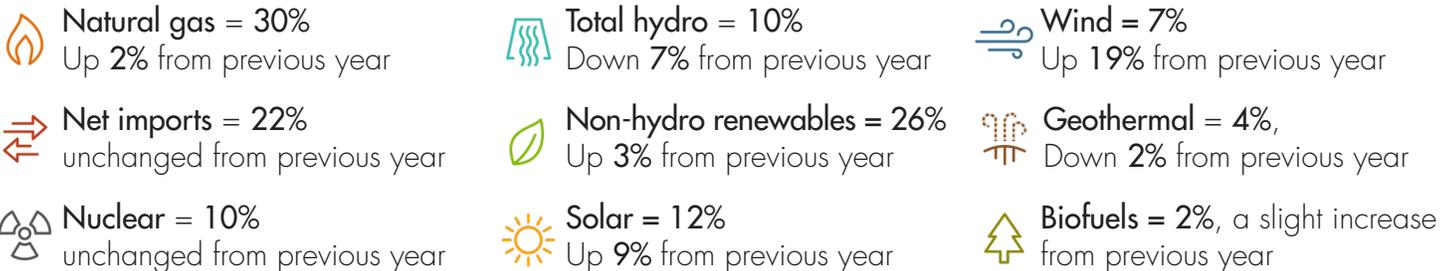
2016: 46,232 MW

Jul 27 at 4:51 p.m.

Installed solar growth



2018 Energy use (as percentage of total resources available)



Other facts

- 30 million consumers
- Serve ~80% of California demand
- Serve ~33% of WECC demand
- 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 (as of April 2019)

*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.