California ISO

KEY STATISTICS

Peaks for June 2019

42,739 MW
Peak demand
June 11
Previous month:
28,635 MW

14,014 MW
Peak served by renewables
June 13
Previous month:
7,073 MW

11,363 MW
Solar peak
June 1
Previous month:
11,358 MW

5,293 MW
Wind peak
June 13
Previous month:
5,309 MW

Historical stats & record peaks

11,473 MW
Solar peak **NEW!**
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.

Previous peak demands:
50,116 MW on September 1, 2017 at 3:58 p.m.
48,615 MW on August 31, 2007 at 3:27 p.m.

Energy Imbalance Market

EIM

Q1 2019 BENEFITS
$85.38M
TOTAL SAVINGS
$650.26M
since Nov 2014 start

GHG

Q1 2019 AVOIDED CURTAILMENTS
52,254 MWh
TOTAL ISO GHG SAVINGS
346,649 $mTCO_2$
from avoided curtailment since Nov 2014

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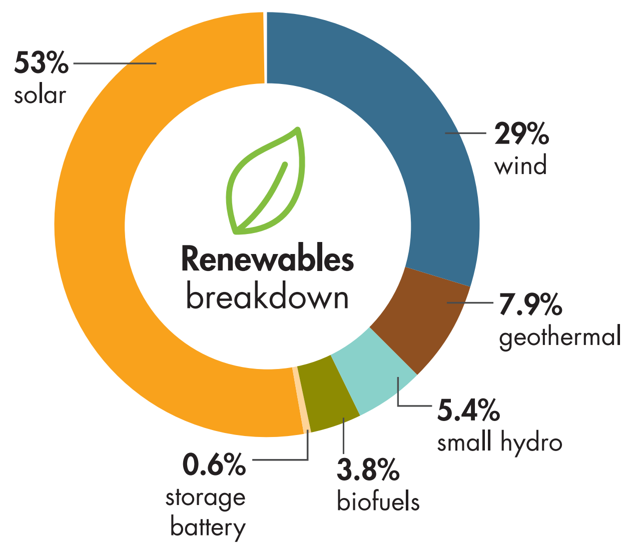
Demand & resources *(as of 7/01/2019)*

Resource adequacy net qualifying capacity (NQC) = 53,238 MW
Does not include current outages

Renewable resources *(as of 7/01/2019)*

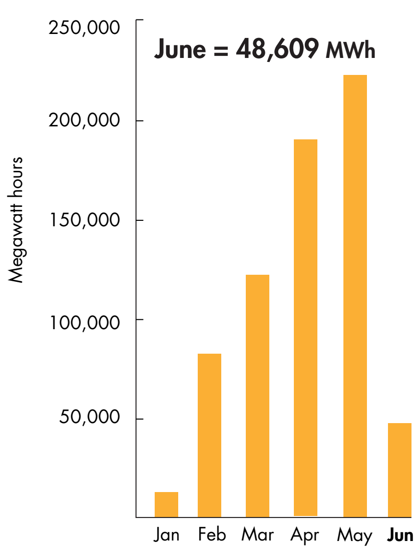


	Megawatts
Solar	12,049
Wind	6,714
Small hydro	1,229
Geothermal	1,785
Biofuels	878
Storage battery*	136
TOTAL	**22,791**

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.*

Key curtailment totals



See Managing Oversupply page

Steepest ramp: 3-hour max

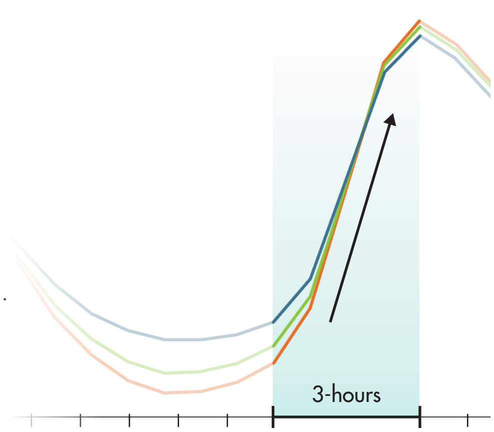
As daily demand for energy increases and solar generation decreases, grid operators must call on flexible resources to meet the upward ramp in demand. For more on ramping, visit here.

15,639 MW **RECORD!**
Jan 1 starting at 2:25 p.m.

14,630 MW
Feb 11 starting at 3:05 p.m.

15,070 MW
Mar 17 starting at 4:07 p.m.

13,177 MW
Apr 20 starting at 4:49 p.m.



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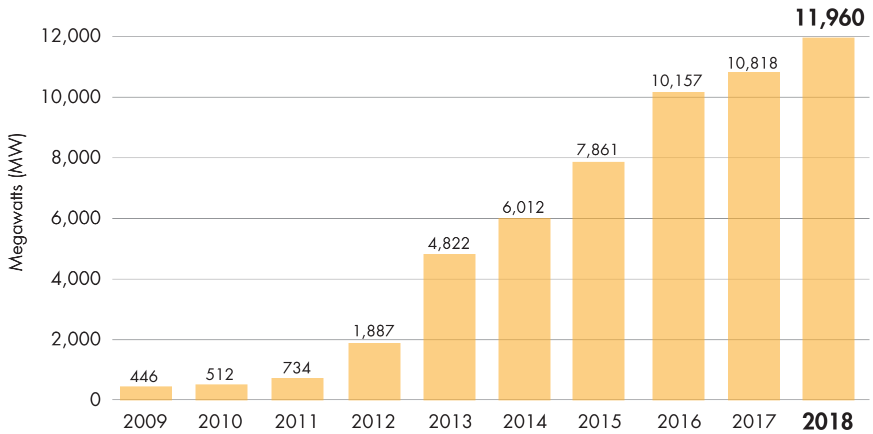
Installed solar growth



Annual peak demand

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

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

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

47,358 MW
Sep 10, 2015 at 3:38 p.m.

NEW! 2018 Energy use *(as percentage of total resources available)*

Natural gas = 30%
Up **2%** from previous year

Net imports = 22%
unchanged from previous year

Nuclear = 10%
unchanged from previous year

Total hydro = 10%
Down **7%** from previous year

Non-hydro renewables = 26%
Up **3%** from previous year

Solar = 12%
Up **9%** from previous year

Wind = 7%
Up **19%** from previous year

Geothermal = 4%,
Down **2%** from previous year

Biofuels = 2%, a slight increase from previous year

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)
- 17 participating transmission owners
- 27,285 (or about 26,000) circuit miles of transmission
- 214 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.