California ISO

MONTHLY STATS

# February 2018

## Peaks for February

Peak demand **30,182 MW**
February 20

Renewables serving peak
**5,921 MW** February 10

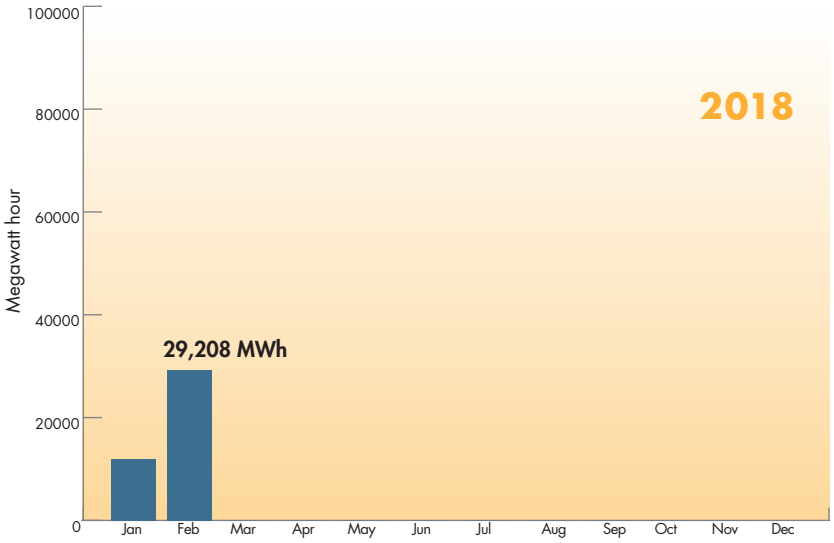
Percentage of renewables serving peak
**23.3%** February 10

Solar & wind **12,296 MW**
February 22

Peak solar **9,878 MW**
February 28

Peak wind **4,344 MW**
February 18

## Key curtailment totals




*Click here for more information on managing oversupply*

## Avoided curtailments due to EIM

2015 – 2017 EIM

**222,657**
metric tons

*Click here for EIM quarterly benefits reports*

## Good facts

Renewables served **70.5%** of demand
on February 18, 2018 at 2:09 p.m.

Previous milestones
**67.2%** - May 13, 2017 at 2:55 p.m.
**65.2%** - April 24, 2017 at 2:53 p.m.
**56.7%** - March 23, 2017 at 11:23 a.m.

Solar served **50%** of demand
March 4, 2018 at 12:58 p.m.

Wind served **22.4%** of demand
March 31, 2017 at 3:17 a.m.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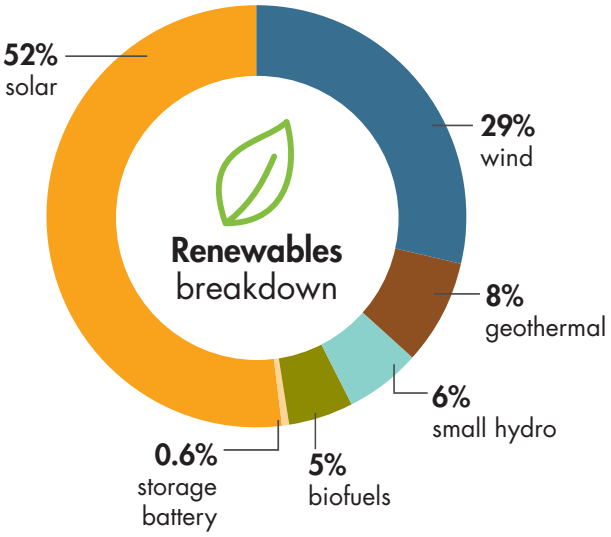
## Demand & resources *(as of 03/06/2018)*

Resource adequacy net qualifying capacity (NQC) = **50,009 MW***
*Does not include current outages*

*Corrected NQC number

## Installed renewable resources *(as of 03/06/2018)*




| | Megawatts |
|---|---|
| Solar | 11,190 |
| Wind | 6,315 |
| Small hydro | 1,240 |
| Geothermal | 1,790 |
| Biofuels | 997 |
| Storage battery | 136* |
| **TOTAL** | **21,668** |

*Click here 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 OASIS under "Atlas Reference".*

**Includes 20 MW of storage integrated with power plants*

## Record peaks

SOLAR
**10,412 MW**
March 5, 2018, 10:18 a.m.

WIND
**4,985 MW**
May 16, 2017, 5:26 p.m.

PREVIOUS SOLAR RECORD **9,914 MW** set on June 17, 2017, 12:13 p.m.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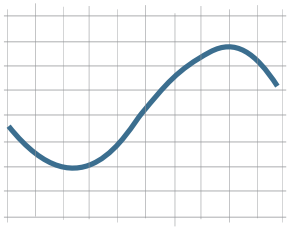
### Season peak demand



| | | |
|---|---|---|
| 2017 | **50,116 MW** | SEPTEMBER 1, 2017, 3:58 P.M. |
| 2016 | **46,232 MW** | JULY 27, 2016, 4:51 P.M. |
| 2015 | **47,358 MW** | SEPTEMBER 10, 2015, 4:53 P.M. |
| 2014 | **45,089 MW** | SEPTEMBER 15, 2014, 4:53 P.M. |

*Click here to see historical peak demand*

### 2016 Energy use *as percentage of total resources available*

**Natural gas = 32%**
Down **40%** from previous year

**Net imports = 28%**
Unchanged from previous year

**Nuclear = 8%**
About the same from previous year

**Total hydro = 10%**
Up **5%** from previous year

**Non-hydro renewables = 20%**
Up **18%** from previous year

**Solar increased 32%** and accounted for **9%** of total system energy

**Wind increased 12%** and accounted for **6%** of total system energy

**Geothermal decreased 8%** and provided almost **5%** of total system energy

**Biofuels = 2%** of total system energy, a slight decrease compared to 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
- 8,397 Pnodes (pricing nodes) (ISO & all EIM entities as of Jan. 5, 2017) ISO only Pnodes = 4,116
- Serve ~80% of California demand
- ISO serves ~33% of WECC demand
- 194 market participants
- 17 participating transmission owners
- Market transactions for 2016 = 29,651 (2015 = 27,488) daily average
- MWh of demand served for 2016 = 237M MWh, ~1.25% lower than 2015 (239.6M in 2015)
- Total estimated wholesale cost of serving demand in 2016 = $7.4 billion or about $34 MWh (down ~9% from $8.3 billion/$37MWh in 2015; $12 billion in 2014/$52 MWh).*

*Note — This is lowest nominal cost since 2008 — mostly due to lower natural gas prices. After normalizing for natural gas prices and greenhouse gas compliance costs, total wholesale energy costs decreased by about 4 percent.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