

## Wind and Solar Curtailment February 28, 2019

This report is produced daily to provide a detailed accounting of the wind and solar renewable generation that was curtailed and the reasons why<sup>1</sup>. This report should be read in the context of the Renewables Watch report for a more complete understanding of both renewable curtailment and generation<sup>2</sup>.

Wind and solar curtailments are grouped into the following categories:

1. Economic - Local: Market dispatch of generators with economic bids to mitigate local congestion<sup>3</sup>.
2. Economic - System: Market dispatch of generators with economic bids to mitigate system-wide oversupply<sup>4</sup>.
3. SelfSchCut - Local: Market dispatch of self-schedules to mitigate local congestion.
4. SelfSchCut - System: Market dispatch of self-schedules to mitigate system-wide oversupply.
5. ExDispatch - Local: Exceptional dispatch to mitigate local congestion.
6. ExDispatch - System: Exceptional dispatch to mitigate system-wide oversupply.

Note: Amounts smaller than 1 MW are filtered out for simplicity. Such small curtailments are occasionally observed when forecasts are lower than Pmin when market will de-commit the unit and send the 0 MW dispatch.

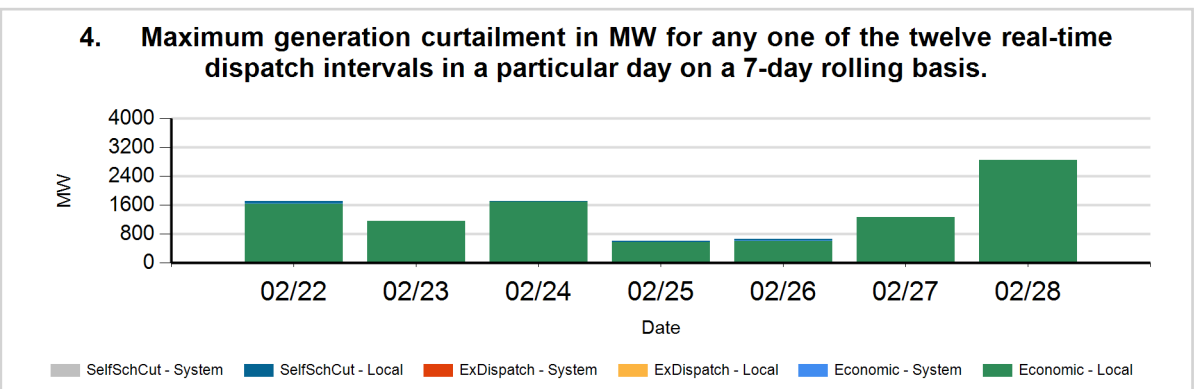
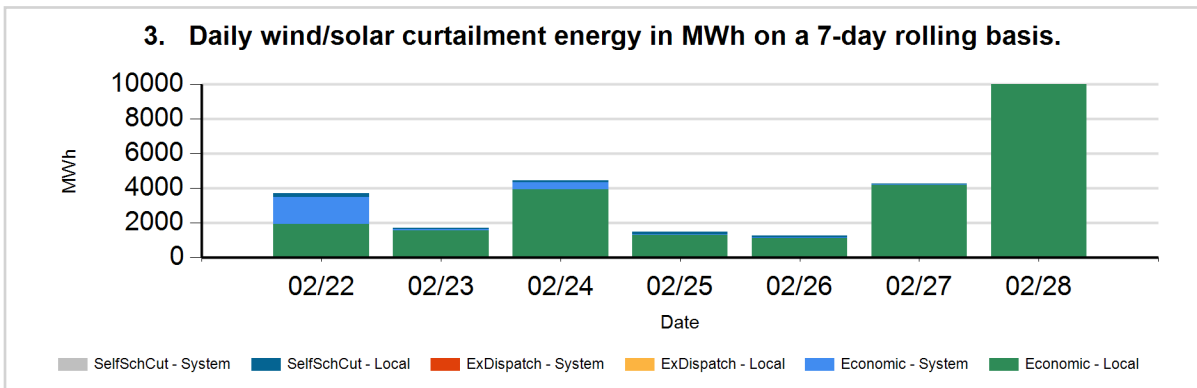
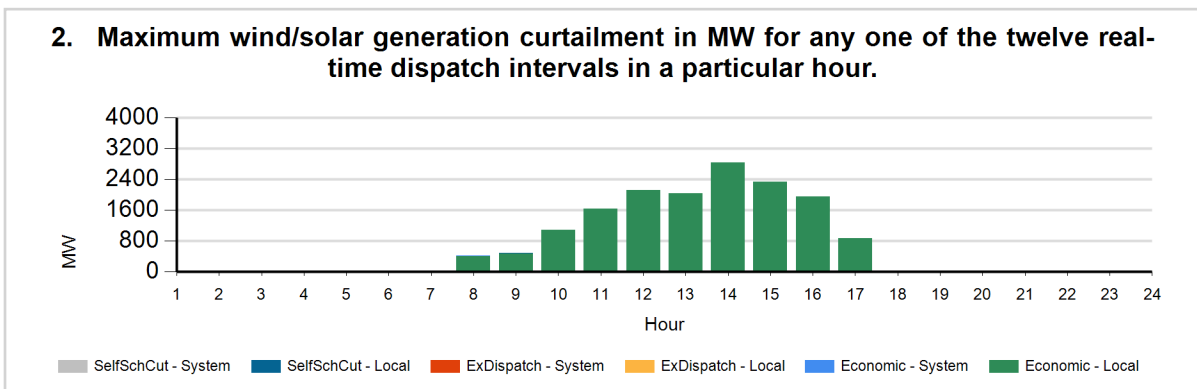
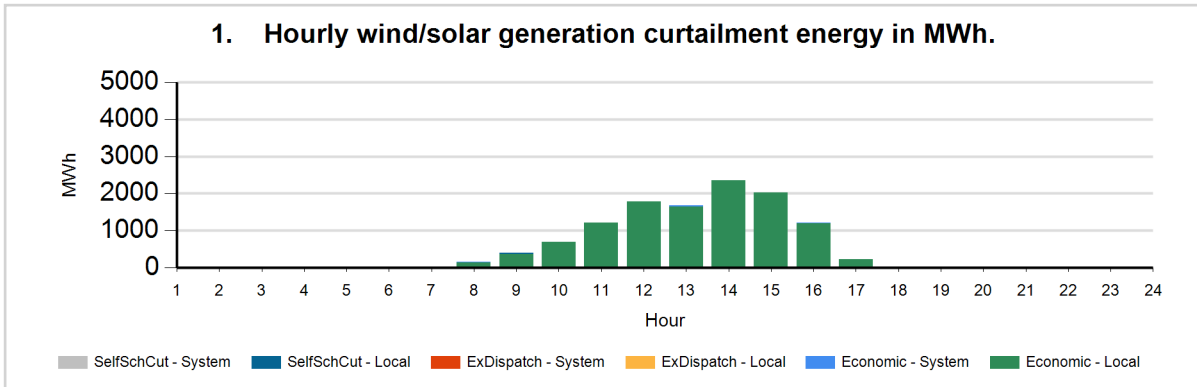
<sup>1</sup>Only wind and solar resources can be reported in this manner because these resources have a forecast. Curtailment is defined as the difference between actual production and the forecast when actual production is less than the forecast.

<sup>2</sup>The Renewables Watch report provides daily actual renewable production within the ISO grid. It is available at: <http://www.caiso.com/green/renewableswatch.html>.

<sup>3</sup>Congestion occurs when available, least-cost energy cannot be delivered to some loads because transmission facilities do not have sufficient capacity to deliver the energy.

<sup>4</sup>For more information on oversupply conditions, please see: [https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables\\_FastFacts.pdf](https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables_FastFacts.pdf)

The following charts show the daily and 7-day rolling wind and solar curtailment by category, if any.



The following charts show hourly year to date wind and solar curtailment by category, if any.



The following charts show monthly year to date wind and solar curtailment by category, if any.



TYPE	YTD CURTAILED MWH
LocalEconomic	279,577
LocalSelfSchCut	1,784
SystemEconomic	179,189
SystemSelfSchCut	493
<b>TOTAL</b>	<b>556,417</b>

**Data used to produce hourly chart**

DATE	HOUR	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
02/28	8	Economic	Local	SOLR	149	391
02/28	8	Economic	Local	WIND	10	19
02/28	8	Economic	System	SOLR	2	14
02/28	9	Economic	Local	SOLR	346	443
02/28	9	Economic	Local	WIND	18	18
02/28	9	SelfSchCut	Local	SOLR	26	17
02/28	10	Economic	Local	SOLR	679	1062
02/28	10	Economic	Local	WIND	20	17
02/28	11	Economic	Local	SOLR	1193	1610
02/28	11	Economic	Local	WIND	23	24
02/28	12	Economic	Local	SOLR	1683	2013
02/28	12	Economic	Local	WIND	101	106
02/28	13	Economic	Local	SOLR	1549	1880
02/28	13	Economic	Local	WIND	99	148
02/28	14	Economic	Local	SOLR	2192	2664
02/28	14	Economic	Local	WIND	161	172
02/28	15	Economic	Local	SOLR	1851	2167
02/28	15	Economic	Local	WIND	168	176
02/28	16	Economic	Local	SOLR	1122	1778
02/28	16	Economic	Local	WIND	95	177
02/28	17	Economic	Local	SOLR	218	834
02/28	17	Economic	Local	WIND	5	35

The information contained in this report is preliminary and subject to change without notice. No inference, decision or conclusion should be made based on the information in this report or any series of these reports. All values are hourly average unless otherwise stated. Questions about this report should be directed to Hong Zhou at [hzhou@caiso.com](mailto:hzhou@caiso.com).



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