

## Wind and Solar Curtailment April 17, 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.

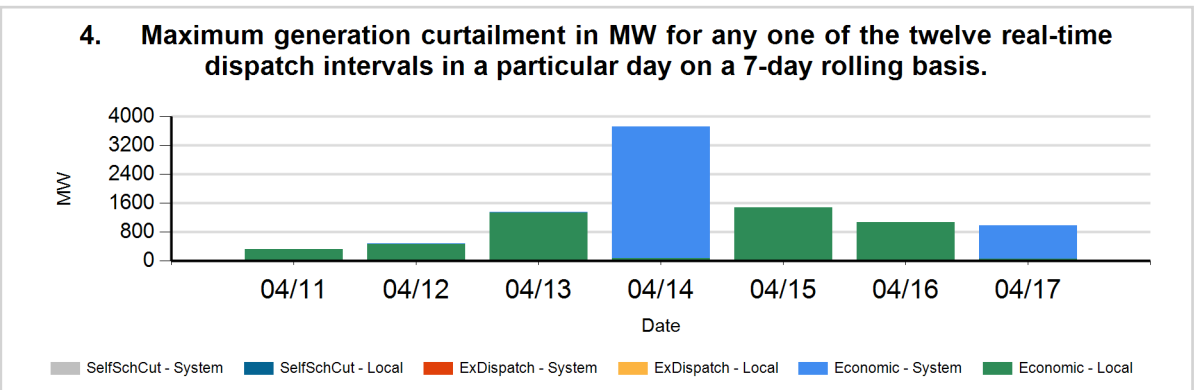
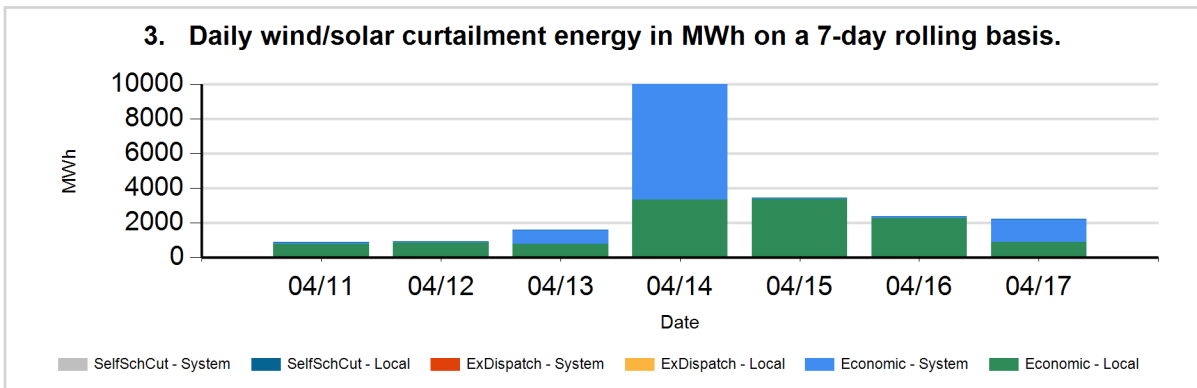
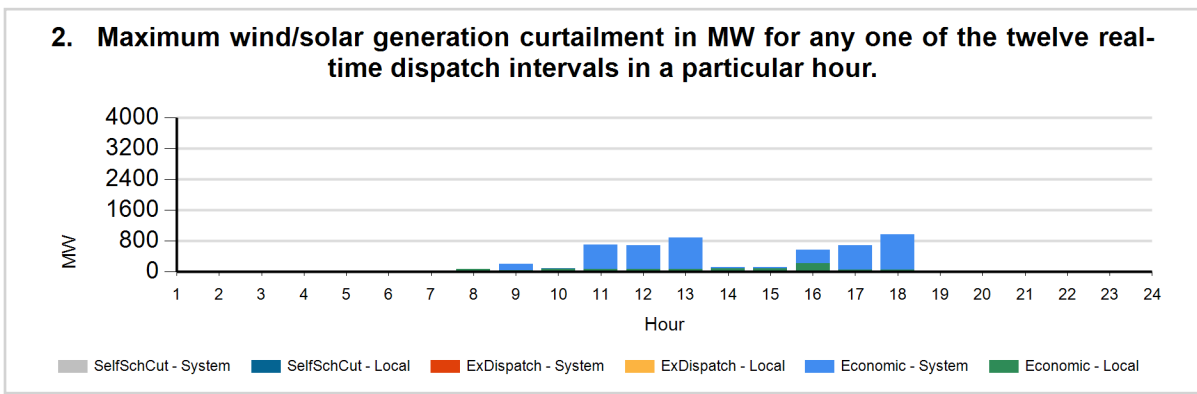
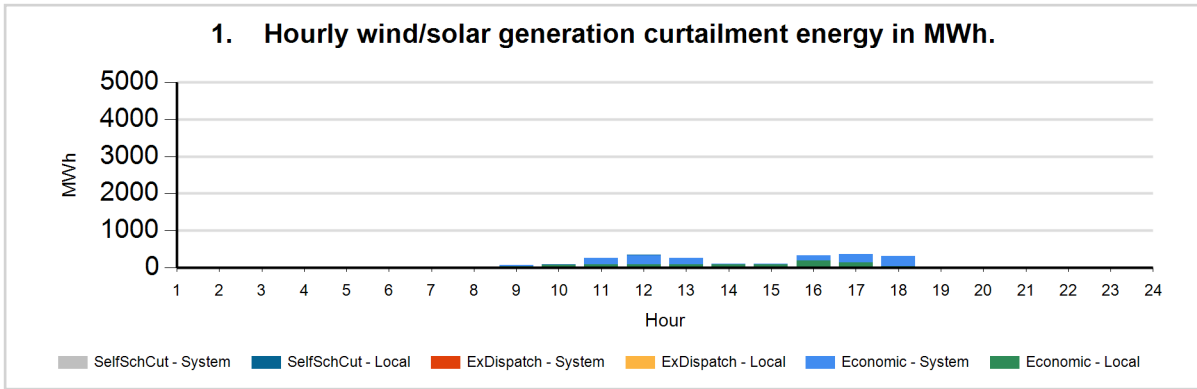
<sup>1</sup>Only wind and solar resources can be reported in this manner because these resources have a forecast. Curtailment is defined as the difference between actual production and the forecast when actual production is less than the forecast.

<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>.

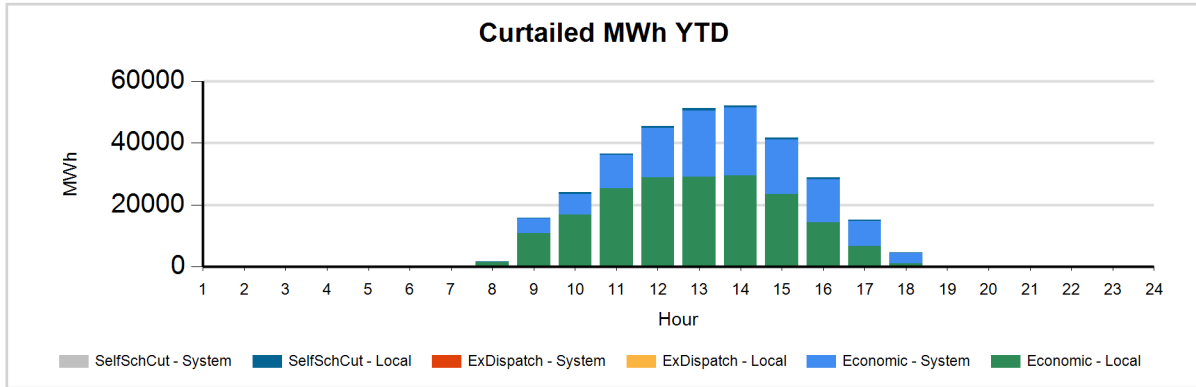
<sup>3</sup>Congestion occurs when available, least-cost energy cannot be delivered to some loads because transmission facilities do not have sufficient capacity to deliver the energy.

<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)

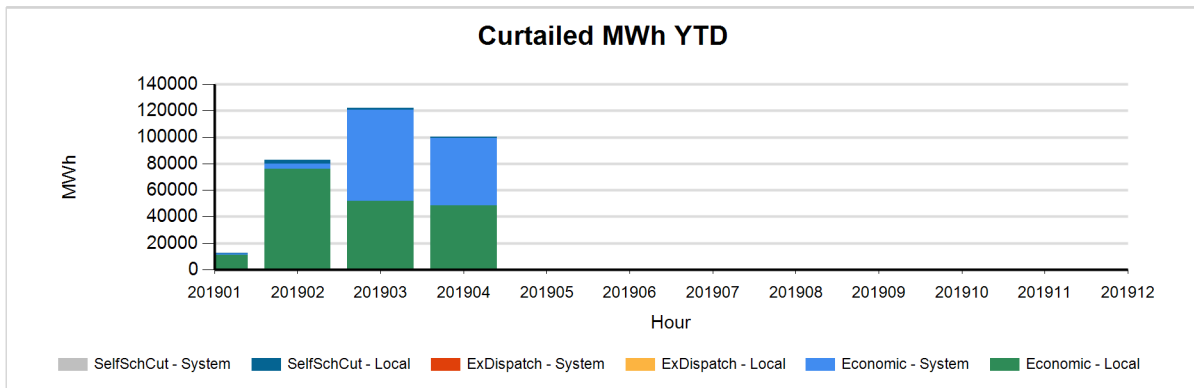
The following charts show the daily and 7-day rolling wind and solar curtailment by category, if any.



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	187,499
LocalSelfSchCut	5,304
SystemEconomic	124,861
TOTAL	317,664

**Data used to produce hourly chart**

DATE	HOUR	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
04/17	8	Economic	Local	SOLR	15	58
04/17	9	Economic	Local	SOLR	37	29
04/17	9	Economic	System	SOLR	25	162
04/17	9	Economic	System	WIND	0	1
04/17	10	Economic	Local	SOLR	71	62
04/17	10	Economic	System	SOLR	5	23
04/17	10	SelfSchCut	Local	SOLR	2	3
04/17	11	Economic	Local	SOLR	88	68
04/17	11	Economic	System	SOLR	169	632
04/17	12	Economic	Local	SOLR	77	71
04/17	12	Economic	System	SOLR	259	606
04/17	13	Economic	Local	SOLR	80	59
04/17	13	Economic	System	SOLR	179	817
04/17	14	Economic	Local	SOLR	81	77
04/17	14	Economic	System	SOLR	22	35
04/17	15	Economic	Local	SOLR	86	82
04/17	15	Economic	System	SOLR	23	35
04/17	16	Economic	Local	SOLR	180	212
04/17	16	Economic	Local	WIND	2	5
04/17	16	Economic	System	SOLR	140	348
04/17	17	Economic	Local	SOLR	140	55
04/17	17	Economic	System	SOLR	224	625
04/17	18	Economic	Local	SOLR	31	55
04/17	18	Economic	System	SOLR	287	911
04/17	19	Economic	System	SOLR	1	6

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 Short-Term Forecasting at [ShortTermForecasting@caiso.com](mailto:ShortTermForecasting@caiso.com).

