

## Wind and Solar Curtailment May 05, 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.

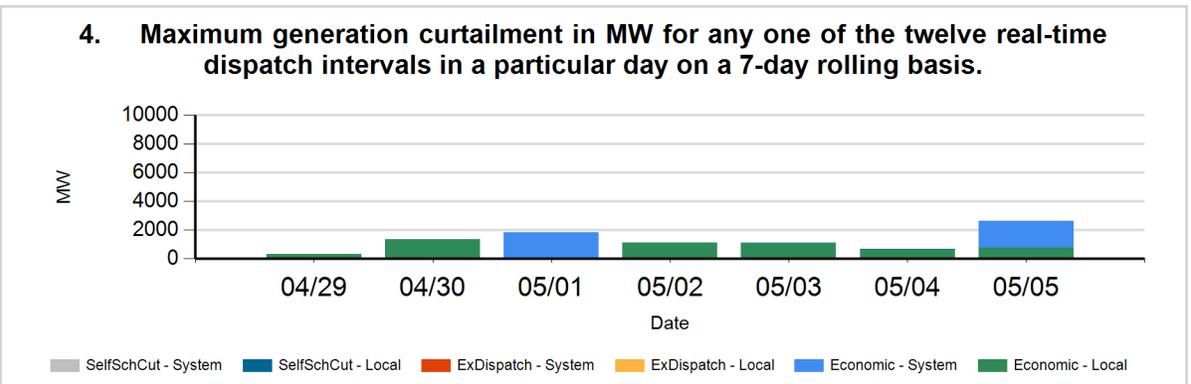
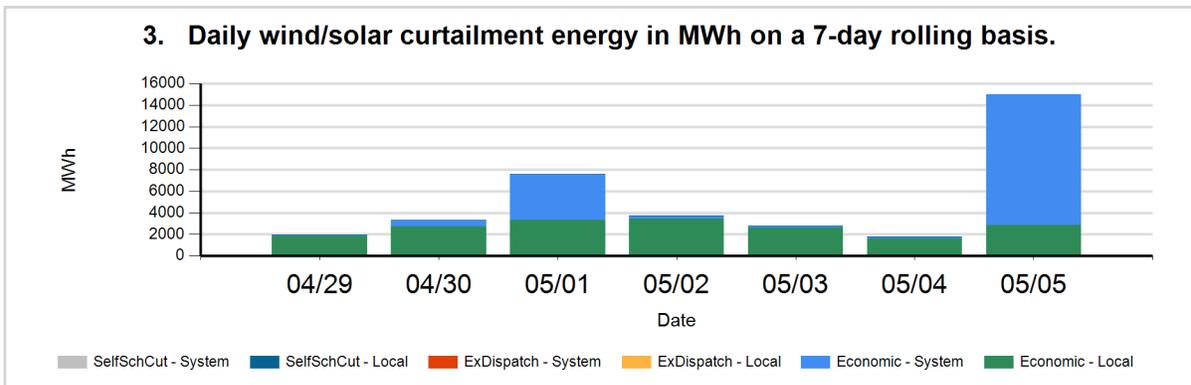
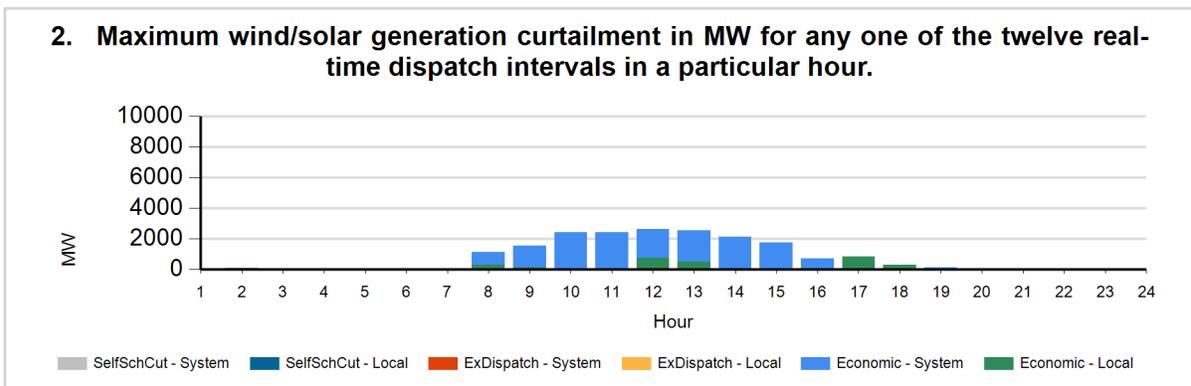
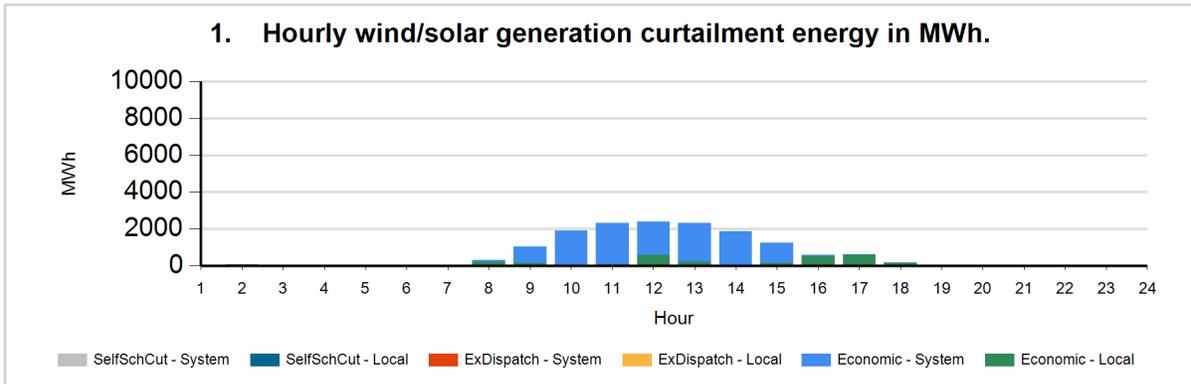
<sup>2</sup>The Renewables Watch report provides daily actual renewable production within the ISO grid. It is available at: <http://www.caiso.com/green/renewableswatch.html>.

<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.

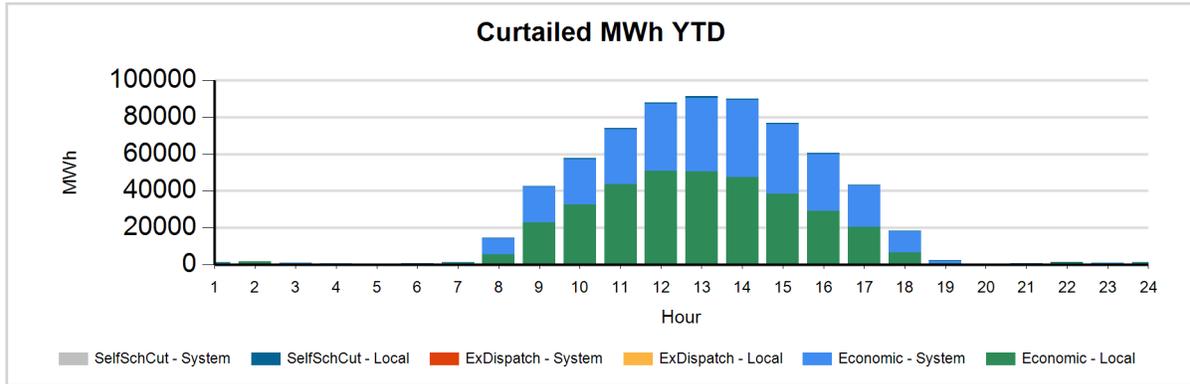
<sup>4</sup>For more information on oversupply conditions, please see:

[https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables\\_FastFacts.pdf](https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables_FastFacts.pdf)

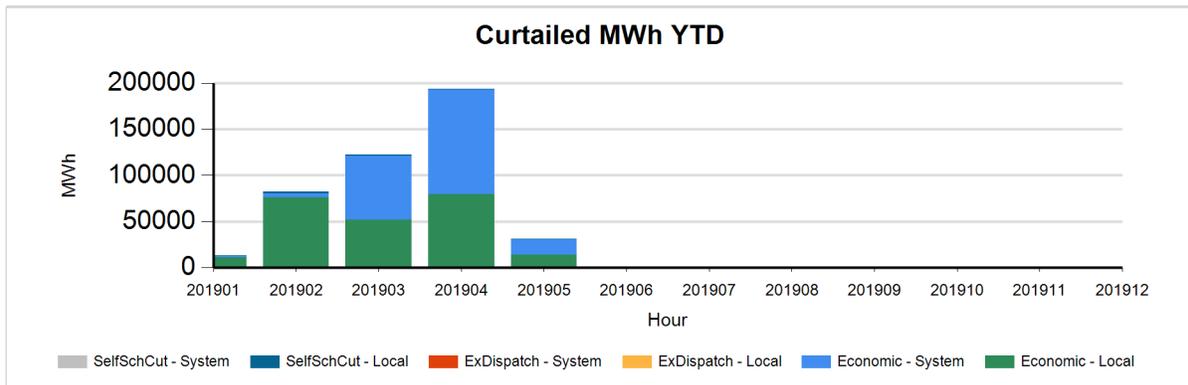
The following charts show the daily and 7-day rolling wind and solar curtailment by category, if any.



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	232,120
LocalSelfSchCut	5,476
SystemEconomic	204,805
TOTAL	442,401

**Data used to produce hourly chart**

DATE	HOUR	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
05/05	1	Economic	Local	WIND	5	33
05/05	2	Economic	Local	WIND	53	61
05/05	3	Economic	Local	WIND	28	35
05/05	4	Economic	Local	WIND	14	30
05/05	5	Economic	Local	WIND	27	33
05/05	6	Economic	Local	WIND	21	31
05/05	7	Economic	Local	SOLR	9	28
05/05	8	Economic	Local	SOLR	200	297
05/05	8	Economic	System	SOLR	115	782
05/05	8	Economic	System	WIND	6	37
05/05	9	Economic	Local	SOLR	139	103
05/05	9	Economic	System	SOLR	877	1389
05/05	9	Economic	System	WIND	32	31
05/05	10	Economic	Local	SOLR	17	12
05/05	10	Economic	System	SOLR	1847	2370
05/05	10	Economic	System	WIND	30	30
05/05	11	Economic	Local	SOLR	48	47
05/05	11	Economic	System	SOLR	2243	2326
05/05	11	Economic	System	WIND	28	28
05/05	12	Economic	Local	SOLR	597	732
05/05	12	Economic	System	SOLR	1768	1863
05/05	12	Economic	System	WIND	21	25
05/05	13	Economic	Local	SOLR	189	498
05/05	13	Economic	System	SOLR	2098	2010
05/05	13	Economic	System	WIND	26	26
05/05	14	Economic	Local	SOLR	45	40
05/05	14	Economic	System	SOLR	1804	2073
05/05	14	Economic	System	WIND	26	25
05/05	15	Economic	Local	SOLR	130	50
05/05	15	Economic	System	SOLR	1100	1669
05/05	15	Economic	System	WIND	26	27

05/05	16	Economic	Local	SOLR	515	17
05/05	16	Economic	System	SOLR	72	661
05/05	16	Economic	System	WIND	4	32
05/05	17	Economic	Local	SOLR	621	839
05/05	18	Economic	Local	SOLR	159	301
05/05	19	Economic	Local	SOLR	14	35
05/05	19	Economic	System	SOLR	10	93
05/05	20	Economic	System	SOLR	4	7
05/05	21	Economic	System	SOLR	3	18

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).