

## Wind and Solar Curtailment May 02, 2018

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.

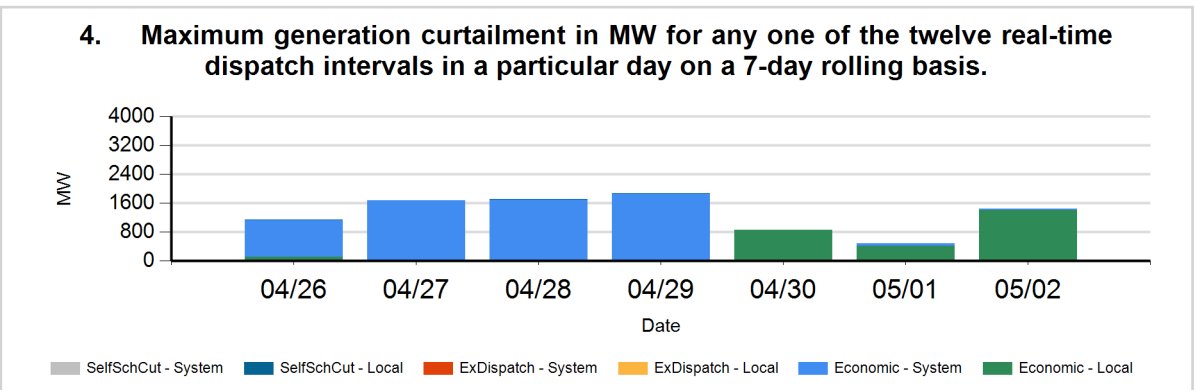
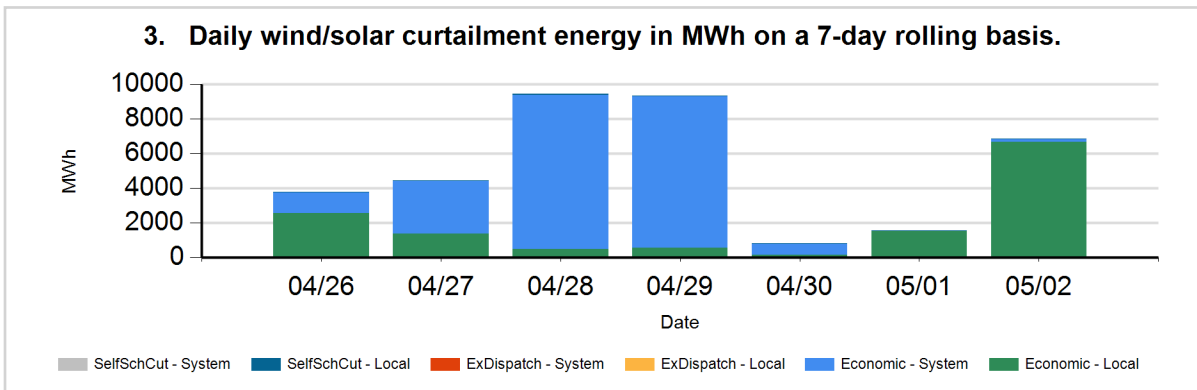
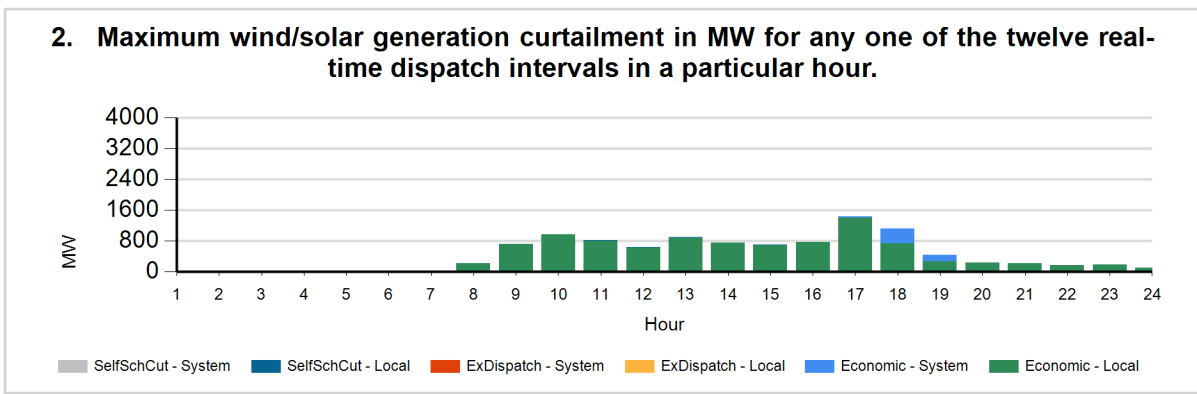
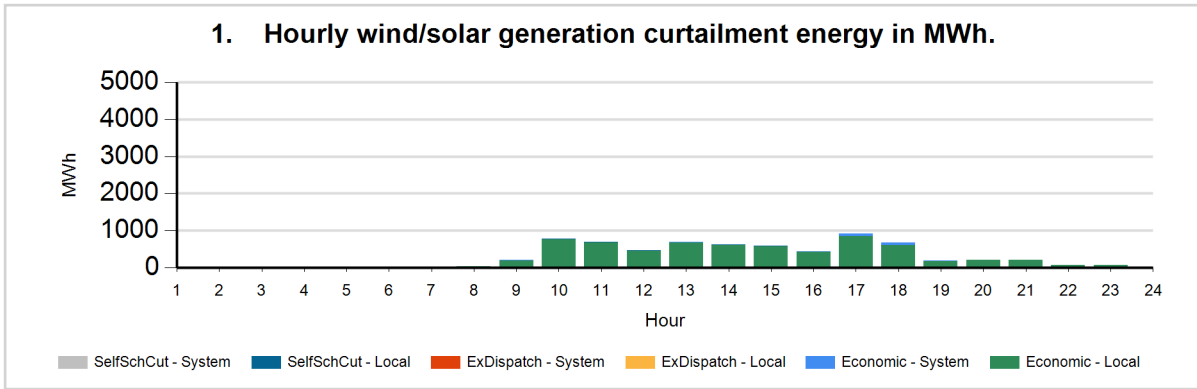
<sup>2</sup>The Renewables Watch report provides daily actual renewable production within the ISO grid. It is available at: <http://www.caiso.com/green/renewableswatch.html>.

<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.

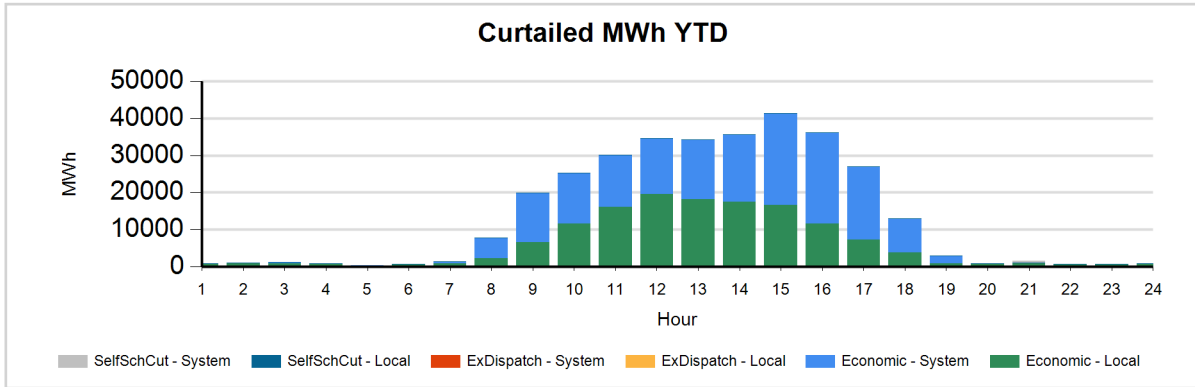
<sup>4</sup>For more information on oversupply conditions, please see:

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

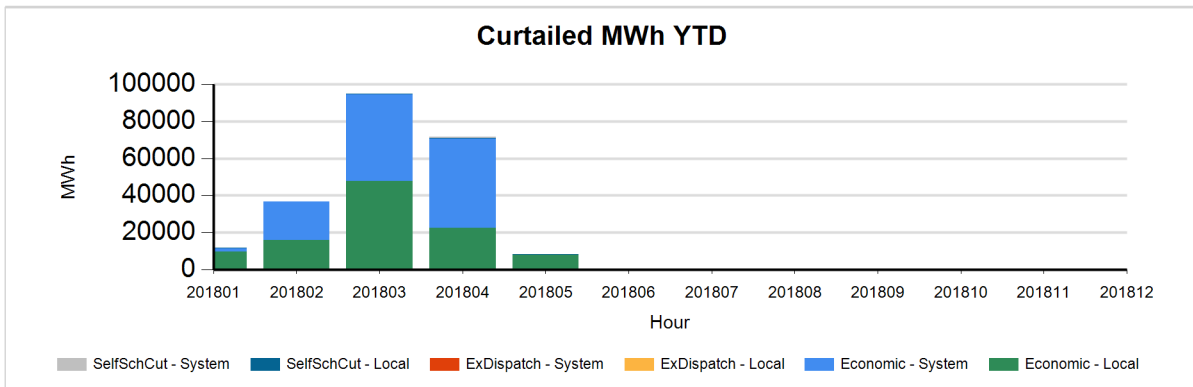
The following charts show the daily and 7-day rolling wind and solar curtailment by category, if any.



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	140,589
LocalSelfSchCut	1,370
SystemEconomic	175,893
SystemSelfSchCut	493
<b>TOTAL</b>	<b>223,398</b>

**Data used to produce hourly chart**

DATE	HOUR	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
05/02	7	Economic	Local	SOLR	0	2
05/02	8	Economic	Local	SOLR	31	211
05/02	9	Economic	Local	SOLR	93	498
05/02	9	Economic	Local	WIND	112	224
05/02	10	Economic	Local	SOLR	573	743
05/02	10	Economic	Local	WIND	203	221
05/02	11	Economic	Local	SOLR	579	621
05/02	11	Economic	Local	WIND	115	193
05/02	11	SelfSchCut	Local	SOLR	1	1
05/02	12	Economic	Local	SOLR	460	630
05/02	12	SelfSchCut	Local	SOLR	2	4
05/02	13	Economic	Local	SOLR	628	642
05/02	13	Economic	Local	WIND	52	238
05/02	13	Economic	System	SOLR	5	12
05/02	14	Economic	Local	SOLR	603	726
05/02	14	Economic	Local	WIND	24	25
05/02	15	Economic	Local	SOLR	571	648
05/02	15	Economic	Local	WIND	16	53
05/02	15	SelfSchCut	Local	SOLR	2	7
05/02	16	Economic	Local	SOLR	302	541
05/02	16	Economic	Local	WIND	129	224
05/02	17	Economic	Local	SOLR	686	1175
05/02	17	Economic	Local	WIND	163	220
05/02	17	Economic	System	SOLR	48	15
05/02	17	Economic	System	WIND	25	21
05/02	18	Economic	Local	SOLR	412	528
05/02	18	Economic	Local	WIND	191	205
05/02	18	Economic	System	SOLR	59	380
05/02	18	Economic	System	WIND	5	12
05/02	19	Economic	Local	SOLR	76	268
05/02	19	Economic	System	SOLR	14	143

05/02	19	Economic	System	WIND	3	19
05/02	20	Economic	Local	WIND	204	235
05/02	21	Economic	Local	WIND	198	222
05/02	22	Economic	Local	WIND	63	170
05/02	23	Economic	Local	WIND	75	181
05/02	24	Economic	Local	WIND	15	93

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).