

## Wind and Solar Curtailment May 06, 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.

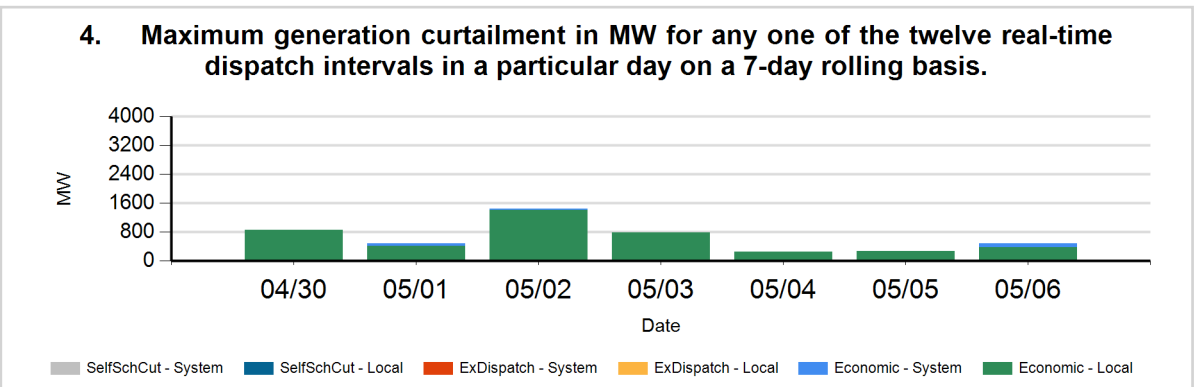
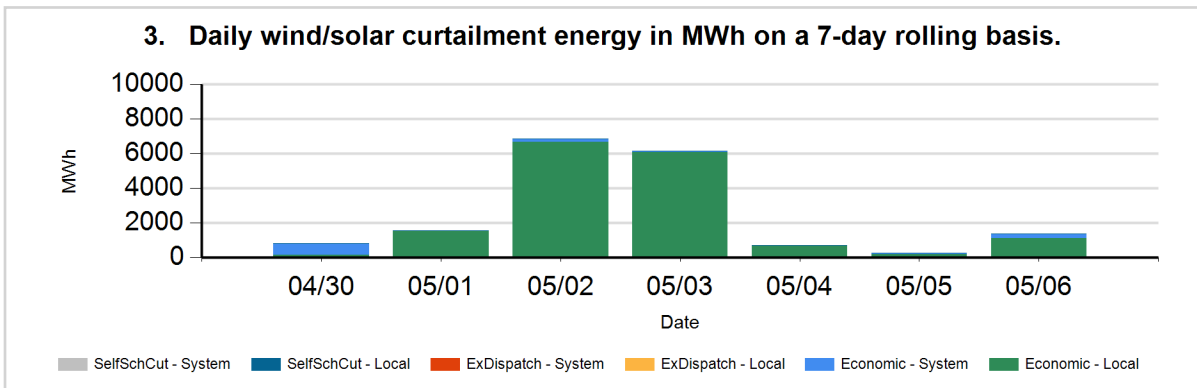
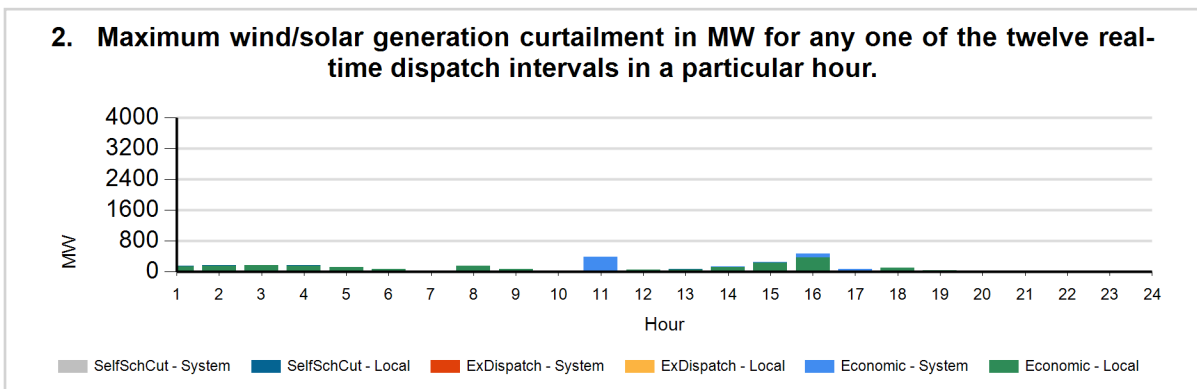
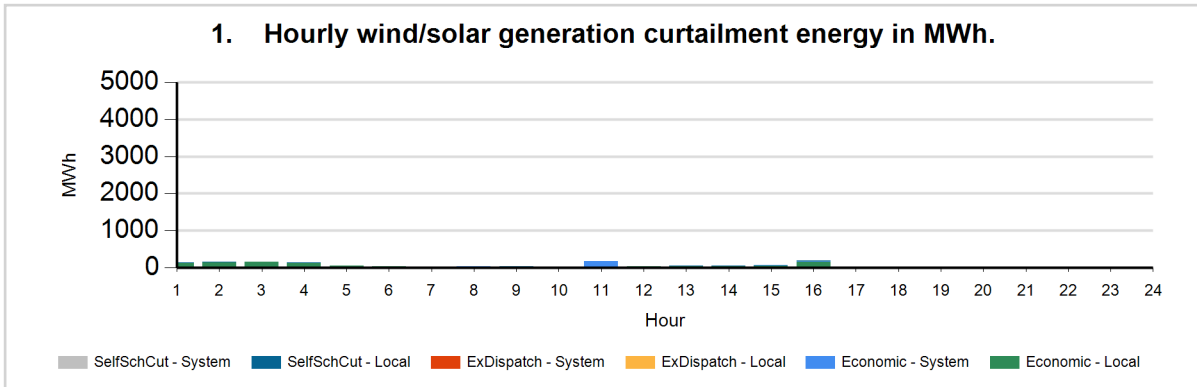
<sup>2</sup>The Renewables Watch report provides daily actual renewable production within the ISO grid. It is available at: <http://www.caiso.com/green/renewableswatch.html>.

<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)

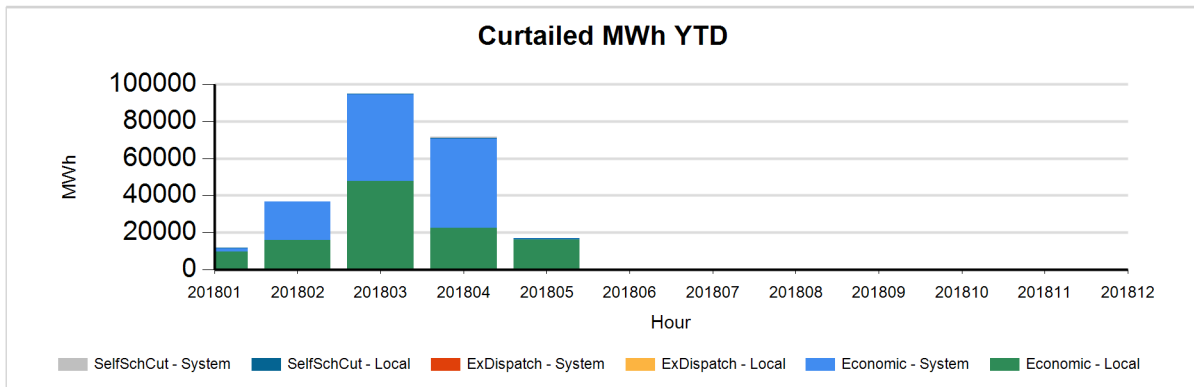
The following charts show the daily and 7-day rolling wind and solar curtailment by category, if any.



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>231,858</b>

Data used to produce hourly chart

DATE	HOUR	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
05/06	1	Economic	Local	WIND	142	143
05/06	1	SelfSchCut	Local	WIND	3	11
05/06	2	Economic	Local	WIND	150	151
05/06	2	SelfSchCut	Local	WIND	4	12
05/06	3	Economic	Local	WIND	146	157
05/06	4	Economic	Local	WIND	139	155
05/06	4	SelfSchCut	Local	WIND	3	11
05/06	5	Economic	Local	WIND	53	118
05/06	6	Economic	Local	WIND	30	62
05/06	8	Economic	Local	SOLR	2	6
05/06	8	Economic	Local	WIND	37	148
05/06	9	Economic	Local	SOLR	14	65
05/06	10	Economic	Local	SOLR	10	12
05/06	10	Economic	System	SOLR	0	2
05/06	11	Economic	Local	SOLR	22	23
05/06	11	Economic	System	SOLR	142	340
05/06	11	Economic	System	WIND	6	20
05/06	12	Economic	Local	SOLR	39	50
05/06	13	Economic	Local	SOLR	38	61
05/06	13	SelfSchCut	Local	SOLR	2	3
05/06	14	Economic	Local	SOLR	35	99
05/06	14	Economic	Local	WIND	16	36
05/06	14	Economic	System	SOLR	3	2
05/06	15	Economic	Local	SOLR	48	200
05/06	15	Economic	Local	WIND	13	36
05/06	15	Economic	System	SOLR	8	9
05/06	16	Economic	Local	SOLR	149	366
05/06	16	Economic	System	SOLR	33	105
05/06	17	Economic	System	SOLR	23	67
05/06	18	Economic	Local	SOLR	19	94
05/06	19	Economic	Local	SOLR	0	2
05/06	19	Economic	Local	WIND	10	34
05/06	21	Economic	Local	WIND	2	22

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).