

## Wind and Solar Curtailment April 04, 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.

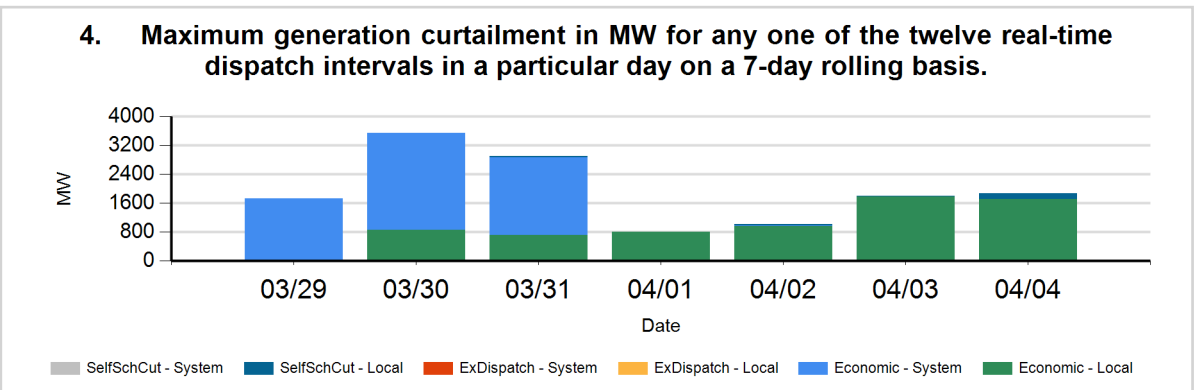
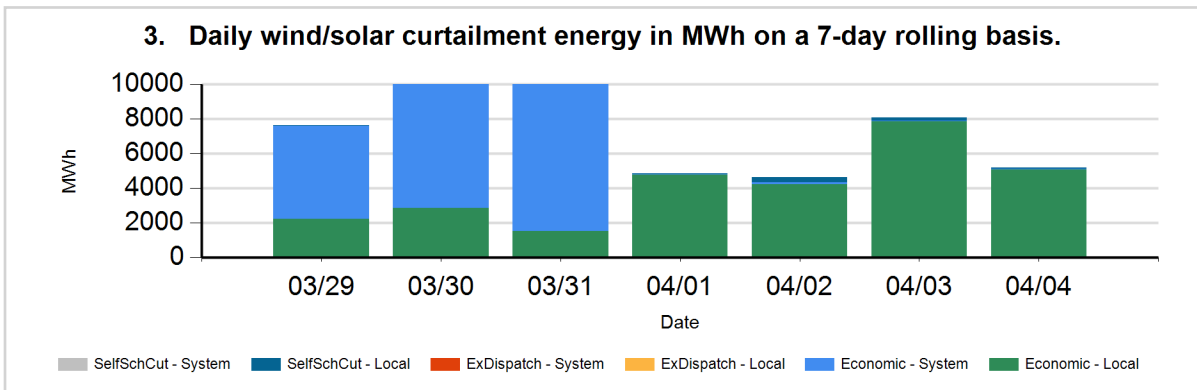
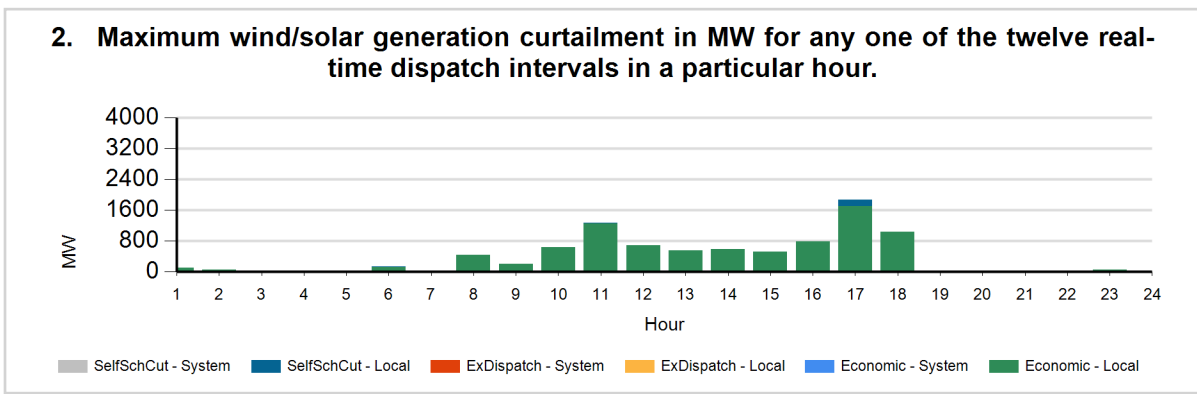
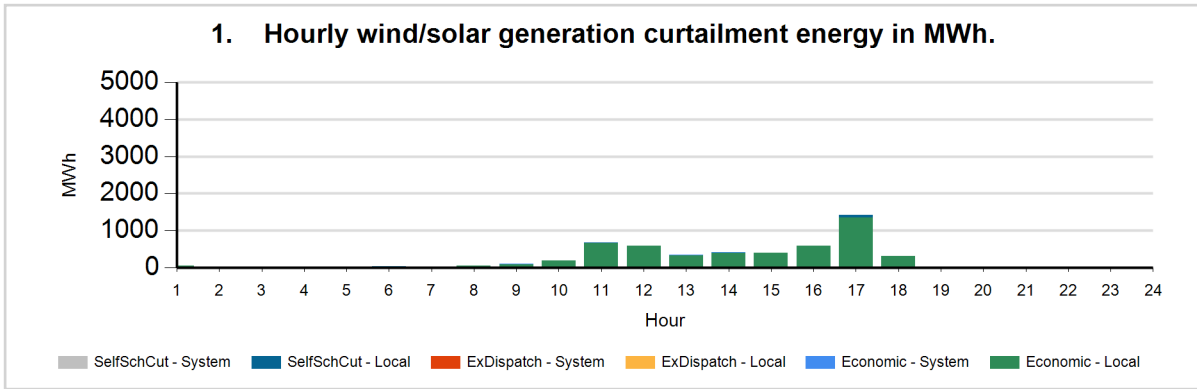
<sup>1</sup>Only wind and solar resources can be reported in this manner because these resources have a forecast. Curtailment is defined as the difference between actual production and the forecast when actual production is less than the forecast.

<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>.

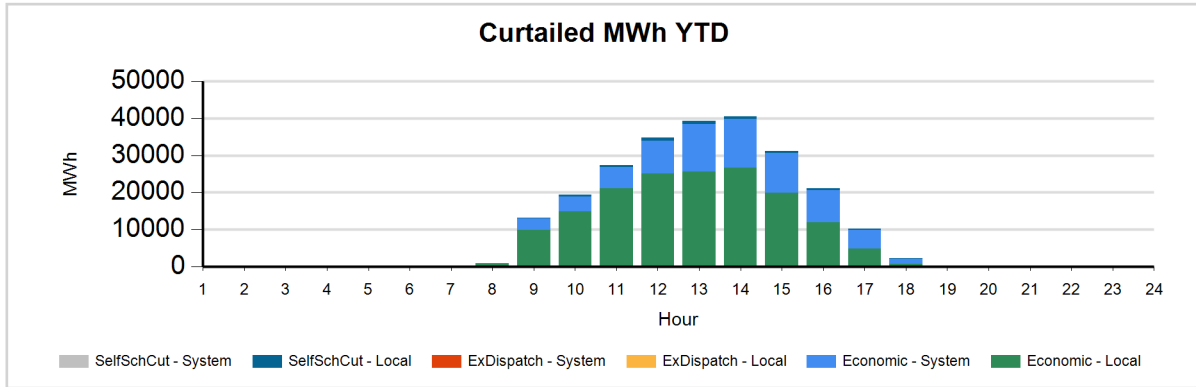
<sup>3</sup>Congestion occurs when available, least-cost energy cannot be delivered to some loads because transmission facilities do not have sufficient capacity to deliver the energy.

<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)

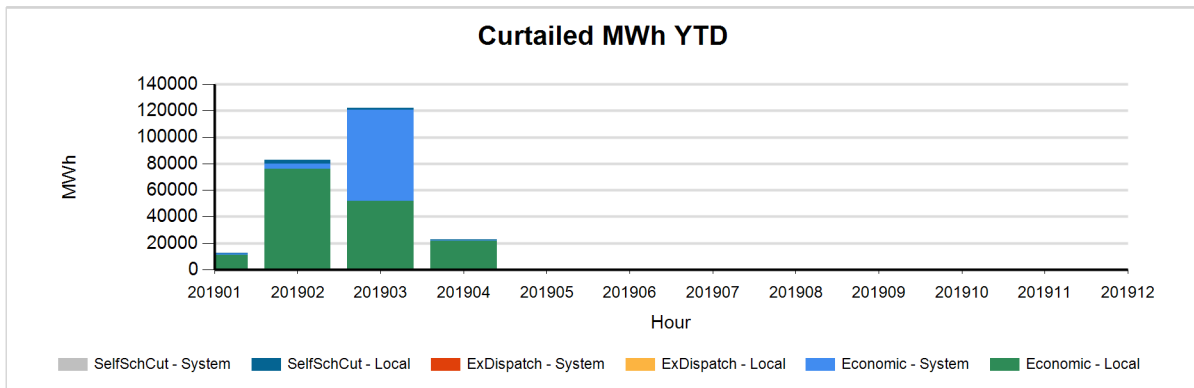
The following charts show the daily and 7-day rolling wind and solar curtailment by category, if any.



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	161,020
LocalSelfSchCut	5,197
SystemEconomic	74,119
TOTAL	240,336

Data used to produce hourly chart

DATE	HOUR	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
04/04	1	Economic	Local	WIND	45	106
04/04	2	Economic	Local	WIND	12	48
04/04	3	Economic	Local	WIND	0	1
04/04	5	Economic	Local	WIND	1	7
04/04	6	Economic	Local	WIND	38	116
04/04	6	SelfSchCut	Local	WIND	1	15
04/04	7	Economic	Local	WIND	3	16
04/04	8	Economic	Local	SOLR	35	325
04/04	8	Economic	Local	WIND	11	109
04/04	9	Economic	Local	SOLR	44	106
04/04	9	Economic	Local	WIND	58	91
04/04	10	Economic	Local	SOLR	135	454
04/04	10	Economic	Local	WIND	57	176
04/04	11	Economic	Local	SOLR	535	1102
04/04	11	Economic	Local	WIND	129	163
04/04	11	SelfSchCut	Local	SOLR	1	5
04/04	12	Economic	Local	SOLR	441	528
04/04	12	Economic	Local	WIND	139	156
04/04	13	Economic	Local	SOLR	314	529
04/04	13	Economic	Local	WIND	16	25
04/04	14	Economic	Local	SOLR	409	557
04/04	14	Economic	Local	WIND	11	18
04/04	15	Economic	Local	SOLR	374	488
04/04	15	Economic	Local	WIND	20	25
04/04	16	Economic	Local	SOLR	512	561
04/04	16	Economic	Local	WIND	81	226
04/04	17	Economic	Local	SOLR	1126	1472
04/04	17	Economic	Local	WIND	224	234
04/04	17	SelfSchCut	Local	WIND	62	166
04/04	18	Economic	Local	SOLR	274	890
04/04	18	Economic	Local	WIND	38	138
04/04	23	Economic	Local	WIND	7	42

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).