

## Wind and Solar Curtailment April 27, 2020

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.

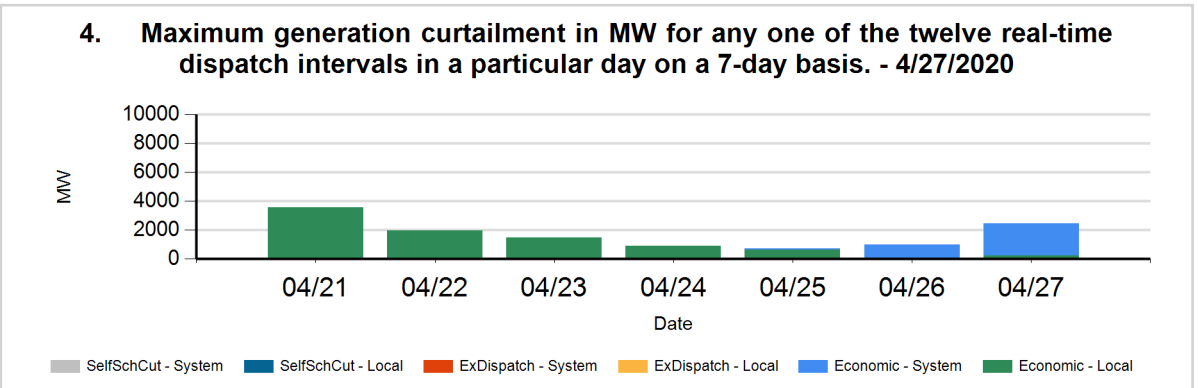
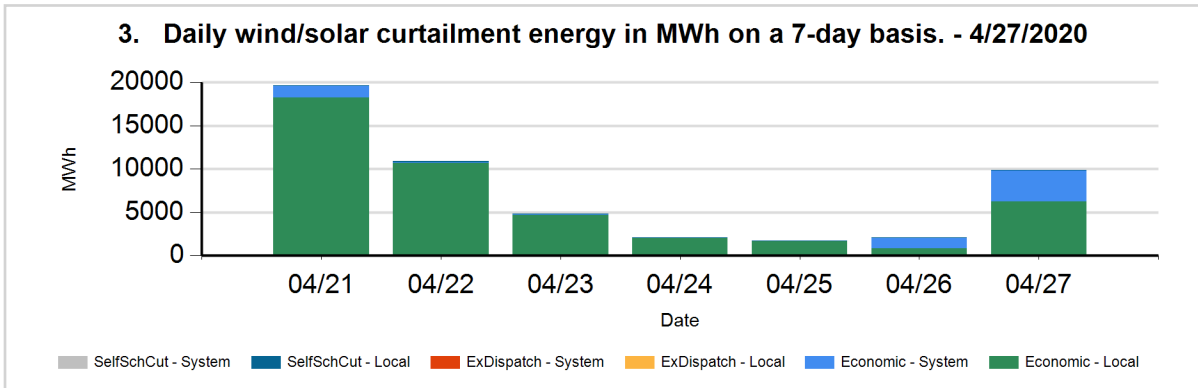
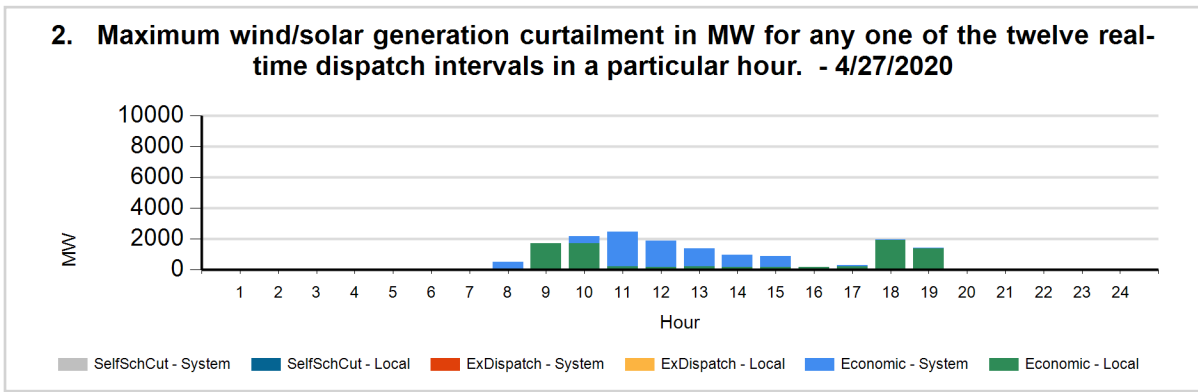
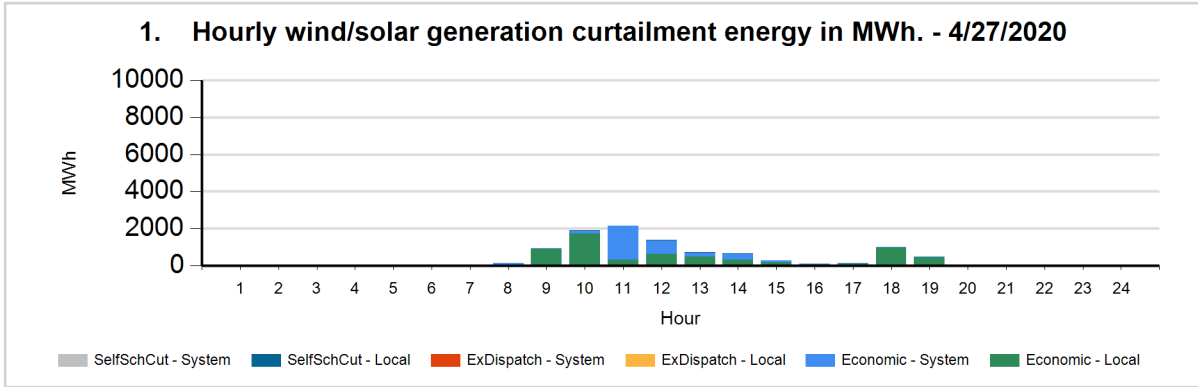
<sup>2</sup>The Renewables Watch report provides daily actual renewable production within the ISO grid. It is available at: <http://www.caiso.com/green/renewableswatch.html>.

<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.

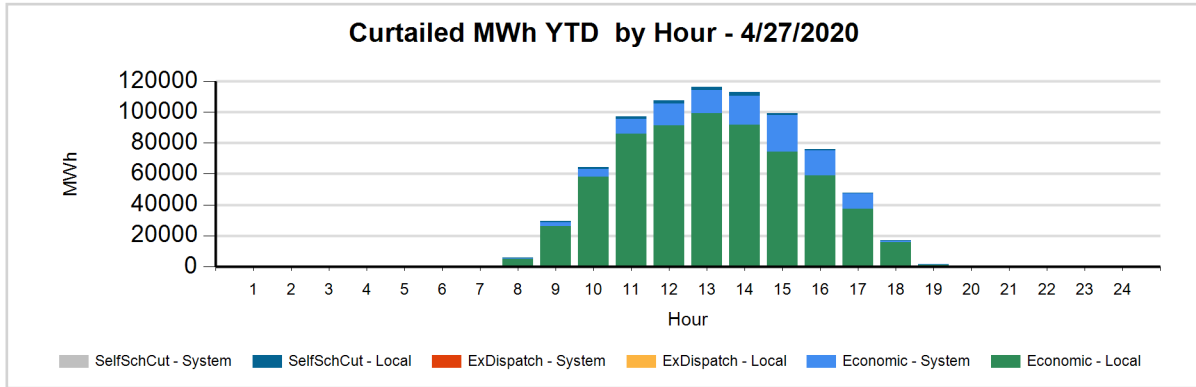
<sup>4</sup>For more information on oversupply conditions, please see:

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

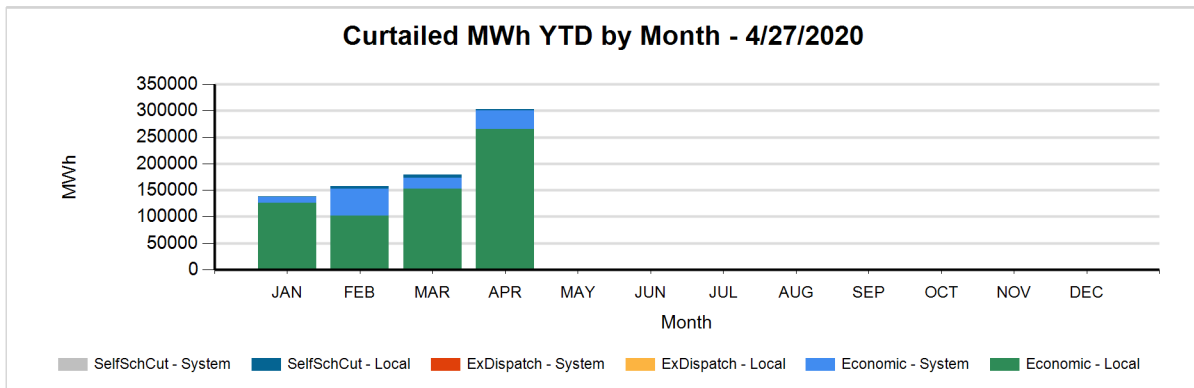
The following charts show the daily and 7-day wind and solar curtailment by category, if any.



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 - 4/27/2020
LocalEconomic	646,195
LocalSelfSchCut	13,322
SystemEconomic	117,811
TOTAL	777,328

**Data used to produce hourly chart**

DATE	HOUR	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
04/27	1	Economic	System	WIND	1	6
04/27	7	Economic	Local	SOLR	2	14
04/27	7	Economic	System	SOLR	0	
04/27	8	Economic	Local	SOLR	41	34
04/27	8	Economic	System	SOLR	74	443
04/27	8	Economic	System	WIND	6	39
04/27	9	Economic	Local	SOLR	914	1680
04/27	9	Economic	Local	WIND	10	30
04/27	9	Economic	System	SOLR	3	
04/27	10	Economic	Local	SOLR	1696	1706
04/27	10	Economic	Local	WIND	13	7
04/27	10	Economic	System	SOLR	160	415
04/27	10	Economic	System	WIND	17	28
04/27	10	SelfSchCut	Local	SOLR	1	
04/27	11	Economic	Local	SOLR	307	195
04/27	11	Economic	Local	WIND	4	
04/27	11	Economic	System	SOLR	1767	2195
04/27	11	Economic	System	WIND	52	54
04/27	12	Economic	Local	SOLR	620	145
04/27	12	Economic	Local	WIND	14	
04/27	12	Economic	System	SOLR	718	1681
04/27	12	Economic	System	WIND	31	60
04/27	12	SelfSchCut	Local	SOLR	1	
04/27	13	Economic	Local	SOLR	476	208
04/27	13	Economic	Local	WIND	14	
04/27	13	Economic	System	SOLR	203	1126
04/27	13	Economic	System	WIND	15	57
04/27	13	SelfSchCut	Local	SOLR	3	
04/27	14	Economic	Local	SOLR	306	182
04/27	14	Economic	Local	WIND	1	
04/27	14	Economic	System	SOLR	345	738

04/27	14	Economic	System	WIND	12	33
04/27	14	SelfSchCut	Local	SOLR	2	
04/27	15	Economic	Local	SOLR	167	174
04/27	15	Economic	System	SOLR	92	706
04/27	15	Economic	System	WIND	1	10
04/27	16	Economic	Local	SOLR	108	157
04/27	16	Economic	System	SOLR	7	
04/27	17	Economic	Local	SOLR	106	199
04/27	17	Economic	System	SOLR	26	69
04/27	18	Economic	Local	SOLR	976	1926
04/27	18	Economic	System	SOLR	27	27
04/27	19	Economic	Local	SOLR	469	1367
04/27	19	Economic	Local	WIND	6	24
04/27	19	Economic	System	SOLR	7	8

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).