

## Wind and Solar Curtailment April 30, 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.

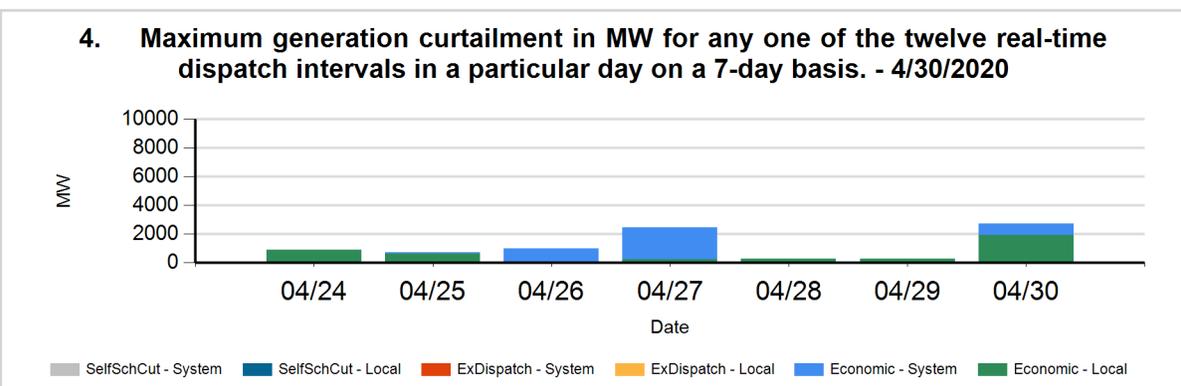
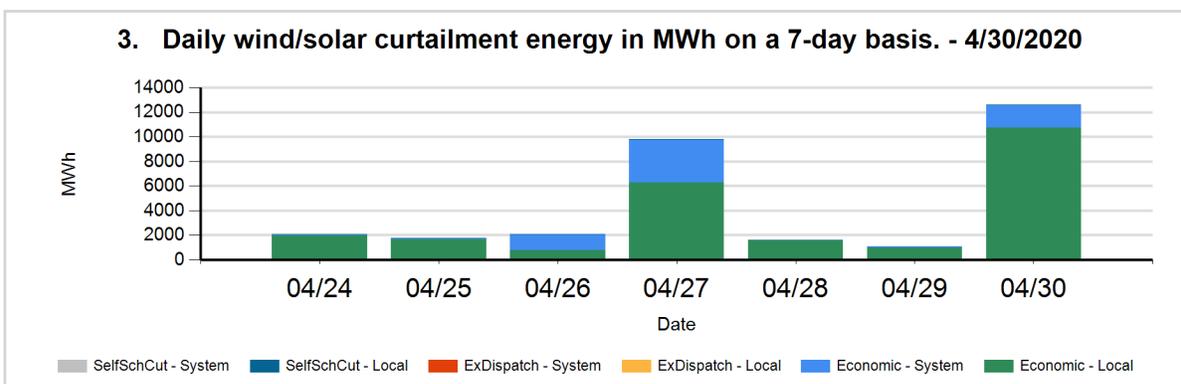
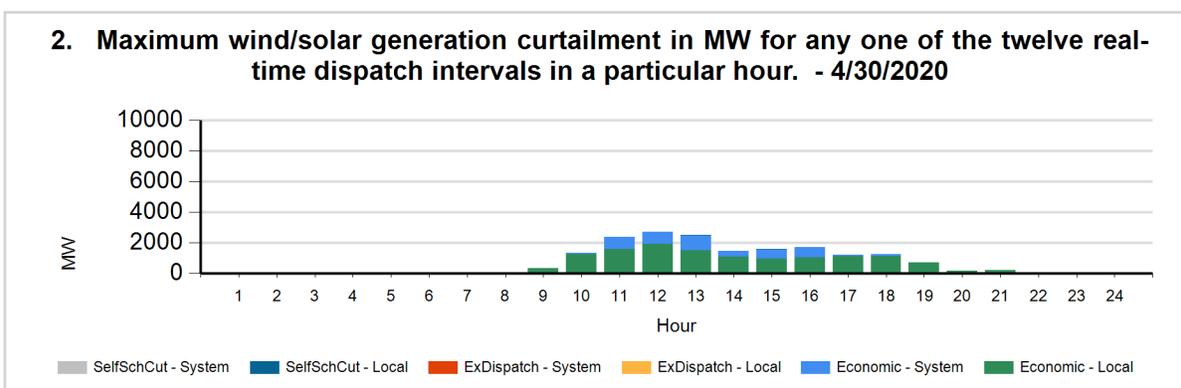
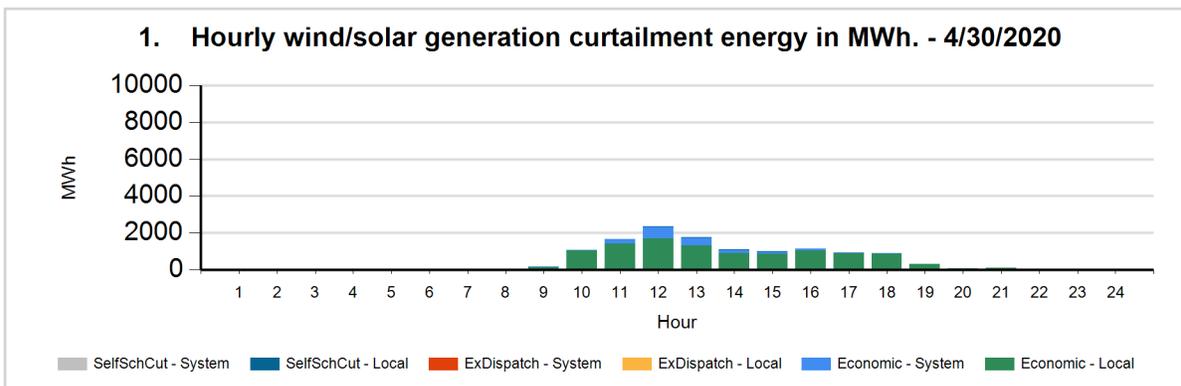
<sup>2</sup>The Renewables Watch report provides daily actual renewable production within the ISO grid. It is available at: <http://www.caiso.com/green/renewableswatch.html>.

<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.

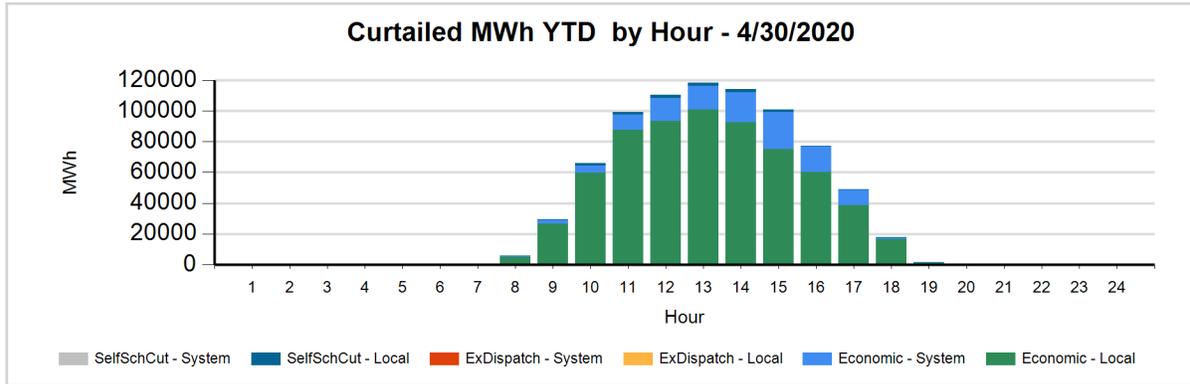
<sup>4</sup>For more information on oversupply conditions, please see:

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

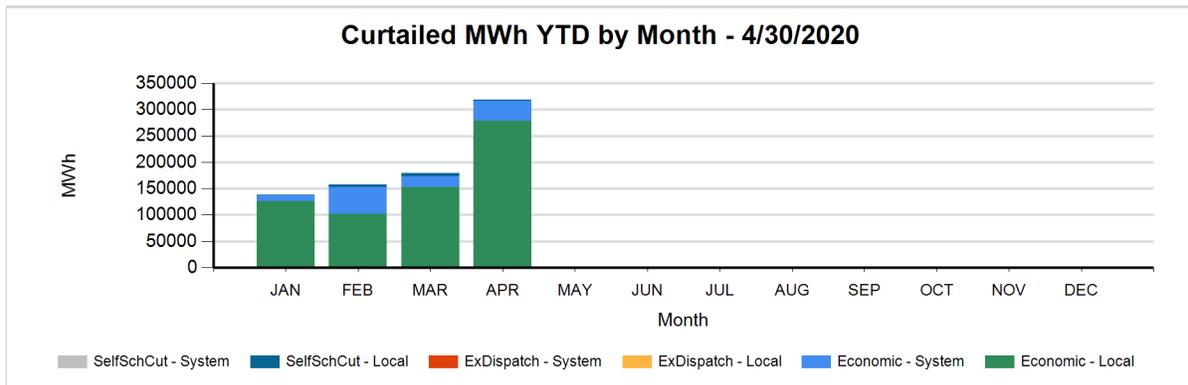
The following charts show the daily and 7-day wind and solar curtailment by category, if any.



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 - 4/30/2020
LocalEconomic	659,516
LocalSelfSchCut	13,331
SystemEconomic	119,739
TOTAL	792,585

**Data used to produce hourly chart**

DATE	HOUR	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
04/30	8	Economic	Local	SOLR	4	18
04/30	8	Economic	System	SOLR	0	
04/30	9	Economic	Local	SOLR	161	336
04/30	9	Economic	System	SOLR	1	
04/30	10	Economic	Local	SOLR	1034	1195
04/30	10	Economic	Local	WIND	31	46
04/30	10	Economic	System	SOLR	11	76
04/30	11	Economic	Local	SOLR	1368	1549
04/30	11	Economic	Local	WIND	43	45
04/30	11	Economic	System	SOLR	240	777
04/30	11	Economic	System	WIND	2	
04/30	12	Economic	Local	SOLR	1658	1865
04/30	12	Economic	Local	WIND	45	46
04/30	12	Economic	System	SOLR	656	805
04/30	12	Economic	System	WIND	2	3
04/30	12	SelfSchCut	Local	SOLR	2	
04/30	13	Economic	Local	SOLR	1258	1473
04/30	13	Economic	Local	WIND	47	45
04/30	13	Economic	System	SOLR	453	976
04/30	13	Economic	System	WIND	5	23
04/30	13	SelfSchCut	Local	SOLR	2	1
04/30	14	Economic	Local	SOLR	872	1055
04/30	14	Economic	Local	WIND	29	22
04/30	14	Economic	System	SOLR	197	381
04/30	14	Economic	System	WIND	1	4
04/30	14	SelfSchCut	Local	SOLR	1	
04/30	15	Economic	Local	SOLR	857	950
04/30	15	Economic	Local	WIND	17	15
04/30	15	Economic	System	SOLR	123	568
04/30	15	Economic	System	WIND	7	32
04/30	15	SelfSchCut	Local	SOLR	2	8

04/30	16	Economic	Local	SOLR	1027	1005
04/30	16	Economic	Local	WIND	13	33
04/30	16	Economic	System	SOLR	96	646
04/30	16	Economic	System	WIND	3	2
04/30	17	Economic	Local	SOLR	886	1101
04/30	17	Economic	Local	WIND	2	2
04/30	17	Economic	System	SOLR	45	84
04/30	18	Economic	Local	SOLR	815	1066
04/30	18	Economic	Local	WIND	80	46
04/30	18	Economic	System	SOLR	10	115
04/30	19	Economic	Local	SOLR	190	580
04/30	19	Economic	Local	WIND	116	141
04/30	20	Economic	Local	WIND	63	142
04/30	21	Economic	Local	WIND	102	193
04/30	22	Economic	Local	WIND	4	36

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).