

## Wind and Solar Curtailment May 21, 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.

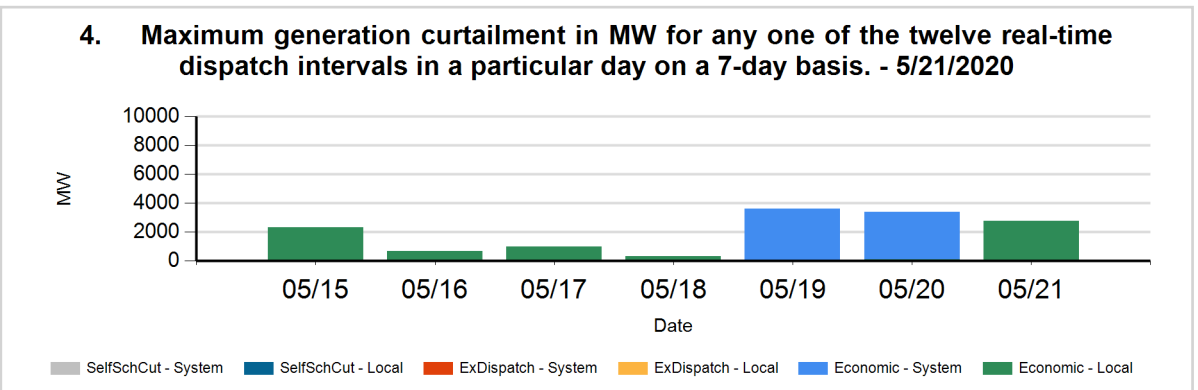
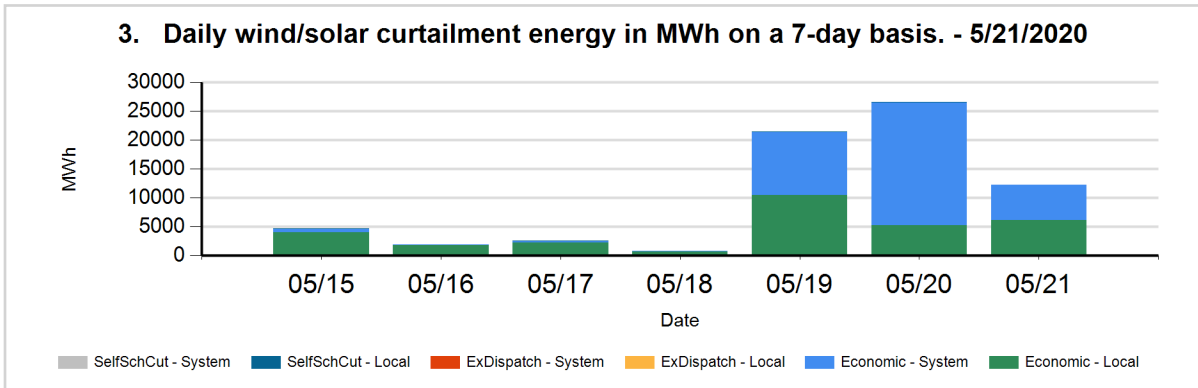
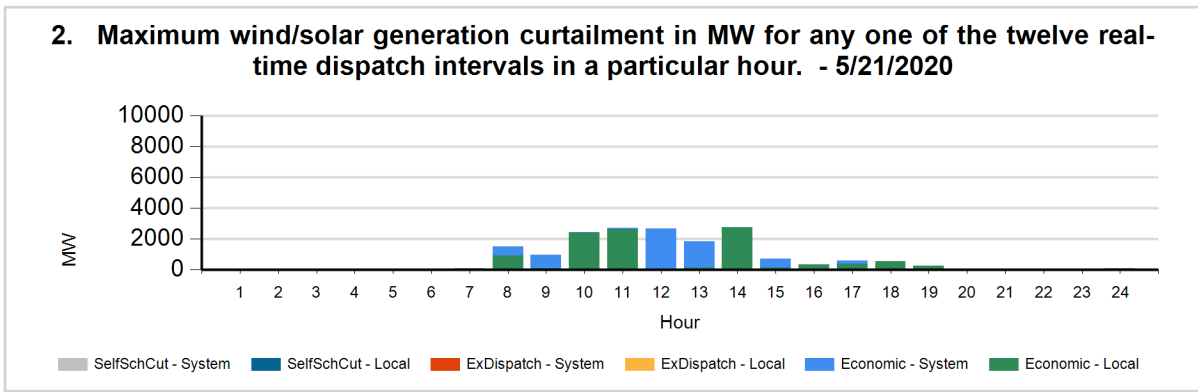
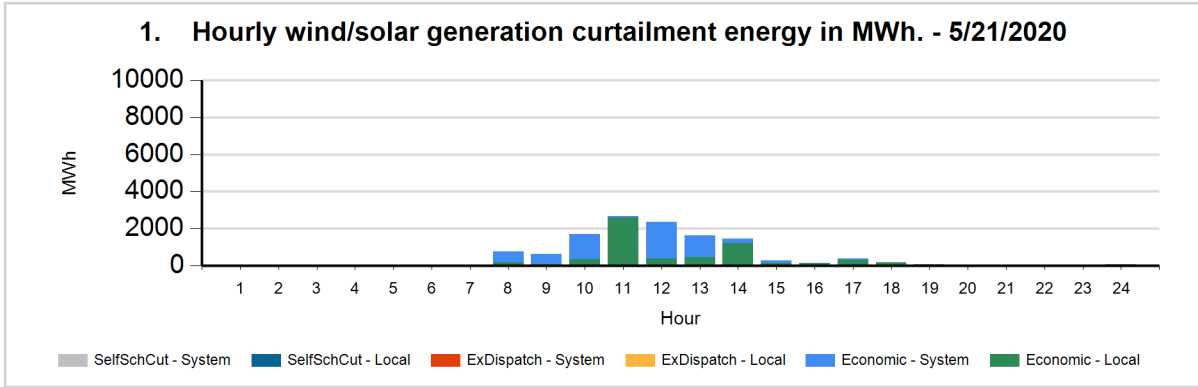
<sup>1</sup>Only wind and solar resources can be reported in this manner because these resources have a forecast. Curtailment is defined as the difference between actual production and the forecast when actual production is less than the forecast.

<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>.

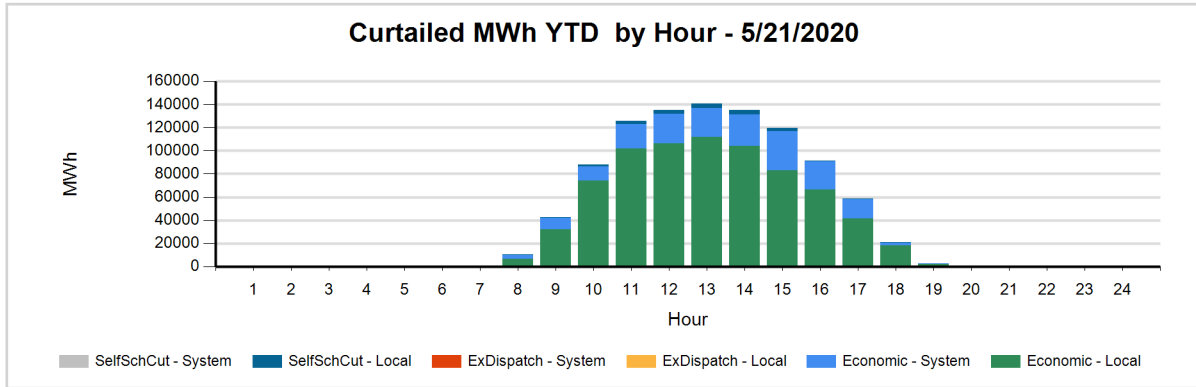
<sup>3</sup>Congestion occurs when available, least-cost energy cannot be delivered to some loads because transmission facilities do not have sufficient capacity to deliver the energy.

<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)

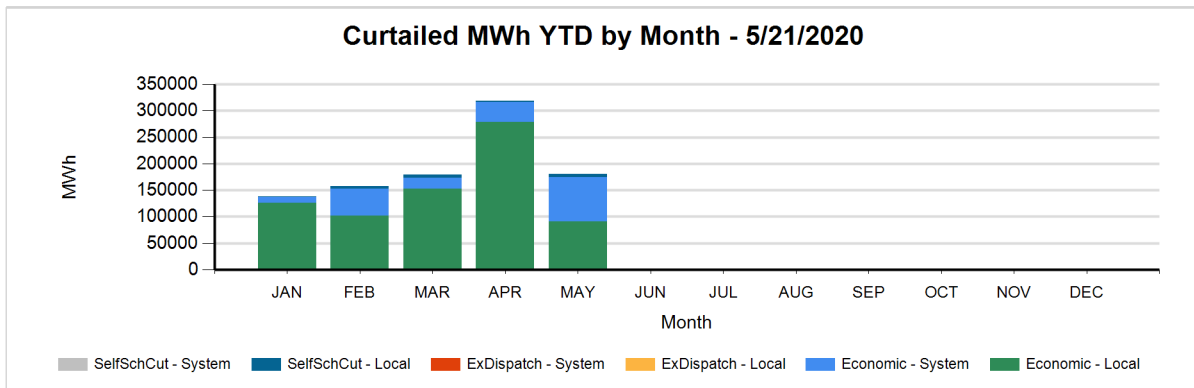
The following charts show the daily and 7-day wind and solar curtailment by category, if any.



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 - 5/21/2020
LocalEconomic	750,815
LocalSelfSchCut	19,473
SystemEconomic	202,557
<b>TOTAL</b>	<b>972,845</b>

**Data used to produce hourly chart**

DATE	HOUR	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
05/21	6	Economic	Local	SOLR	1	16
05/21	7	Economic	Local	SOLR	18	98
05/21	7	Economic	System	SOLR	8	
05/21	8	Economic	Local	SOLR	179	930
05/21	8	Economic	Local	WIND	1	4
05/21	8	Economic	System	SOLR	571	566
05/21	8	Economic	System	WIND	3	3
05/21	9	Economic	Local	SOLR	54	64
05/21	9	Economic	System	SOLR	564	891
05/21	9	Economic	System	WIND	5	8
05/21	10	Economic	Local	SOLR	355	2361
05/21	10	Economic	Local	WIND	0	2
05/21	10	Economic	System	SOLR	1334	58
05/21	10	Economic	System	WIND	3	
05/21	10	SelfSchCut	Local	SOLR	0	2
05/21	11	Economic	Local	SOLR	2588	2605
05/21	11	Economic	System	SOLR	85	108
05/21	12	Economic	Local	SOLR	392	12
05/21	12	Economic	System	SOLR	1948	2641
05/21	12	Economic	System	WIND	0	
05/21	13	Economic	Local	SOLR	453	106
05/21	13	Economic	System	SOLR	1163	1722
05/21	13	Economic	System	WIND	1	1
05/21	14	Economic	Local	SOLR	1208	2734
05/21	14	Economic	Local	WIND	1	
05/21	14	Economic	System	SOLR	235	
05/21	14	Economic	System	WIND	1	
05/21	14	SelfSchCut	Local	SOLR	0	
05/21	15	Economic	Local	SOLR	139	104
05/21	15	Economic	System	SOLR	117	616
05/21	15	Economic	System	WIND	0	

05/21	16	Economic	Local	SOLR	149	331
05/21	17	Economic	Local	SOLR	306	368
05/21	17	Economic	Local	WIND	2	9
05/21	17	Economic	System	SOLR	75	194
05/21	17	Economic	System	WIND	2	2
05/21	18	Economic	Local	SOLR	171	524
05/21	19	Economic	Local	SOLR	60	230
05/21	19	Economic	Local	WIND	12	
05/21	24	Economic	Local	WIND	68	97

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).