

## Wind and Solar Curtailment April 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.

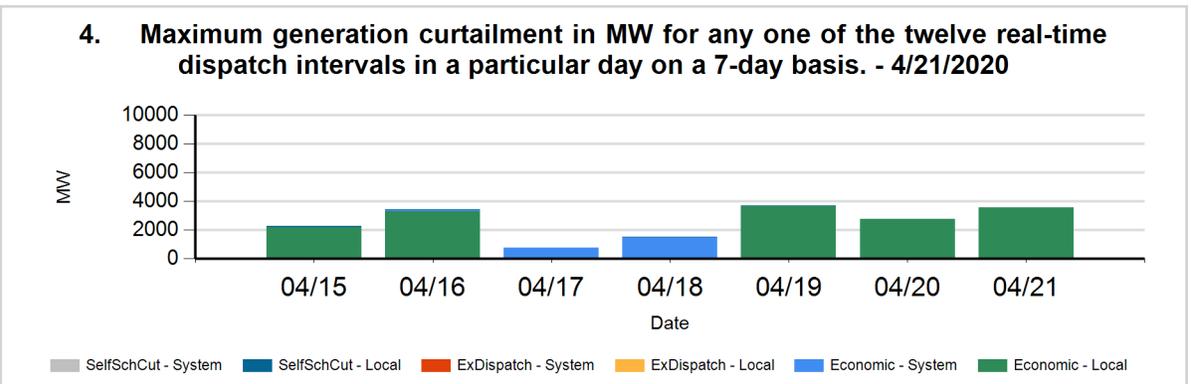
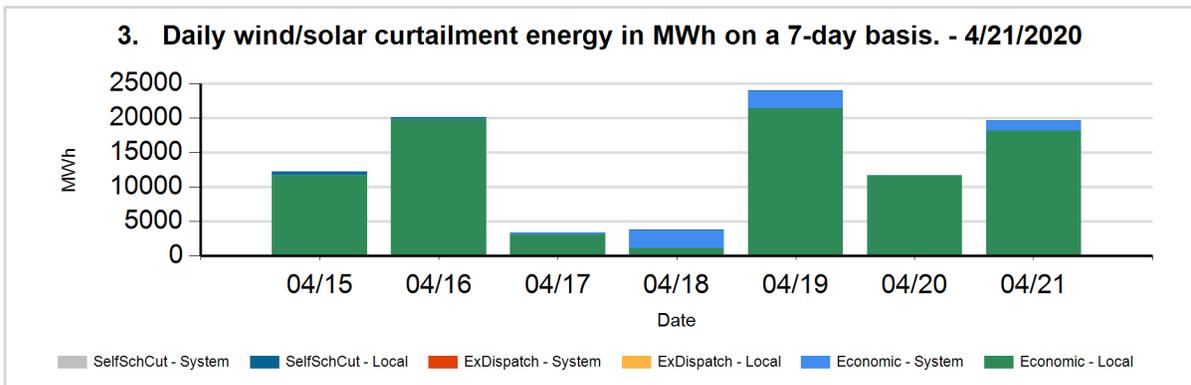
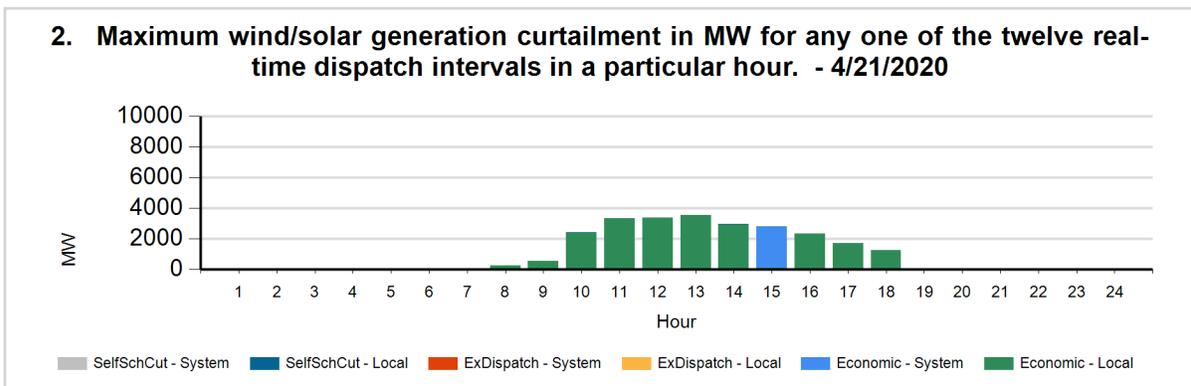
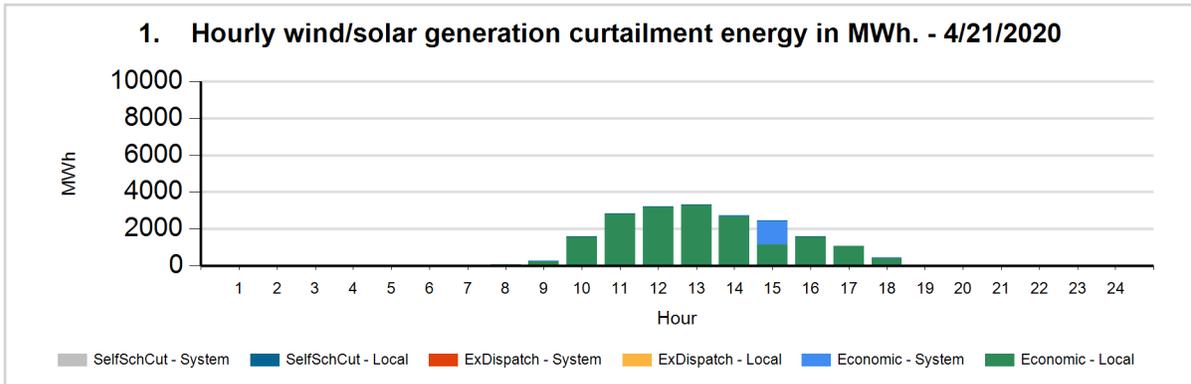
<sup>2</sup>The Renewables Watch report provides daily actual renewable production within the ISO grid. It is available at: <http://www.caiso.com/green/renewableswatch.html>.

<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.

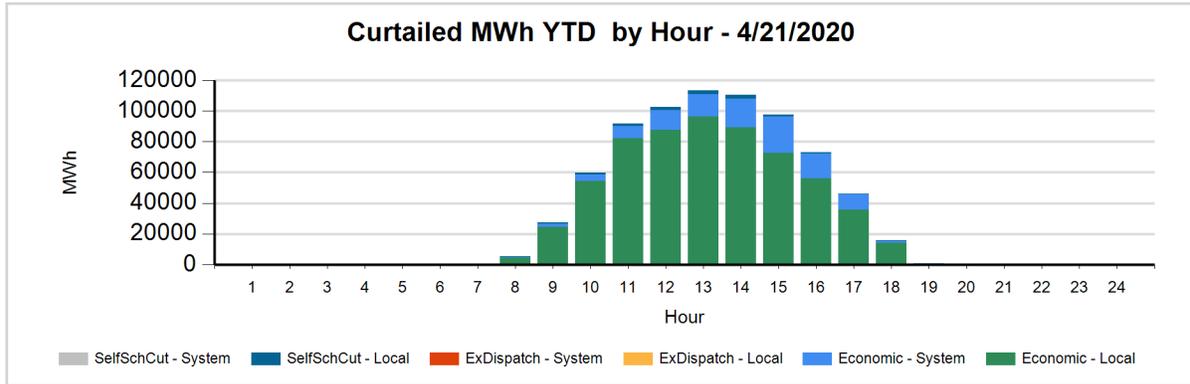
<sup>4</sup>For more information on oversupply conditions, please see:

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

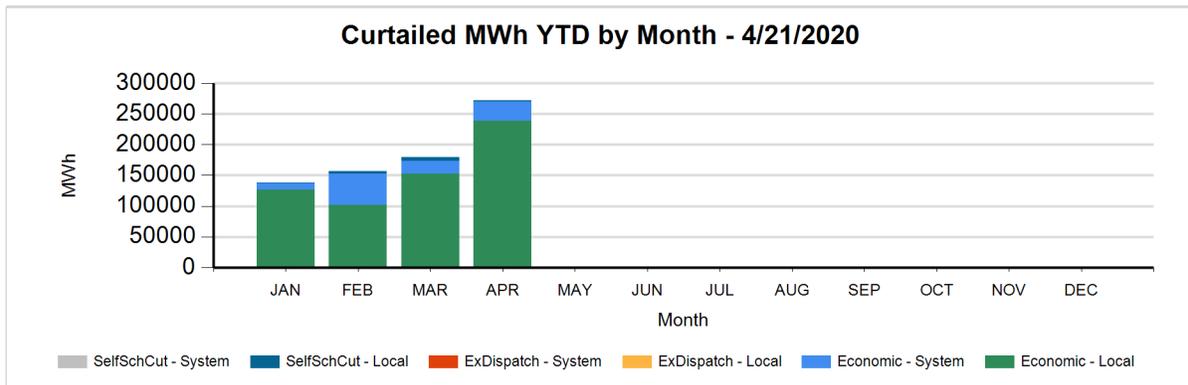
The following charts show the daily and 7-day wind and solar curtailment by category, if any.



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 - 4/21/2020
LocalEconomic	619,988
LocalSelfSchCut	13,105
SystemEconomic	112,855
TOTAL	745,948

Data used to produce hourly chart

DATE	HOUR	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
04/21	7	Economic	Local	SOLR	1	12
04/21	7	Economic	System	SOLR	1	
04/21	8	Economic	Local	SOLR	52	266
04/21	9	Economic	Local	SOLR	258	525
04/21	9	Economic	System	SOLR	3	
04/21	10	Economic	Local	SOLR	1542	2322
04/21	10	Economic	Local	WIND	25	52
04/21	10	Economic	System	SOLR	16	
04/21	10	Economic	System	WIND	1	
04/21	10	SelfSchCut	Local	SOLR	17	21
04/21	11	Economic	Local	SOLR	2787	3276
04/21	11	Economic	Local	WIND	60	63
04/21	11	SelfSchCut	Local	SOLR	2	
04/21	12	Economic	Local	SOLR	3162	3304
04/21	12	Economic	Local	WIND	61	64
04/21	12	SelfSchCut	Local	SOLR	7	
04/21	13	Economic	Local	SOLR	3215	3496
04/21	13	Economic	Local	WIND	66	65
04/21	13	SelfSchCut	Local	SOLR	36	
04/21	14	Economic	Local	SOLR	2624	2844
04/21	14	Economic	Local	WIND	63	64
04/21	14	Economic	System	SOLR	9	
04/21	14	SelfSchCut	Local	SOLR	21	33
04/21	15	Economic	Local	SOLR	1124	62
04/21	15	Economic	Local	WIND	27	
04/21	15	Economic	System	SOLR	1250	2610
04/21	15	Economic	System	WIND	41	71
04/21	15	SelfSchCut	Local	SOLR	7	27
04/21	16	Economic	Local	SOLR	1552	2277
04/21	16	Economic	Local	WIND	22	59
04/21	16	Economic	System	SOLR	18	

04/21	16	SelfSchCut	Local	SOLR	4	
04/21	17	Economic	Local	SOLR	1077	1699
04/21	17	Economic	Local	WIND	4	13
04/21	17	SelfSchCut	Local	SOLR	0	
04/21	18	Economic	Local	SOLR	451	1248
04/21	18	Economic	Local	WIND	3	13
04/21	18	Economic	System	SOLR	3	
04/21	19	Economic	Local	SOLR	10	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).