

## Wind and Solar Curtailment February 29, 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.

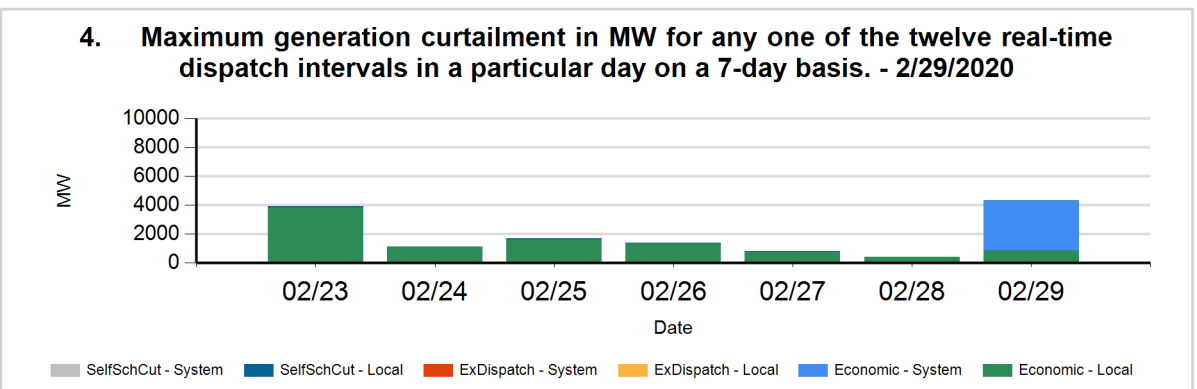
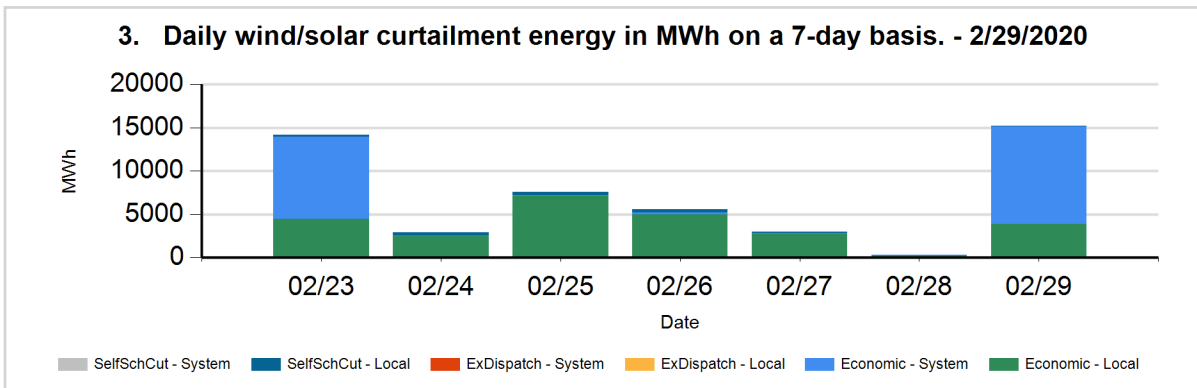
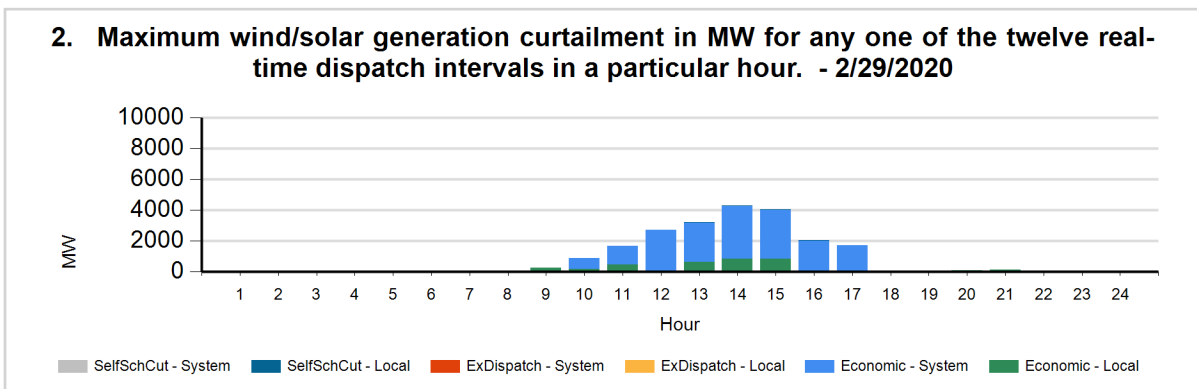
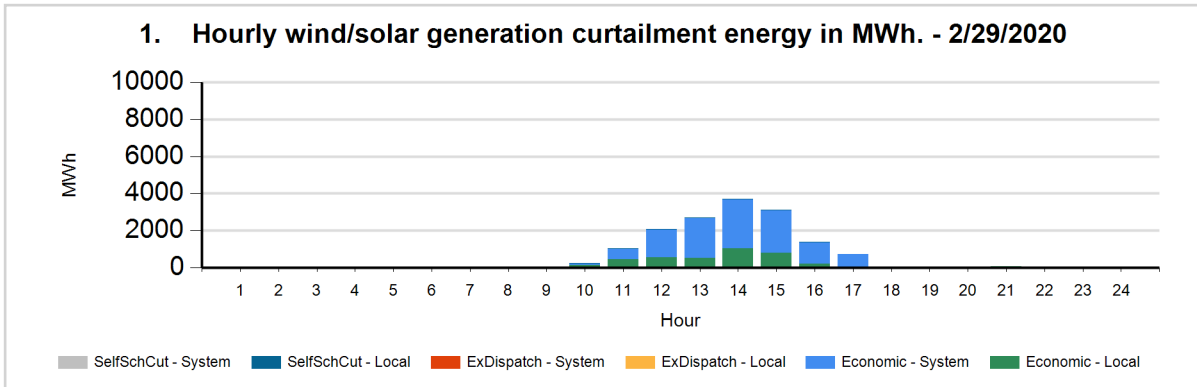
<sup>2</sup>The Renewables Watch report provides daily actual renewable production within the ISO grid. It is available at: <http://www.caiso.com/green/renewableswatch.html>.

<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.

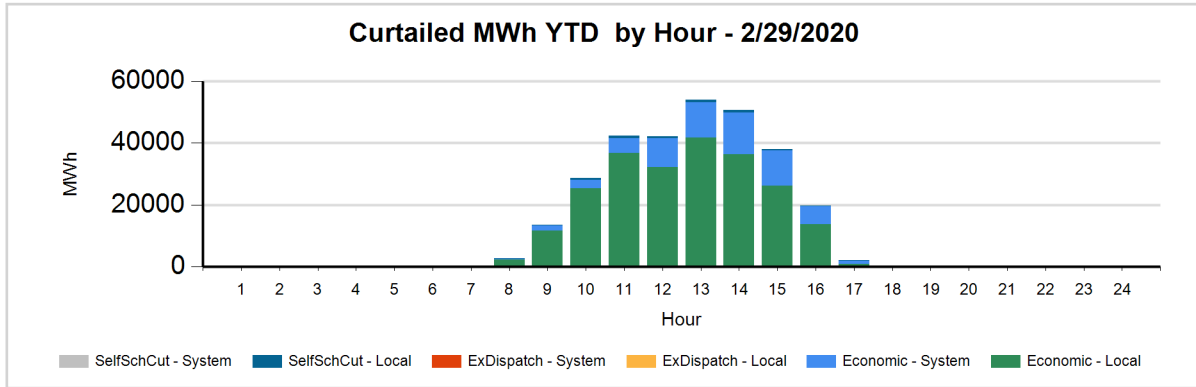
<sup>4</sup>For more information on oversupply conditions, please see:

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

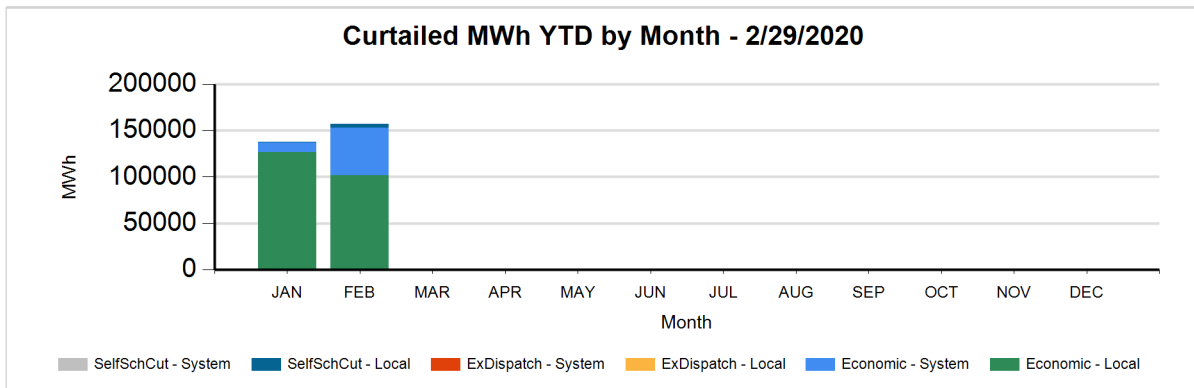
The following charts show the daily and 7-day wind and solar curtailment by category, if any.



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 - 2/29/2020
LocalEconomic	228,236
LocalSelfSchCut	4,705
SystemEconomic	62,119
<b>TOTAL</b>	<b>295,061</b>

**Data used to produce hourly chart**

DATE	HOUR	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
02/29	7	Economic	Local	WIND	2	12
02/29	8	Economic	Local	SOLR	1	
02/29	8	Economic	System	SOLR	1	9
02/29	9	Economic	Local	SOLR	45	237
02/29	9	Economic	Local	WIND	1	7
02/29	9	Economic	System	SOLR	0	
02/29	10	Economic	Local	SOLR	121	177
02/29	10	Economic	Local	WIND	2	
02/29	10	Economic	System	SOLR	86	647
02/29	10	Economic	System	WIND	7	33
02/29	10	SelfSchCut	Local	SOLR	10	
02/29	11	Economic	Local	SOLR	356	350
02/29	11	Economic	Local	WIND	100	120
02/29	11	Economic	System	SOLR	537	1146
02/29	11	Economic	System	WIND	25	34
02/29	11	SelfSchCut	Local	SOLR	1	
02/29	12	Economic	Local	SOLR	479	
02/29	12	Economic	Local	WIND	87	
02/29	12	Economic	System	SOLR	1451	2546
02/29	12	Economic	System	WIND	65	163
02/29	12	SelfSchCut	Local	SOLR	2	
02/29	13	Economic	Local	SOLR	499	594
02/29	13	Economic	Local	WIND	17	7
02/29	13	Economic	System	SOLR	2018	2362
02/29	13	Economic	System	WIND	153	237
02/29	13	SelfSchCut	Local	SOLR	13	22
02/29	14	Economic	Local	SOLR	985	805
02/29	14	Economic	Local	WIND	33	15
02/29	14	Economic	System	SOLR	2411	3151
02/29	14	Economic	System	WIND	259	291
02/29	14	SelfSchCut	Local	SOLR	18	30

02/29	15	Economic	Local	SOLR	723	833
02/29	15	Economic	Local	WIND	52	16
02/29	15	Economic	System	SOLR	2076	2869
02/29	15	Economic	System	WIND	224	292
02/29	15	SelfSchCut	Local	SOLR	21	32
02/29	16	Economic	Local	SOLR	181	16
02/29	16	Economic	Local	WIND	8	
02/29	16	Economic	System	SOLR	1158	1973
02/29	16	Economic	System	WIND	43	53
02/29	16	SelfSchCut	Local	SOLR	3	3
02/29	17	Economic	Local	SOLR	19	
02/29	17	Economic	Local	WIND	5	
02/29	17	Economic	System	SOLR	683	1649
02/29	17	Economic	System	WIND	30	60
02/29	18	Economic	Local	WIND	20	39
02/29	19	Economic	Local	WIND	28	53
02/29	20	Economic	Local	WIND	35	73
02/29	21	Economic	Local	WIND	59	118
02/29	22	Economic	Local	WIND	4	22
02/29	23	Economic	Local	WIND	0	2

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).