

## Wind and Solar Curtailment April 22, 2023

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.

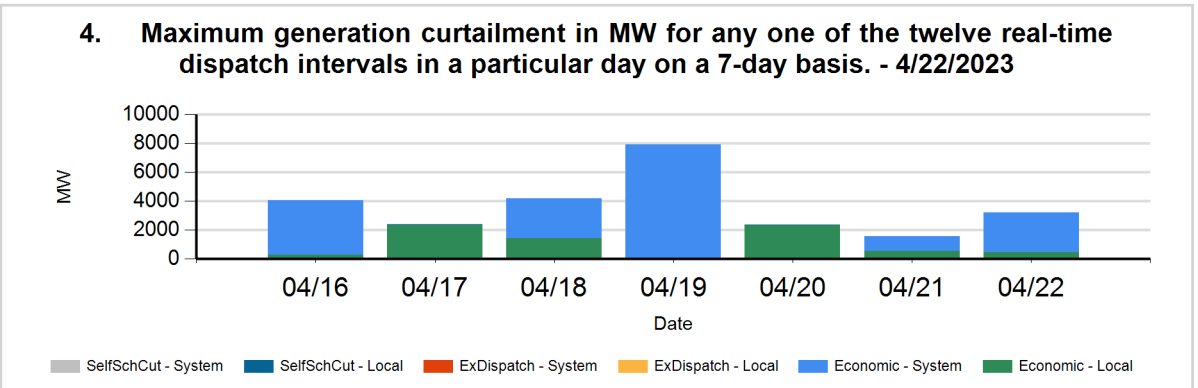
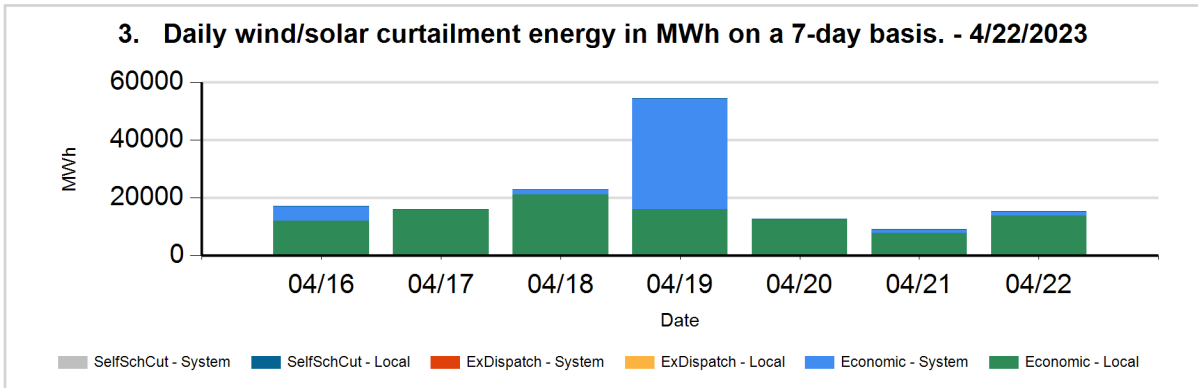
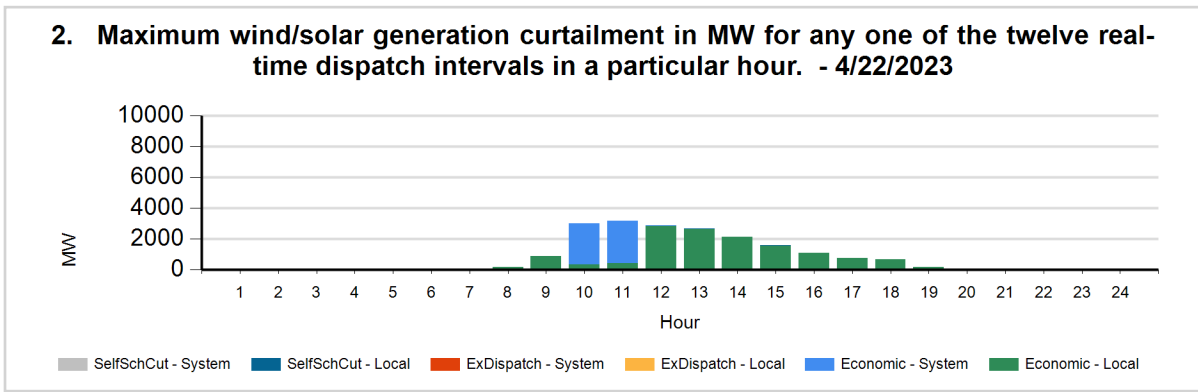
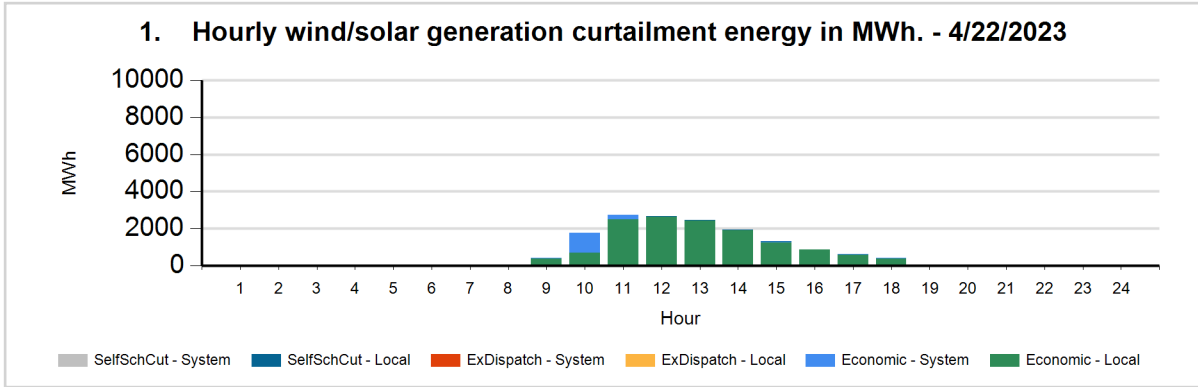
<sup>1</sup>Only wind and solar resources can be reported in this manner because these resources have a forecast. Curtailment is defined as the difference between actual production and the forecast when actual production is less than the forecast.

<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>.

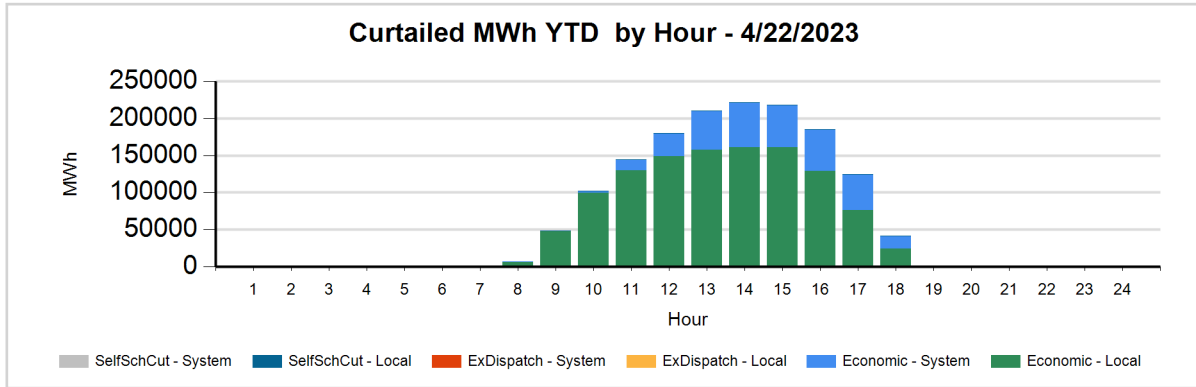
<sup>3</sup>Congestion occurs when available, least-cost energy cannot be delivered to some loads because transmission facilities do not have sufficient capacity to deliver the energy.

<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)

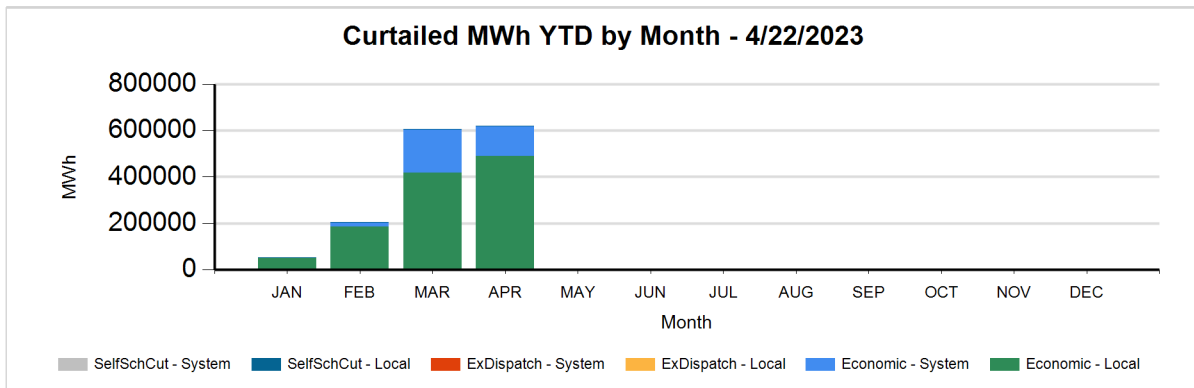
The following charts show the daily and 7-day wind and solar curtailment by category, if any.



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 - 4/22/2023
LocalEconomic	1,141,632
LocalSelfSchCut	274
SystemEconomic	342,628
<b>TOTAL</b>	<b>1,484,535</b>

**Data used to produce hourly chart**

DATE	HOUR	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
04/22	8	Economic	Local	SOLR	28	138
04/22	8	Economic	Local	WIND	2	14
04/22	8	Economic	System	SOLR	9	
04/22	9	Economic	Local	SOLR	396	834
04/22	9	Economic	Local	WIND	9	30
04/22	9	Economic	System	SOLR	13	
04/22	9	Economic	System	WIND	3	
04/22	10	Economic	Local	SOLR	695	331
04/22	10	Economic	Local	WIND	8	
04/22	10	Economic	System	SOLR	1036	2651
04/22	10	Economic	System	WIND	19	33
04/22	11	Economic	Local	SOLR	2487	431
04/22	11	Economic	Local	WIND	4	
04/22	11	Economic	System	SOLR	227	2723
04/22	11	Economic	System	WIND	18	17
04/22	12	Economic	Local	SOLR	2643	2859
04/22	12	Economic	Local	WIND	12	16
04/22	12	Economic	System	WIND	18	17
04/22	12	SelfSchCut	Local	SOLR	1	
04/22	13	Economic	Local	SOLR	2421	2633
04/22	13	Economic	Local	WIND	11	11
04/22	13	Economic	System	WIND	10	12
04/22	13	SelfSchCut	Local	SOLR	1	4
04/22	14	Economic	Local	SOLR	1926	2100
04/22	14	Economic	Local	WIND	2	3
04/22	14	Economic	System	SOLR	7	
04/22	14	SelfSchCut	Local	SOLR	1	
04/22	15	Economic	Local	SOLR	1284	1556
04/22	15	Economic	Local	WIND	0	2
04/22	15	Economic	System	SOLR	7	
04/22	15	SelfSchCut	Local	SOLR	4	5

04/22	16	Economic	Local	SOLR	878	1096
04/22	16	Economic	Local	WIND	1	2
04/22	16	SelfSchCut	Local	SOLR	0	
04/22	17	Economic	Local	SOLR	590	755
04/22	17	Economic	Local	WIND	0	4
04/22	17	Economic	System	SOLR	41	
04/22	17	Economic	System	WIND	1	
04/22	18	Economic	Local	SOLR	396	657
04/22	18	Economic	System	SOLR	2	
04/22	19	Economic	Local	SOLR	42	165
04/22	19	Economic	Local	WIND	3	
04/22	20	Economic	Local	WIND	9	13
04/22	21	Economic	Local	WIND	9	14
04/22	22	Economic	Local	WIND	8	13
04/22	23	Economic	Local	WIND	6	10
04/22	24	Economic	Local	WIND	8	10

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).