

Wind and Solar Curtailment April 30, 2023

This report is produced daily to provide a detailed accounting of the wind and solar renewable generation that was curtailed and the reasons why¹. This report should be read in the context of the Renewables Watch report for a more complete understanding of both renewable curtailment and generation².

Wind and solar curtailments are grouped into the following categories:

1. Economic - Local: Market dispatch of generators with economic bids to mitigate local congestion³.
2. Economic - System: Market dispatch of generators with economic bids to mitigate system-wide oversupply⁴.
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.

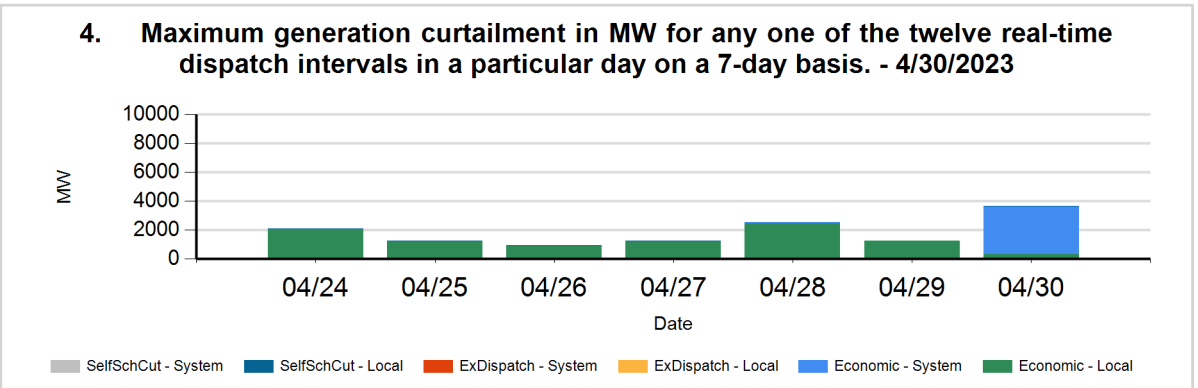
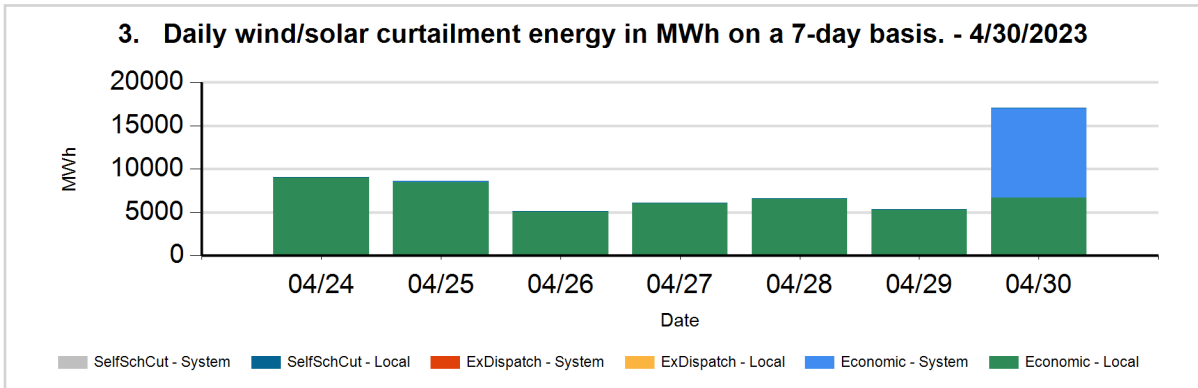
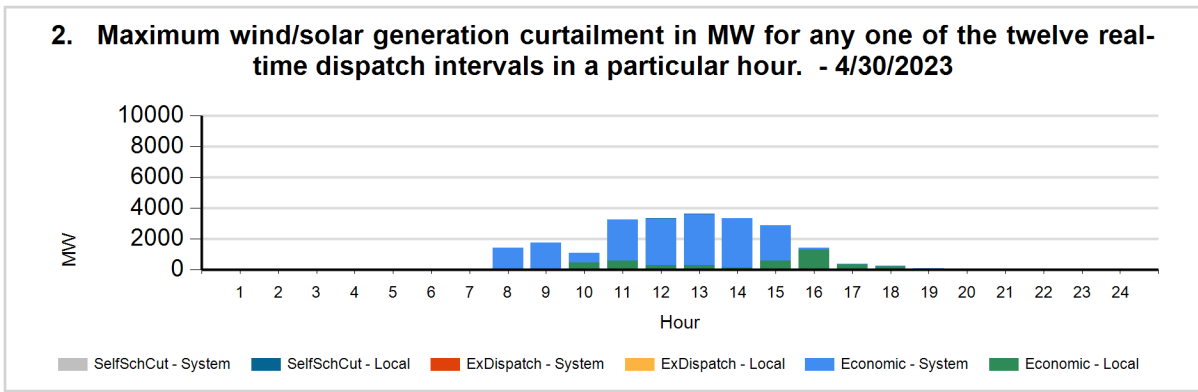
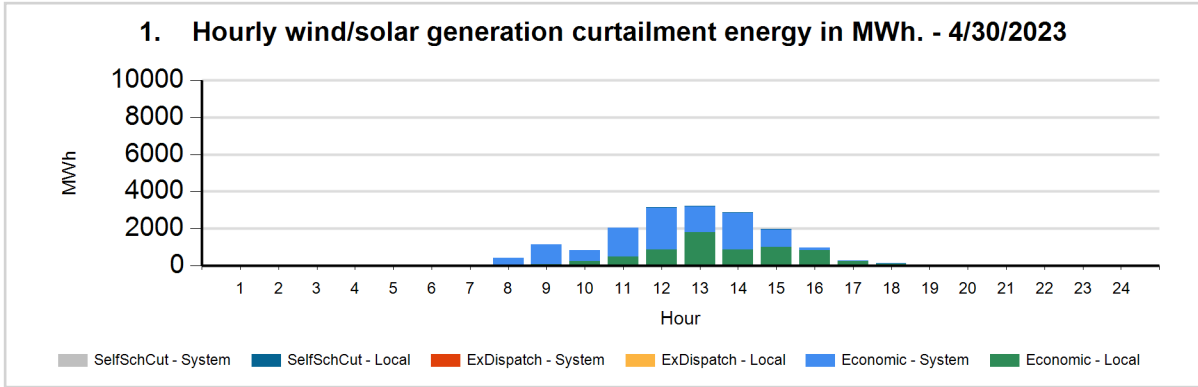
¹Only wind and solar resources can be reported in this manner because these resources have a forecast. Curtailment is defined as the difference between actual production and the forecast when actual production is less than the forecast.

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

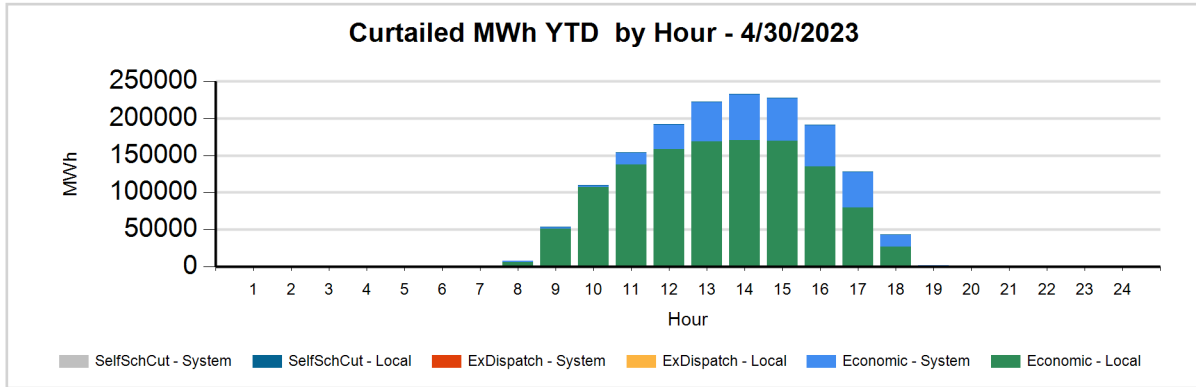
³Congestion occurs when available, least-cost energy cannot be delivered to some loads because transmission facilities do not have sufficient capacity to deliver the energy.

⁴For more information on oversupply conditions, please see: https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables_FastFacts.pdf

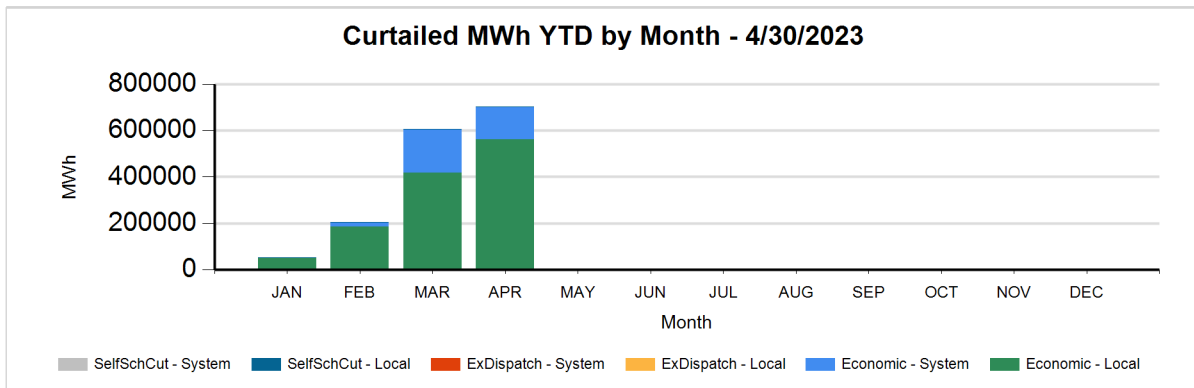
The following charts show the daily and 7-day wind and solar curtailment by category, if any.



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 - 4/30/2023
LocalEconomic	1,212,694
LocalSelfSchCut	375
SystemEconomic	353,159
TOTAL	1,566,228

Data used to produce hourly chart

DATE	HOUR	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
04/30	1	Economic	Local	WIND	2	2
04/30	2	Economic	Local	WIND	2	2
04/30	3	Economic	Local	WIND	2	2
04/30	4	Economic	Local	WIND	2	2
04/30	5	Economic	Local	WIND	2	2
04/30	6	Economic	Local	WIND	2	2
04/30	7	Economic	Local	WIND	2	3
04/30	7	Economic	System	SOLR	0	2
04/30	8	Economic	Local	SOLR	38	5
04/30	8	Economic	Local	WIND	6	
04/30	8	Economic	System	SOLR	305	1290
04/30	8	Economic	System	WIND	47	116
04/30	9	Economic	Local	SOLR	72	16
04/30	9	Economic	Local	WIND	10	
04/30	9	Economic	System	SOLR	937	1607
04/30	9	Economic	System	WIND	106	118
04/30	10	Economic	Local	SOLR	230	444
04/30	10	Economic	System	SOLR	499	523
04/30	10	Economic	System	WIND	112	108
04/30	11	Economic	Local	SOLR	469	591
04/30	11	Economic	Local	WIND	6	
04/30	11	Economic	System	SOLR	1442	2534
04/30	11	Economic	System	WIND	117	130
04/30	12	Economic	Local	SOLR	845	274
04/30	12	Economic	Local	WIND	25	
04/30	12	Economic	System	SOLR	2139	2903
04/30	12	Economic	System	WIND	123	163
04/30	12	SelfSchCut	Local	SOLR	1	5
04/30	13	Economic	Local	SOLR	1750	283
04/30	13	Economic	Local	WIND	55	
04/30	13	Economic	System	SOLR	1329	3152

04/30	13	Economic	System	WIND	95	183
04/30	13	SelfSchCut	Local	SOLR	3	3
04/30	14	Economic	Local	SOLR	832	139
04/30	14	Economic	Local	WIND	30	
04/30	14	Economic	System	SOLR	1890	2964
04/30	14	Economic	System	WIND	131	216
04/30	14	SelfSchCut	Local	SOLR	1	
04/30	15	Economic	Local	SOLR	960	571
04/30	15	Economic	Local	WIND	35	
04/30	15	Economic	System	SOLR	876	2173
04/30	15	Economic	System	WIND	90	144
04/30	15	SelfSchCut	Local	SOLR	1	
04/30	16	Economic	Local	SOLR	786	1223
04/30	16	Economic	Local	WIND	35	67
04/30	16	Economic	System	SOLR	100	84
04/30	16	Economic	System	WIND	36	44
04/30	16	SelfSchCut	Local	SOLR	0	
04/30	17	Economic	Local	SOLR	243	339
04/30	17	Economic	Local	WIND	9	7
04/30	17	Economic	System	SOLR	10	16
04/30	18	Economic	Local	SOLR	126	216
04/30	18	Economic	Local	WIND	11	11
04/30	18	Economic	System	SOLR	7	16
04/30	19	Economic	Local	SOLR	24	67
04/30	19	Economic	Local	WIND	5	11
04/30	19	Economic	System	SOLR	2	21
04/30	20	Economic	Local	WIND	3	6
04/30	21	Economic	Local	WIND	7	7
04/30	22	Economic	Local	WIND	7	7
04/30	23	Economic	Local	WIND	7	7
04/30	24	Economic	Local	WIND	4	5

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.



California ISO