

Wind and Solar Curtailment April 23, 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.

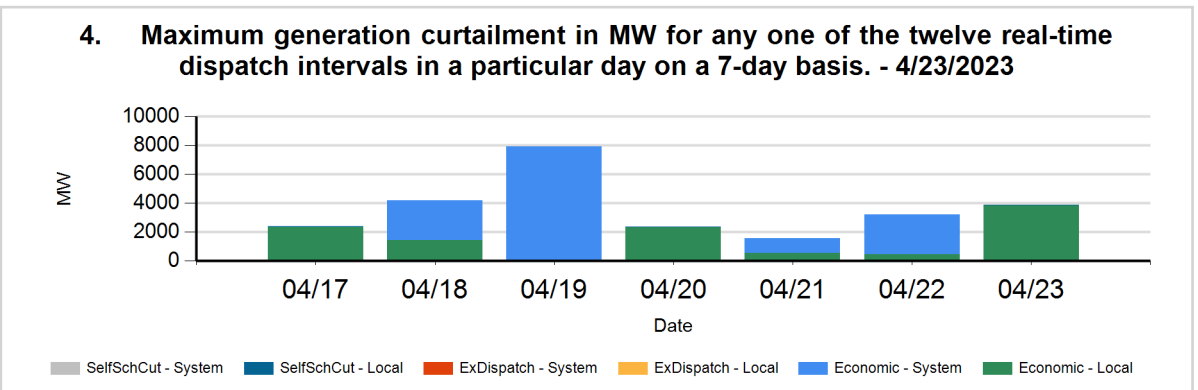
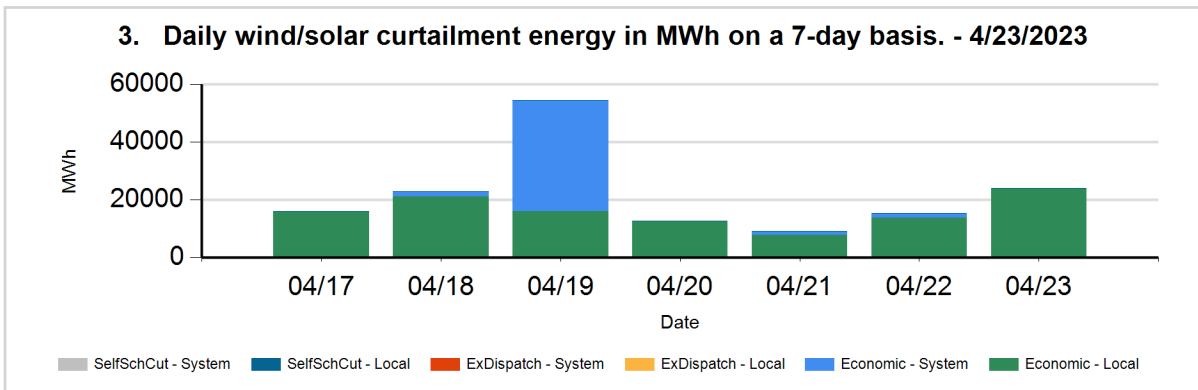
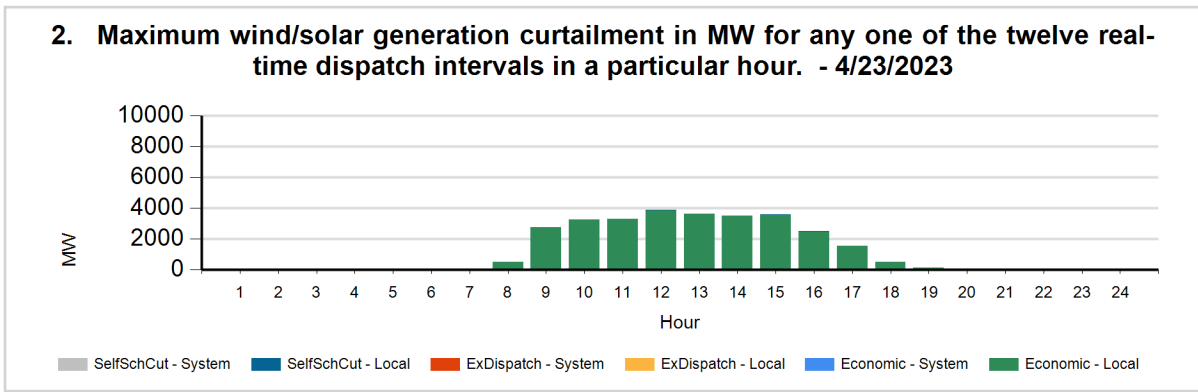
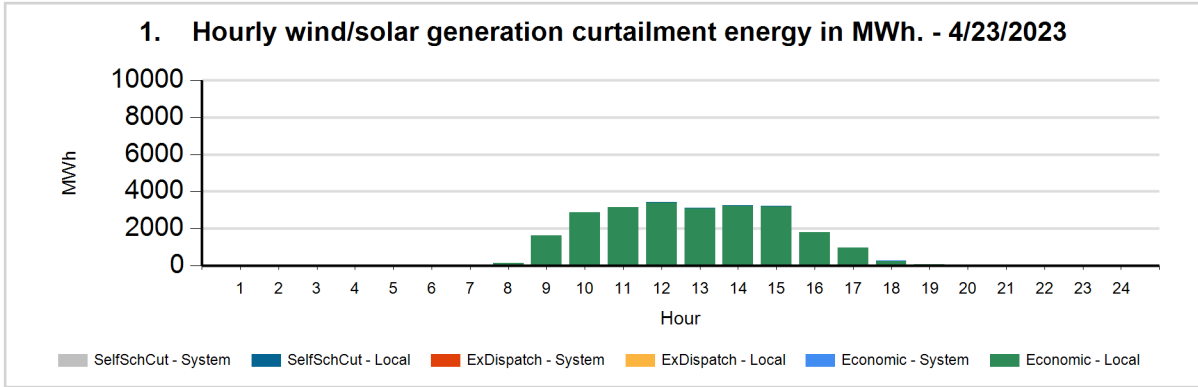
¹Only wind and solar resources can be reported in this manner because these resources have a forecast. Curtailment is defined as the difference between actual production and the forecast when actual production is less than the forecast.

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

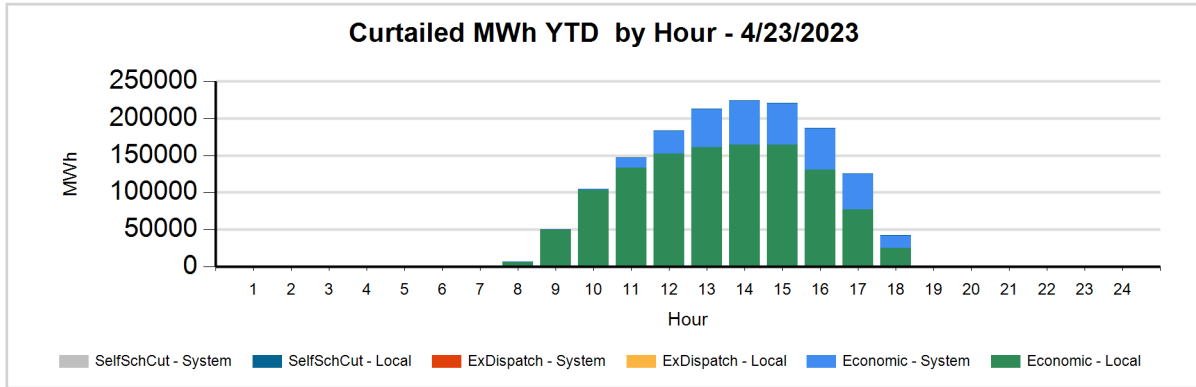
³Congestion occurs when available, least-cost energy cannot be delivered to some loads because transmission facilities do not have sufficient capacity to deliver the energy.

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

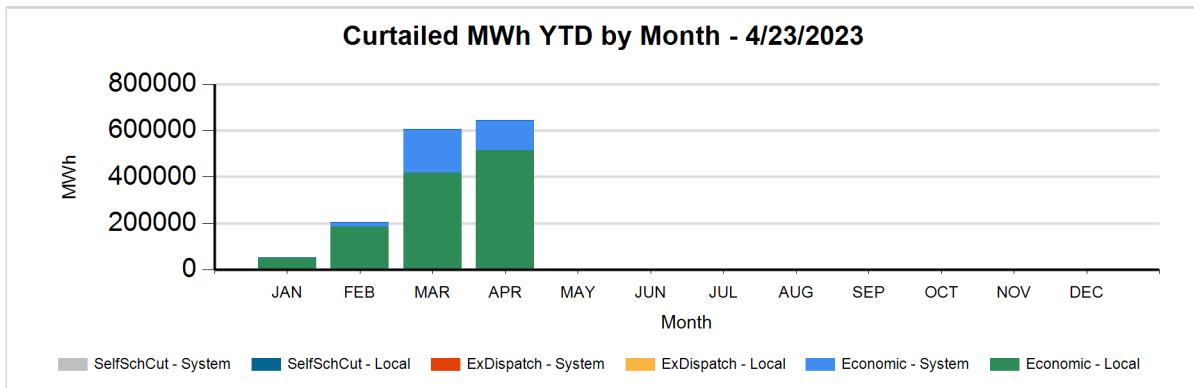
The following charts show the daily and 7-day wind and solar curtailment by category, if any.



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 - 4/23/2023
LocalEconomic	1,165,575
LocalSelfSchCut	287
SystemEconomic	342,632
TOTAL	1,508,494

Data used to produce hourly chart

DATE	HOUR	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
04/23	1	Economic	Local	WIND	11	27
04/23	2	Economic	Local	WIND	10	11
04/23	3	Economic	Local	WIND	8	9
04/23	4	Economic	Local	WIND	7	9
04/23	5	Economic	Local	WIND	9	9
04/23	6	Economic	Local	WIND	8	9
04/23	7	Economic	Local	WIND	8	9
04/23	8	Economic	Local	SOLR	129	492
04/23	8	Economic	Local	WIND	11	13
04/23	9	Economic	Local	SOLR	1539	2626
04/23	9	Economic	Local	WIND	72	110
04/23	10	Economic	Local	SOLR	2734	3109
04/23	10	Economic	Local	WIND	126	143
04/23	11	Economic	Local	SOLR	3040	3170
04/23	11	Economic	Local	WIND	89	102
04/23	12	Economic	Local	SOLR	3314	3768
04/23	12	Economic	Local	WIND	97	98
04/23	12	SelfSchCut	Local	SOLR	4	6
04/23	13	Economic	Local	SOLR	3031	3520
04/23	13	Economic	Local	WIND	82	88
04/23	13	SelfSchCut	Local	SOLR	3	
04/23	14	Economic	Local	SOLR	3167	3380
04/23	14	Economic	Local	WIND	79	104
04/23	14	Economic	System	WIND	1	
04/23	14	SelfSchCut	Local	SOLR	2	
04/23	15	Economic	Local	SOLR	3140	3497
04/23	15	Economic	Local	WIND	67	67
04/23	15	Economic	System	WIND	2	
04/23	15	SelfSchCut	Local	SOLR	3	8
04/23	16	Economic	Local	SOLR	1734	2408
04/23	16	Economic	Local	WIND	59	71

04/23	16	SelfSchCut	Local	SOLR	0	1
04/23	17	Economic	Local	SOLR	951	1494
04/23	17	Economic	Local	WIND	23	60
04/23	18	Economic	Local	SOLR	267	499
04/23	18	Economic	Local	WIND	15	13
04/23	18	Economic	System	SOLR	1	
04/23	19	Economic	Local	SOLR	36	90
04/23	19	Economic	Local	WIND	16	16
04/23	20	Economic	Local	WIND	14	15
04/23	21	Economic	Local	WIND	13	13
04/23	22	Economic	Local	WIND	13	13
04/23	23	Economic	Local	WIND	13	13
04/23	24	Economic	Local	WIND	12	13

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.