

Wind and Solar Curtailment April 21, 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.

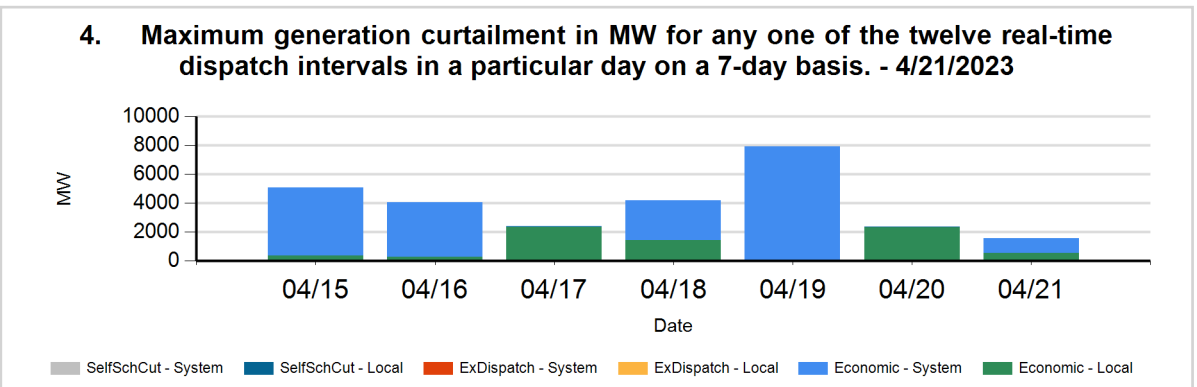
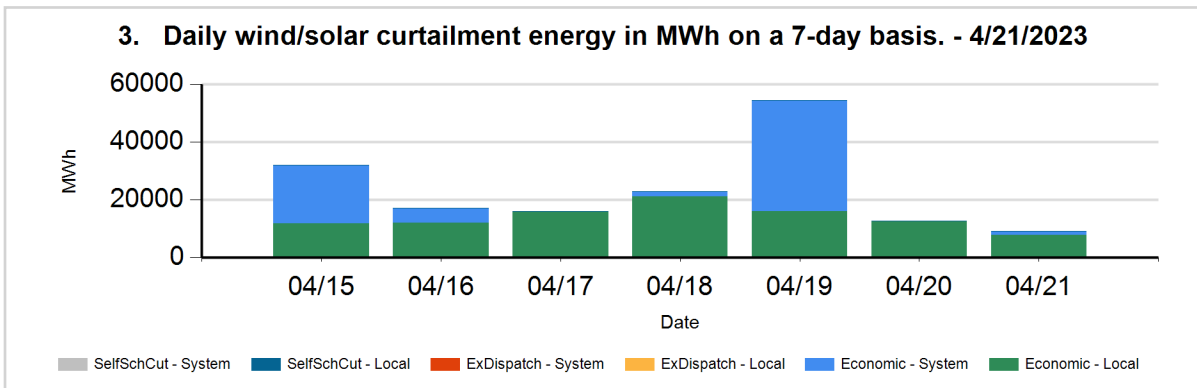
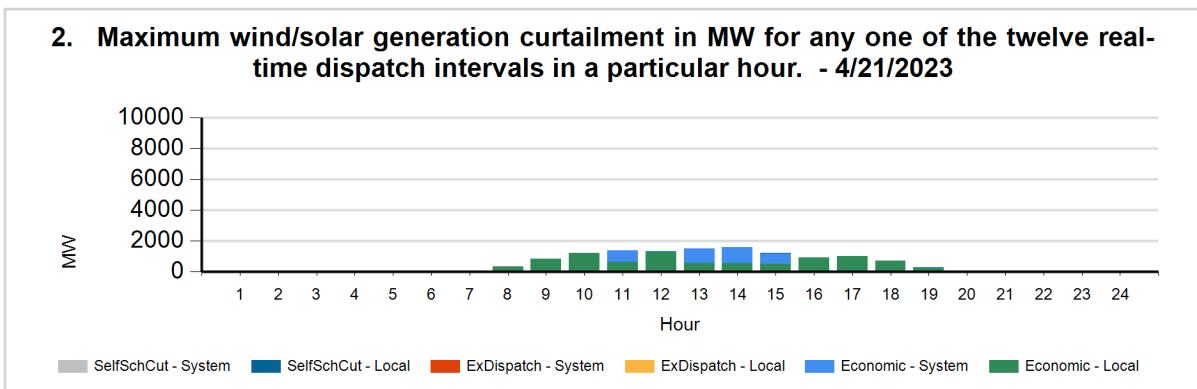
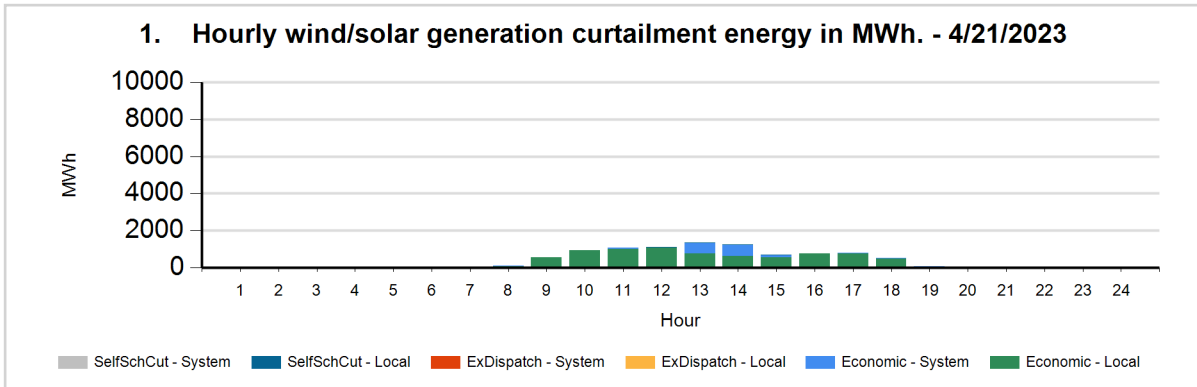
¹Only wind and solar resources can be reported in this manner because these resources have a forecast. Curtailment is defined as the difference between actual production and the forecast when actual production is less than the forecast.

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

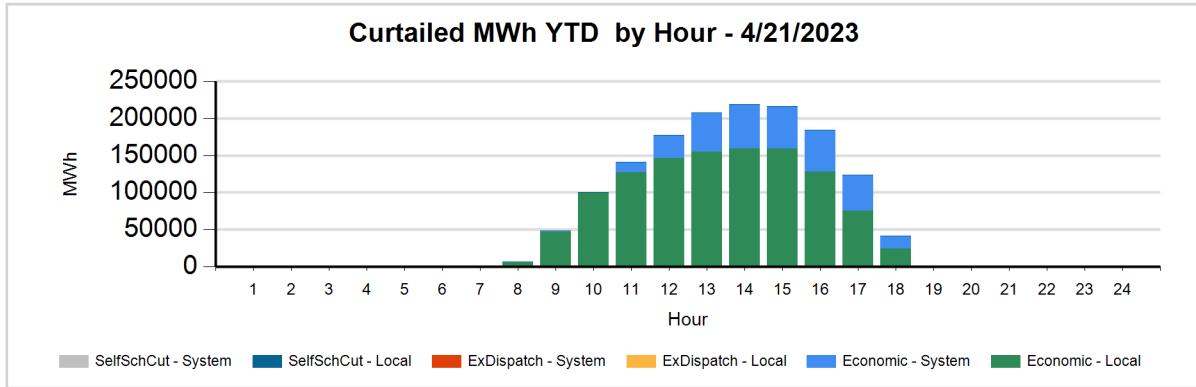
³Congestion occurs when available, least-cost energy cannot be delivered to some loads because transmission facilities do not have sufficient capacity to deliver the energy.

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

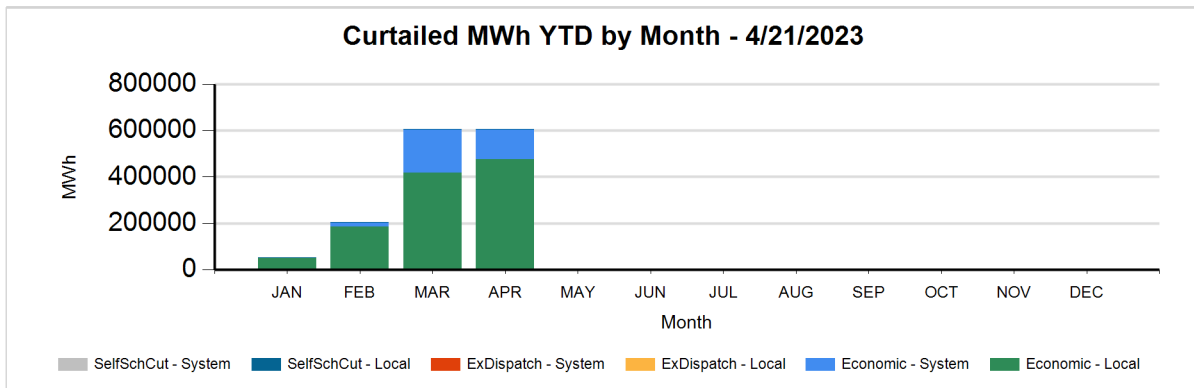
The following charts show the daily and 7-day wind and solar curtailment by category, if any.



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 - 4/21/2023
LocalEconomic	1,127,756
LocalSelfSchCut	267
SystemEconomic	341,218
TOTAL	1,469,241

Data used to produce hourly chart

DATE	HOUR	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
04/21	8	Economic	Local	SOLR	99	336
04/21	8	Economic	System	SOLR	1	
04/21	9	Economic	Local	SOLR	545	830
04/21	10	Economic	Local	SOLR	937	1222
04/21	11	Economic	Local	SOLR	1006	630
04/21	11	Economic	System	SOLR	60	721
04/21	11	Economic	System	WIND	0	2
04/21	12	Economic	Local	SOLR	1091	1347
04/21	12	Economic	Local	WIND	0	
04/21	12	Economic	System	SOLR	17	
04/21	12	Economic	System	WIND	0	3
04/21	12	SelfSchCut	Local	SOLR	2	
04/21	13	Economic	Local	SOLR	769	543
04/21	13	Economic	Local	WIND	0	
04/21	13	Economic	System	SOLR	562	966
04/21	13	Economic	System	WIND	5	2
04/21	13	SelfSchCut	Local	SOLR	4	
04/21	14	Economic	Local	SOLR	620	519
04/21	14	Economic	Local	WIND	0	
04/21	14	Economic	System	SOLR	611	1041
04/21	14	Economic	System	WIND	6	4
04/21	14	SelfSchCut	Local	SOLR	3	
04/21	15	Economic	Local	SOLR	546	502
04/21	15	Economic	System	SOLR	134	706
04/21	15	Economic	System	WIND	0	
04/21	15	SelfSchCut	Local	SOLR	2	5
04/21	16	Economic	Local	SOLR	744	872
04/21	16	Economic	Local	WIND	13	44
04/21	17	Economic	Local	SOLR	751	874
04/21	17	Economic	Local	WIND	40	104
04/21	17	Economic	System	SOLR	7	

04/21	18	Economic	Local	SOLR	488	670
04/21	18	Economic	Local	WIND	20	48
04/21	18	Economic	System	SOLR	1	
04/21	19	Economic	Local	SOLR	81	265
04/21	19	Economic	System	SOLR	1	7

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.