

Wind and Solar Curtailment April 01, 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.

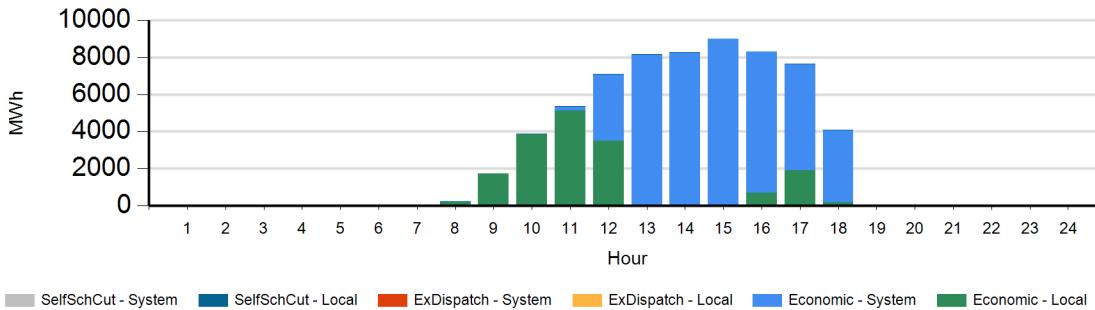
²The Renewables Watch report provides daily actual renewable production within the ISO grid. It is available at: <http://www.caiso.com/green/renewableswatch.html>.

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.

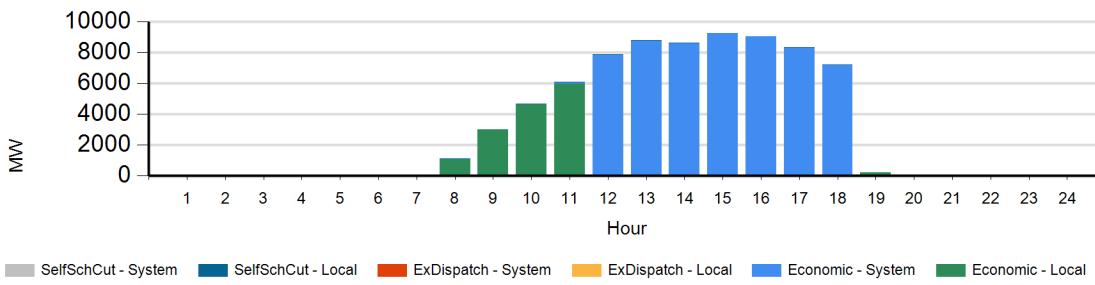
⁴For more information on oversupply conditions, please see:
https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables_FastFacts.pdf

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

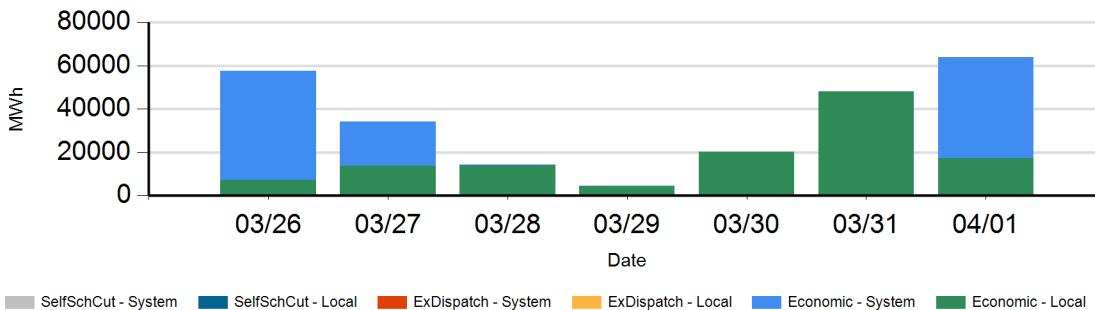
1. Hourly wind/solar generation curtailment energy in MWh. - 4/1/2023



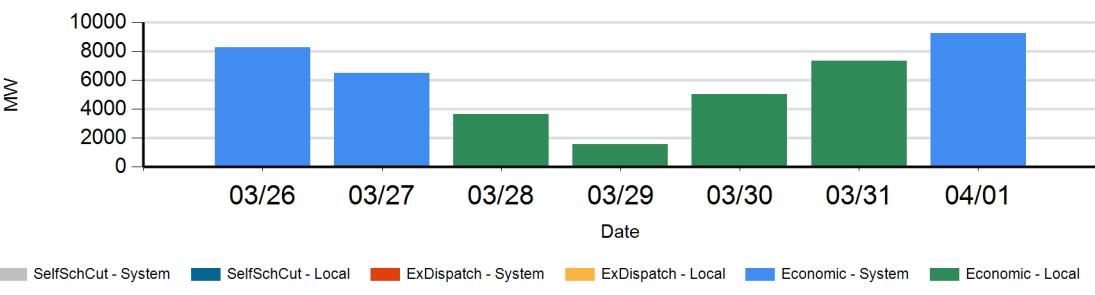
2. Maximum wind/solar generation curtailment in MW for any one of the twelve real-time dispatch intervals in a particular hour. - 4/1/2023



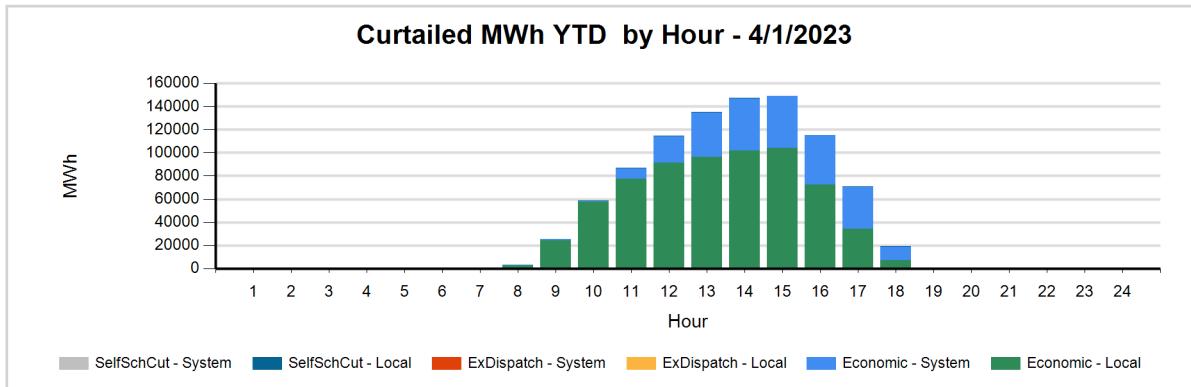
3. Daily wind/solar generation curtailment energy in MWh on a 7-day basis. - 4/1/2023



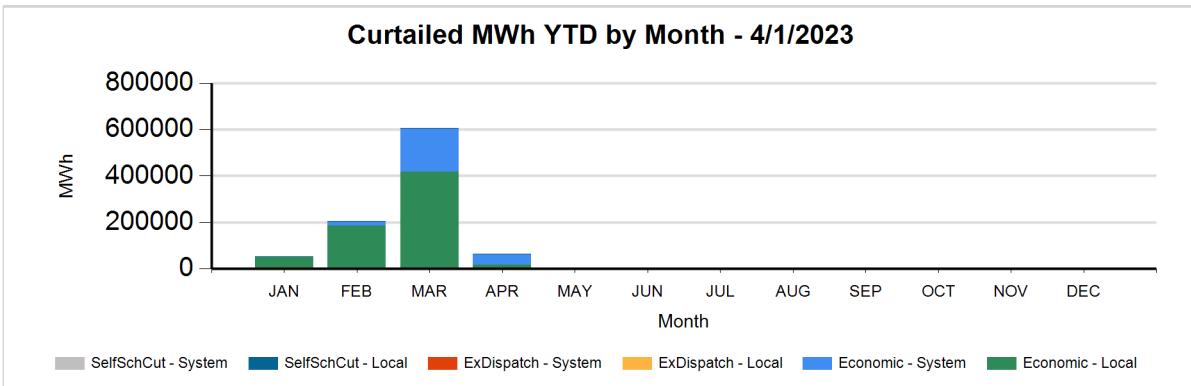
4. Maximum generation curtailment in MW for any one of the twelve real-time dispatch intervals in a particular day on a 7-day basis. - 4/1/2023



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 - 4/1/2023
LocalEconomic	669,430
LocalSelfSchCut	24
SystemEconomic	257,643
TOTAL	927,097

Data used to produce hourly chart

DATE	HOU R	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
04/01	8	Economic	Local	SOLR	211	1098
04/01	8	Economic	Local	WIND	10	13
04/01	8	Economic	System	SOLR	0	2
04/01	8	Economic	System	WIND	2	13
04/01	9	Economic	Local	SOLR	1632	2910
04/01	9	Economic	Local	WIND	90	94
04/01	10	Economic	Local	SOLR	3803	4633
04/01	10	Economic	Local	WIND	54	16
04/01	10	SelfSchCut	Local	SOLR	1	1
04/01	11	Economic	Local	SOLR	5132	5980
04/01	11	Economic	Local	WIND	1	
04/01	11	Economic	System	SOLR	217	102
04/01	11	Economic	System	WIND	1	
04/01	11	SelfSchCut	Local	SOLR	3	4
04/01	12	Economic	Local	SOLR	3485	15
04/01	12	Economic	Local	WIND	2	
04/01	12	Economic	System	SOLR	3526	7725
04/01	12	Economic	System	WIND	74	142
04/01	12	SelfSchCut	Local	SOLR	3	1
04/01	13	Economic	Local	SOLR	15	15
04/01	13	Economic	System	SOLR	7916	8486
04/01	13	Economic	System	WIND	240	278
04/01	13	SelfSchCut	Local	SOLR	1	1
04/01	14	Economic	Local	SOLR	15	15
04/01	14	Economic	System	SOLR	7988	8328
04/01	14	Economic	System	WIND	268	282
04/01	14	SelfSchCut	Local	SOLR	1	1
04/01	15	Economic	Local	SOLR	15	15
04/01	15	Economic	System	SOLR	8620	8830
04/01	15	Economic	System	WIND	345	412
04/01	16	Economic	Local	SOLR	630	15

04/01	16	Economic	Local	WIND	54	
04/01	16	Economic	System	SOLR	7128	8599
04/01	16	Economic	System	WIND	507	455
04/01	16	SelfSchCut	Local	SOLR	0	
04/01	17	Economic	Local	SOLR	1732	50
04/01	17	Economic	Local	WIND	168	
04/01	17	Economic	System	SOLR	5196	7600
04/01	17	Economic	System	WIND	537	674
04/01	17	SelfSchCut	Local	SOLR	1	1
04/01	18	Economic	Local	SOLR	151	
04/01	18	Economic	Local	WIND	14	
04/01	18	Economic	System	SOLR	3550	6550
04/01	18	Economic	System	WIND	381	679
04/01	18	SelfSchCut	Local	SOLR	1	1
04/01	19	Economic	Local	SOLR	14	107
04/01	19	Economic	Local	WIND	11	99
04/01	19	Economic	System	SOLR	0	
04/01	19	Economic	System	WIND	6	
04/01	20	Economic	Local	WIND	1	9

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.