Wind and Solar Curtailment June 04, 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[1]. This report should be read in the context of the Renewables Watch report for a more complete understanding of both renewable curtailment and generation[2].

Wind and solar curtailments are grouped into the following categories:

1. Economic - Local: Market dispatch of generators with economic bids to mitigate local congestion[3].
2. Economic - System: Market dispatch of generators with economic bids to mitigate system-wide oversupply[].
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.

[1]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.

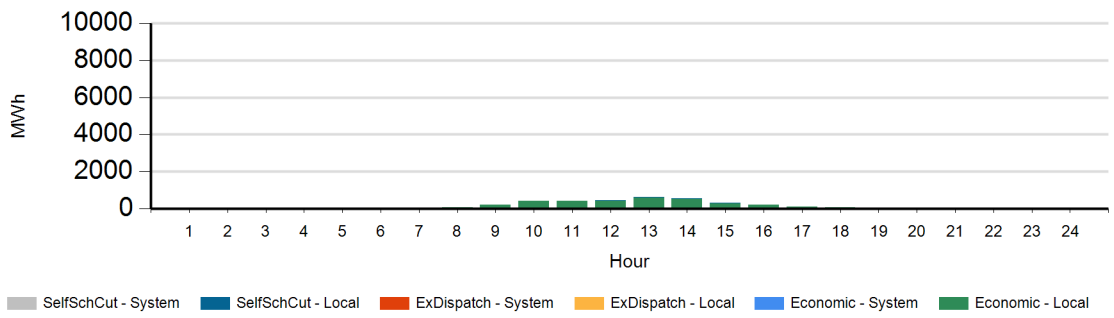
[2]The Renewables Watch report provides daily actual renewable production within the ISO grid. It is available at: http://www.caiso.com/green/renewableswatch.html.

[3]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.

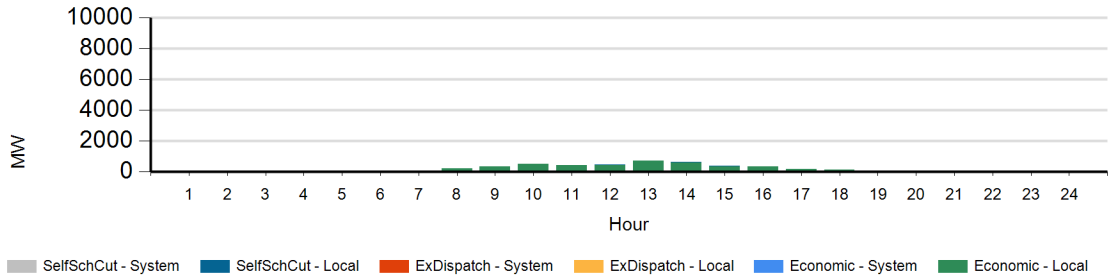
[]For more information on oversupply conditions, please see: https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables_FastFacts.pdf

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

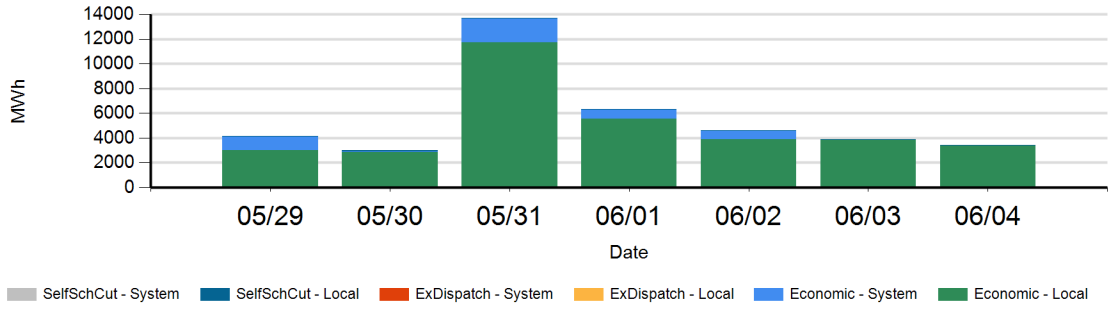
1. Hourly wind/solar generation curtailment energy in MWh. - 6/4/2023



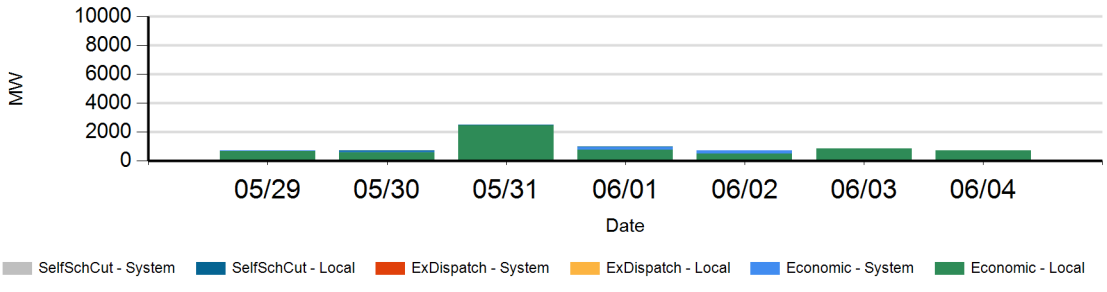
2. Maximum wind/solar generation curtailment in MW for any one of the twelve real-time dispatch intervals in a particular hour. - 6/4/2023



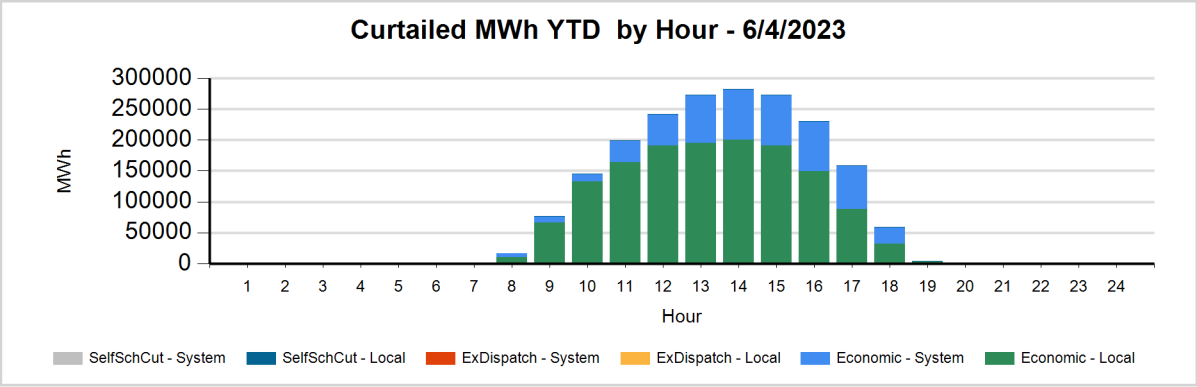
3. Daily wind/solar curtailment energy in MWh on a 7-day basis. - 6/4/2023



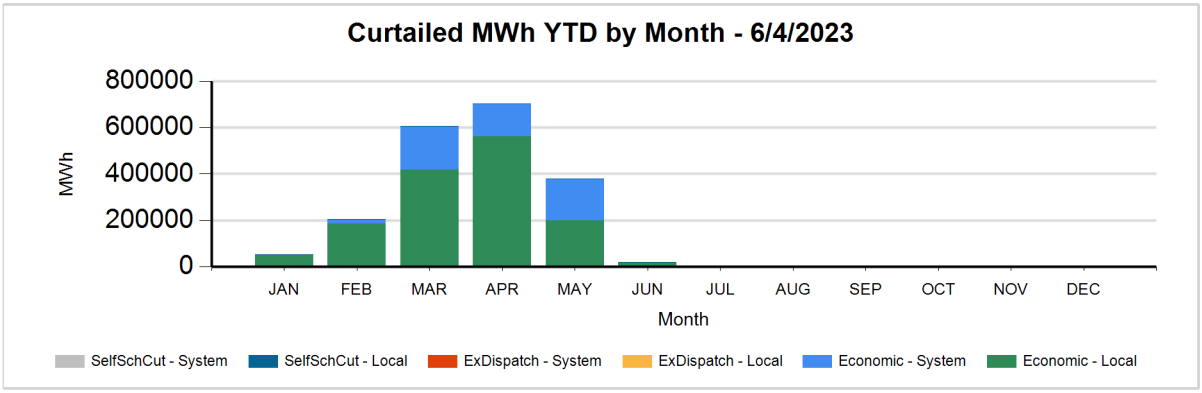
4. Maximum generation curtailment in MW for any one of the twelve real-time dispatch intervals in a particular day on a 7-day basis. - 6/4/2023



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 - 6/4/2023
LocalEconomic	1,427,524
LocalSelfSchCut	652
SystemEconomic	536,189
TOTAL	1,964,365

California ISO

Data used to produce hourly chart

DATE	HOUR	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
06/04	1	Economic	Local	WIND	2	8
06/04	2	Economic	Local	WIND	1	4
06/04	3	Economic	Local	WIND	0	2
06/04	4	Economic	Local	WIND	1	4
06/04	5	Economic	Local	WIND	1	6
06/04	5	Economic	System	WIND	0	
06/04	7	Economic	System	SOLR	2	14
06/04	8	Economic	Local	SOLR	48	190
06/04	8	Economic	System	SOLR	0	
06/04	9	Economic	Local	SOLR	191	321
06/04	10	Economic	Local	SOLR	410	480
06/04	11	Economic	Local	SOLR	416	423
06/04	12	Economic	Local	SOLR	429	451
06/04	12	SelfSchCut	Local	SOLR	2	3
06/04	13	Economic	Local	SOLR	622	718
06/04	13	SelfSchCut	Local	SOLR	2	
06/04	14	Economic	Local	SOLR	534	615
06/04	14	SelfSchCut	Local	SOLR	1	3
06/04	15	Economic	Local	SOLR	320	365
06/04	15	SelfSchCut	Local	SOLR	1	4
06/04	16	Economic	Local	SOLR	201	317
06/04	17	Economic	Local	SOLR	110	142
06/04	18	Economic	Local	SOLR	68	103
06/04	19	Economic	Local	SOLR	13	31
06/04	22	Economic	Local	WIND	1	
06/04	22	Economic	System	WIND	1	8
06/04	23	Economic	Local	WIND	16	19
06/04	24	Economic	Local	WIND	17	19