Wind and Solar Curtailment April 09, 2021

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.

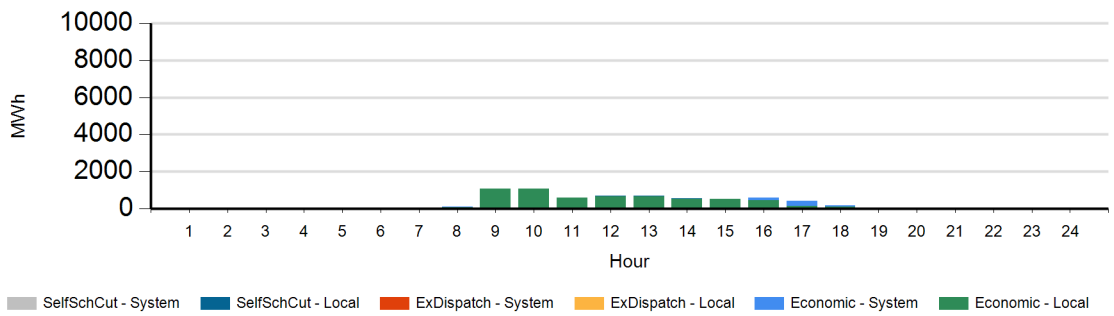
[2]The Renewables Watch report provides daily actual renewable production within the ISO grid. It is available at: http://www.caiso.com/green/renewableswatch.html.

[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.

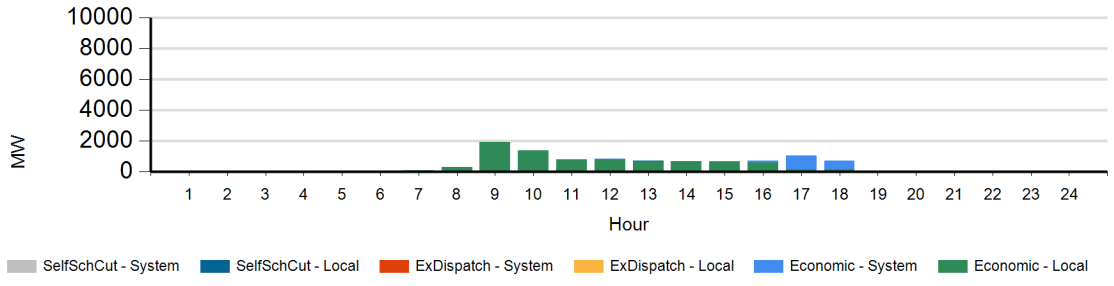
For more information on oversupply conditions, please see: https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables_FastFacts.pdf

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

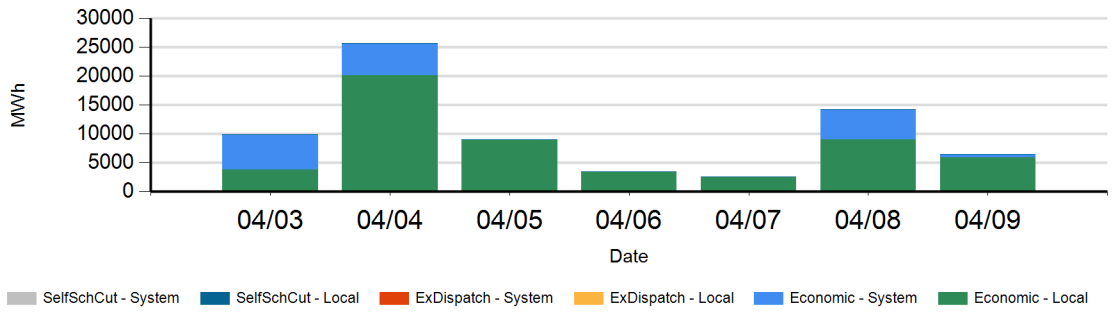
1. Hourly wind/solar generation curtailment energy in MWh. - 4/9/2021



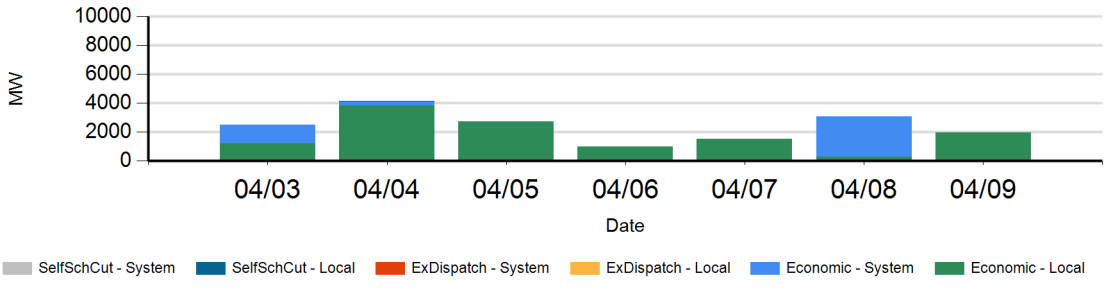
2. Maximum wind/solar generation curtailment in MW for any one of the twelve real-time dispatch intervals in a particular hour. - 4/9/2021



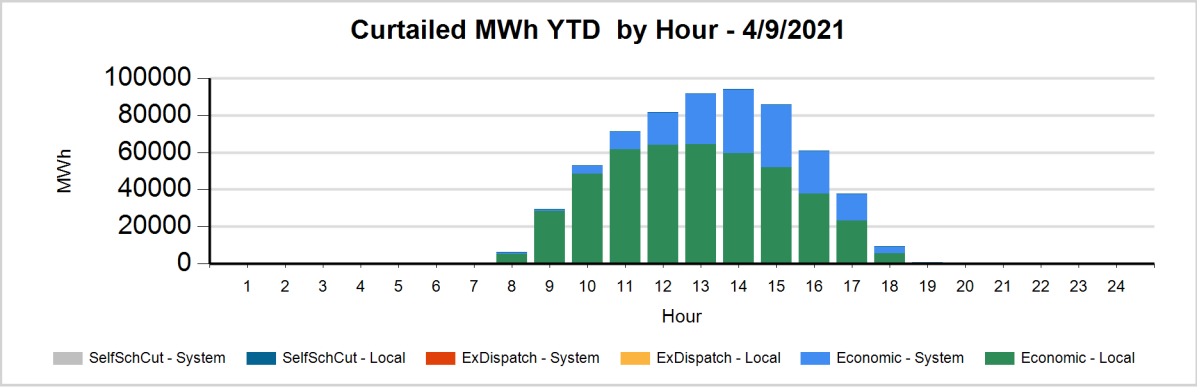
3. Daily wind/solar curtailment energy in MWh on a 7-day basis. - 4/9/2021



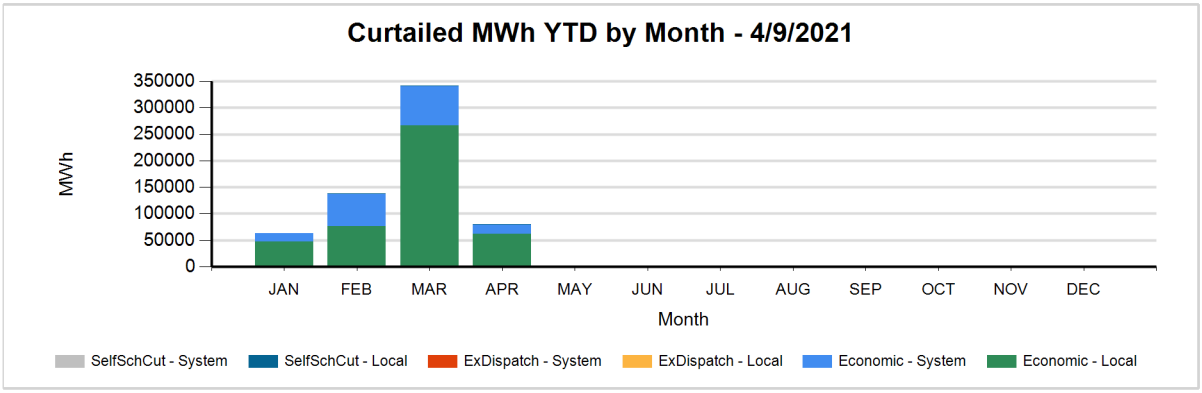
4. Maximum generation curtailment in MW for any one of the twelve real-time dispatch intervals in a particular day on a 7-day basis. - 4/9/2021



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 - 4/9/2021
LocalEconomic	451,005
LocalSelfSchCut	2,002
SystemEconomic	168,816
TOTAL	621,823

California ISO

Data used to produce hourly chart

DATE	HOUR	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
04/09	7	Economic	Local	WIND	14	91
04/09	8	Economic	Local	SOLR	87	269
04/09	8	Economic	Local	WIND	2	7
04/09	8	Economic	System	SOLR	10	
04/09	9	Economic	Local	SOLR	958	1688
04/09	9	Economic	Local	WIND	110	246
04/09	9	Economic	System	SOLR	0	
04/09	10	Economic	Local	SOLR	1041	1243
04/09	10	Economic	Local	WIND	37	142
04/09	11	Economic	Local	SOLR	563	763
04/09	11	Economic	Local	WIND	29	37
04/09	12	Economic	Local	SOLR	633	793
04/09	12	Economic	Local	WIND	39	37
04/09	12	Economic	System	SOLR	2	8
04/09	12	SelfSchCut	Local	SOLR	4	
04/09	13	Economic	Local	SOLR	642	653
04/09	13	Economic	Local	WIND	30	58
04/09	13	SelfSchCut	Local	SOLR	6	9
04/09	14	Economic	Local	SOLR	547	623
04/09	14	Economic	Local	WIND	12	25
04/09	14	Economic	System	WIND	4	
04/09	14	SelfSchCut	Local	SOLR	1	8
04/09	15	Economic	Local	SOLR	504	625
04/09	15	Economic	Local	WIND	11	17
04/09	16	Economic	Local	SOLR	409	555
04/09	16	Economic	Local	WIND	23	15
04/09	16	Economic	System	SOLR	131	97
04/09	16	Economic	System	WIND	35	37
04/09	17	Economic	Local	SOLR	134	129
04/09	17	Economic	Local	WIND	0	
04/09	17	Economic	System	SOLR	251	766

04/09	17	Economic	System	WIND	43	127
04/09	18	Economic	Local	SOLR	98	106
04/09	18	Economic	Local	WIND	9	
04/09	18	Economic	System	SOLR	54	490
04/09	18	Economic	System	WIND	16	112
04/09	19	Economic	Local	SOLR	9	33