

Wind and Solar Curtailment April 14, 2019

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.

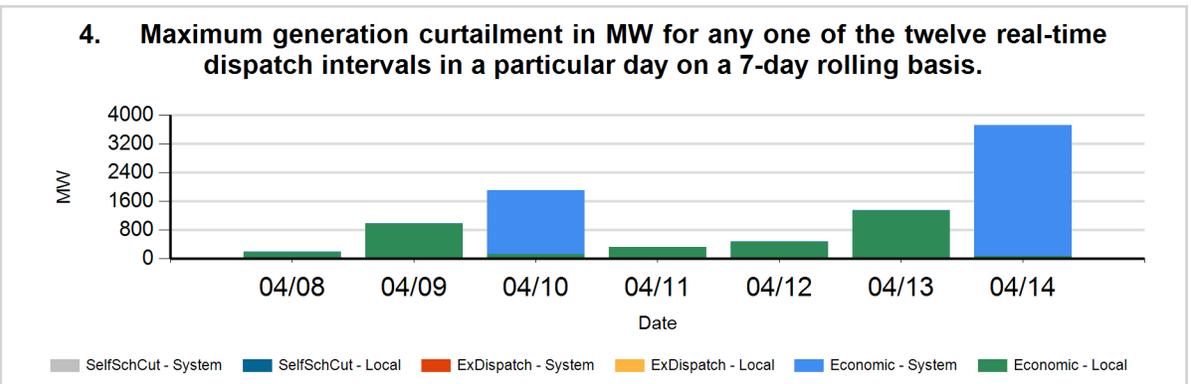
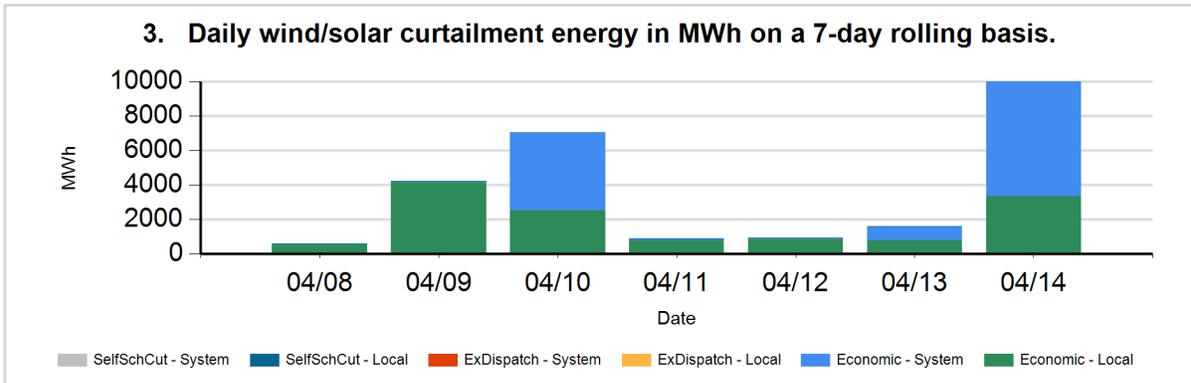
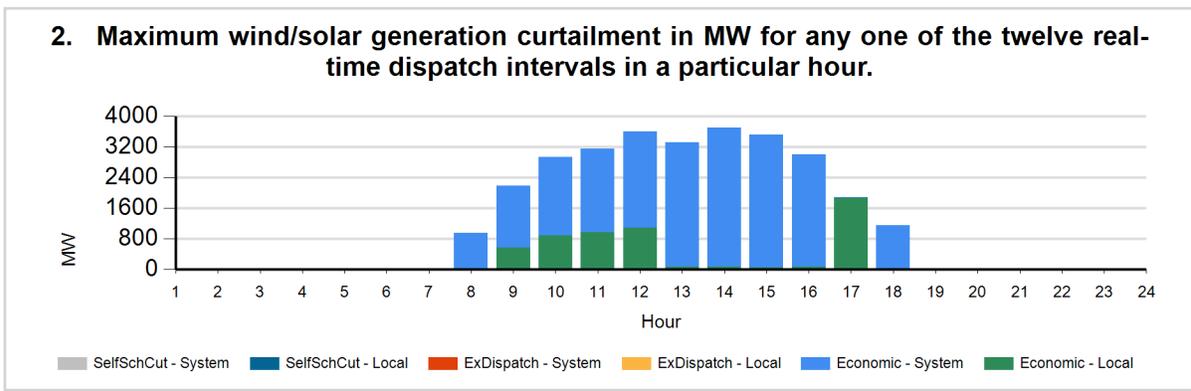
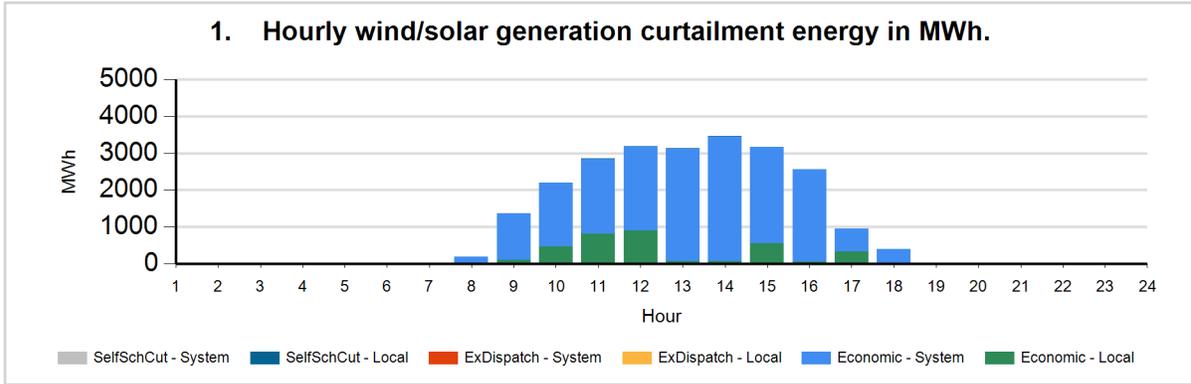
²The Renewables Watch report provides daily actual renewable production within the ISO grid. It is available at: <http://www.caiso.com/green/renewableswatch.html>.

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.

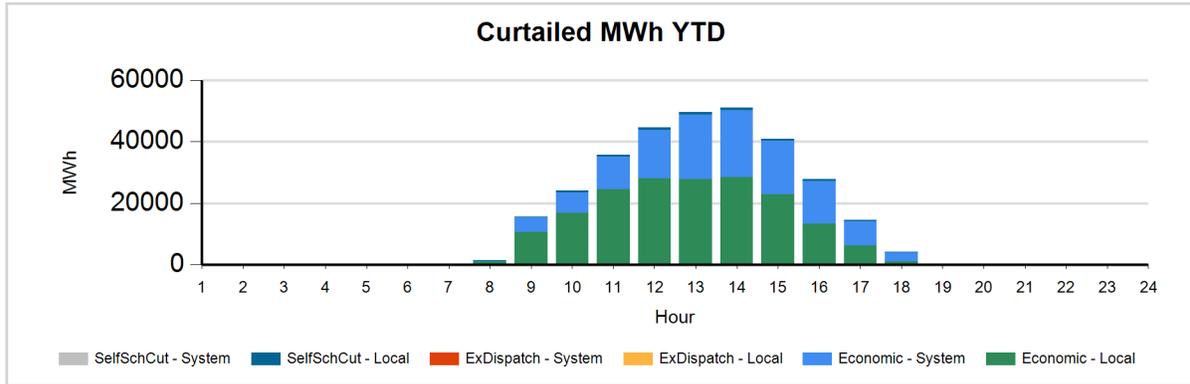
⁴For more information on oversupply conditions, please see:

https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables_FastFacts.pdf

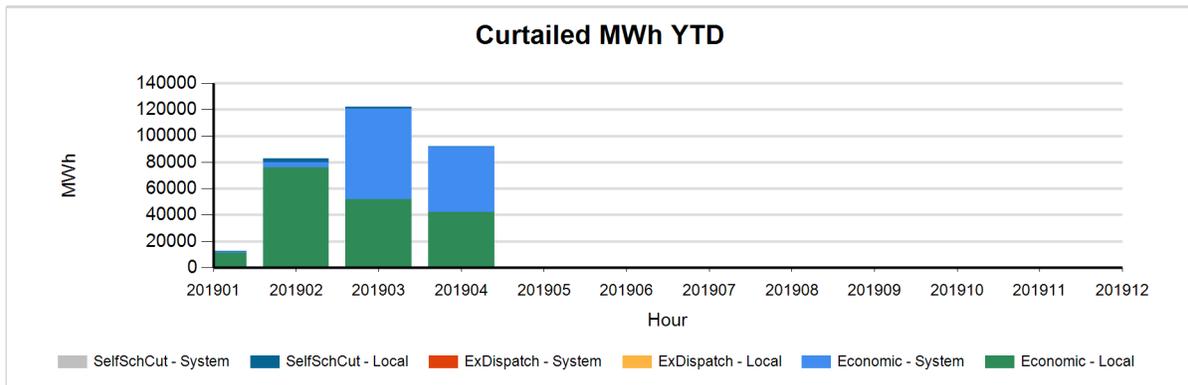
The following charts show the daily and 7-day rolling wind and solar curtailment by category, if any.



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
LocalEconomic	180,966
LocalSelfSchCut	5,291
SystemEconomic	123,363
TOTAL	309,620

Data used to produce hourly chart

DATE	HOUR	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
04/14	8	Economic	System	SOLR	174	912
04/14	8	Economic	System	WIND	12	37
04/14	9	Economic	Local	SOLR	95	569
04/14	9	Economic	System	SOLR	1230	1587
04/14	9	Economic	System	WIND	35	33
04/14	10	Economic	Local	SOLR	471	889
04/14	10	Economic	System	SOLR	1665	1935
04/14	10	Economic	System	WIND	55	121
04/14	11	Economic	Local	SOLR	804	968
04/14	11	Economic	System	SOLR	1999	2088
04/14	11	Economic	System	WIND	52	90
04/14	12	Economic	Local	SOLR	896	1079
04/14	12	Economic	System	SOLR	2201	2417
04/14	12	Economic	System	WIND	76	112
04/14	13	Economic	Local	SOLR	63	64
04/14	13	Economic	System	SOLR	3002	3113
04/14	13	Economic	System	WIND	67	139
04/14	14	Economic	Local	SOLR	62	61
04/14	14	Economic	System	SOLR	3254	3484
04/14	14	Economic	System	WIND	149	165
04/14	15	Economic	Local	SOLR	539	48
04/14	15	Economic	System	SOLR	2579	3417
04/14	15	Economic	System	WIND	42	49
04/14	16	Economic	Local	SOLR	58	64
04/14	16	Economic	System	SOLR	2449	2890
04/14	16	Economic	System	WIND	48	55
04/14	17	Economic	Local	SOLR	325	1804
04/14	17	Economic	Local	WIND	9	63
04/14	17	Economic	System	SOLR	588	20
04/14	18	Economic	Local	SOLR	9	10
04/14	18	Economic	System	SOLR	364	1090
04/14	18	Economic	System	WIND	18	46
04/14	19	Economic	Local	SOLR	1	4

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.