

Wind and Solar Curtailment May 21, 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.

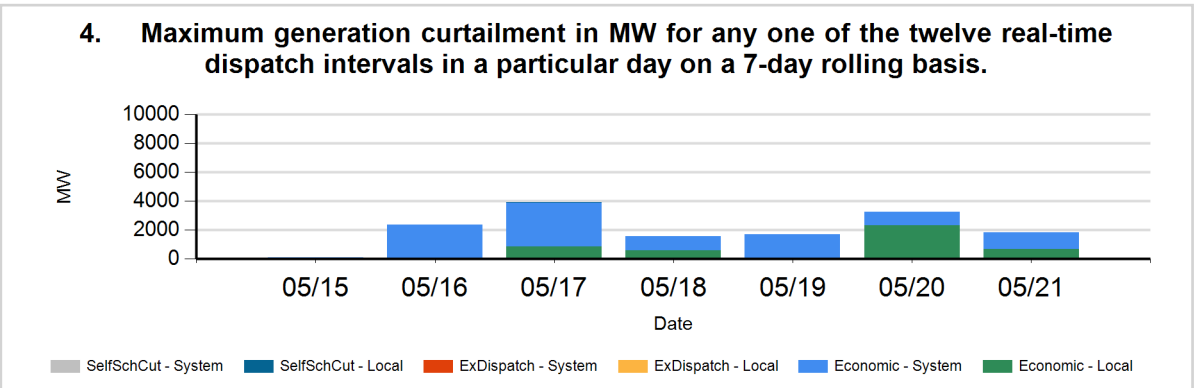
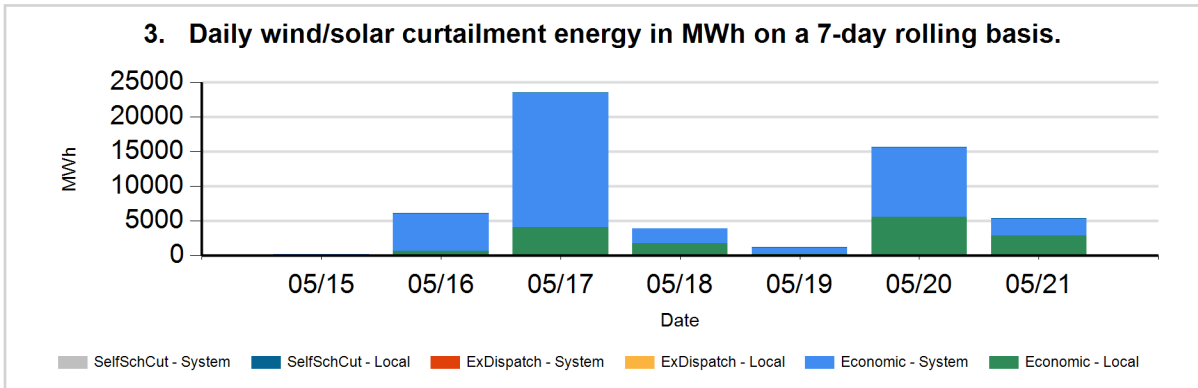
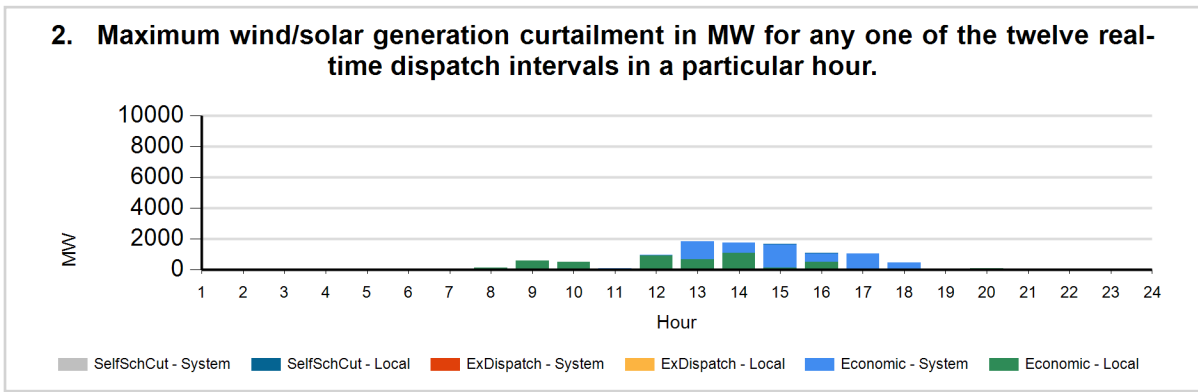
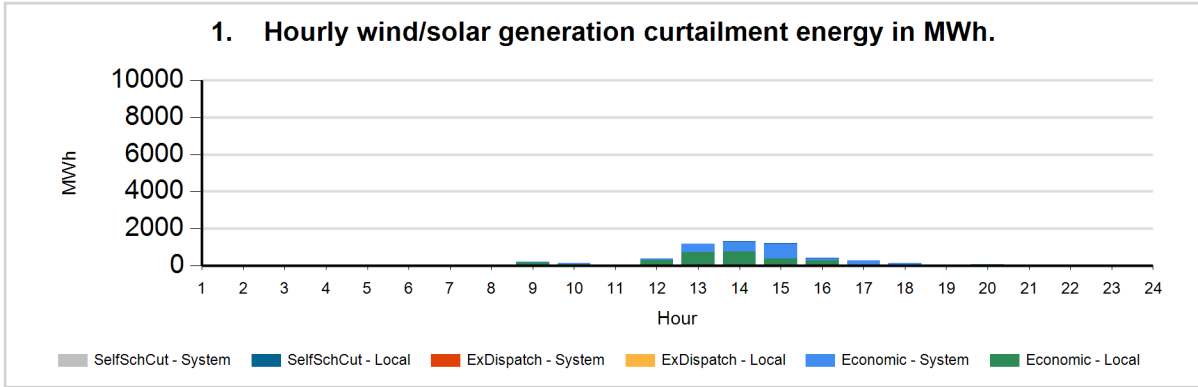
¹Only wind and solar resources can be reported in this manner because these resources have a forecast. Curtailment is defined as the difference between actual production and the forecast when actual production is less than the forecast.

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

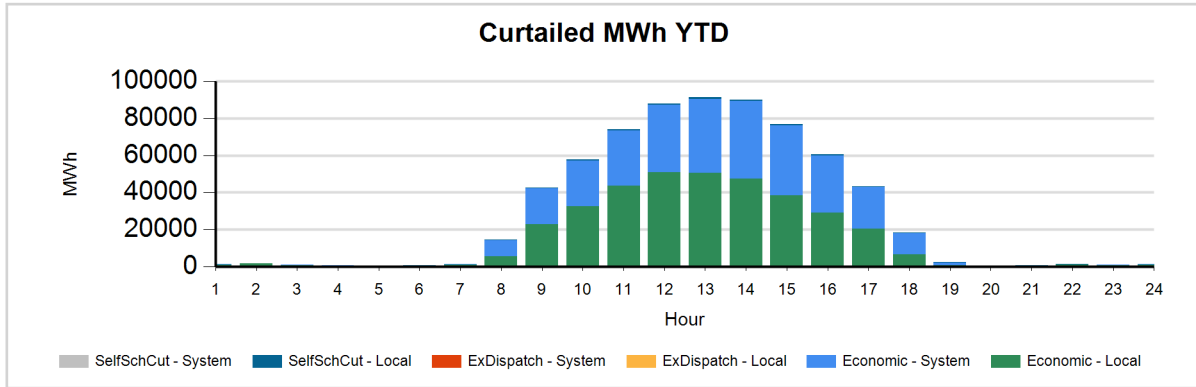
³Congestion occurs when available, least-cost energy cannot be delivered to some loads because transmission facilities do not have sufficient capacity to deliver the energy.

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

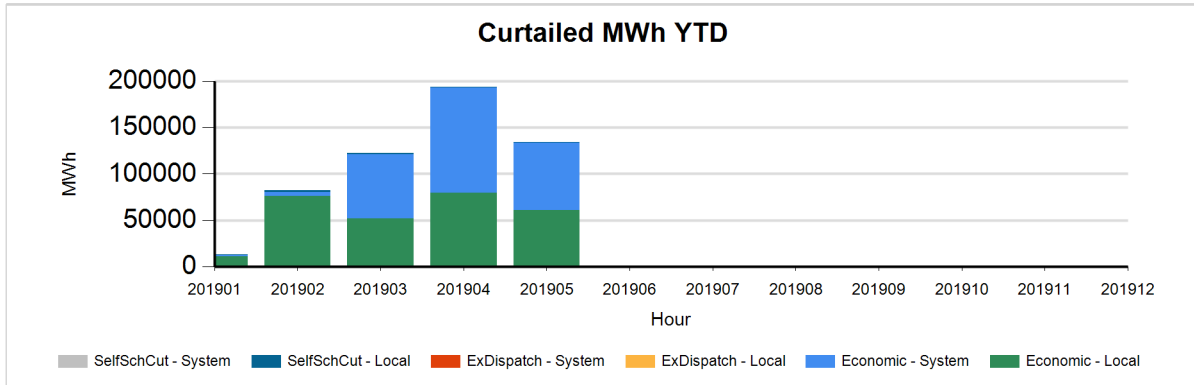
The following charts show the daily and 7-day rolling wind and solar curtailment by category, if any.



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	279,319
LocalSelfSchCut	5,628
SystemEconomic	260,878
TOTAL	545,825

Data used to produce hourly chart

DATE	HOUR	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
05/21	6	Economic	Local	WIND	7	21
05/21	7	Economic	Local	WIND	1	7
05/21	8	Economic	Local	SOLR	9	96
05/21	8	Economic	Local	WIND	7	18
05/21	9	Economic	Local	SOLR	191	579
05/21	9	Economic	Local	WIND	4	4
05/21	10	Economic	Local	SOLR	65	505
05/21	10	Economic	Local	WIND	1	4
05/21	11	Economic	Local	SOLR	16	58
05/21	11	Economic	System	SOLR	6	16
05/21	11	Economic	System	WIND	4	22
05/21	12	Economic	Local	SOLR	295	905
05/21	12	Economic	Local	WIND	11	22
05/21	12	Economic	System	SOLR	68	26
05/21	13	Economic	Local	SOLR	722	660
05/21	13	Economic	Local	WIND	15	2
05/21	13	Economic	System	SOLR	416	1122
05/21	13	Economic	System	WIND	31	49
05/21	14	Economic	Local	SOLR	730	1052
05/21	14	Economic	Local	WIND	15	22
05/21	14	Economic	System	SOLR	553	622
05/21	14	Economic	System	WIND	26	45
05/21	15	Economic	Local	SOLR	373	117
05/21	15	Economic	System	SOLR	773	1503
05/21	15	Economic	System	WIND	46	52
05/21	15	SelfSchCut	Local	SOLR	3	2
05/21	16	Economic	Local	SOLR	279	495
05/21	16	Economic	Local	WIND	10	2
05/21	16	Economic	System	SOLR	99	551
05/21	16	Economic	System	WIND	15	47
05/21	16	SelfSchCut	Local	SOLR	1	4

05/21	17	Economic	Local	SOLR	12	10
05/21	17	Economic	System	SOLR	224	974
05/21	17	Economic	System	WIND	22	53
05/21	18	Economic	Local	SOLR	16	3
05/21	18	Economic	System	SOLR	108	442
05/21	18	Economic	System	WIND	13	28
05/21	19	Economic	Local	SOLR	5	4
05/21	19	Economic	Local	WIND	5	31
05/21	20	Economic	Local	WIND	66	99
05/21	21	Economic	Local	WIND	3	14
05/21	23	Economic	Local	WIND	1	10

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.