

Wind and Solar Curtailment June 03, 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.
- Economic System: Market dispatch of generators with economic bids to mitigate systemwide 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.

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.

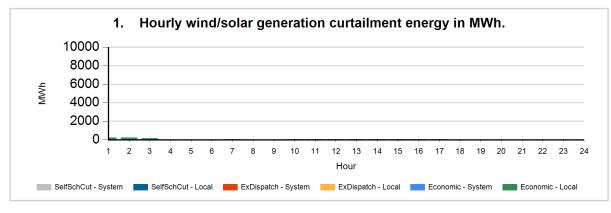
²The Renewables Watch report provides daily actual renewable production within the ISO grid. It is available at: <u>http://www.caiso.com/green/renewableswatch.html</u>.

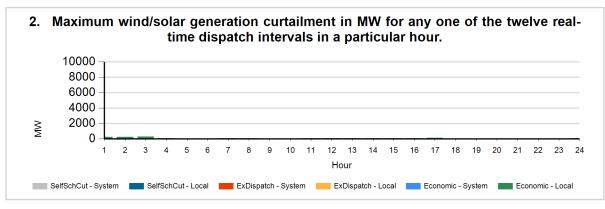
³Congestion occurs when available, least-cost energy cannot be delivered to some loads because transmission facilities do not have sufficient capacity to deliver the energy.

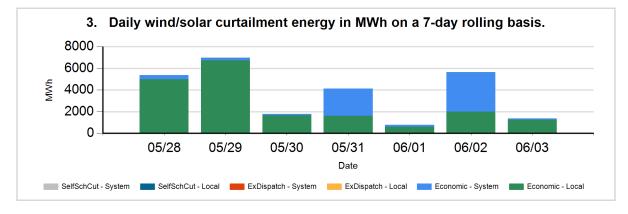
For more information on oversupply conditions, please see: <u>https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables_FastFacts.pdf</u>

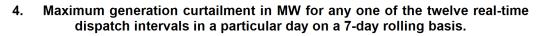


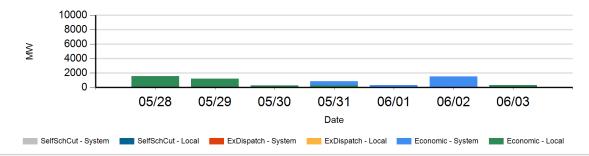
The following charts show the daily and 7-day rolling wind and solar curtailment by category, if any.





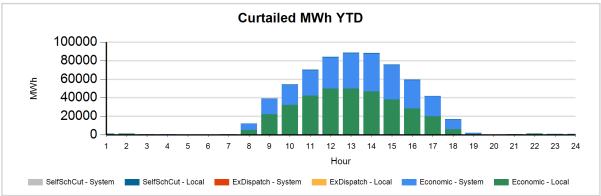




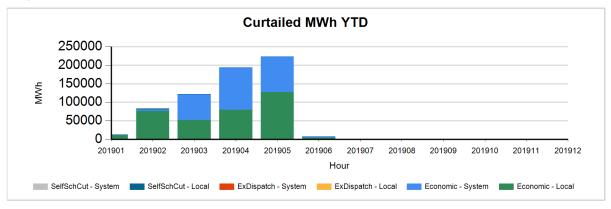




The following charts show hourly year to date wind and solar curtailment by category, if any.



The following charts show monthly year to date wind and solar curtailment by category, if any.



TYPE	YTD CURTAILED MWH
LocalEconomic	349,130
LocalSelfSchCut	5,724
SystemEconomic	287,636
TOTAL	642,490



Data used to produce hourly chart

DATE	HOU R	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
06/03	1	Economic	Local	WIND	224	255
06/03	2	Economic	Local	WIND	242	264
06/03	3	Economic	Local	WIND	153	299
06/03	4	Economic	Local	WIND	29	82
06/03	5	Economic	Local	WIND	4	18
06/03	7	Economic	Local	SOLR	50	81
06/03	8	Economic	Local	SOLR	34	84
06/03	9	Economic	Local	SOLR	21	43
06/03	10	Economic	Local	SOLR	41	47
06/03	10	Economic	System	SOLR	7	8
06/03	11	Economic	Local	SOLR	49	49
06/03	11	Economic	System	SOLR	4	9
06/03	12	Economic	Local	SOLR	64	70
06/03	13	Economic	Local	SOLR	59	73
06/03	14	Economic	Local	SOLR	63	61
06/03	14	Economic	System	SOLR	13	37
06/03	15	Economic	Local	SOLR	48	49
06/03	15	Economic	System	SOLR	27	33
06/03	16	Economic	Local	SOLR	47	48
06/03	16	Economic	System	SOLR	9	16
06/03	17	Economic	Local	SOLR	68	123
06/03	18	Economic	Local	SOLR	15	24
06/03	18	Economic	System	SOLR	7	10
06/03	19	Economic	Local	SOLR	1	1
06/03	19	Economic	System	SOLR	2	4
06/03	20	Economic	System	SOLR	0	4
06/03	23	Economic	Local	WIND	19	47
06/03	24	Economic	Local	WIND	20	75

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.

