

Wind and Solar Curtailment July 14, 2021

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.

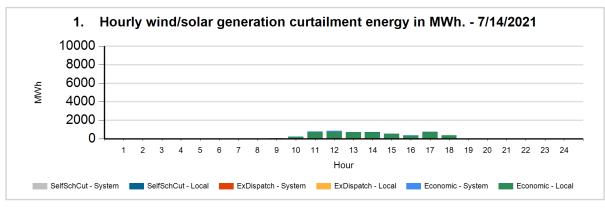
²The Renewables Watch report provides daily actual renewable production within the ISO grid. It is available at: <u>http://www.caiso.com/green/renewableswatch.html</u>.

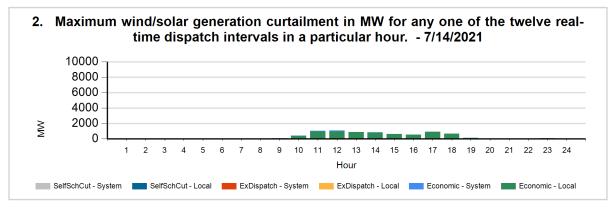
³Congestion occurs when available, least-cost energy cannot be delivered to some loads because transmission facilities do not have sufficient capacity to deliver the energy.

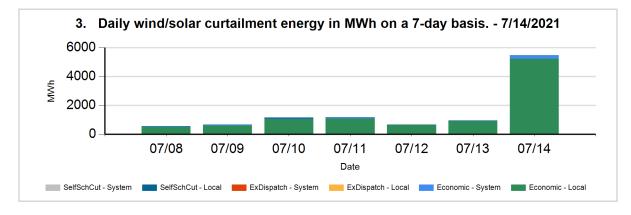
For more information on oversupply conditions, please see: <u>https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables_FastFacts.pdf</u>

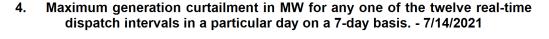


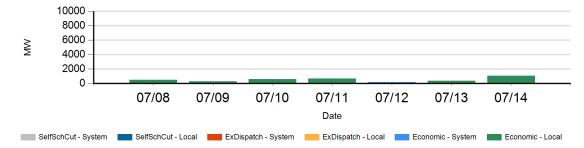
The following charts show the daily and 7-day wind and solar curtailment by category, if any.





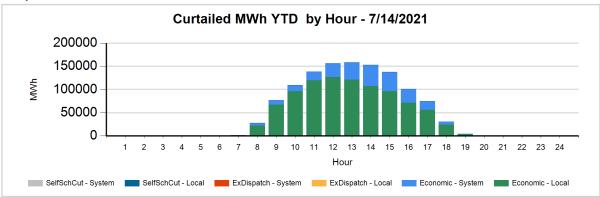




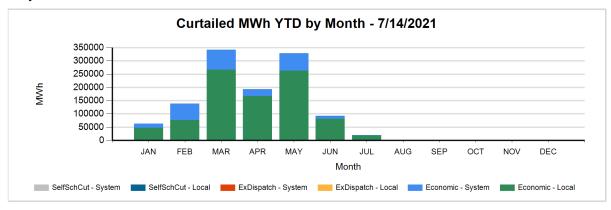




The following charts show hourly year to date wind and solar curtailment by category, if any.



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



TYPE	YTD CURTAILED MWH - 7/14/2021
LocalEconomic	915,965
LocalSelfSchCut	4,028
SystemEconomic	253,772
TOTAL	1,173,765



Data used to produce hourly chart

DATE	HOU R	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
07/14	1	Economic	Local	WIND	0	
07/14	1	Economic	System	WIND	1	3
07/14	2	Economic	System	WIND	1	3
07/14	8	Economic	Local	SOLR	2	22
07/14	8	Economic	System	SOLR	0	
07/14	9	Economic	Local	SOLR	1	5
07/14	9	Economic	Local	WIND	16	
07/14	9	Economic	System	SOLR	1	
07/14	9	Economic	System	WIND	31	75
07/14	10	Economic	Local	SOLR	161	358
07/14	10	Economic	Local	WIND	35	6
07/14	10	Economic	System	WIND	31	59
07/14	11	Economic	Local	SOLR	715	962
07/14	11	Economic	Local	WIND	17	13
07/14	11	Economic	System	WIND	67	78
07/14	12	Economic	Local	SOLR	739	950
07/14	12	Economic	Local	WIND	14	16
07/14	12	Economic	System	SOLR	2	
07/14	12	Economic	System	WIND	99	110
07/14	13	Economic	Local	SOLR	715	874
07/14	13	Economic	Local	WIND	17	14
07/14	14	Economic	Local	SOLR	693	770
07/14	14	Economic	Local	WIND	27	31
07/14	14	SelfSchCut	Local	SOLR	2	10
07/14	15	Economic	Local	SOLR	488	596
07/14	15	Economic	Local	WIND	45	44
07/14	16	Economic	Local	SOLR	315	493
07/14	16	Economic	Local	WIND	56	40
07/14	16	Economic	System	SOLR	4	
07/14	17	Economic	Local	SOLR	665	815
07/14	17	Economic	Local	WIND	90	100



07/14	18	Economic	Local	SOLR	297	573
07/14	18	Economic	Local	WIND	79	98
07/14	19	Economic	Local	SOLR	1	3
07/14	19	Economic	Local	WIND	30	115
07/14	20	Economic	Local	SOLR	0	
07/14	20	Economic	System	WIND	0	2
07/14	21	Economic	Local	WIND	0	
07/14	21	Economic	System	WIND	0	3
07/14	23	Economic	Local	WIND	12	72

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.