

Wind and Solar Curtailment June 25, 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.
- 2. 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.

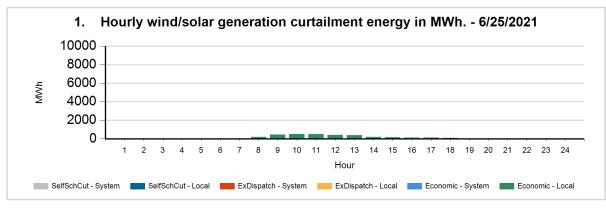
²The Renewables Watch report provides daily actual renewable production within the ISO grid. It is available at: <u>http://www.caiso.com/green/renewableswatch.html</u>.

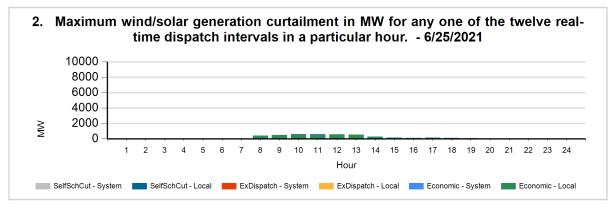
³Congestion occurs when available, least-cost energy cannot be delivered to some loads because transmission facilities do not have sufficient capacity to deliver the energy.

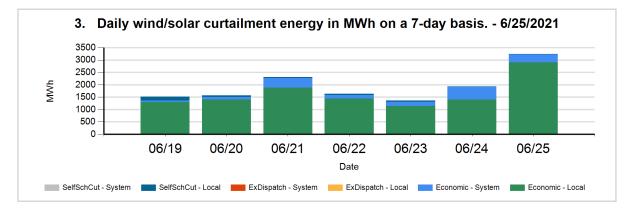
For more information on oversupply conditions, please see: <u>https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables_FastFacts.pdf</u>

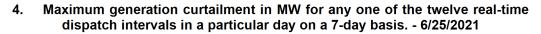


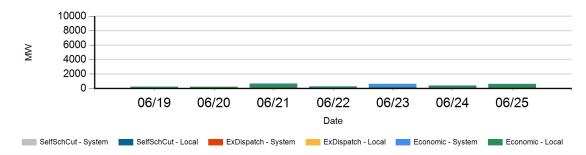
The following charts show the daily and 7-day wind and solar curtailment by category, if any.





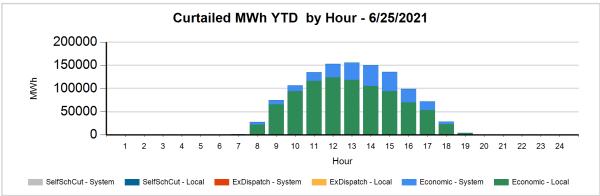




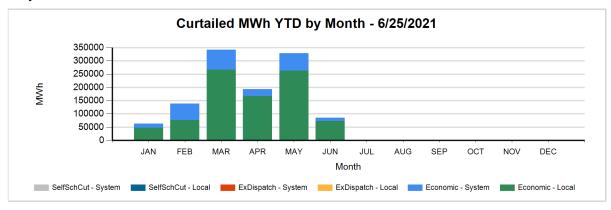




The following charts show hourly year to date wind and solar curtailment by category, if any.



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



TYPE	YTD CURTAILED MWH - 6/25/2021
LocalEconomic	891,176
LocalSelfSchCut	3,482
SystemEconomic	251,827
TOTAL	1,146,485



Data used to produce hourly chart

DATE	HOU R	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
06/25	7	Economic	Local	SOLR	5	3
06/25	7	Economic	System	SOLR	3	26
06/25	8	Economic	Local	SOLR	204	381
06/25	8	Economic	Local	WIND	13	11
06/25	8	Economic	System	SOLR	1	
06/25	9	Economic	Local	SOLR	393	444
06/25	9	Economic	Local	WIND	19	43
06/25	9	Economic	System	SOLR	21	
06/25	9	SelfSchCut	Local	SOLR	4	
06/25	10	Economic	Local	SOLR	462	554
06/25	10	Economic	Local	WIND	8	13
06/25	10	Economic	System	SOLR	50	55
06/25	11	Economic	Local	SOLR	441	536
06/25	11	Economic	Local	WIND	11	14
06/25	11	Economic	System	SOLR	51	56
06/25	12	Economic	Local	SOLR	391	544
06/25	12	Economic	Local	WIND	11	15
06/25	13	Economic	Local	SOLR	311	509
06/25	13	Economic	Local	WIND	20	22
06/25	13	Economic	System	SOLR	34	
06/25	13	SelfSchCut	Local	SOLR	2	
06/25	14	Economic	Local	SOLR	170	201
06/25	14	Economic	Local	WIND	21	27
06/25	14	Economic	System	SOLR	29	58
06/25	15	Economic	Local	SOLR	143	114
06/25	15	Economic	Local	WIND	1	7
06/25	15	Economic	System	SOLR	19	58
06/25	16	Economic	Local	SOLR	90	63
06/25	16	Economic	Local	WIND	1	13
06/25	16	Economic	System	SOLR	34	59
06/25	17	Economic	Local	SOLR	86	92



06/25	17	Economic	Local	WIND	1	10
06/25	17	Economic	System	SOLR	53	58
06/25	18	Economic	Local	SOLR	84	76
06/25	18	Economic	System	SOLR	31	56
06/25	19	Economic	Local	SOLR	14	60
06/25	19	Economic	System	SOLR	0	
06/25	19	SelfSchCut	Local	SOLR	0	1
06/25	20	Economic	Local	SOLR	2	13

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.