

Wind and Solar Curtailment March 28, 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.

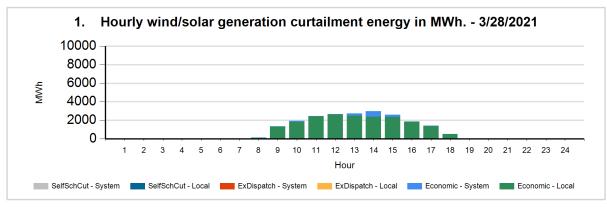
²The Renewables Watch report provides daily actual renewable production within the ISO grid. It is available at: <u>http://www.caiso.com/green/renewableswatch.html</u>.

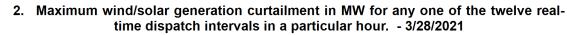
³Congestion occurs when available, least-cost energy cannot be delivered to some loads because transmission facilities do not have sufficient capacity to deliver the energy.

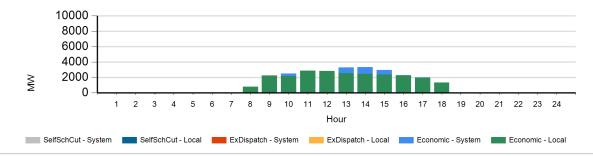
For more information on oversupply conditions, please see: <u>https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables_FastFacts.pdf</u>

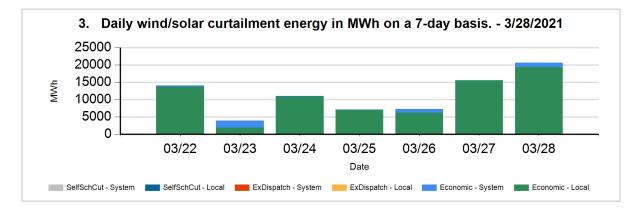


The following charts show the daily and 7-day wind and solar curtailment by category, if any.

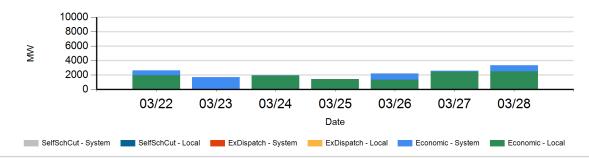






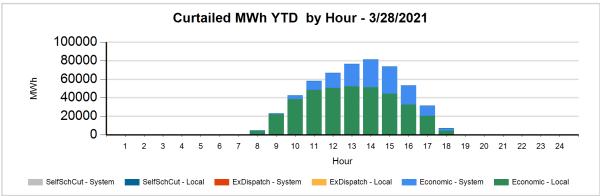


4. Maximum generation curtailment in MW for any one of the twelve real-time dispatch intervals in a particular day on a 7-day basis. - 3/28/2021

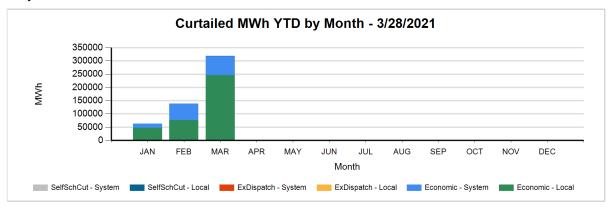




The following charts show hourly year to date wind and solar curtailment by category, if any.



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



TYPE	YTD CURTAILED MWH - 3/28/2021
LocalEconomic	368,992
LocalSelfSchCut	1,621
SystemEconomic	148,506
TOTAL	519,119



Data used to produce hourly chart

DATE	HOU R	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
03/28	8	Economic	Local	SOLR	118	788
03/28	8	Economic	System	SOLR	5	
03/28	9	Economic	Local	SOLR	1335	2253
03/28	9	Economic	System	SOLR	2	
03/28	10	Economic	Local	SOLR	1803	2117
03/28	10	Economic	Local	WIND	24	64
03/28	10	Economic	System	SOLR	121	335
03/28	11	Economic	Local	SOLR	2376	2812
03/28	11	Economic	Local	WIND	46	57
03/28	11	Economic	System	SOLR	31	
03/28	12	Economic	Local	SOLR	2655	2783
03/28	12	Economic	Local	WIND	10	41
03/28	12	Economic	System	SOLR	13	
03/28	13	Economic	Local	SOLR	2438	2491
03/28	13	Economic	Local	WIND	51	46
03/28	13	Economic	System	SOLR	228	738
03/28	14	Economic	Local	SOLR	2342	2421
03/28	14	Economic	Local	WIND	47	45
03/28	14	Economic	System	SOLR	574	850
03/28	15	Economic	Local	SOLR	2289	2321
03/28	15	Economic	Local	WIND	44	46
03/28	15	Economic	System	SOLR	271	580
03/28	16	Economic	Local	SOLR	1842	2248
03/28	16	Economic	Local	WIND	10	25
03/28	16	Economic	System	SOLR	4	18
03/28	17	Economic	Local	SOLR	1426	1944
03/28	17	Economic	Local	WIND	2	22
03/28	17	Economic	System	SOLR	3	13
03/28	18	Economic	Local	SOLR	532	1318
03/28	19	Economic	Local	SOLR	2	14



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.