

Wind and Solar Curtailment January 19, 2020

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.

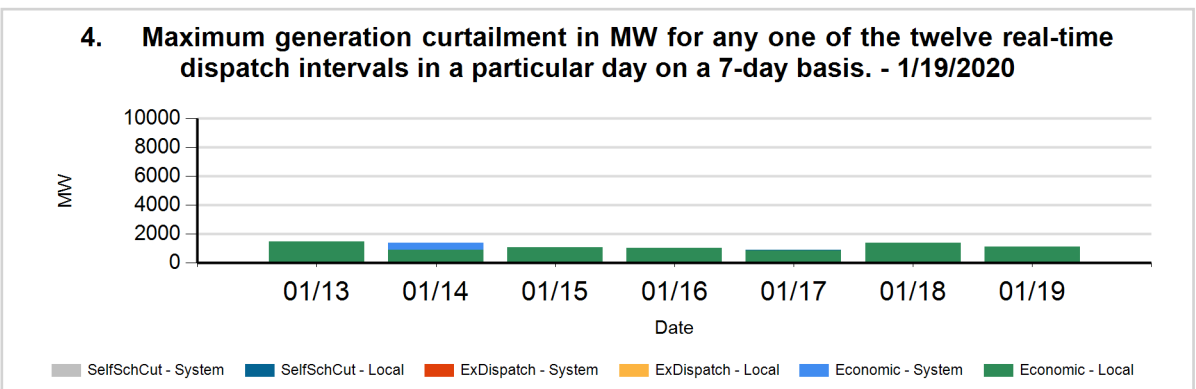
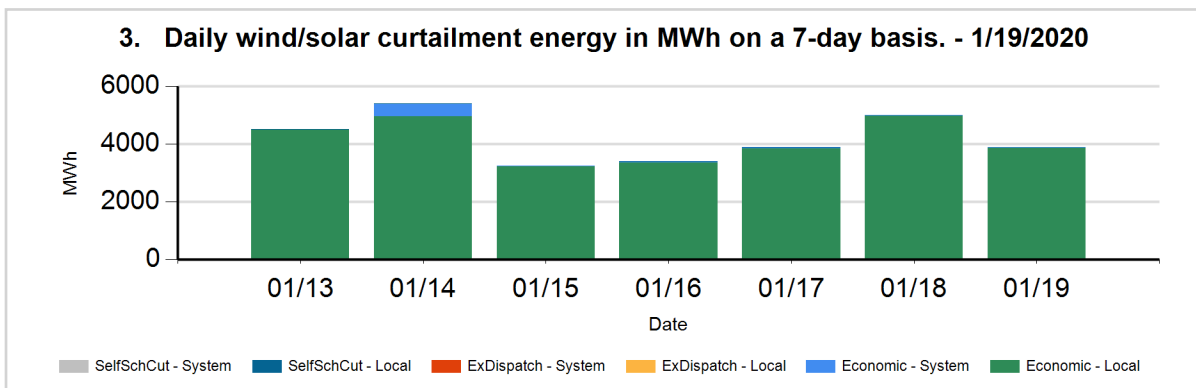
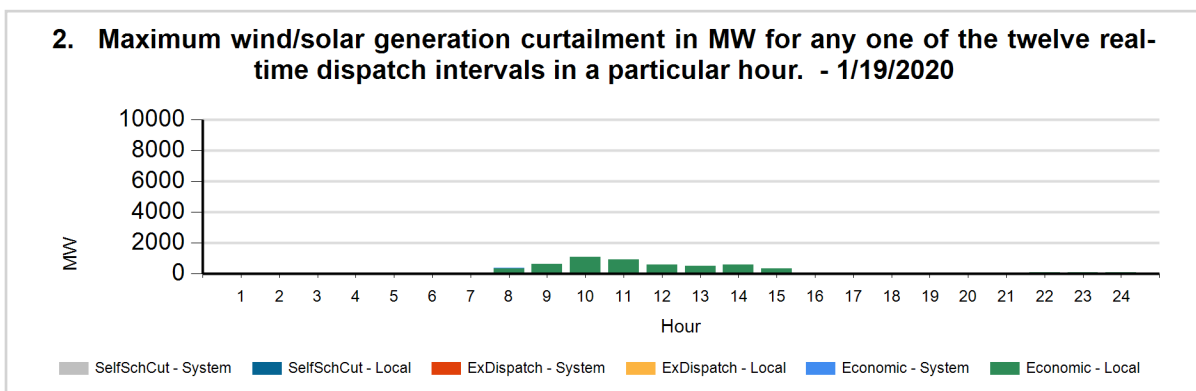
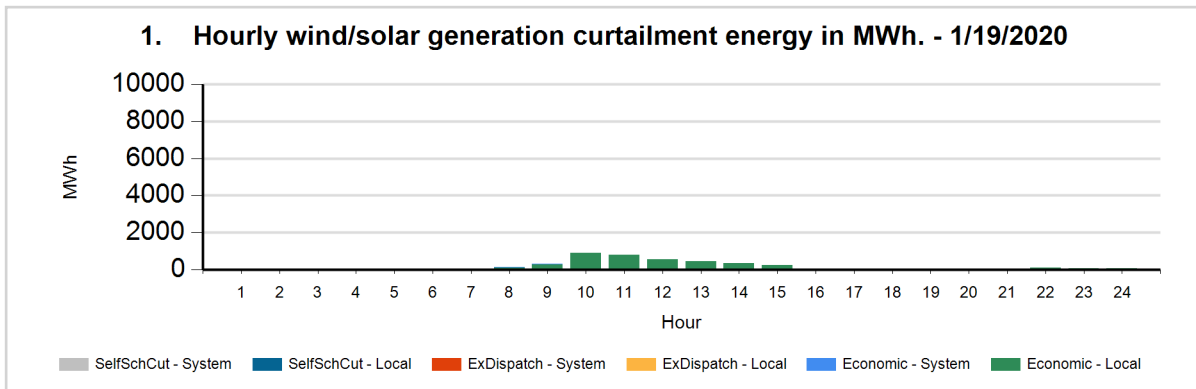
¹Only wind and solar resources can be reported in this manner because these resources have a forecast. Curtailment is defined as the difference between actual production and the forecast when actual production is less than the forecast.

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

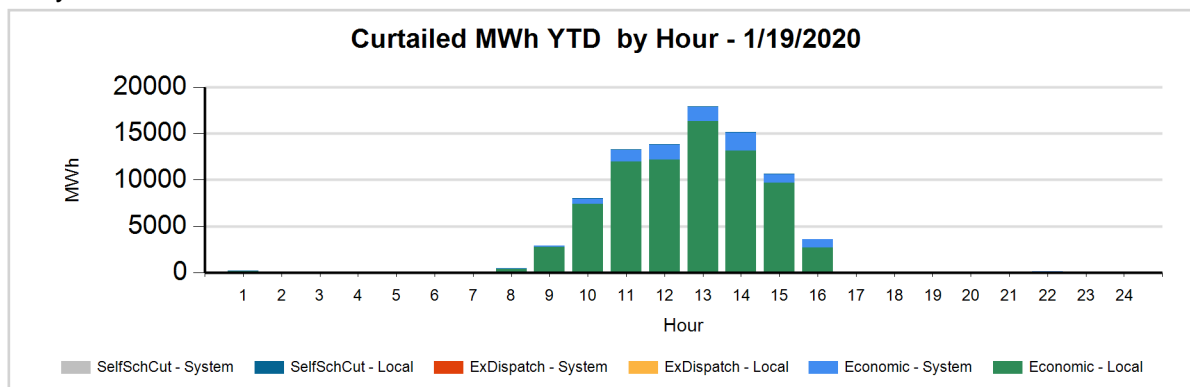
³Congestion occurs when available, least-cost energy cannot be delivered to some loads because transmission facilities do not have sufficient capacity to deliver the energy.

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

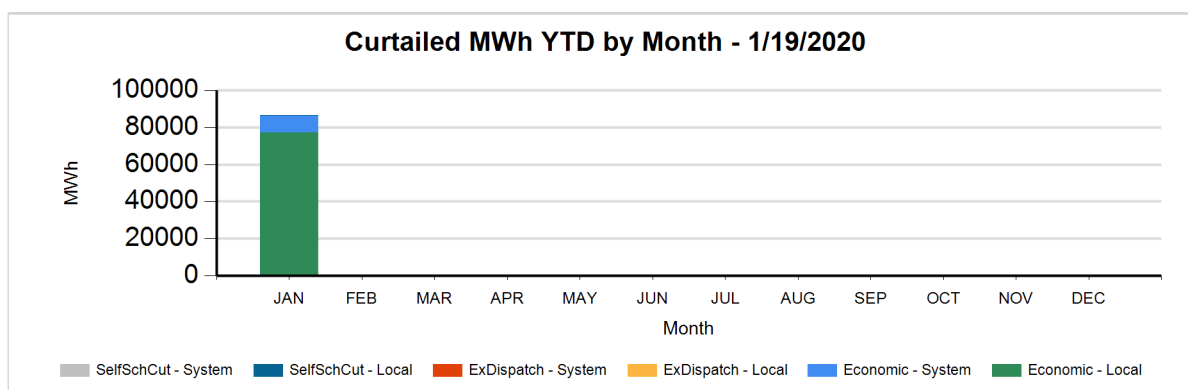
The following charts show the daily and 7-day wind and solar curtailment by category, if any.



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 - 1/19/2020
LocalEconomic	77,075
LocalSelfSchCut	112
SystemEconomic	9,175
TOTAL	86,362

Data used to produce hourly chart

DATE	HOUR	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
01/19	3	Economic	Local	WIND	2	10
01/19	8	Economic	Local	SOLR	102	274
01/19	8	Economic	Local	WIND	43	104
01/19	8	Economic	System	SOLR	1	12
01/19	9	Economic	Local	SOLR	283	600
01/19	10	Economic	Local	SOLR	866	1064
01/19	10	Economic	Local	WIND	26	27
01/19	11	Economic	Local	SOLR	757	887
01/19	11	Economic	Local	WIND	22	16
01/19	12	Economic	Local	SOLR	545	572
01/19	12	Economic	Local	WIND	22	26
01/19	13	Economic	Local	SOLR	432	494
01/19	13	Economic	Local	WIND	16	15
01/19	14	Economic	Local	SOLR	332	559
01/19	14	Economic	Local	WIND	13	14
01/19	15	Economic	Local	SOLR	212	321
01/19	15	Economic	Local	WIND	10	11
01/19	22	Economic	Local	WIND	83	97
01/19	23	Economic	Local	WIND	61	87
01/19	24	Economic	Local	WIND	51	62

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.