

Wind and Solar Curtailment November 26, 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.
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.

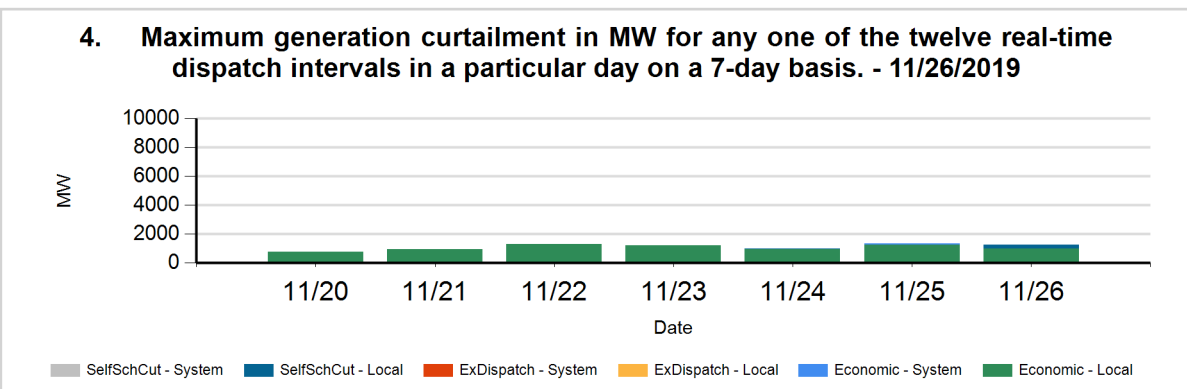
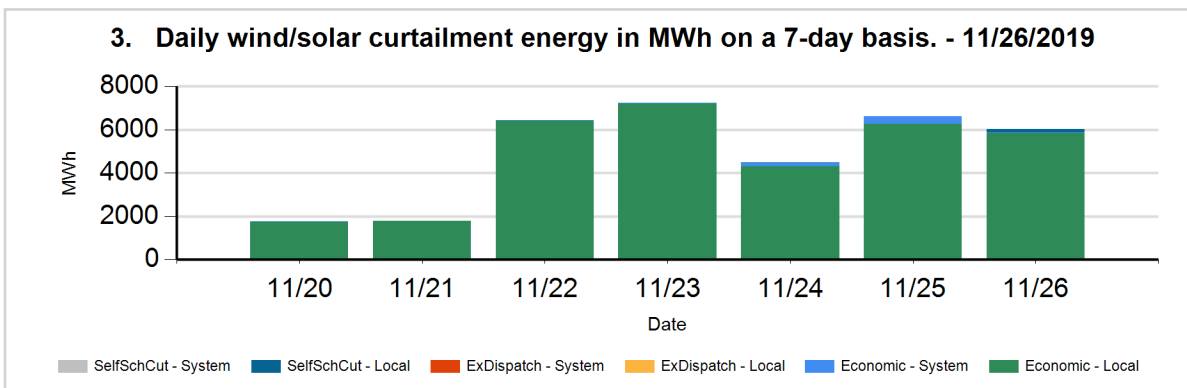
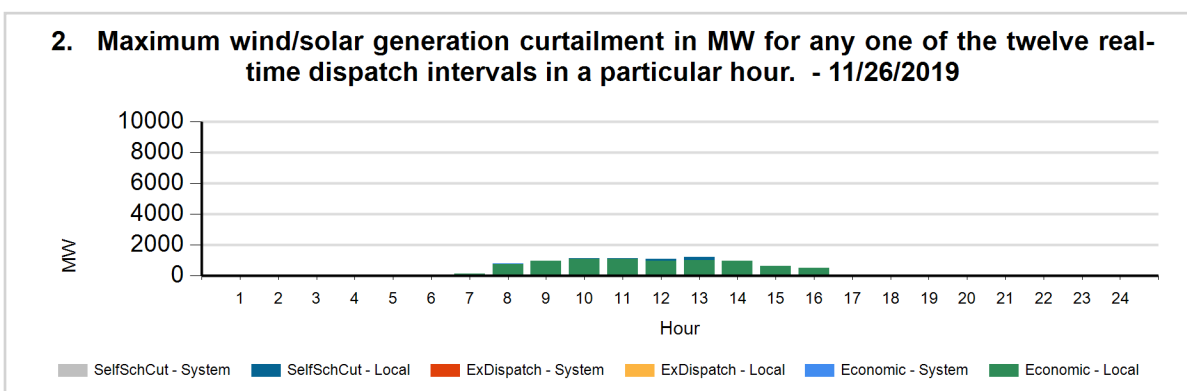
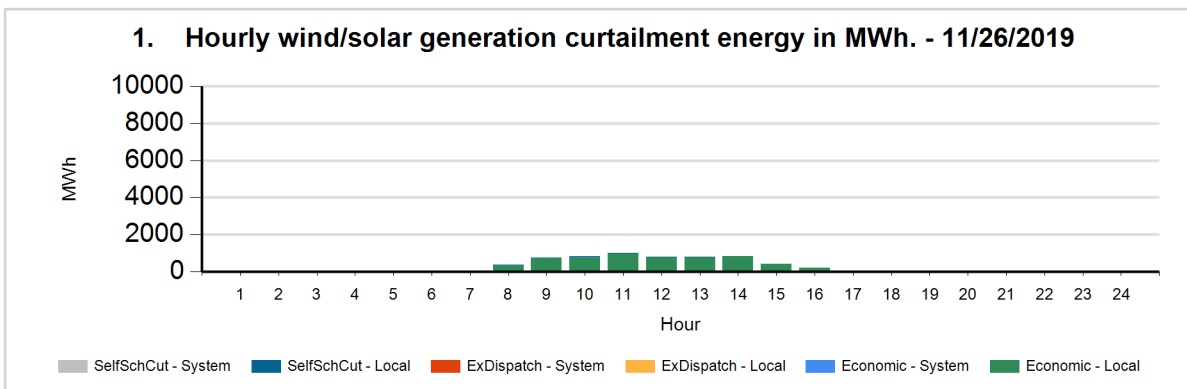
¹Only wind and solar resources can be reported in this manner because these resources have a forecast. Curtailment is defined as the difference between actual production and the forecast when actual production is less than the forecast.

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

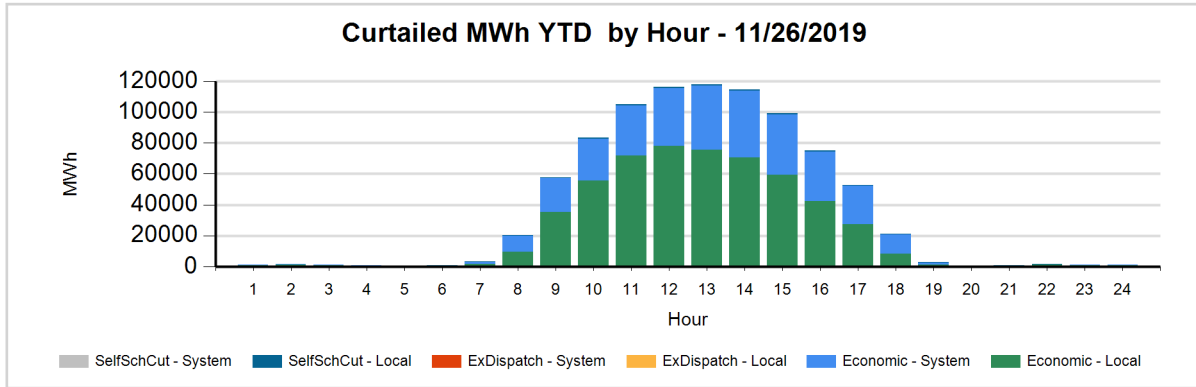
³Congestion occurs when available, least-cost energy cannot be delivered to some loads because transmission facilities do not have sufficient capacity to deliver the energy.

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

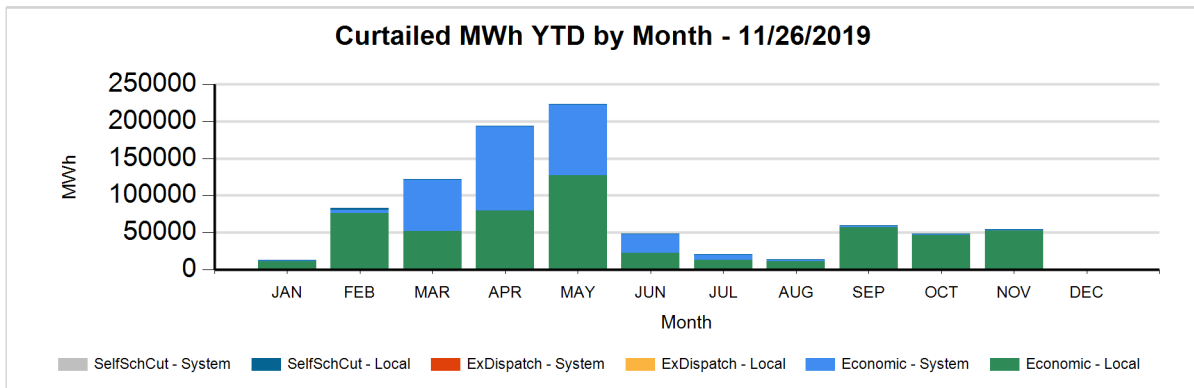
The following charts show the daily and 7-day wind and solar curtailment by category, if any.



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 - 11/26/2019
LocalEconomic	548,308
LocalSelfSchCut	6,365
SystemEconomic	325,904
TOTAL	880,576

Data used to produce hourly chart

DATE	HOUR	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
11/26	7	Economic	Local	SOLR	35	132
11/26	8	Economic	Local	SOLR	365	763
11/26	8	Economic	System	SOLR	19	33
11/26	9	Economic	Local	SOLR	756	946
11/26	10	Economic	Local	SOLR	792	1099
11/26	10	SelfSchCut	Local	SOLR	11	18
11/26	10	SelfSchCut	Local	WIND	18	17
11/26	11	Economic	Local	SOLR	959	1072
11/26	11	Economic	Local	WIND	1	1
11/26	11	SelfSchCut	Local	SOLR	15	16
11/26	11	SelfSchCut	Local	WIND	29	30
11/26	12	Economic	Local	SOLR	743	936
11/26	12	SelfSchCut	Local	SOLR	20	140
11/26	12	SelfSchCut	Local	WIND	17	25
11/26	13	Economic	Local	SOLR	757	984
11/26	13	SelfSchCut	Local	SOLR	26	218
11/26	13	SelfSchCut	Local	WIND	13	20
11/26	14	Economic	Local	SOLR	810	965
11/26	15	Economic	Local	SOLR	403	623
11/26	16	Economic	Local	SOLR	212	475
11/26	17	Economic	Local	SOLR	7	50

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.



California ISO