

## Wind and Solar Curtailment November 23, 2020

This report is produced daily to provide a detailed accounting of the wind and solar renewable generation that was curtailed and the reasons why<sup>1</sup>. This report should be read in the context of the Renewables Watch report for a more complete understanding of both renewable curtailment and generation<sup>2</sup>.

Wind and solar curtailments are grouped into the following categories:

1. Economic - Local: Market dispatch of generators with economic bids to mitigate local congestion<sup>3</sup>.
2. Economic - System: Market dispatch of generators with economic bids to mitigate system-wide oversupply<sup>4</sup>.
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.

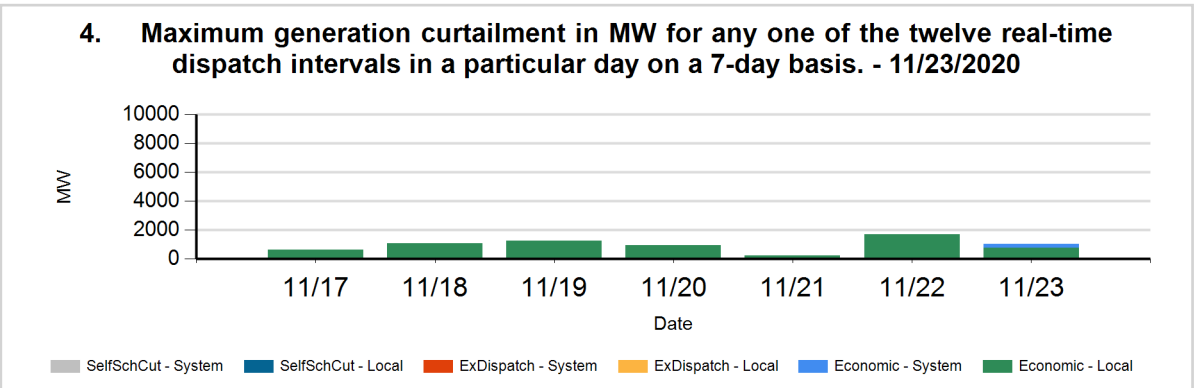
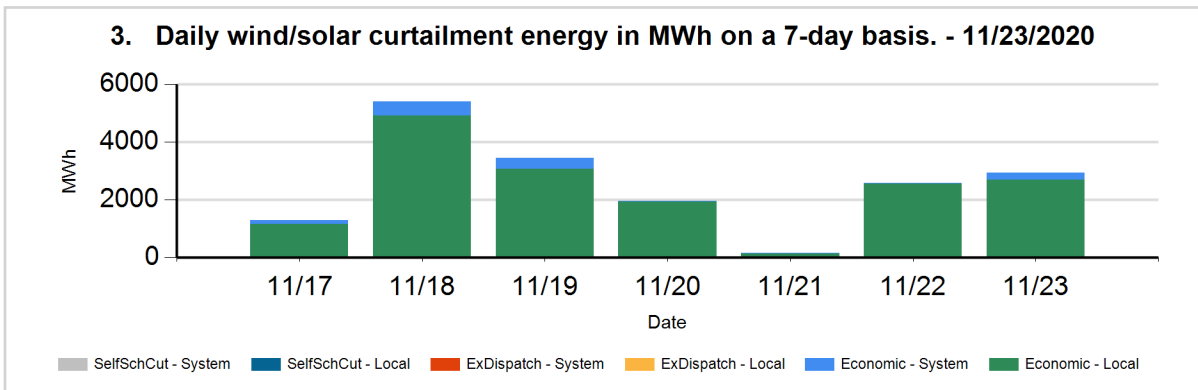
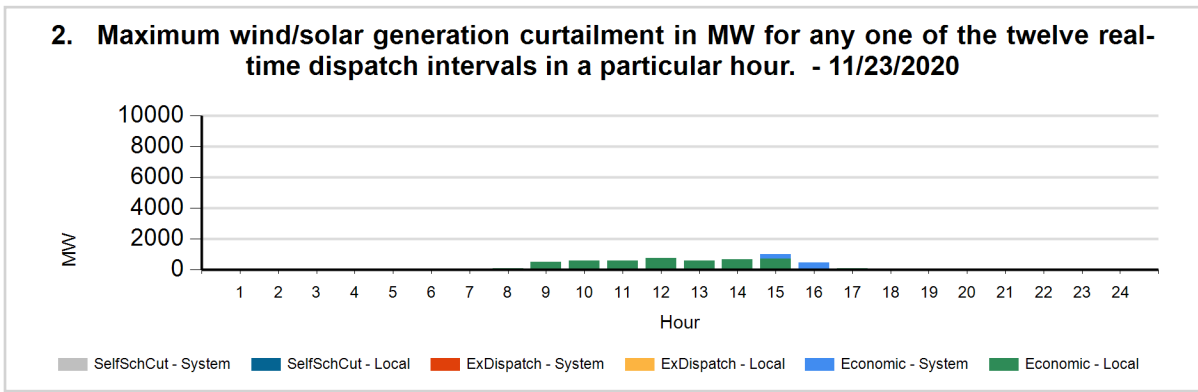
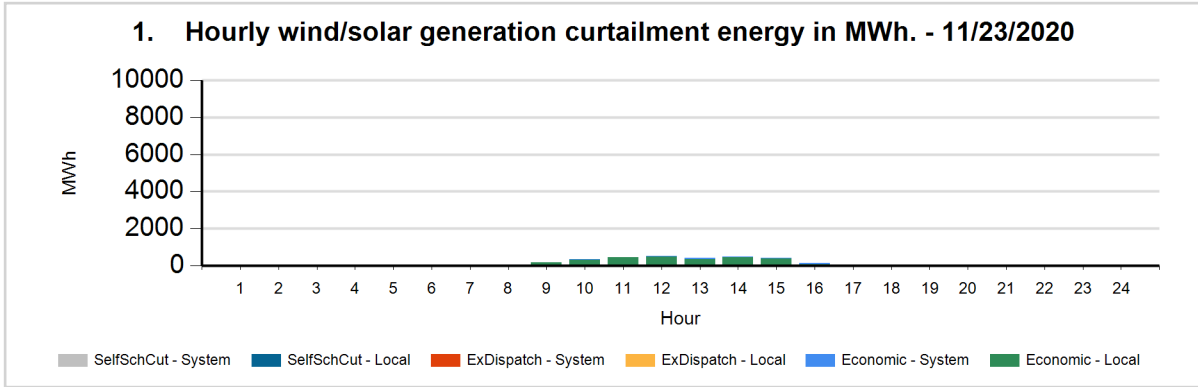
<sup>1</sup>Only wind and solar resources can be reported in this manner because these resources have a forecast. Curtailment is defined as the difference between actual production and the forecast when actual production is less than the forecast.

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

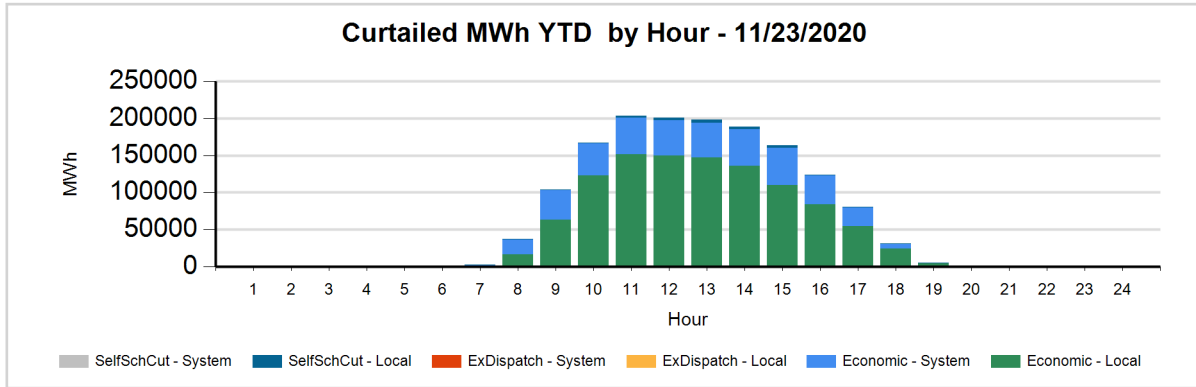
<sup>3</sup>Congestion occurs when available, least-cost energy cannot be delivered to some loads because transmission facilities do not have sufficient capacity to deliver the energy.

<sup>4</sup>For more information on oversupply conditions, please see: [https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables\\_FastFacts.pdf](https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables_FastFacts.pdf)

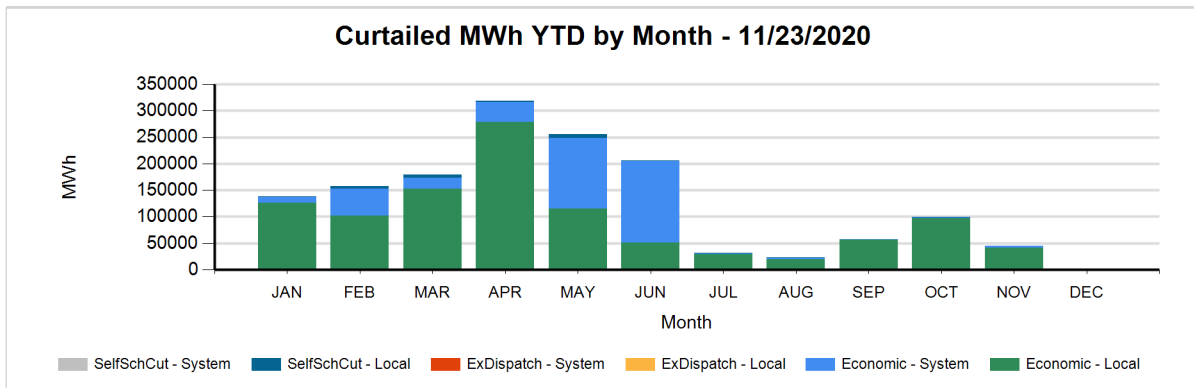
The following charts show the daily and 7-day wind and solar curtailment by category, if any.



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 - 11/23/2020
LocalEconomic	1,066,493
LocalSelfSchCut	20,848
SystemEconomic	421,260
TOTAL	1,508,601

**Data used to produce hourly chart**

DATE	HOUR	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
11/23	7	Economic	Local	SOLR	2	11
11/23	8	Economic	Local	SOLR	8	20
11/23	8	Economic	Local	WIND	12	77
11/23	9	Economic	Local	SOLR	113	274
11/23	9	Economic	Local	WIND	74	231
11/23	10	Economic	Local	SOLR	242	437
11/23	10	Economic	Local	WIND	91	145
11/23	10	Economic	System	WIND	1	
11/23	11	Economic	Local	SOLR	223	321
11/23	11	Economic	Local	WIND	209	253
11/23	12	Economic	Local	SOLR	240	283
11/23	12	Economic	Local	WIND	256	474
11/23	12	Economic	System	WIND	10	
11/23	13	Economic	Local	SOLR	148	256
11/23	13	Economic	Local	WIND	198	310
11/23	13	Economic	System	WIND	55	
11/23	14	Economic	Local	SOLR	224	317
11/23	14	Economic	Local	WIND	225	358
11/23	14	Economic	System	WIND	32	
11/23	15	Economic	Local	SOLR	165	455
11/23	15	Economic	Local	WIND	197	269
11/23	15	Economic	System	WIND	48	290
11/23	16	Economic	Local	WIND	49	
11/23	16	Economic	System	WIND	99	470
11/23	17	Economic	Local	WIND	20	85

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](mailto:ShortTermForecasting@caiso.com).

