

Wind and Solar Curtailment January 01, 2017

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.

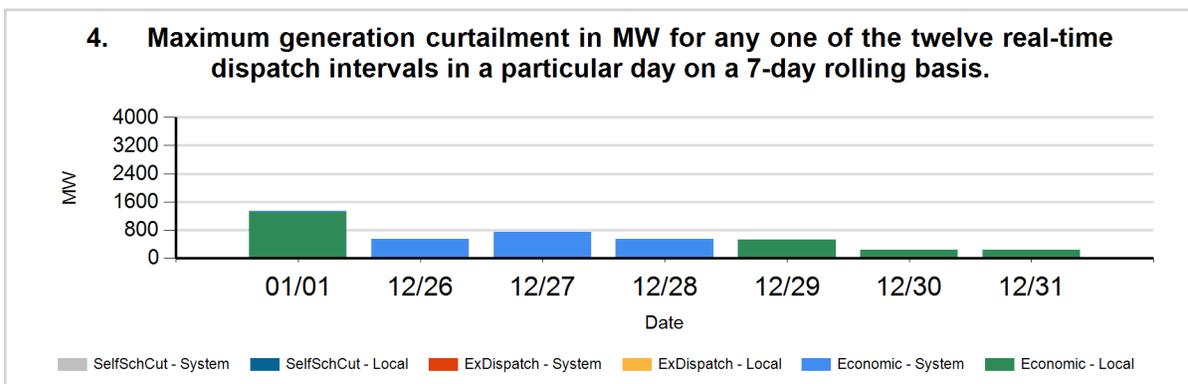
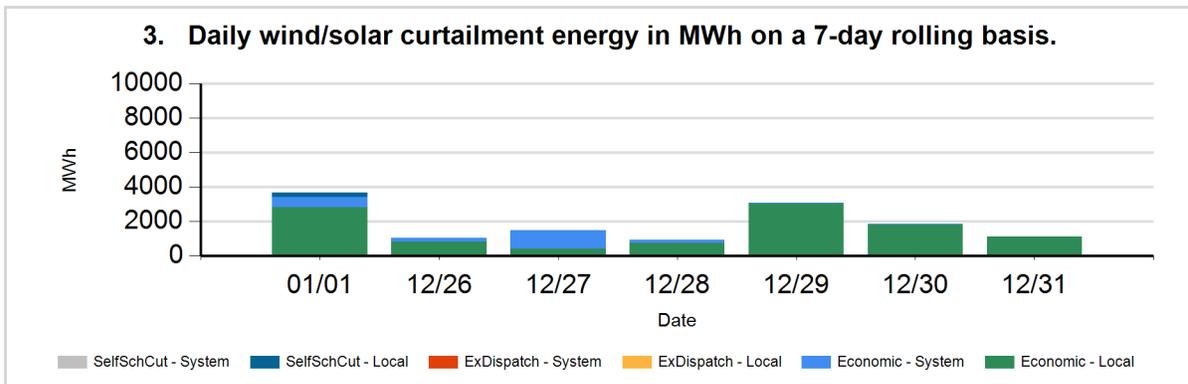
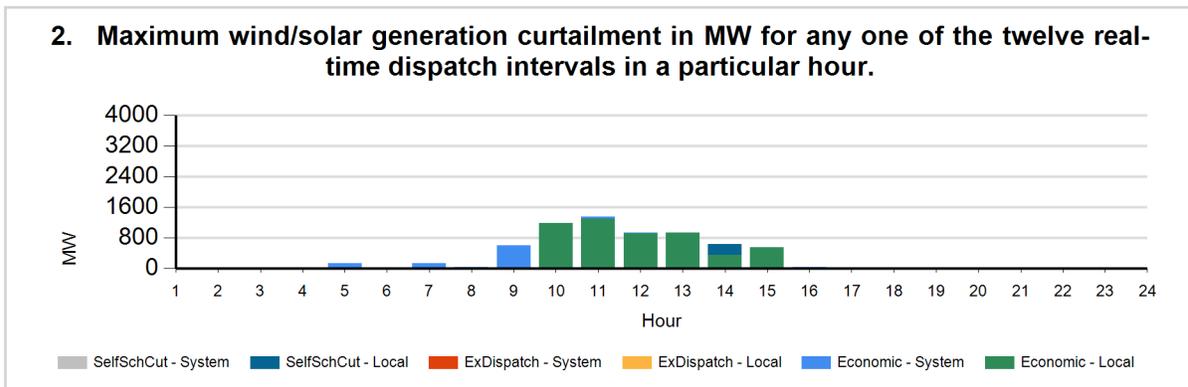
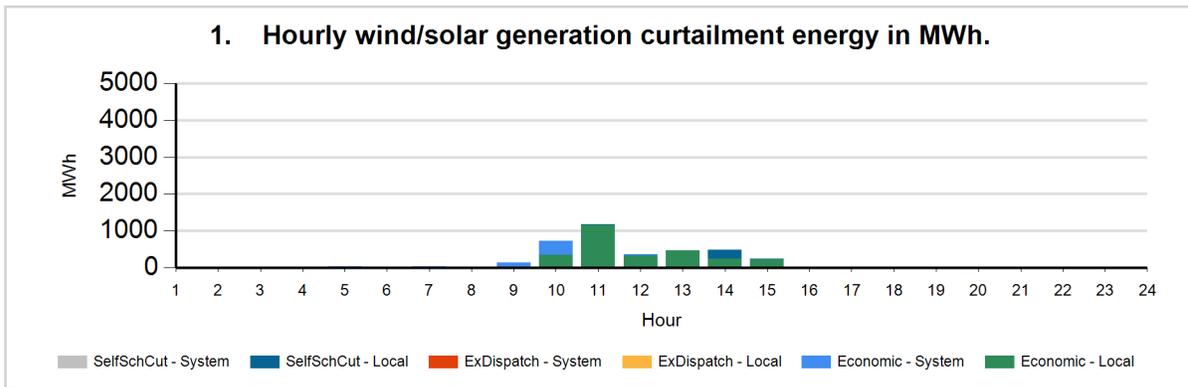
¹Only wind and solar resources can be reported in this manner because these resources have a forecast. Curtailment is defined as the difference between actual production and the forecast when actual production is less than the forecast.

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 rolling wind and solar curtailment by category, if any.



Data used to produce hourly charts

DATE	HOUR	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
01/01	5	Economic	System	WIND	27	128
01/01	7	Economic	System	WIND	33	127
01/01	8	Economic	System	WIND	2	29
01/01	9	Economic	System	SOLR	88	474
01/01	9	Economic	System	WIND	46	119
01/01	10	Economic	Local	SOLR	222	695
01/01	10	Economic	Local	WIND	120	496
01/01	10	Economic	System	SOLR	294	
01/01	10	Economic	System	WIND	82	
01/01	11	Economic	Local	SOLR	797	789
01/01	11	Economic	Local	WIND	376	514
01/01	11	Economic	System	SOLR	0	
01/01	11	Economic	System	WIND	5	43
01/01	11	SelfSchCut	Local	SOLR	3	
01/01	12	Economic	Local	SOLR	146	629
01/01	12	Economic	Local	WIND	189	296
01/01	12	Economic	System	SOLR	13	2
01/01	12	Economic	System	WIND	11	
01/01	12	SelfSchCut	Local	SOLR	0	
01/01	13	Economic	Local	SOLR	252	650
01/01	13	Economic	Local	WIND	219	286
01/01	13	SelfSchCut	Local	SOLR	0	
01/01	14	Economic	Local	SOLR	35	92
01/01	14	Economic	Local	WIND	205	249
01/01	14	SelfSchCut	Local	SOLR	245	286
01/01	15	Economic	Local	SOLR	118	347
01/01	15	Economic	Local	WIND	127	201
01/01	15	Economic	System	WIND	1	
01/01	15	SelfSchCut	Local	SOLR	1	

01/01	16	Economic	Local	SOLR	2	3
01/01	16	Economic	Local	WIND	2	
01/01	16	Economic	System	SOLR	0	2
01/01	16	Economic	System	WIND	2	21
01/01	16	SelfSchCut	Local	SOLR	0	

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 Hong Zhou at hzhou@caiso.com.