

Wind and Solar Curtailment January 28, 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.

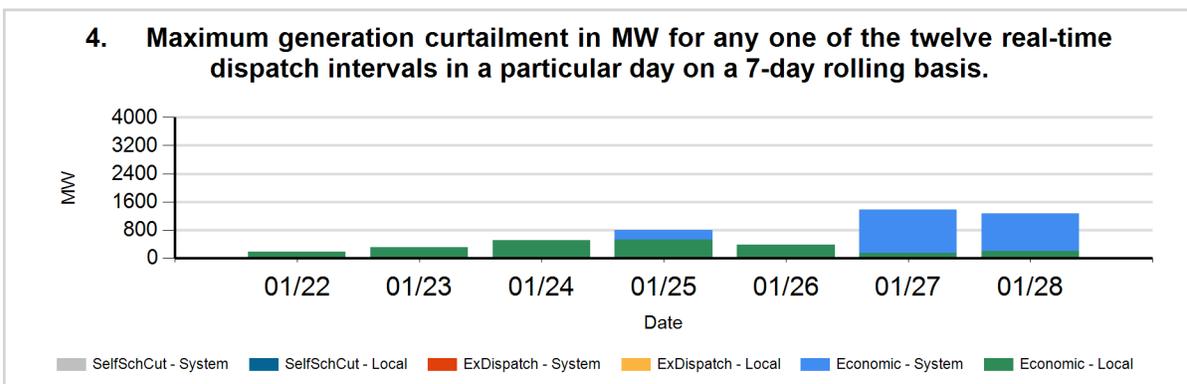
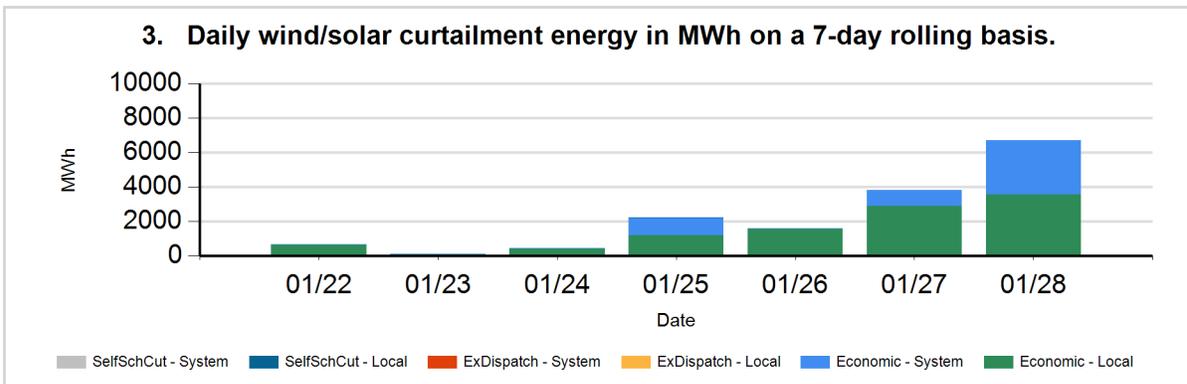
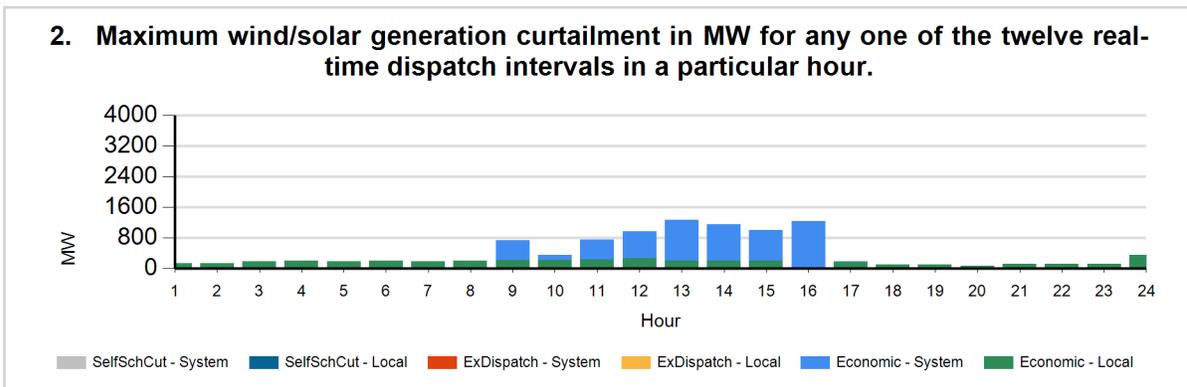
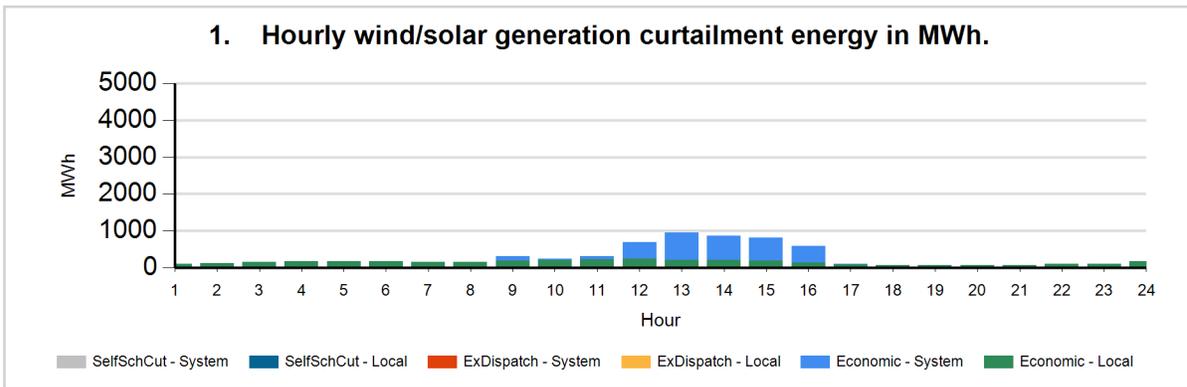
¹Only wind and solar resources can be reported in this manner because these resources have a forecast. Curtailment is defined as the difference between actual production and the forecast when actual production is less than the forecast.

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
01/28	1	Economic	Local	WIND	105	125
01/28	2	Economic	Local	WIND	126	139
01/28	3	Economic	Local	WIND	160	184
01/28	4	Economic	Local	WIND	171	193
01/28	5	Economic	Local	WIND	170	182
01/28	6	Economic	Local	WIND	170	200
01/28	7	Economic	Local	WIND	147	174
01/28	8	Economic	Local	WIND	157	191
01/28	9	Economic	Local	SOLR	5	14
01/28	9	Economic	Local	WIND	186	194
01/28	9	Economic	System	SOLR	104	500
01/28	9	Economic	System	WIND	8	20
01/28	10	Economic	Local	SOLR	13	13
01/28	10	Economic	Local	WIND	201	206
01/28	10	Economic	System	SOLR	18	116
01/28	10	Economic	System	WIND	6	19
01/28	11	Economic	Local	SOLR	10	2
01/28	11	Economic	Local	WIND	205	226
01/28	11	Economic	System	SOLR	84	492
01/28	11	Economic	System	WIND	9	23
01/28	12	Economic	Local	SOLR	3	4
01/28	12	Economic	Local	WIND	242	267
01/28	12	Economic	System	SOLR	431	671
01/28	12	Economic	System	WIND	21	21
01/28	13	Economic	Local	WIND	205	200
01/28	13	Economic	System	SOLR	726	1039
01/28	13	Economic	System	WIND	20	20
01/28	14	Economic	Local	SOLR	0	0
01/28	14	Economic	Local	WIND	208	205

01/28	14	Economic	System	SOLR	646	924
01/28	14	Economic	System	WIND	18	18
01/28	15	Economic	Local	WIND	187	199
01/28	15	Economic	System	SOLR	613	781
01/28	15	Economic	System	WIND	19	22
01/28	16	Economic	Local	WIND	141	
01/28	16	Economic	System	SOLR	414	1014
01/28	16	Economic	System	WIND	28	213
01/28	17	Economic	Local	WIND	106	165
01/28	17	Economic	System	SOLR	0	0
01/28	17	Economic	System	WIND	2	12
01/28	18	Economic	Local	WIND	59	102
01/28	19	Economic	Local	WIND	60	97
01/28	20	Economic	Local	WIND	64	73
01/28	21	Economic	Local	WIND	69	122
01/28	22	Economic	Local	WIND	103	121
01/28	23	Economic	Local	WIND	102	113
01/28	24	Economic	Local	WIND	171	346

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.