

Wind and Solar Curtailment January 29, 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.

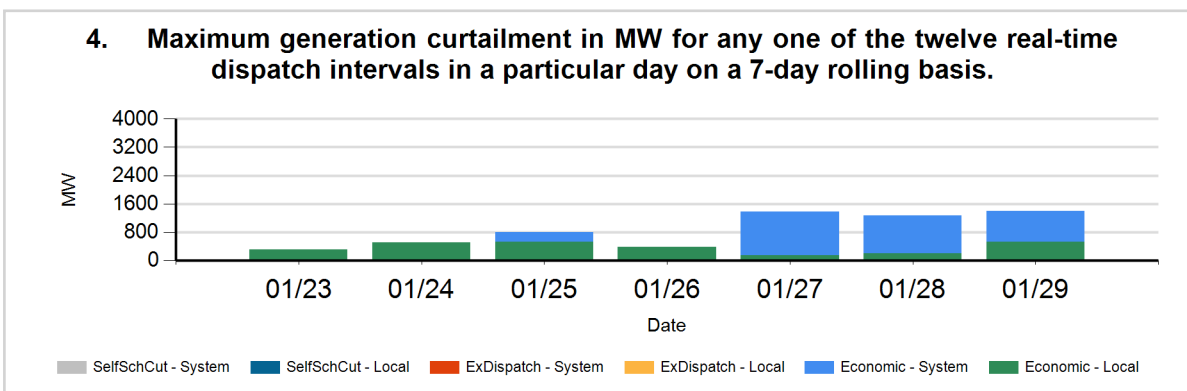
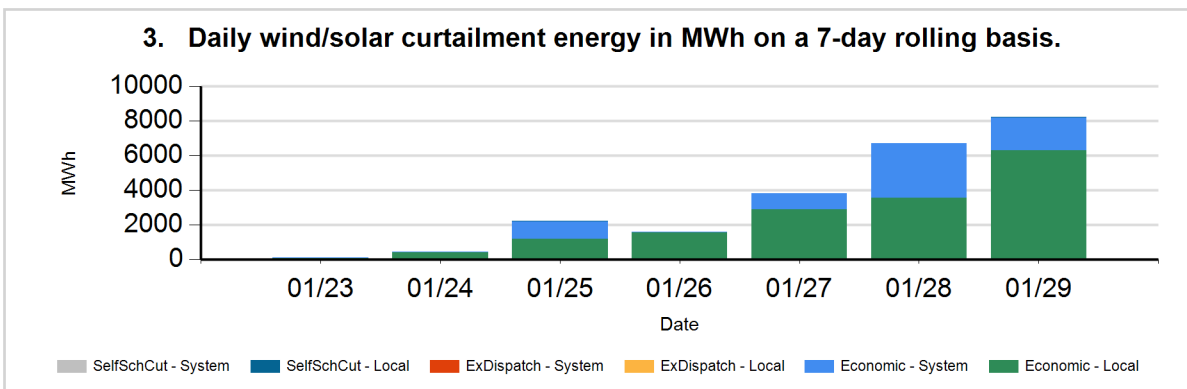
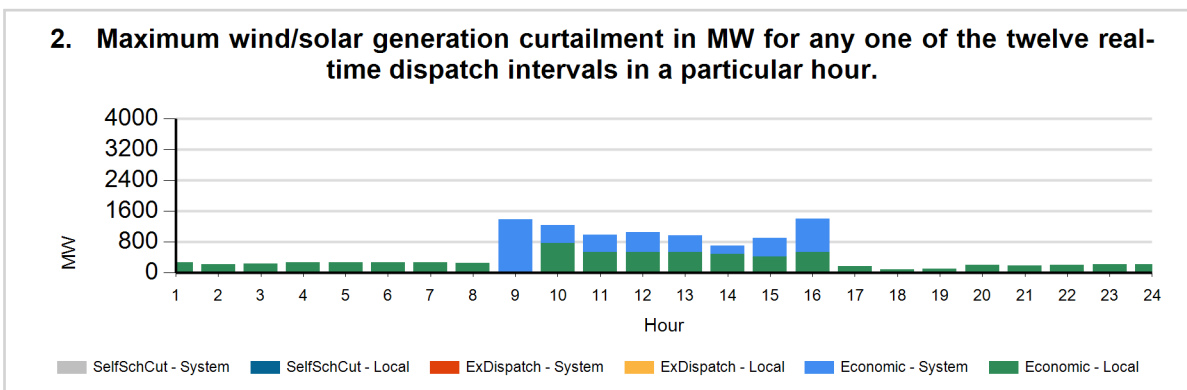
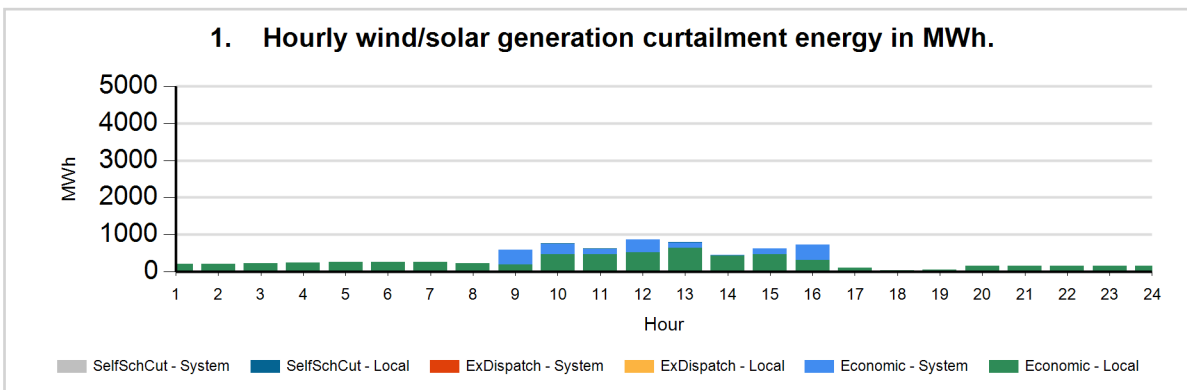
¹Only wind and solar resources can be reported in this manner because these resources have a forecast. Curtailment is defined as the difference between actual production and the forecast when actual production is less than the forecast.

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
01/29	1	Economic	Local	WIND	214	258
01/29	2	Economic	Local	WIND	201	216
01/29	3	Economic	Local	WIND	221	239
01/29	4	Economic	Local	WIND	239	264
01/29	5	Economic	Local	WIND	249	264
01/29	6	Economic	Local	WIND	252	273
01/29	7	Economic	Local	WIND	250	261
01/29	8	Economic	Local	WIND	216	255
01/29	9	Economic	Local	SOLR	2	
01/29	9	Economic	Local	WIND	183	
01/29	9	Economic	System	SOLR	362	1084
01/29	9	Economic	System	WIND	35	293
01/29	10	Economic	Local	SOLR	213	298
01/29	10	Economic	Local	WIND	257	470
01/29	10	Economic	System	SOLR	288	458
01/29	10	Economic	System	WIND	1	0
01/29	10	SelfSchCut	Local	SOLR	2	
01/29	11	Economic	Local	SOLR	196	263
01/29	11	Economic	Local	WIND	261	275
01/29	11	Economic	System	SOLR	161	450
01/29	11	Economic	System	WIND	0	0
01/29	11	SelfSchCut	Local	SOLR	2	
01/29	12	Economic	Local	SOLR	255	258
01/29	12	Economic	Local	WIND	255	279
01/29	12	Economic	System	SOLR	355	520
01/29	12	Economic	System	WIND	0	0
01/29	13	Economic	Local	SOLR	405	244
01/29	13	Economic	Local	WIND	239	280
01/29	13	Economic	System	SOLR	147	434

01/29	13	SelfSchCut	Local	SOLR	1	
01/29	14	Economic	Local	SOLR	193	246
01/29	14	Economic	Local	WIND	234	230
01/29	14	Economic	System	SOLR	24	225
01/29	15	Economic	Local	SOLR	232	213
01/29	15	Economic	Local	WIND	230	210
01/29	15	Economic	System	SOLR	161	478
01/29	15	Economic	System	WIND	2	
01/29	16	Economic	Local	SOLR	98	187
01/29	16	Economic	Local	WIND	214	338
01/29	16	Economic	System	SOLR	389	841
01/29	16	Economic	System	WIND	18	29
01/29	17	Economic	Local	SOLR	0	
01/29	17	Economic	Local	WIND	103	170
01/29	17	Economic	System	SOLR	0	
01/29	18	Economic	Local	WIND	35	80
01/29	19	Economic	Local	WIND	55	103
01/29	20	Economic	Local	WIND	155	199
01/29	21	Economic	Local	WIND	154	187
01/29	22	Economic	Local	WIND	155	193
01/29	23	Economic	Local	WIND	158	208
01/29	24	Economic	Local	WIND	156	216

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.