

Wind and Solar Curtailment October 31, 2016

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.

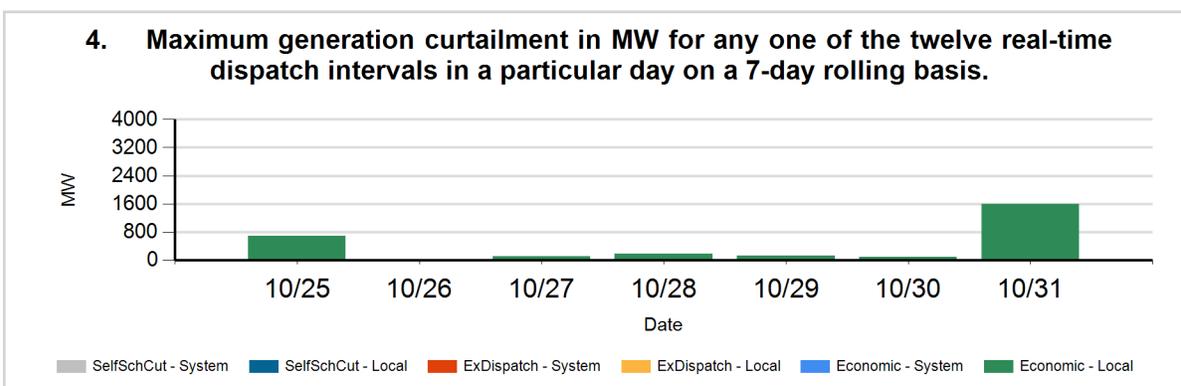
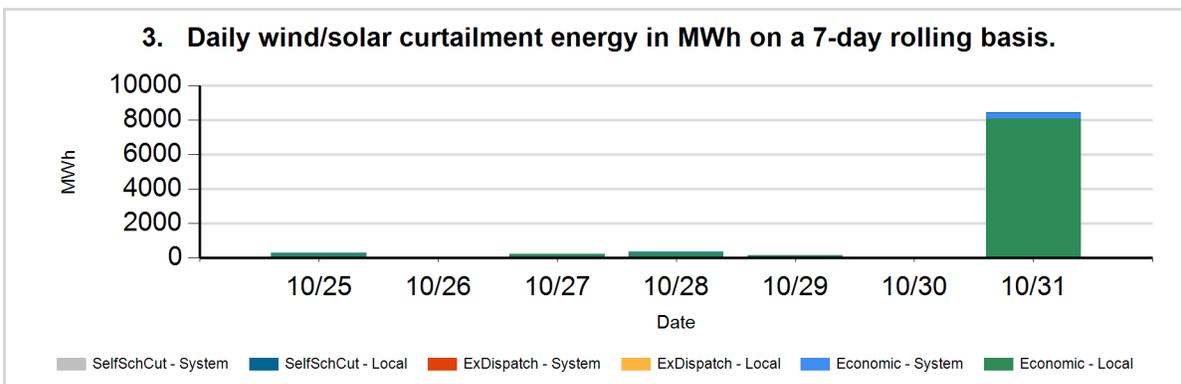
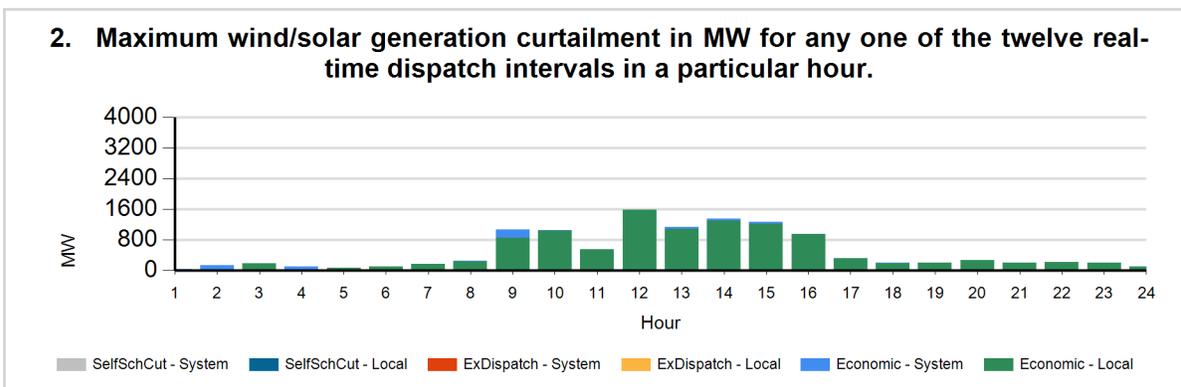
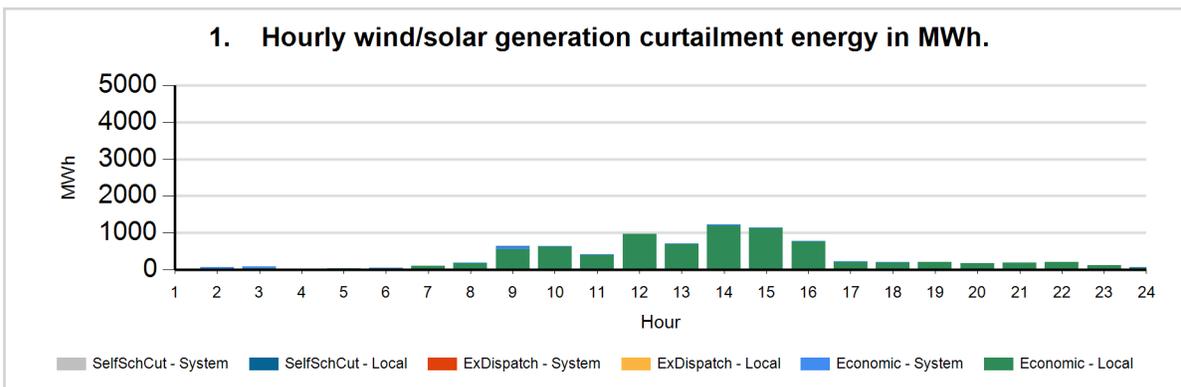
¹Only wind and solar resources can be reported in this manner because these resources have a forecast. Curtailment is defined as the difference between actual production and the forecast when actual production is less than the forecast.

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
10/31	1	Economic	System	WIND	8	39
10/31	2	Economic	System	WIND	74	126
10/31	3	Economic	Local	WIND	37	183
10/31	3	Economic	System	WIND	44	
10/31	4	Economic	Local	WIND	0	
10/31	4	Economic	System	WIND	19	94
10/31	5	Economic	Local	WIND	30	63
10/31	6	Economic	Local	WIND	45	96
10/31	6	Economic	System	WIND	13	
10/31	7	Economic	Local	WIND	97	158
10/31	8	Economic	Local	SOLR	0	
10/31	8	Economic	Local	WIND	194	255
10/31	8	Economic	System	SOLR	0	0
10/31	8	Economic	System	WIND	0	
10/31	9	Economic	Local	SOLR	342	682
10/31	9	Economic	Local	WIND	207	174
10/31	9	Economic	System	SOLR	1	
10/31	9	Economic	System	WIND	72	219
10/31	9	SelfSchCut	Local	SOLR	9	
10/31	10	Economic	Local	SOLR	408	810
10/31	10	Economic	Local	WIND	205	216
10/31	10	Economic	System	SOLR	2	
10/31	10	Economic	System	WIND	22	21
10/31	11	Economic	Local	SOLR	160	313
10/31	11	Economic	Local	WIND	232	242
10/31	11	Economic	System	SOLR	0	
10/31	11	Economic	System	WIND	15	
10/31	12	Economic	Local	SOLR	723	1345
10/31	12	Economic	Local	WIND	244	243

10/31	13	Economic	Local	SOLR	459	829
10/31	13	Economic	Local	WIND	234	250
10/31	13	Economic	System	WIND	14	50
10/31	14	Economic	Local	SOLR	937	1015
10/31	14	Economic	Local	WIND	253	283
10/31	14	Economic	System	WIND	45	49
10/31	15	Economic	Local	SOLR	870	972
10/31	15	Economic	Local	WIND	249	251
10/31	15	Economic	System	WIND	20	42
10/31	16	Economic	Local	SOLR	503	679
10/31	16	Economic	Local	WIND	265	268
10/31	16	Economic	System	WIND	3	
10/31	17	Economic	Local	SOLR	7	74
10/31	17	Economic	Local	WIND	208	247
10/31	17	Economic	System	SOLR	3	
10/31	17	Economic	System	WIND	6	
10/31	18	Economic	Local	WIND	200	200
10/31	18	Economic	System	SOLR	2	5
10/31	19	Economic	Local	WIND	200	200
10/31	20	Economic	Local	WIND	173	265
10/31	21	Economic	Local	WIND	196	202
10/31	22	Economic	Local	WIND	198	219
10/31	23	Economic	Local	WIND	122	198
10/31	24	Economic	Local	WIND	71	98
10/31	24	Economic	System	WIND	2	

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.