

Wind and Solar Curtailment April 18, 2018

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.

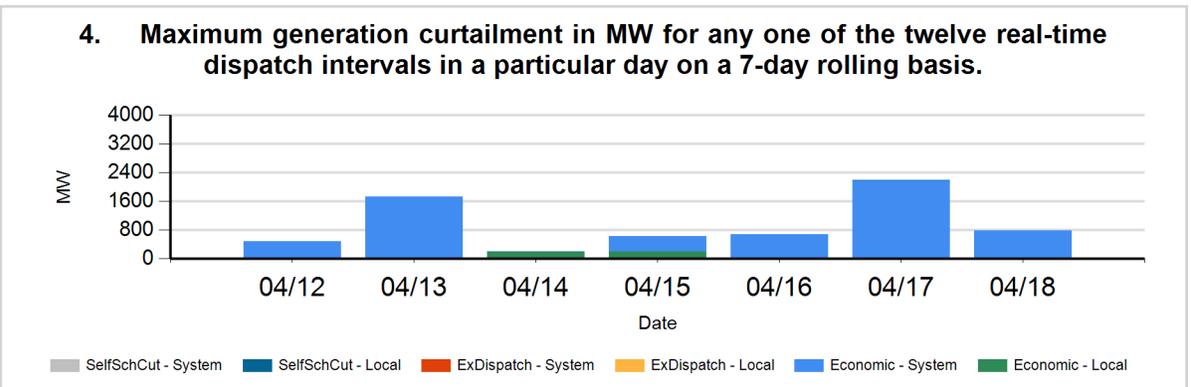
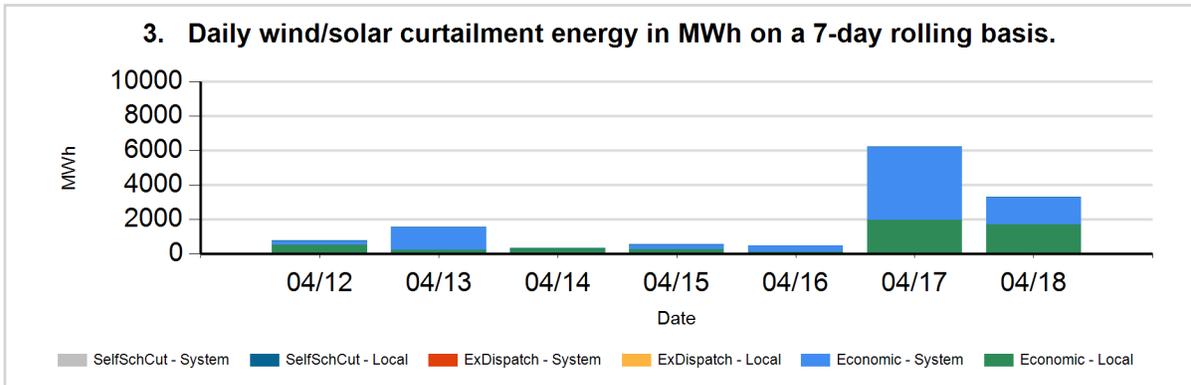
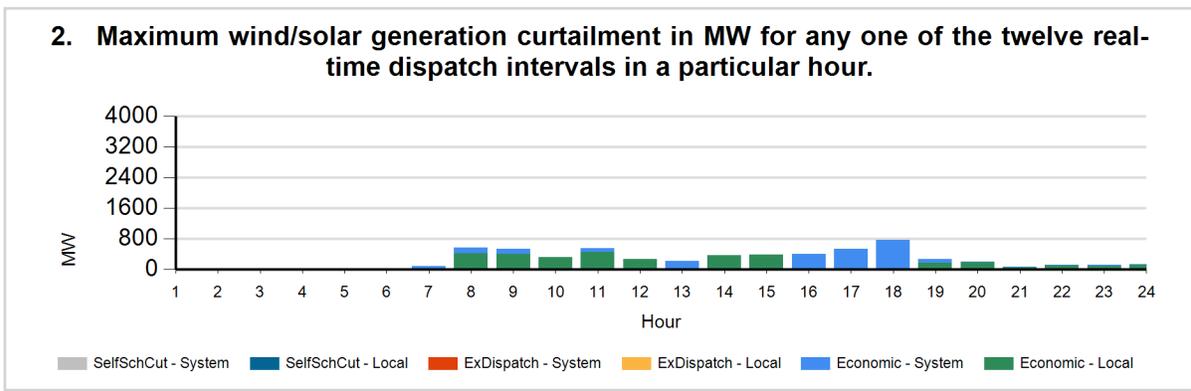
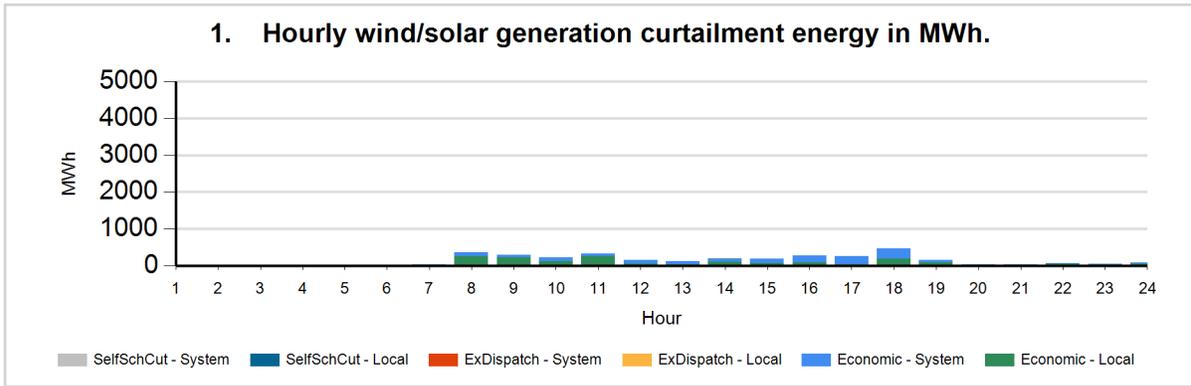
²The Renewables Watch report provides daily actual renewable production within the ISO grid. It is available at: <http://www.caiso.com/green/renewableswatch.html>.

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.

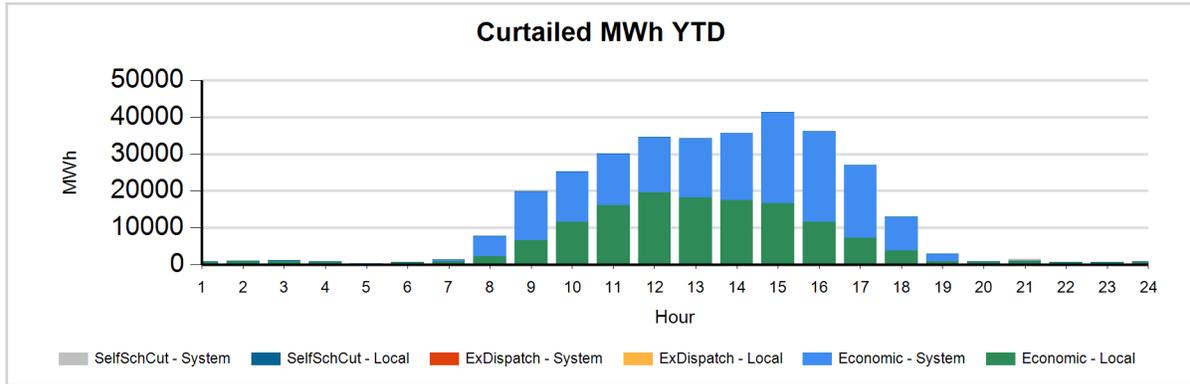
⁴For more information on oversupply conditions, please see:

https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables_FastFacts.pdf

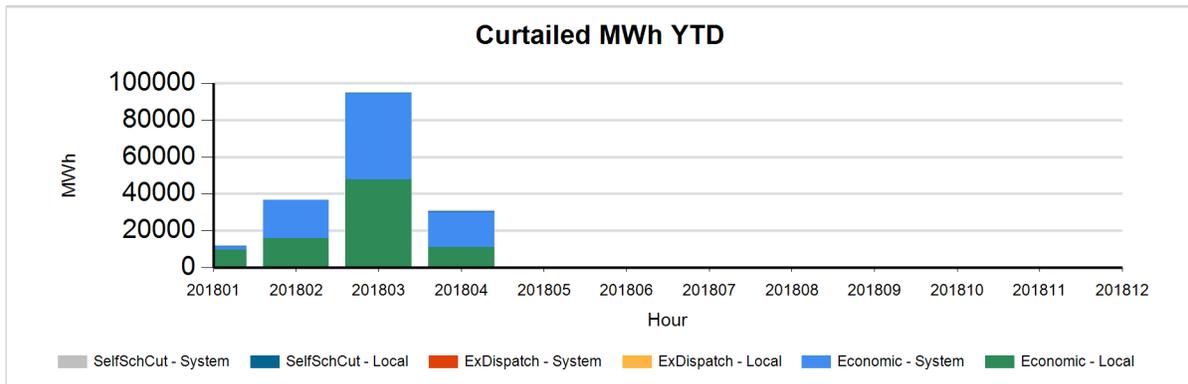
The following charts show the daily and 7-day rolling wind and solar curtailment by category, if any.



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
LocalEconomic	140,589
LocalSelfSchCut	1,370
SystemEconomic	175,893
SystemSelfSchCut	493
TOTAL	174,444

Data used to produce hourly chart

DATE	HOUR	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
04/18	7	Economic	System	SOLR	27	84
04/18	7	Economic	System	WIND	0	2
04/18	8	Economic	Local	SOLR	261	408
04/18	8	Economic	System	SOLR	96	153
04/18	8	Economic	System	WIND	4	8
04/18	9	Economic	Local	SOLR	225	402
04/18	9	Economic	System	SOLR	58	130
04/18	10	Economic	Local	SOLR	121	315
04/18	10	Economic	Local	WIND	1	3
04/18	11	Economic	Local	SOLR	248	441
04/18	11	Economic	System	SOLR	73	96
04/18	11	Economic	System	WIND	2	7
04/18	12	Economic	Local	SOLR	56	261
04/18	12	Economic	Local	WIND	0	3
04/18	13	Economic	System	SOLR	76	195
04/18	13	Economic	System	WIND	8	12
04/18	14	Economic	Local	SOLR	99	350
04/18	14	Economic	Local	WIND	4	12
04/18	15	Economic	Local	SOLR	61	383
04/18	15	Economic	Local	WIND	1	5
04/18	16	Economic	Local	SOLR	76	18
04/18	16	Economic	System	SOLR	181	381
04/18	16	Economic	System	WIND	12	5
04/18	17	Economic	System	SOLR	209	492
04/18	17	Economic	System	WIND	16	33
04/18	18	Economic	System	SOLR	243	701
04/18	18	Economic	System	WIND	19	70
04/18	19	Economic	Local	SOLR	30	30
04/18	19	Economic	Local	WIND	59	133
04/18	19	Economic	System	SOLR	38	67
04/18	19	Economic	System	WIND	26	33

04/18	20	Economic	Local	WIND	24	175
04/18	20	Economic	System	WIND	11	28
04/18	21	Economic	Local	WIND	25	48
04/18	21	Economic	System	WIND	5	9
04/18	22	Economic	Local	WIND	61	113
04/18	22	Economic	System	WIND	7	8
04/18	23	Economic	Local	WIND	32	88
04/18	23	Economic	System	WIND	14	29
04/18	24	Economic	Local	WIND	48	115
04/18	24	Economic	System	WIND	30	17

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.