Wind and Solar Curtailment March 11, 2017

This report is produced daily to provide a detailed accounting of the wind and solar renewable generation that was curtailed and the reasons why[1]. This report should be read in the context of the Renewables Watch report for a more complete understanding of both renewable curtailment and generation[2].

Wind and solar curtailments are grouped into the following categories:

1. Economic - Local: Market dispatch of generators with economic bids to mitigate local congestion[3].
2. Economic - System: Market dispatch of generators with economic bids to mitigate system-wide oversupply[4].
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.

[1]Only 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.

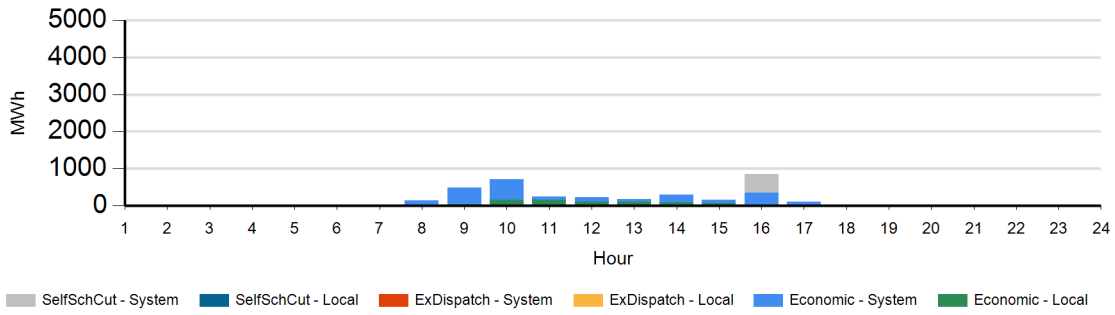
[2]The Renewables Watch report provides daily actual renewable production within the ISO grid. It is available at: http://www.caiso.com/green/renewableswatch.html.

[3]Congestion occurs when available, least-cost energy cannot be delivered to some loads because transmission facilities do not have sufficient capacity to deliver the energy.

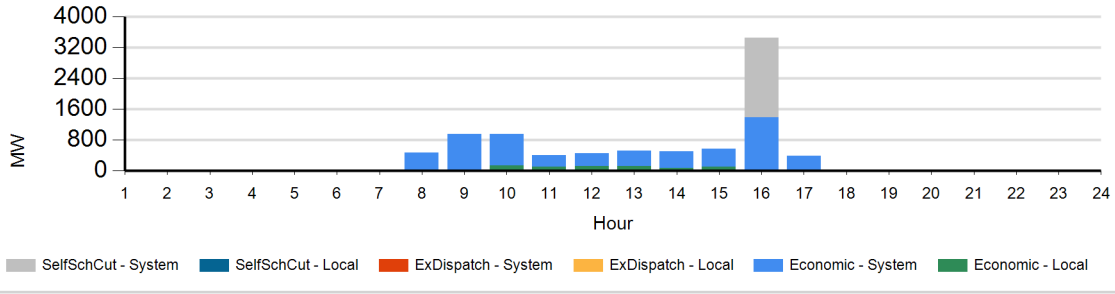
[4]For more information on oversupply conditions, please see: https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables_FastFacts.pdf

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

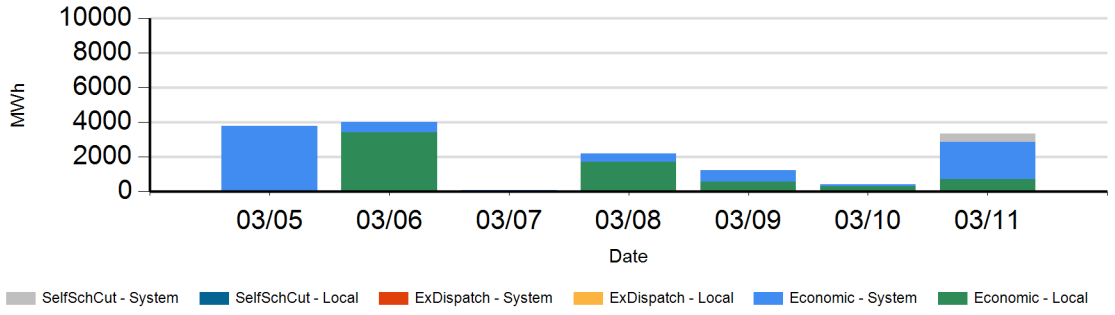
1. Hourly wind/solar generation curtailment energy in MWh.



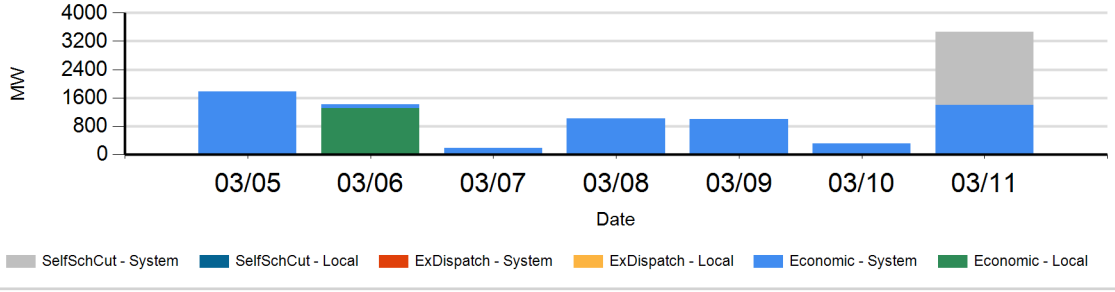
2. Maximum wind/solar generation curtailment in MW for any one of the twelve real-time dispatch intervals in a particular hour.



3. Daily wind/solar curtailment energy in MWh on a 7-day rolling basis.



4. Maximum generation curtailment in MW for any one of the twelve real-time dispatch intervals in a particular day on a 7-day rolling basis.



Data used to produce hourly charts

DATE	HOUR	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
03/11	7	Economic	Local	SOLR	0	2
03/11	8	Economic	Local	SOLR	2	
03/11	8	Economic	System	SOLR	132	454
03/11	8	Economic	System	WIND	2	3
03/11	9	Economic	Local	SOLR	23	
03/11	9	Economic	Local	WIND	1	
03/11	9	Economic	System	SOLR	454	942
03/11	9	Economic	System	WIND	2	3
03/11	10	Economic	Local	SOLR	153	129
03/11	10	Economic	Local	WIND	1	1
03/11	10	Economic	System	SOLR	549	818
03/11	10	Economic	System	WIND	0	0
03/11	11	Economic	Local	SOLR	151	103
03/11	11	Economic	Local	WIND	2	1
03/11	11	Economic	System	SOLR	91	295
03/11	11	Economic	System	WIND	0	0
03/11	12	Economic	Local	SOLR	101	103
03/11	12	Economic	Local	WIND	5	4
03/11	12	Economic	System	SOLR	116	341
03/11	12	Economic	System	WIND	0	0
03/11	13	Economic	Local	SOLR	96	110
03/11	13	Economic	Local	WIND	3	4
03/11	13	Economic	System	SOLR	73	405
03/11	13	Economic	System	WIND	0	0
03/11	14	Economic	Local	SOLR	74	63
03/11	14	Economic	Local	WIND	2	0
03/11	14	Economic	System	SOLR	209	435
03/11	14	Economic	System	WIND	0	0
03/11	15	Economic	Local	SOLR	71	102

03/11	15	Economic	Local	WIND	0	0
03/11	15	Economic	System	SOLR	90	464
03/11	15	Economic	System	WIND	0	0
03/11	16	Economic	Local	SOLR	2	
03/11	16	Economic	System	SOLR	320	1302
03/11	16	Economic	System	WIND	22	88
03/11	16	SelfSchCut	System	SOLR	424	1785
03/11	16	SelfSchCut	System	WIND	74	284
03/11	17	Economic	Local	SOLR	6	
03/11	17	Economic	System	SOLR	83	365
03/11	17	Economic	System	WIND	7	19
03/11	18	Economic	Local	SOLR	0	4
03/11	24	Economic	System	WIND	0	1