Wind and Solar Curtailment December 02, 2016

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.

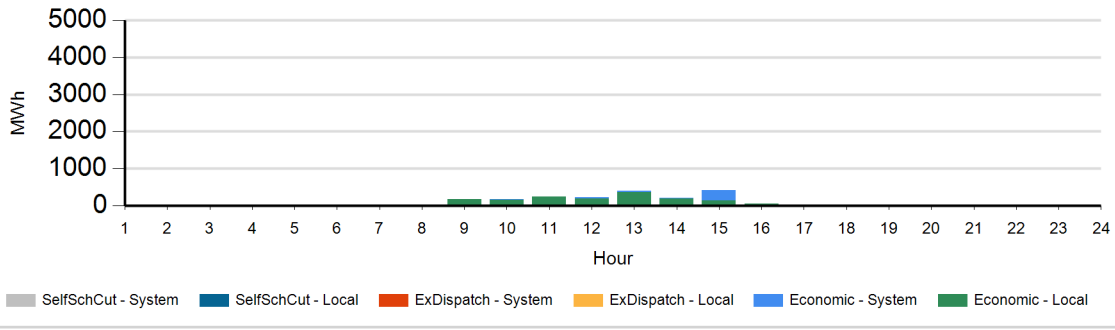
[2]The Renewables Watch report provides daily actual renewable production within the ISO grid. It is available at: http://www.caiso.com/green/renewableswatch.html.

[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.

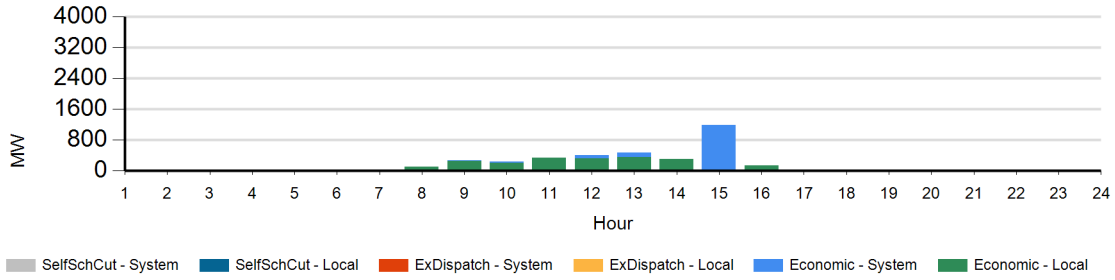
[4]For more information on oversupply conditions, please see: https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables_FastFacts.pdf

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

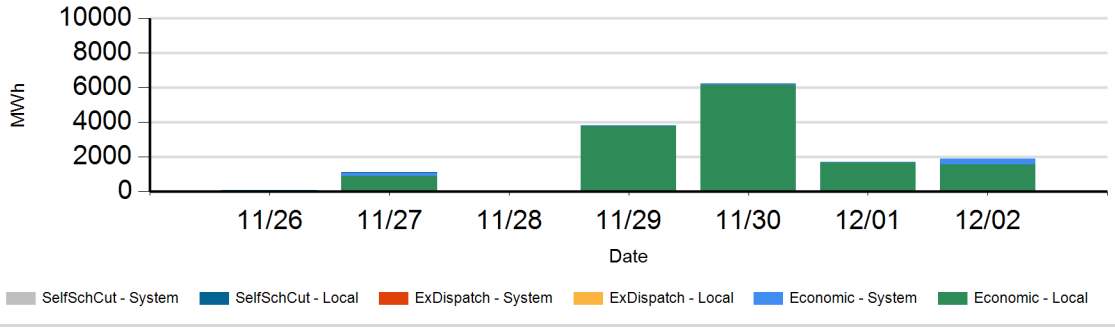
1. Hourly wind/solar generation curtailment energy in MWh.



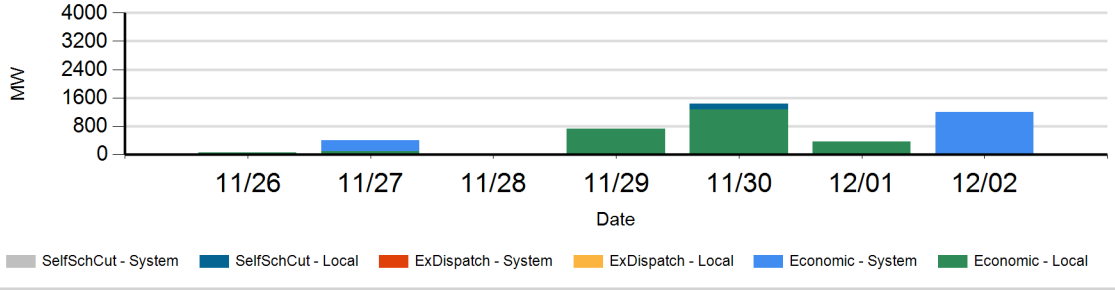
2. Maximum wind/solar generation curtailment in MW for any one of the twelve real-time dispatch intervals in a particular hour.



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
12/02	7	Economic	Local	WIND	3	20
12/02	8	Economic	Local	SOLR	15	88
12/02	8	Economic	Local	WIND	2	5
12/02	9	Economic	Local	SOLR	163	258
12/02	9	Economic	Local	WIND	1	
12/02	9	Economic	System	SOLR	0	1
12/02	10	Economic	Local	SOLR	177	201
12/02	10	Economic	Local	WIND	1	5
12/02	10	Economic	System	SOLR	0	3
12/02	10	Economic	System	WIND	1	15
12/02	11	Economic	Local	SOLR	241	329
12/02	12	Economic	Local	SOLR	183	278
12/02	12	Economic	Local	WIND	9	32
12/02	12	Economic	System	SOLR	1	4
12/02	12	Economic	System	WIND	33	89
12/02	13	Economic	Local	SOLR	290	325
12/02	13	Economic	Local	WIND	69	26
12/02	13	Economic	System	SOLR	6	28
12/02	13	Economic	System	WIND	34	89
12/02	14	Economic	Local	SOLR	194	273
12/02	14	Economic	Local	WIND	15	24
12/02	14	Economic	System	SOLR	1	
12/02	14	Economic	System	WIND	2	
12/02	15	Economic	Local	SOLR	122	
12/02	15	Economic	Local	WIND	6	
12/02	15	Economic	System	SOLR	215	938
12/02	15	Economic	System	WIND	66	251
12/02	16	Economic	Local	SOLR	50	132
12/02	17	Economic	Local	WIND	1	11
12/02	18	Economic	Local	WIND	0	2