Wind and Solar Curtailment September 04, 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.

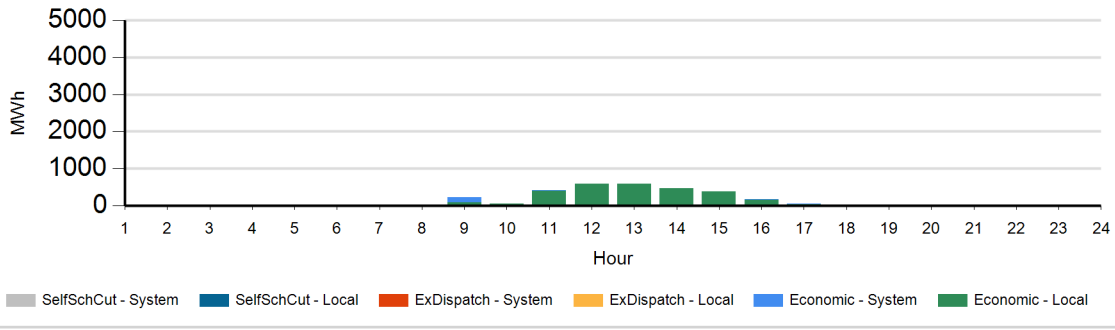
[2]The Renewables Watch report provides daily actual renewable production within the ISO grid. It is available at: http://www.caiso.com/green/renewableswatch.html.

[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.

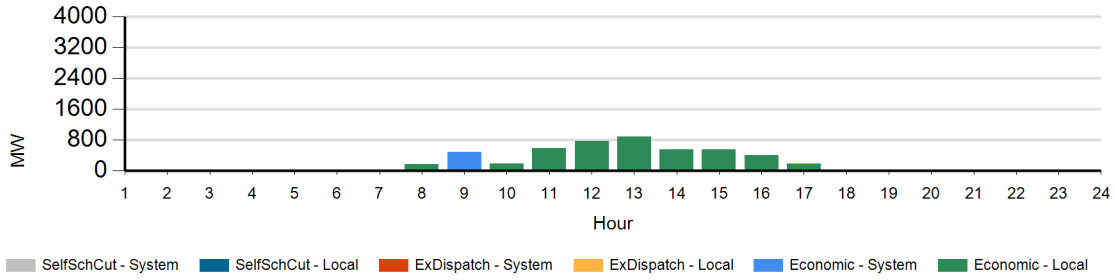
[4]For more information on oversupply conditions, please see: https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables_FastFacts.pdf

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

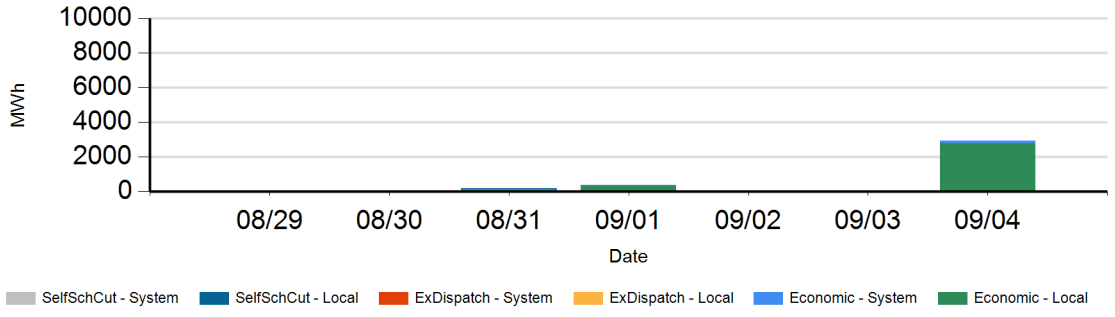
1. Hourly wind/solar generation curtailment energy in MWh.



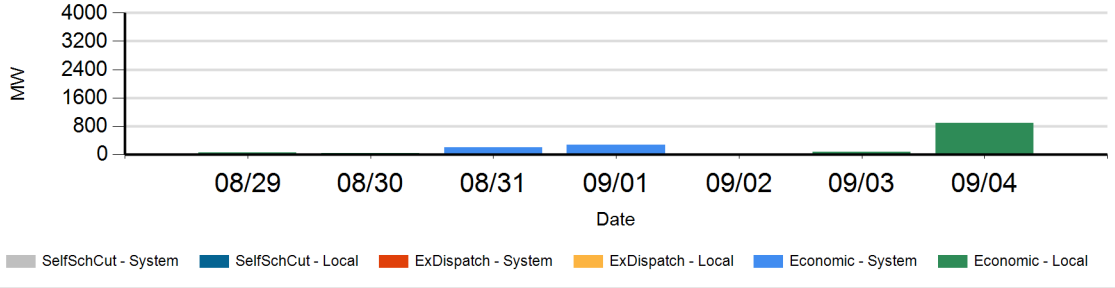
2. Maximum wind/solar generation curtailment in MW for any one of the twelve real-time dispatch intervals in a particular hour.



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
09/04	8	Economic	Local	SOLR	4	49
09/04	8	Economic	Local	WIND	17	121
09/04	9	Economic	Local	SOLR	86	
09/04	9	Economic	Local	WIND	3	5
09/04	9	Economic	System	SOLR	97	380
09/04	9	Economic	System	WIND	41	106
09/04	10	Economic	Local	SOLR	15	98
09/04	10	Economic	Local	WIND	39	87
09/04	11	Economic	Local	SOLR	369	518
09/04	11	Economic	Local	WIND	39	66
09/04	11	Economic	System	SOLR	3	
09/04	12	Economic	Local	SOLR	569	755
09/04	12	Economic	Local	WIND	9	8
09/04	13	Economic	Local	SOLR	540	821
09/04	13	Economic	Local	WIND	40	61
09/04	14	Economic	Local	SOLR	429	540
09/04	14	Economic	Local	WIND	36	10
09/04	15	Economic	Local	SOLR	360	541
09/04	15	Economic	Local	WIND	26	10
09/04	16	Economic	Local	SOLR	146	396
09/04	16	Economic	Local	WIND	13	
09/04	16	Economic	System	SOLR	3	
09/04	16	Economic	System	WIND	3	
09/04	17	Economic	Local	SOLR	2	5
09/04	17	Economic	Local	WIND	46	154
09/04	17	Economic	System	SOLR	4	19