Wind and Solar Curtailment June 06, 2019

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.
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.

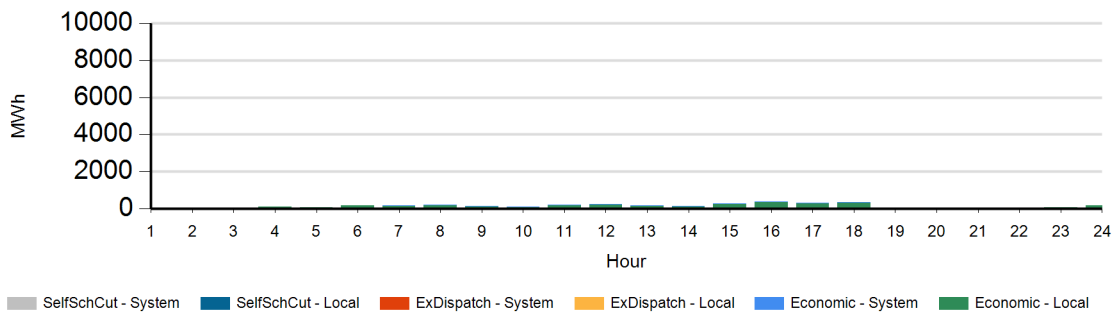
[2]The Renewables Watch report provides daily actual renewable production within the ISO grid. It is available at: http://www.caiso.com/green/renewableswatch.html.

[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.

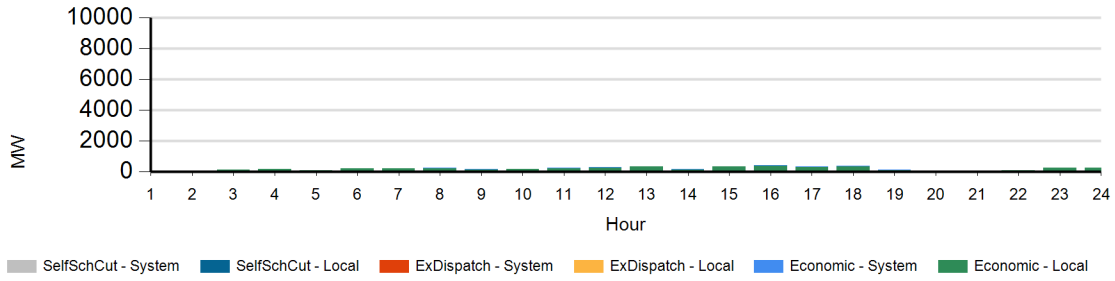
For more information on oversupply conditions, please see:
https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables_FastFacts.pdf

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

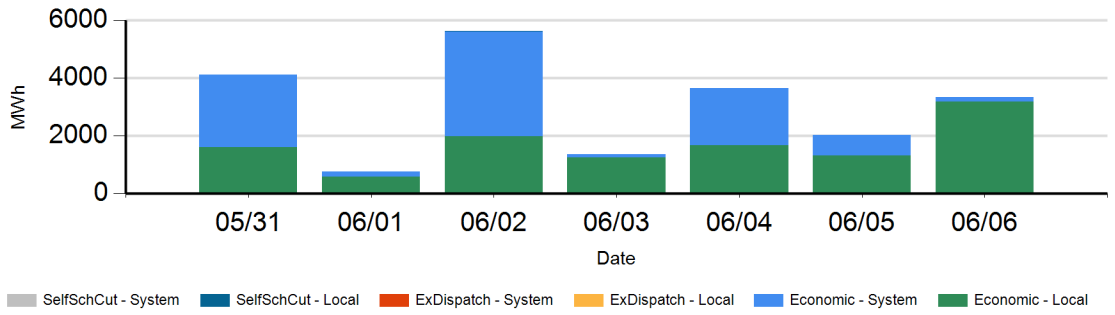
1. Hourly wind/solar generation curtailment energy in MWh.



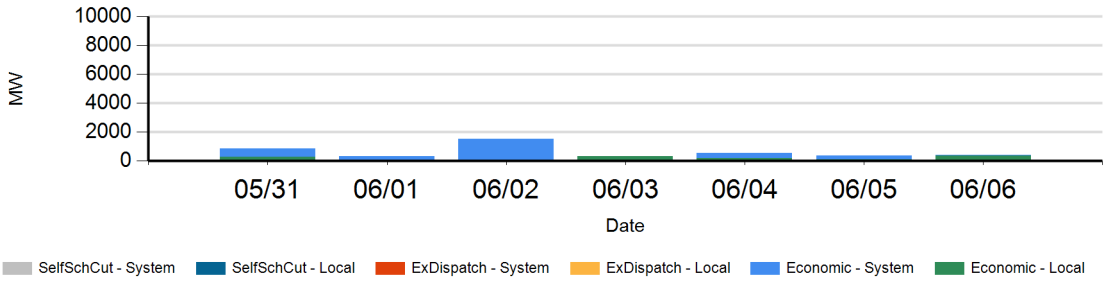
2. Maximum wind/solar generation curtailment in MW for any one of the twelve real-time dispatch intervals in a particular hour.



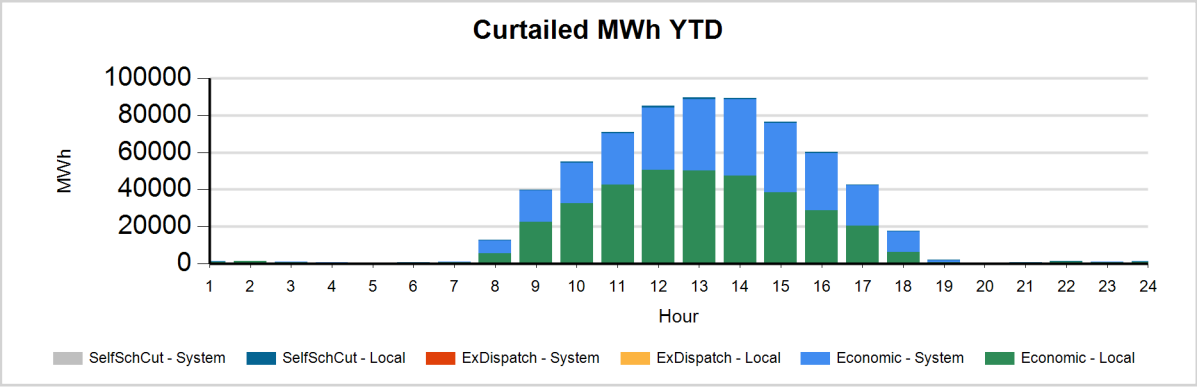
3. Daily wind/solar curtailment energy in MWh on a 7-day rolling basis.



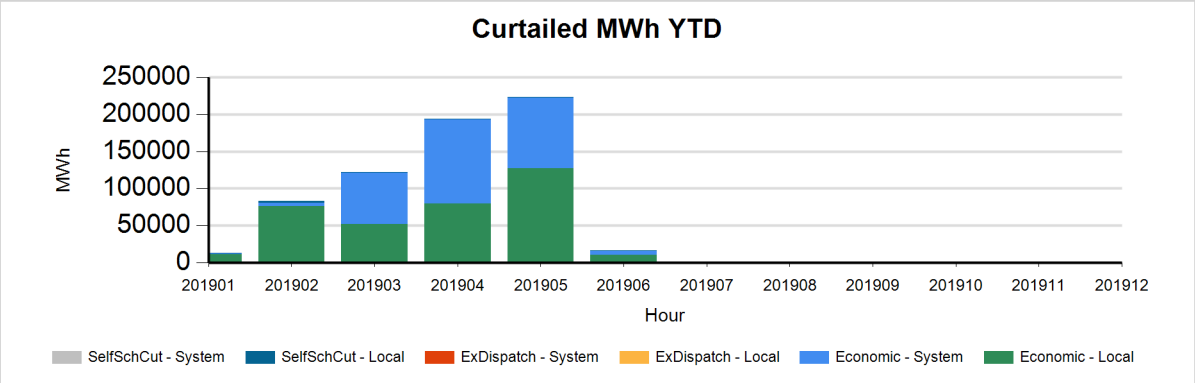
4. Maximum generation curtailment in MW for any one of the twelve real-time dispatch intervals in a particular day on a 7-day rolling basis.



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	355,303
LocalSelfSchCut	5,724
SystemEconomic	290,468
TOTAL	651,496

California ISO

Data used to produce hourly chart

DATE	HOUR	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
06/06	3	Economic	Local	WIND	26	100
06/06	4	Economic	Local	WIND	111	162
06/06	5	Economic	Local	WIND	57	94
06/06	6	Economic	Local	WIND	181	202
06/06	7	Economic	Local	SOLR	6	27
06/06	7	Economic	Local	WIND	161	180
06/06	8	Economic	Local	WIND	195	218
06/06	8	Economic	System	SOLR	9	21
06/06	9	Economic	Local	SOLR	6	8
06/06	9	Economic	Local	WIND	114	149
06/06	9	Economic	System	SOLR	11	5
06/06	10	Economic	Local	SOLR	14	40
06/06	10	Economic	Local	WIND	59	124
06/06	11	Economic	Local	SOLR	30	28
06/06	11	Economic	Local	WIND	166	213
06/06	11	Economic	System	SOLR	15	19
06/06	12	Economic	Local	SOLR	43	30
06/06	12	Economic	Local	WIND	190	216
06/06	12	Economic	System	SOLR	17	22
06/06	13	Economic	Local	SOLR	46	161
06/06	13	Economic	Local	WIND	114	148
06/06	14	Economic	Local	SOLR	63	63
06/06	14	Economic	Local	WIND	74	97
06/06	14	Economic	System	SOLR	8	10
06/06	15	Economic	Local	SOLR	47	48
06/06	15	Economic	Local	WIND	227	285
06/06	16	Economic	Local	SOLR	49	39
06/06	16	Economic	Local	WIND	316	323
06/06	16	Economic	System	SOLR	17	33
06/06	17	Economic	Local	SOLR	27	29
06/06	17	Economic	Local	WIND	237	282

06/06	17	Economic	System	SOLR	27	27
06/06	18	Economic	Local	SOLR	27	36
06/06	18	Economic	Local	WIND	296	322
06/06	18	Economic	System	SOLR	7	11
06/06	19	Economic	Local	WIND	15	126
06/06	19	Economic	System	SOLR	2	7
06/06	20	Economic	System	SOLR	0	4
06/06	22	Economic	Local	WIND	39	72
06/06	23	Economic	Local	WIND	61	236
06/06	24	Economic	Local	WIND	162	254