Wind and Solar Curtailment May 07, 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.

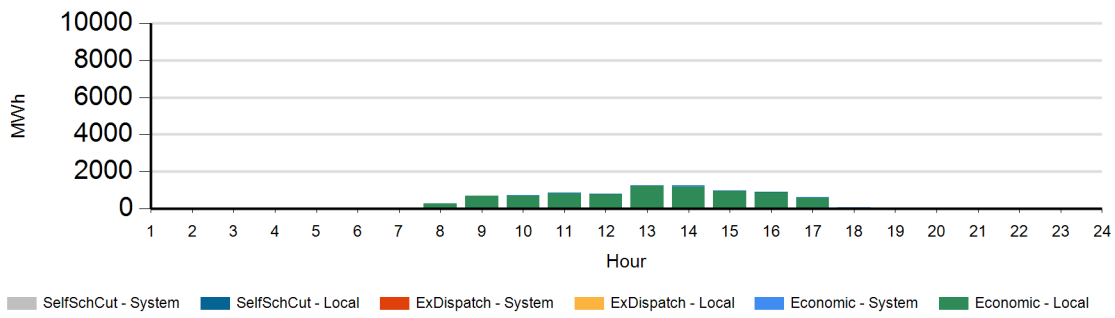
[2]The Renewables Watch report provides daily actual renewable production within the ISO grid. It is available at: http://www.caiso.com/green/renewableswatch.html.

[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.

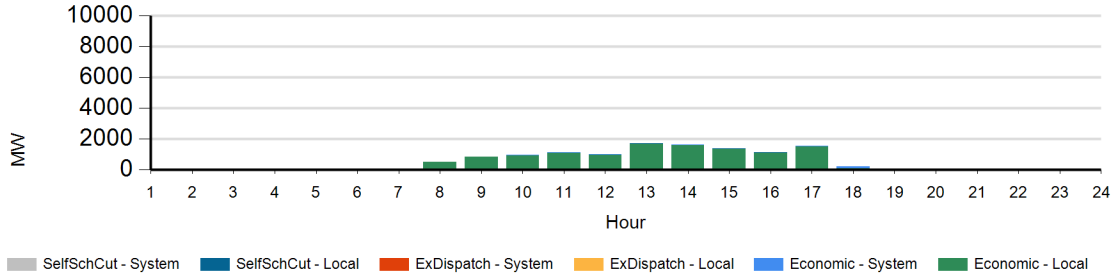
For more information on oversupply conditions, please see:
https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables_FastFacts.pdf

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

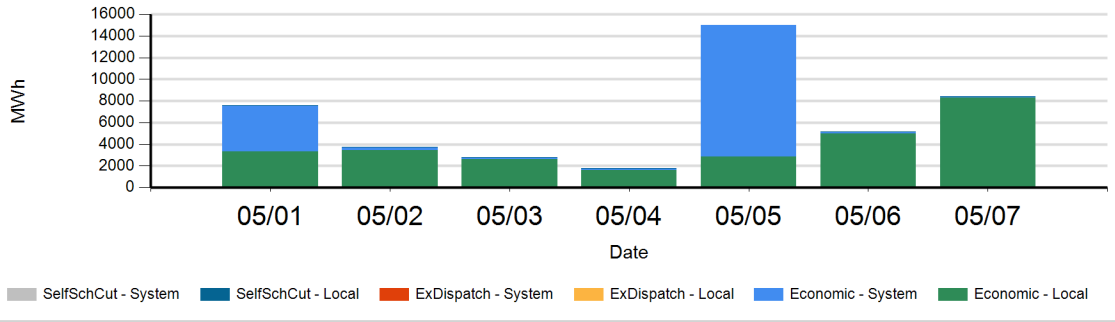
1. Hourly wind/solar generation curtailment energy in MWh.



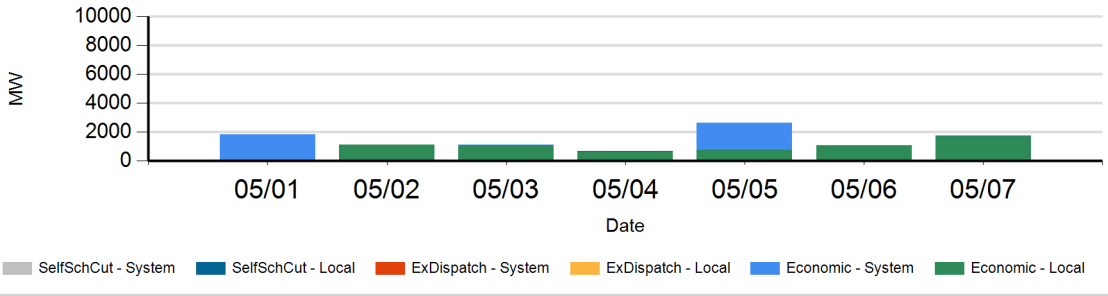
2. Maximum wind/solar generation curtailment in MW for any one of the twelve real-time dispatch intervals in a particular hour.



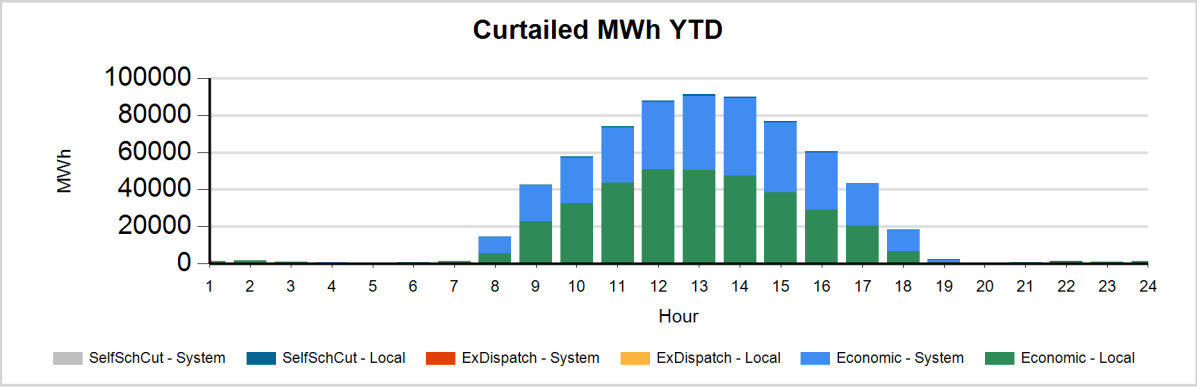
3. Daily wind/solar curtailment energy in MWh on a 7-day rolling basis.



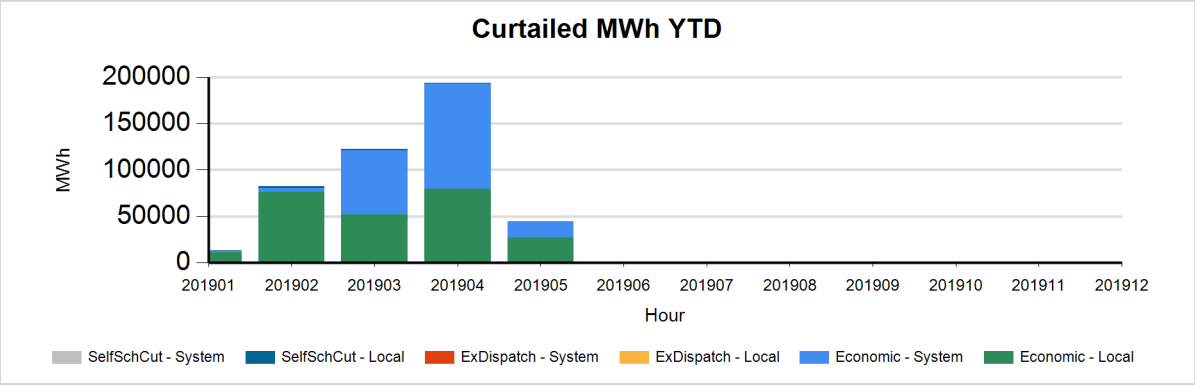
4. Maximum generation curtailment in MW for any one of the twelve real-time dispatch intervals in a particular day on a 7-day rolling basis.



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	245,355
LocalSelfSchCut	5,506
SystemEconomic	205,092
TOTAL	455,953

California ISO

Data used to produce hourly chart

DATE	HOUR	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
05/07	8	Economic	Local	SOLR	277	498
05/07	8	Economic	Local	WIND	6	14
05/07	9	Economic	Local	SOLR	666	826
05/07	9	Economic	Local	WIND	17	16
05/07	10	Economic	Local	SOLR	707	938
05/07	10	Economic	Local	WIND	15	18
05/07	10	Economic	System	SOLR	2	5
05/07	11	Economic	Local	SOLR	830	1078
05/07	11	Economic	Local	WIND	18	18
05/07	11	Economic	System	SOLR	3	7
05/07	12	Economic	Local	SOLR	757	978
05/07	12	Economic	Local	WIND	16	18
05/07	12	Economic	System	SOLR	6	6
05/07	13	Economic	Local	SOLR	1224	1675
05/07	13	Economic	Local	WIND	16	18
05/07	13	Economic	System	SOLR	10	12
05/07	13	SelfSchCut	Local	SOLR	5	10
05/07	14	Economic	Local	SOLR	1196	1583
05/07	14	Economic	Local	WIND	17	19
05/07	14	Economic	System	SOLR	7	8
05/07	15	Economic	Local	SOLR	964	1345
05/07	15	Economic	Local	WIND	7	2
05/07	15	Economic	System	SOLR	3	7
05/07	15	SelfSchCut	Local	SOLR	6	12
05/07	16	Economic	Local	SOLR	894	1115
05/07	16	Economic	Local	WIND	11	17
05/07	16	SelfSchCut	Local	SOLR	2	6
05/07	17	Economic	Local	SOLR	576	1533
05/07	17	Economic	System	SOLR	40	9
05/07	18	Economic	Local	SOLR	47	57
05/07	18	Economic	Local	WIND	6	9

05/07	18	Economic	System	SOLR	12	123
05/07	19	Economic	Local	SOLR	5	20
05/07	20	Economic	System	SOLR	9	14
05/07	21	Economic	Local	SOLR	3	18