Wind and Solar Curtailment April 10, 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.

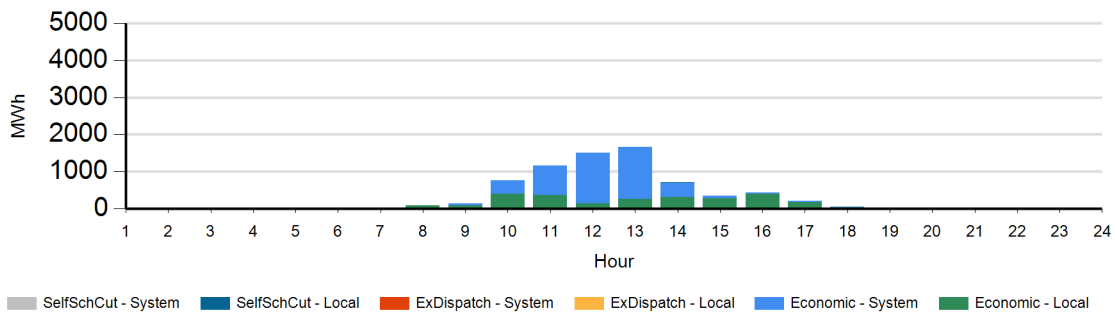
[2]The Renewables Watch report provides daily actual renewable production within the ISO grid. It is available at: http://www.caiso.com/green/renewableswatch.html.

[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.

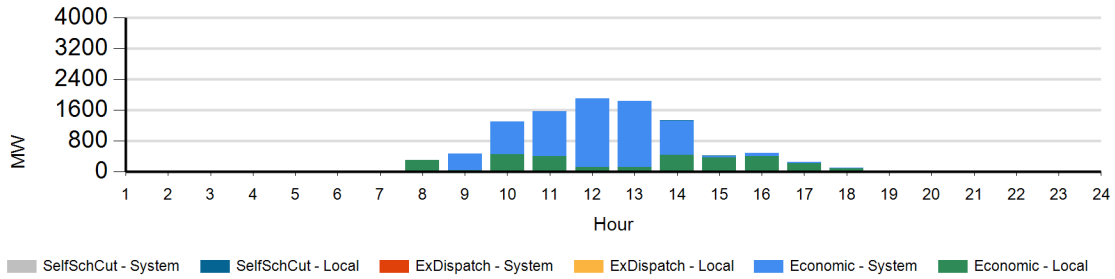
For more information on oversupply conditions, please see:
https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables_FastFacts.pdf

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

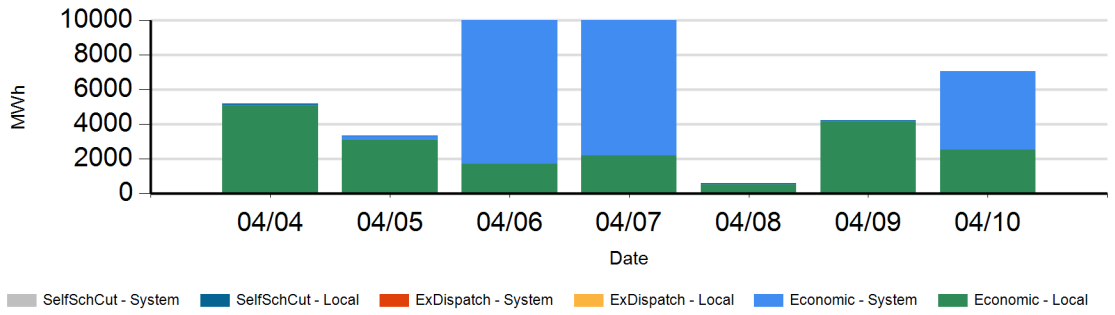
1. Hourly wind/solar generation curtailment energy in MWh.



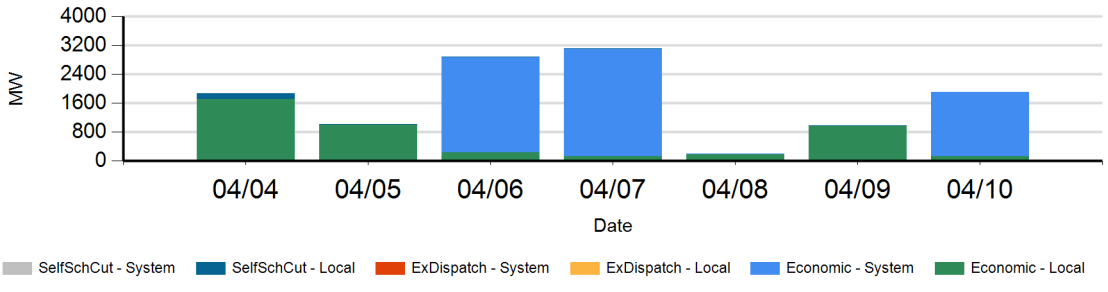
2. Maximum wind/solar generation curtailment in MW for any one of the twelve real-time dispatch intervals in a particular hour.



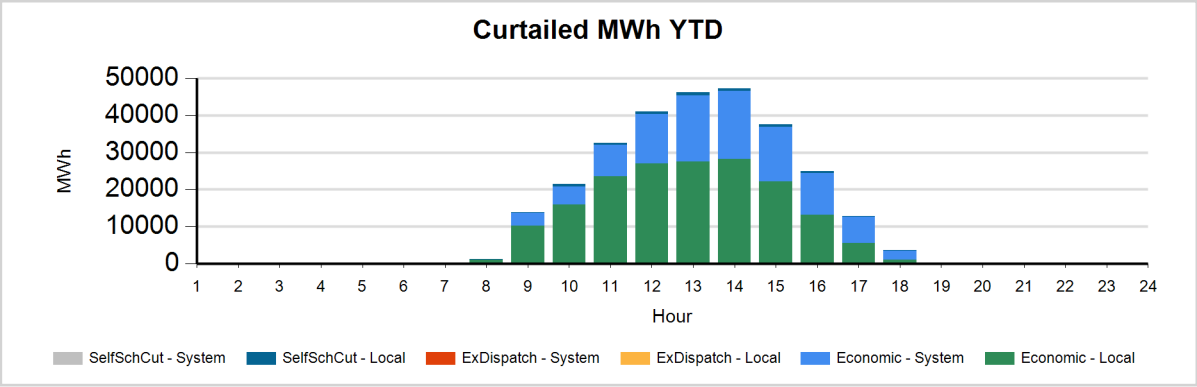
3. Daily wind/solar curtailment energy in MWh on a 7-day rolling basis.



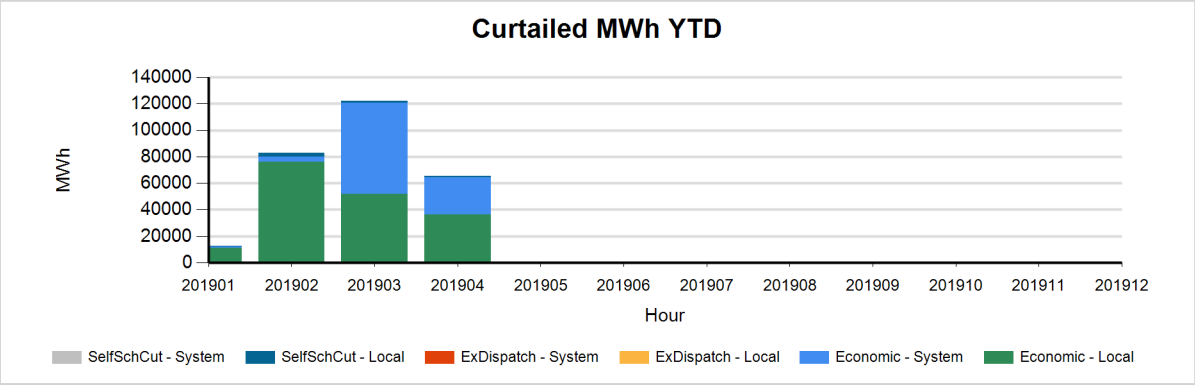
4. Maximum generation curtailment in MW for any one of the twelve real-time dispatch intervals in a particular day on a 7-day rolling basis.



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	175,223
LocalSelfSchCut	5,273
SystemEconomic	102,256
TOTAL	282,752

California ISO

Data used to produce hourly chart

DATE	HOUR	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
04/10	8	Economic	Local	SOLR	92	296
04/10	9	Economic	Local	SOLR	84	25
04/10	9	Economic	System	SOLR	52	411
04/10	9	Economic	System	WIND	4	22
04/10	10	Economic	Local	SOLR	399	450
04/10	10	Economic	System	SOLR	333	828
04/10	10	Economic	System	WIND	20	30
04/10	11	Economic	Local	SOLR	358	397
04/10	11	Economic	System	SOLR	769	1147
04/10	11	Economic	System	WIND	25	28
04/10	12	Economic	Local	SOLR	138	120
04/10	12	Economic	System	SOLR	1339	1757
04/10	12	Economic	System	WIND	26	27
04/10	13	Economic	Local	SOLR	252	111
04/10	13	Economic	System	SOLR	1378	1693
04/10	13	Economic	System	WIND	23	27
04/10	14	Economic	Local	SOLR	314	433
04/10	14	Economic	System	SOLR	384	884
04/10	14	Economic	System	WIND	11	21
04/10	14	SelfSchCut	Local	SOLR	1	2
04/10	15	Economic	Local	SOLR	267	367
04/10	15	Economic	System	SOLR	81	39
04/10	15	SelfSchCut	Local	SOLR	0	2
04/10	16	Economic	Local	SOLR	392	396
04/10	16	Economic	System	SOLR	33	76
04/10	16	Economic	System	WIND	2	7
04/10	17	Economic	Local	SOLR	178	210
04/10	17	Economic	System	SOLR	24	43
04/10	18	Economic	Local	SOLR	46	75
04/10	18	Economic	System	SOLR	10	26
04/10	19	Economic	Local	SOLR	3	22

The information contained in this report is preliminary and subject to change without notice. No inference, decision or conclusion should be made based on the information in this report or any series of these reports. All values are hourly average unless otherwise stated. Questions about this report should be directed to Short-Term Forecasting at ShortTermForecasting@caiso.com.