Wind and Solar Curtailment June 06, 2020

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.

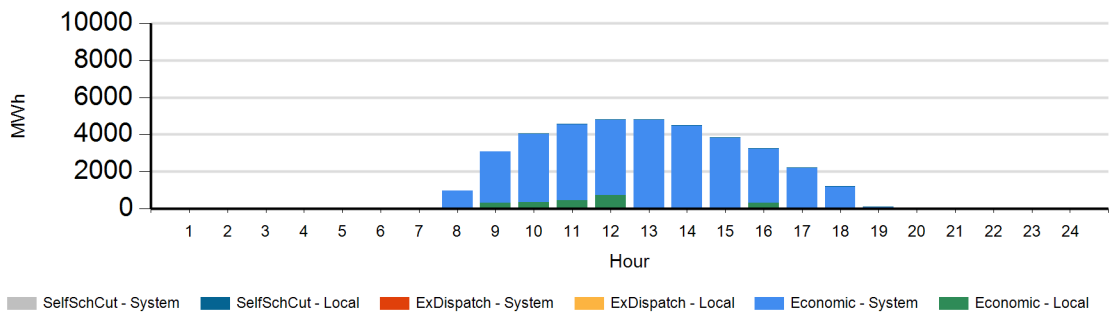
[2]The Renewables Watch report provides daily actual renewable production within the ISO grid. It is available at: http://www.caiso.com/green/renewableswatch.html.

[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.

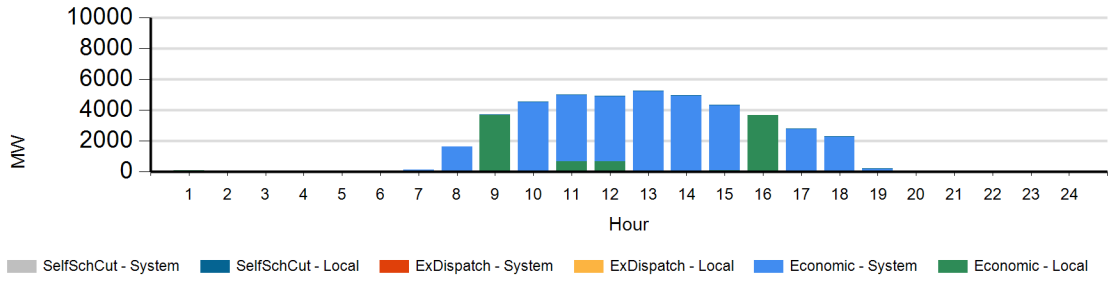
For more information on oversupply conditions, please see:
https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables_FastFacts.pdf

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

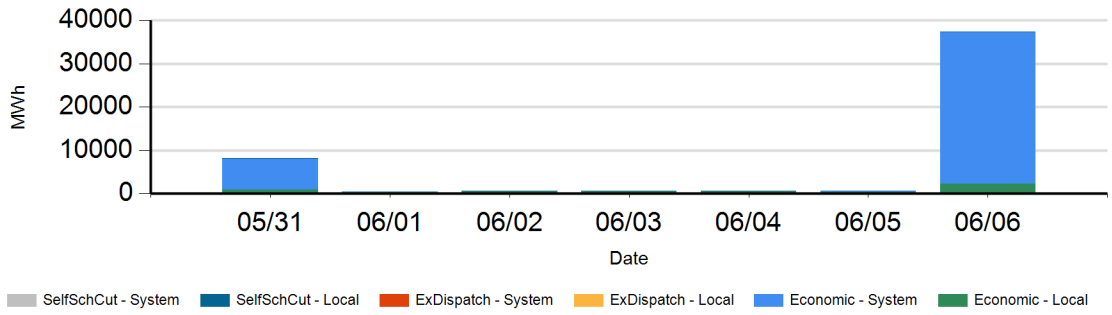
1. Hourly wind/solar generation curtailment energy in MWh. - 6/6/2020



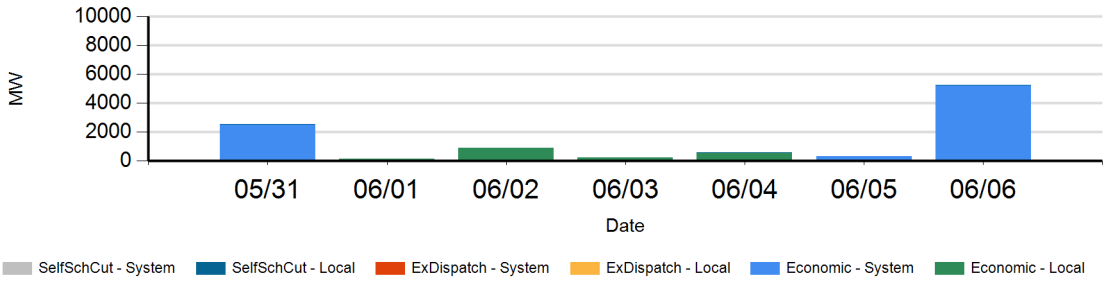
2. Maximum wind/solar generation curtailment in MW for any one of the twelve real-time dispatch intervals in a particular hour. - 6/6/2020



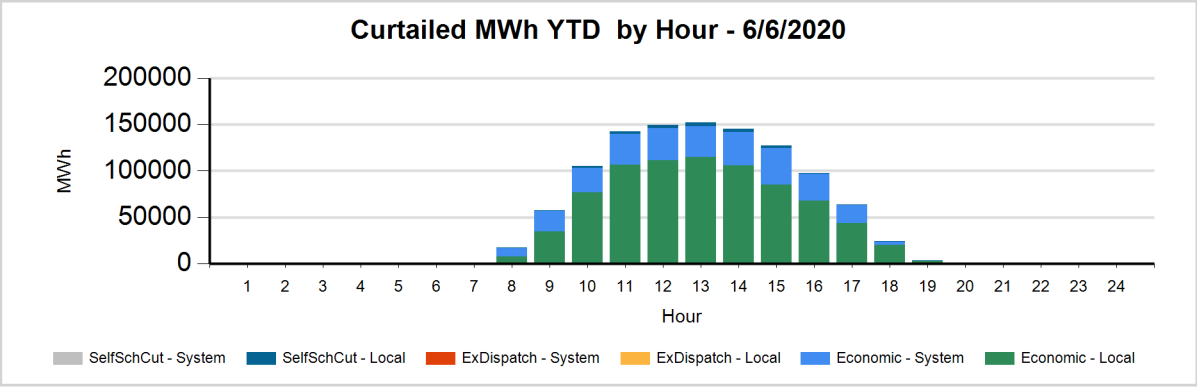
3. Daily wind/solar curtailment energy in MWh on a 7-day basis. - 6/6/2020



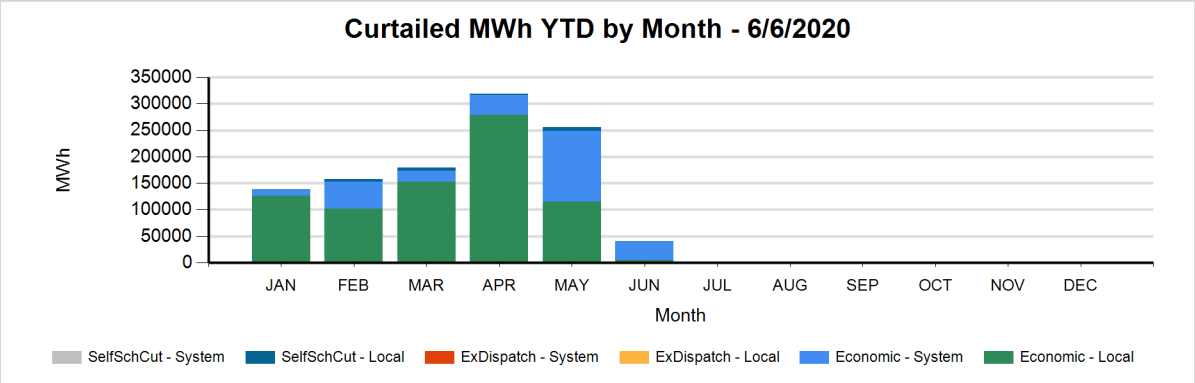
4. Maximum generation curtailment in MW for any one of the twelve real-time dispatch intervals in a particular day on a 7-day basis. - 6/6/2020



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 - 6/6/2020
LocalEconomic	778,676
LocalSelfSchCut	19,982
SystemEconomic	289,474
TOTAL	1,088,132

California ISO

Data used to produce hourly chart

DATE	HOUR	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
06/06	1	Economic	Local	WIND	22	90
06/06	5	Economic	System	WIND	0	3
06/06	6	Economic	Local	SOLR	1	15
06/06	7	Economic	Local	SOLR	3	
06/06	7	Economic	System	SOLR	10	96
06/06	7	Economic	System	WIND	2	22
06/06	8	Economic	Local	SOLR	16	
06/06	8	Economic	System	SOLR	884	1581
06/06	8	Economic	System	WIND	56	61
06/06	9	Economic	Local	SOLR	293	3502
06/06	9	Economic	Local	WIND	16	197
06/06	9	Economic	System	SOLR	2685	
06/06	9	Economic	System	WIND	79	
06/06	9	SelfSchCut	Local	SOLR	0	3
06/06	10	Economic	Local	SOLR	307	
06/06	10	Economic	Local	WIND	21	
06/06	10	Economic	System	SOLR	3452	4125
06/06	10	Economic	System	WIND	275	392
06/06	10	SelfSchCut	Local	SOLR	7	8
06/06	11	Economic	Local	SOLR	425	612
06/06	11	Economic	Local	WIND	34	38
06/06	11	Economic	System	SOLR	3734	3891
06/06	11	Economic	System	WIND	348	434
06/06	11	SelfSchCut	Local	SOLR	12	12
06/06	12	Economic	Local	SOLR	614	623
06/06	12	Economic	Local	WIND	103	45
06/06	12	Economic	System	SOLR	3761	3912
06/06	12	Economic	System	WIND	328	351
06/06	12	SelfSchCut	Local	SOLR	8	9
06/06	13	Economic	Local	WIND	1	
06/06	13	Economic	System	SOLR	4432	4815

06/06	13	Economic	System	WIND	348	406
06/06	13	SelfSchCut	Local	SOLR	12	13
06/06	14	Economic	Local	SOLR	5	
06/06	14	Economic	Local	WIND	4	
06/06	14	Economic	System	SOLR	4159	4543
06/06	14	Economic	System	WIND	336	426
06/06	14	SelfSchCut	Local	SOLR	9	12
06/06	15	Economic	Local	SOLR	10	10
06/06	15	Economic	Local	WIND	6	66
06/06	15	Economic	System	SOLR	3587	3959
06/06	15	Economic	System	WIND	220	275
06/06	15	SelfSchCut	Local	SOLR	3	6
06/06	16	Economic	Local	SOLR	310	3614
06/06	16	Economic	Local	WIND	6	67
06/06	16	Economic	System	SOLR	2870	
06/06	16	Economic	System	WIND	55	
06/06	16	SelfSchCut	Local	SOLR	2	
06/06	17	Economic	Local	SOLR	2	
06/06	17	Economic	System	SOLR	2157	2709
06/06	17	Economic	System	WIND	58	61
06/06	17	SelfSchCut	Local	SOLR	10	8
06/06	18	Economic	Local	SOLR	9	4
06/06	18	Economic	System	SOLR	1128	2209
06/06	18	Economic	System	WIND	50	62
06/06	18	SelfSchCut	Local	SOLR	7	10
06/06	19	Economic	Local	SOLR	0	
06/06	19	Economic	Local	WIND	47	14
06/06	19	Economic	System	SOLR	44	200
06/06	19	SelfSchCut	Local	SOLR	2	6
06/06	20	Economic	Local	WIND	7	30
06/06	21	Economic	Local	WIND	1	5