

## Wind and Solar Curtailment June 13, 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<sup>1</sup>. This report should be read in the context of the Renewables Watch report for a more complete understanding of both renewable curtailment and generation<sup>2</sup>.

Wind and solar curtailments are grouped into the following categories:

- 1. Economic Local: Market dispatch of generators with economic bids to mitigate local congestion<sup>3</sup>.
- Economic System: Market dispatch of generators with economic bids to mitigate systemwide 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.

<sup>1</sup>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.

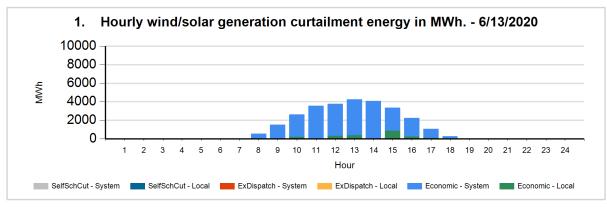
<sup>2</sup>The Renewables Watch report provides daily actual renewable production within the ISO grid. It is available at: <u>http://www.caiso.com/green/renewableswatch.html</u>.

<sup>3</sup>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.

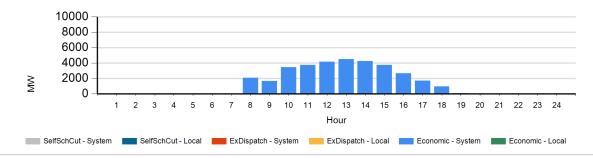
For more information on oversupply conditions, please see: <u>https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables\_FastFacts.pdf</u>

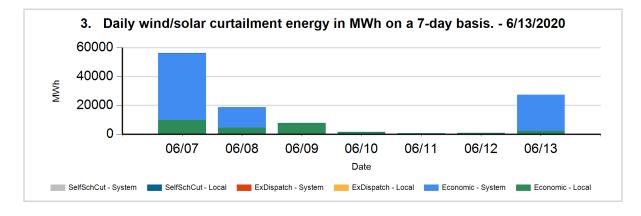


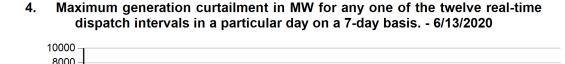
The following charts show the daily and 7-day wind and solar curtailment by category, if any.

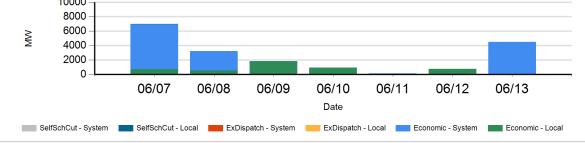


2. Maximum wind/solar generation curtailment in MW for any one of the twelve realtime dispatch intervals in a particular hour. - 6/13/2020



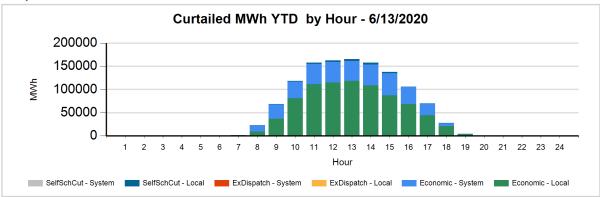




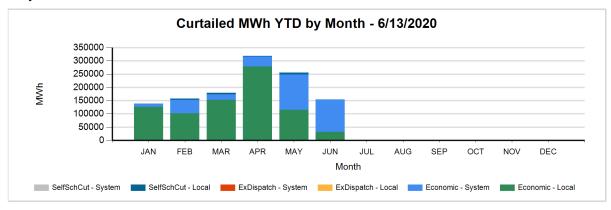




The following charts show hourly year to date wind and solar curtailment by category, if any.



The following charts show monthly year to date wind and solar curtailment by category, if any.



TYPE	YTD CURTAILED MWH - 6/13/2020
LocalEconomic	805,851
LocalSelfSchCut	20,185
SystemEconomic	375,196
TOTAL	1,201,233



## Data used to produce hourly chart

TAILED MW	CURTAILED MWH	FUEL TYPE	REASON	CURT TYPE	HOU R	DATE
	0	WIND	Local	1 Economic	1	06/13
	1	SOLR	Local	7 Economic	7	06/13
4	13	SOLR	System	7 Economic	7	06/13
ć	11	SOLR	Local	8 Economic	8	06/13
197	509	SOLR	System	8 Economic	8	06/13
(	28	WIND	System	8 Economic	8	06/13
2	21	SOLR	Local	9 Economic	9	06/13
153	1409	SOLR	System	9 Economic	9	06/13
٤	96	WIND	System	9 Economic	9	06/13
	187	SOLR	Local	0 Economic	10	06/13
	7	WIND	Local	0 Economic	10	06/13
334	2344	SOLR	System	0 Economic	10	06/13
٤	81	WIND	System	0 Economic	10	06/13
	16	SOLR	Local	1 Economic	11	06/13
362	3445	SOLR	System	1 Economic	11	06/13
12	90	WIND	System	1 Economic	11	06/13
2	298	SOLR	Local	2 Economic	12	06/13
	7	WIND	Local	2 Economic	12	06/13
393	3323	SOLR	System	2 Economic	12	06/13
23	127	WIND	System	2 Economic	12	06/13
2	367	SOLR	Local	3 Economic	13	06/13
	13	WIND	Local	3 Economic	13	06/13
417	3676	SOLR	System	3 Economic	13	06/13
28	207	WIND	System	3 Economic	13	06/13
2	25	SOLR	Local	4 Economic	14	06/13
406	3861	SOLR	System	4 Economic	14	06/13
1:	193	WIND	System	4 Economic	14	06/13
2	856	SOLR	Local	5 Economic	15	06/13
	13	WIND	Local	5 Economic	15	06/13
359	2429	SOLR	System	5 Economic	15	06/13
12	44	WIND	System	5 Economic	15	06/13



06/13	16	Economic	Local	SOLR	233	29
06/13	16	Economic	Local	WIND	4	
06/13	16	Economic	System	SOLR	1969	2589
06/13	16	Economic	System	WIND	45	49
06/13	17	Economic	Local	SOLR	80	23
06/13	17	Economic	Local	WIND	3	
06/13	17	Economic	System	SOLR	951	1636
06/13	17	Economic	System	WIND	36	47
06/13	18	Economic	Local	SOLR	42	48
06/13	18	Economic	System	SOLR	213	877
06/13	18	Economic	System	WIND	13	37
06/13	19	Economic	Local	SOLR	10	22
06/13	19	Economic	System	SOLR	6	67

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.