

Wind and Solar Curtailment April 01, 2020

This report is produced daily to provide a detailed accounting of the wind and solar renewable generation that was curtailed and the reasons why¹. This report should be read in the context of the Renewables Watch report for a more complete understanding of both renewable curtailment and generation².

Wind and solar curtailments are grouped into the following categories:

- 1. Economic Local: Market dispatch of generators with economic bids to mitigate local congestion³.
- 2. 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.

¹Only 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.

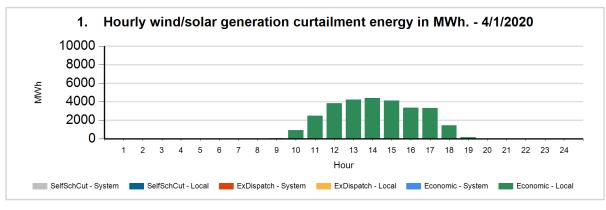
²The Renewables Watch report provides daily actual renewable production within the ISO grid. It is available at: <u>http://www.caiso.com/green/renewableswatch.html</u>.

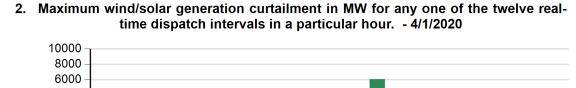
³Congestion occurs when available, least-cost energy cannot be delivered to some loads because transmission facilities do not have sufficient capacity to deliver the energy.

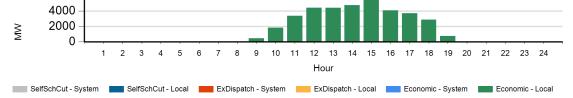
For more information on oversupply conditions, please see: <u>https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables_FastFacts.pdf</u>

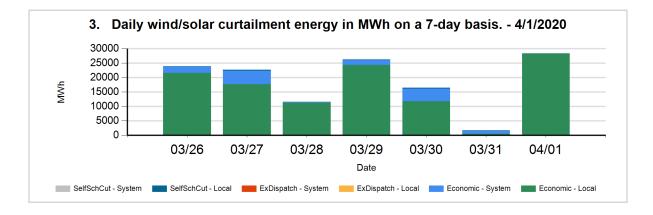


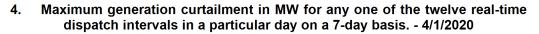
The following charts show the daily and 7-day wind and solar curtailment by category, if any.

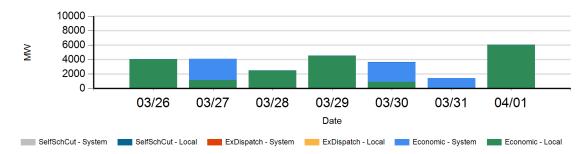






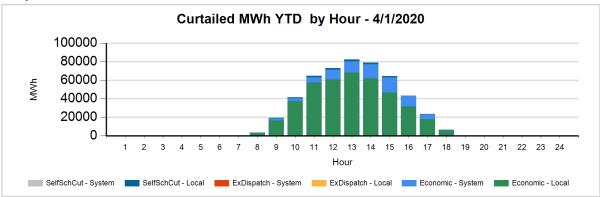




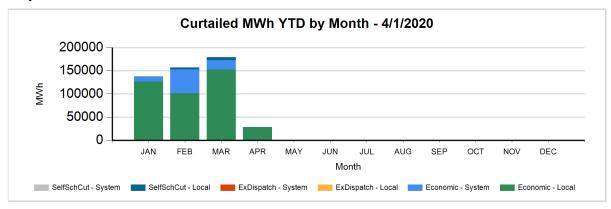




The following charts show hourly year to date wind and solar curtailment by category, if any.



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



TYPE	YTD CURTAILED MWH - 4/1/2020	
LocalEconomic	409,286	
LocalSelfSchCut	10,881	
SystemEconomic	82,357	
TOTAL	502,524	



Data used to produce hourly chart

E REASON FUEL TYPE	CURTAILED MWH CURTAILEE	D MW
Local SOLR	3	17
Local SOLR	67	443
System SOLR	7	
System WIND	4	
Local SOLR	928	1831
Local WIND	7	13
Local SOLR	2444	3257
Local WIND	33	117
Local SOLR	3766	4280
Local WIND	74	127
System WIND	0	
ut Local SOLR	0	1
Local SOLR	4185	4378
Local WIND	38	34
ut Local SOLR	1	
Local SOLR	4303	4522
Local WIND	100	221
System WIND	1	
ut Local SOLR	2	5
Local SOLR	3990	5711
Local WIND	117	325
System WIND	0	1
ut Local SOLR	2	2
Local SOLR	3299	4042
Local WIND	67	46
Local SOLR	3246	3634
Local WIND	77	74
Local SOLR	1381	2784
Local WIND	58	83
Local SOLR	150	725
Local WIND	36	17



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.