

## Wind and Solar Curtailment March 20, 2023

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>.
- 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.

<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.

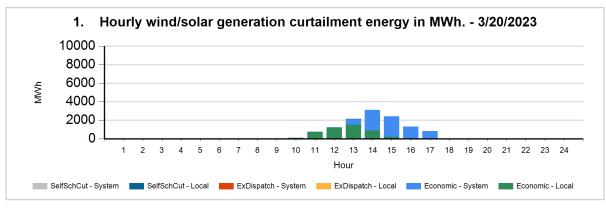
<sup>2</sup>The Renewables Watch report provides daily actual renewable production within the ISO grid. It is available at: <u>http://www.caiso.com/green/renewableswatch.html</u>.

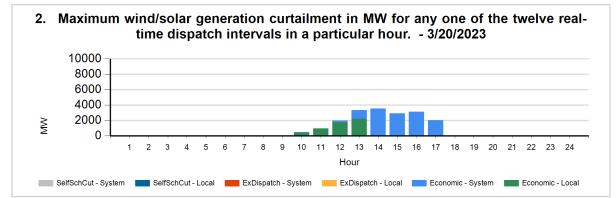
<sup>3</sup>Congestion occurs when available, least-cost energy cannot be delivered to some loads because transmission facilities do not have sufficient capacity to deliver the energy.

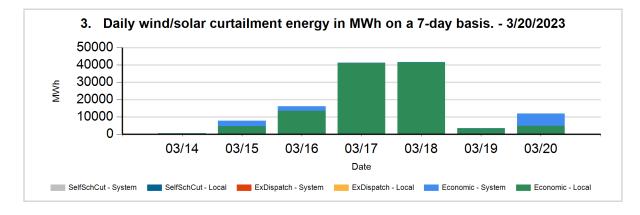
For more information on oversupply conditions, please see: <u>https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables\_FastFacts.pdf</u>

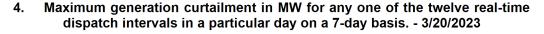


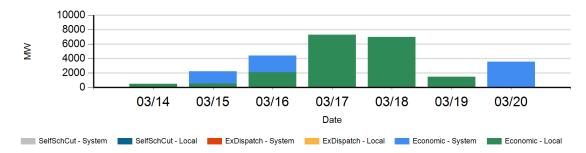
The following charts show the daily and 7-day wind and solar curtailment by category, if any.





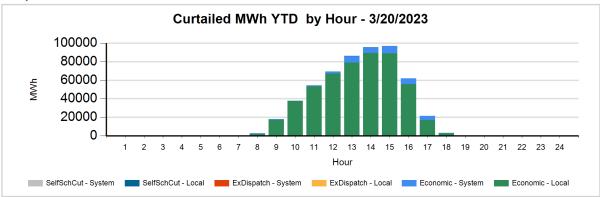




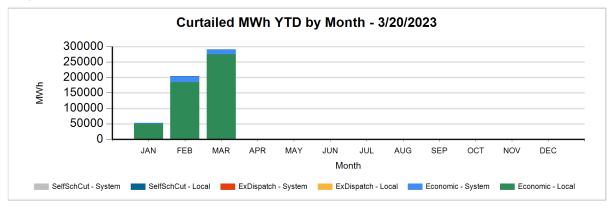




The following charts show hourly year to date wind and solar curtailment by category, if any.



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



TYPE	YTD CURTAILED MWH - 3/20/2023
LocalEconomic	510,015
LocalSelfSchCut	12
SystemEconomic	37,955
TOTAL	547,983



## Data used to produce hourly chart

TAILED MW	CURTAILED MWH	FUEL TYPE	REASON	CURT TYPE	HOU R	DATE
1(	3	SOLR	System	B Economic	8	03/20
٤	1	SOLR	Local	economic	9	03/20
	1	SOLR	System	economic	9	03/20
44	99	SOLR	Local	) Economic	10	03/20
	0	SOLR	System	) Economic	10	03/20
	1	SOLR	Local	) SelfSchCut	10	03/20
965	769	SOLR	Local	Economic	11	03/20
	0	SOLR	Local	I SelfSchCut	11	03/20
1740	1198	SOLR	Local	2 Economic	12	03/20
196	36	SOLR	System	2 Economic	12	03/20
12	2	WIND	System	2 Economic	12	03/20
	0	SOLR	Local	2 SelfSchCut	12	03/20
1958	1486	SOLR	Local	3 Economic	13	03/20
241	34	WIND	Local	3 Economic	13	03/20
1023	574	SOLR	System	3 Economic	13	03/20
13	34	WIND	System	3 Economic	13	03/20
	1	SOLR	Local	3 SelfSchCut	13	03/20
49	824	SOLR	Local	1 Economic	14	03/20
	74	WIND	Local	4 Economic	14	03/20
3104	1981	SOLR	System	4 Economic	14	03/20
389	221	WIND	System	4 Economic	14	03/20
30	203	SOLR	Local	5 Economic	15	03/20
	6	WIND	Local	5 Economic	15	03/20
2450	1981	SOLR	System	5 Economic	15	03/20
426	241	WIND	System	5 Economic	15	03/20
15	10	SOLR	Local	6 Economic	16	03/20
2693	1202	SOLR	System	6 Economic	16	03/20
398	112	WIND	System	6 Economic	16	03/20
43	38	SOLR	Local	7 Economic	17	03/20
1824	740	SOLR	System	7 Economic	17	03/20
13	46	WIND	System	7 Economic	17	03/20



03/20	17	SelfSchCut	Local	SOLR	0	1
03/20	18	Economic	System	SOLR	1	16
03/20	20	Economic	System	WIND	2	16

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.