

Wind and Solar Curtailment April 07, 2024

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 system-wide oversupply⁴.
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.

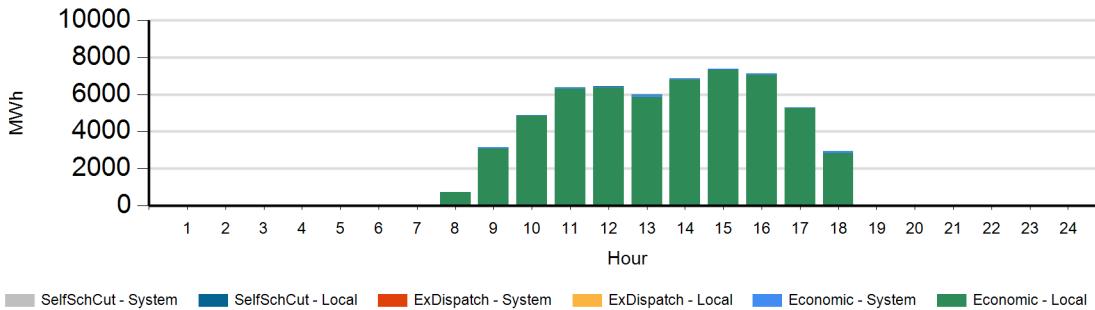
²The Renewables Watch report provides daily actual renewable production within the ISO grid. It is available at: <http://www.caiso.com/green/renewableswatch.html>.

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.

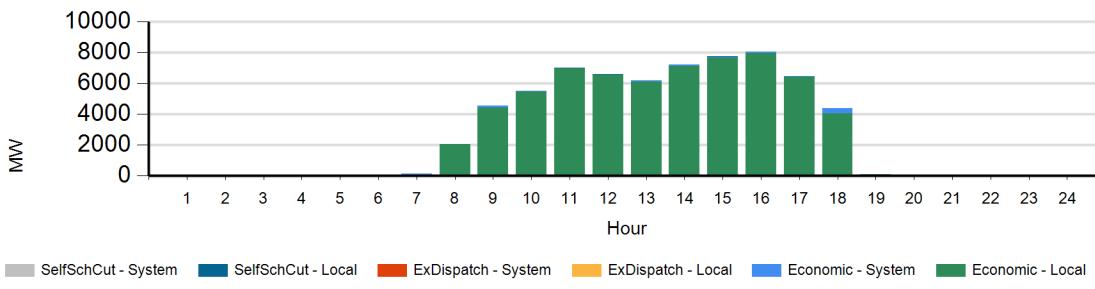
⁴For more information on oversupply conditions, please see:
https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables_FastFacts.pdf

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

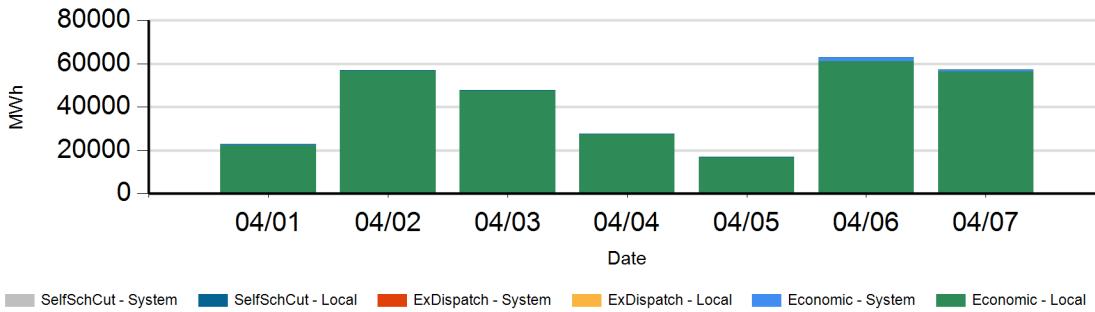
1. Hourly wind/solar generation curtailment energy in MWh. - 4/7/2024



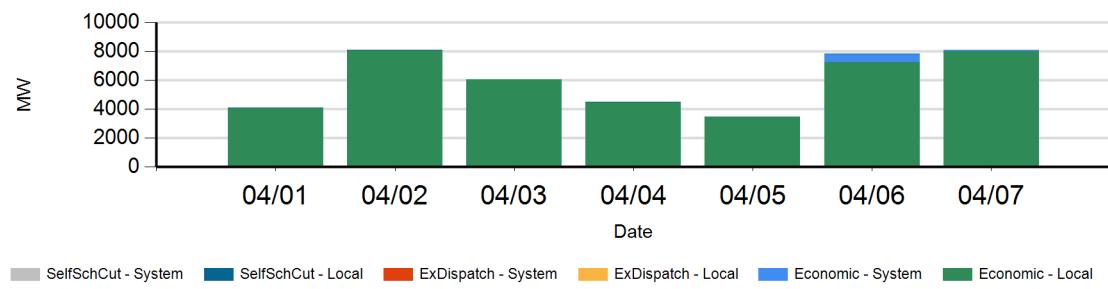
2. Maximum wind/solar generation curtailment in MW for any one of the twelve real-time dispatch intervals in a particular hour. - 4/7/2024



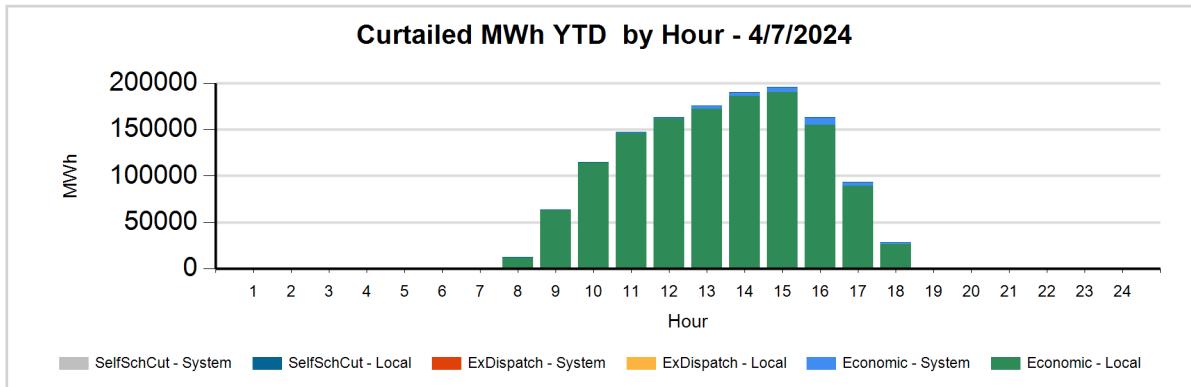
3. Daily wind/solar generation curtailment energy in MWh on a 7-day basis. - 4/7/2024



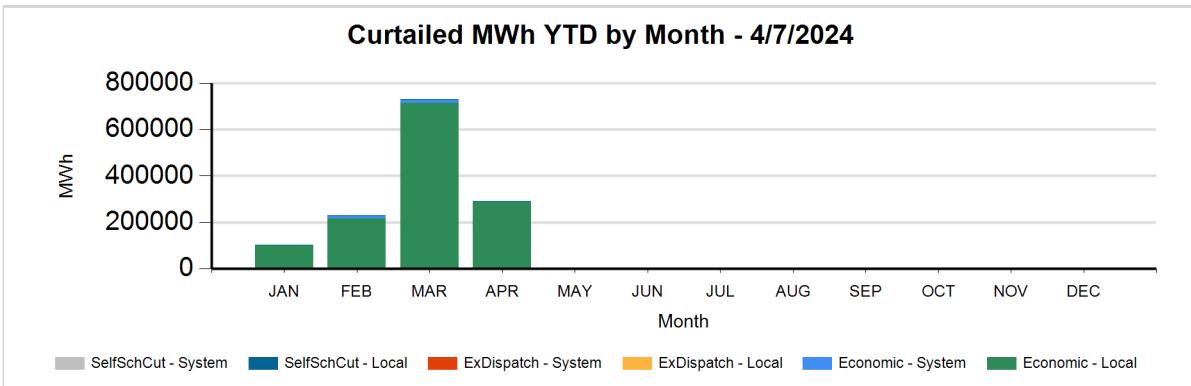
4. Maximum generation curtailment in MW for any one of the twelve real-time dispatch intervals in a particular day on a 7-day basis. - 4/7/2024



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 - 4/7/2024
LocalEconomic	1,318,914
LocalSelfSchCut	648
SystemEconomic	32,160
TOTAL	1,351,721

Data used to produce hourly chart

DATE	HOU R	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
04/07	2	Economic	Local	WIND	1	10
04/07	7	Economic	System	SOLR	15	101
04/07	7	Economic	System	WIND	2	14
04/07	8	Economic	Local	SOLR	672	1962
04/07	8	Economic	Local	WIND	43	92
04/07	9	Economic	Local	SOLR	3002	4316
04/07	9	Economic	Local	WIND	75	97
04/07	9	Economic	System	SOLR	61	116
04/07	10	Economic	Local	SOLR	4713	5343
04/07	10	Economic	Local	WIND	121	131
04/07	10	Economic	System	SOLR	33	40
04/07	11	Economic	Local	SOLR	6149	6782
04/07	11	Economic	Local	WIND	148	165
04/07	11	Economic	System	SOLR	80	57
04/07	11	SelfSchCut	Local	SOLR	4	6
04/07	12	Economic	Local	SOLR	6247	6430
04/07	12	Economic	Local	WIND	113	110
04/07	12	Economic	System	SOLR	54	58
04/07	12	SelfSchCut	Local	SOLR	11	8
04/07	13	Economic	Local	SOLR	5673	5954
04/07	13	Economic	Local	WIND	184	137
04/07	13	Economic	System	SOLR	139	71
04/07	13	Economic	System	WIND	0	
04/07	13	SelfSchCut	Local	SOLR	4	4
04/07	14	Economic	Local	SOLR	6456	6813
04/07	14	Economic	Local	WIND	314	338
04/07	14	Economic	System	SOLR	62	67
04/07	14	Economic	System	WIND	0	
04/07	14	SelfSchCut	Local	SOLR	6	
04/07	15	Economic	Local	SOLR	6872	7161
04/07	15	Economic	Local	WIND	440	502

04/07	15	Economic	System	SOLR	57	89
04/07	15	Economic	System	WIND	0	3
04/07	15	SelfSchCut	Local	SOLR	1	4
04/07	16	Economic	Local	SOLR	6459	7455
04/07	16	Economic	Local	WIND	594	530
04/07	16	Economic	System	SOLR	82	81
04/07	16	Economic	System	WIND	0	
04/07	17	Economic	Local	SOLR	4586	5667
04/07	17	Economic	Local	WIND	687	787
04/07	17	Economic	System	SOLR	29	18
04/07	18	Economic	Local	SOLR	2276	3183
04/07	18	Economic	Local	WIND	547	848
04/07	18	Economic	System	SOLR	116	361
04/07	18	Economic	System	WIND	1	2
04/07	19	Economic	Local	SOLR	38	96

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.