

## Wind and Solar Curtailment April 09, 2022

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.

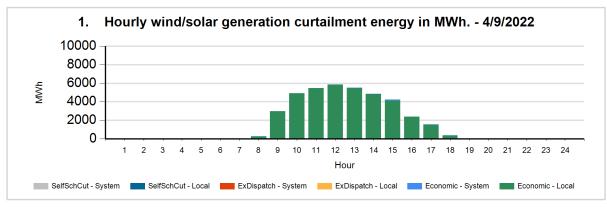
<sup>2</sup>The Renewables Watch report provides daily actual renewable production within the ISO grid. It is available at: <u>http://www.caiso.com/green/renewableswatch.html</u>.

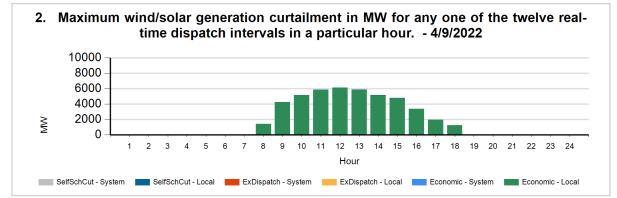
<sup>3</sup>Congestion occurs when available, least-cost energy cannot be delivered to some loads because transmission facilities do not have sufficient capacity to deliver the energy.

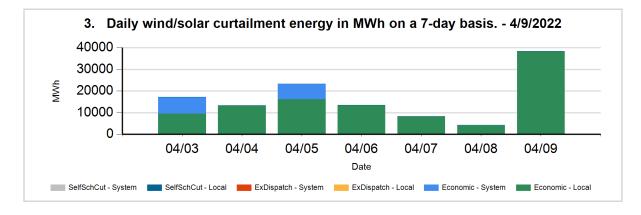
For more information on oversupply conditions, please see: <u>https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables\_FastFacts.pdf</u>



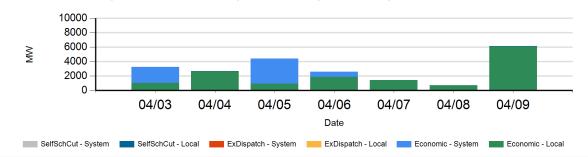
The following charts show the daily and 7-day wind and solar curtailment by category, if any.





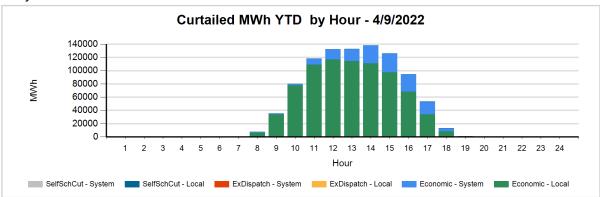


4. Maximum generation curtailment in MW for any one of the twelve real-time dispatch intervals in a particular day on a 7-day basis. - 4/9/2022

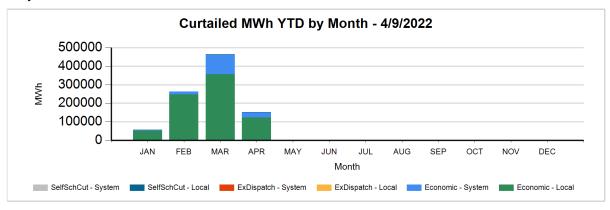




The following charts show hourly year to date wind and solar curtailment by category, if any.



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



TYPE	YTD CURTAILED MWH - 4/9/2022		
LocalEconomic	777,371		
LocalSelfSchCut	3,931		
SystemEconomic	152,885		
TOTAL	934,186		



## Data used to produce hourly chart

DATE	HOU R	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
04/09	1	Economic	Local	WIND	1	3
04/09	8	Economic	Local	SOLR	277	1415
04/09	8	Economic	Local	WIND	2	12
04/09	8	Economic	System	SOLR	2	
04/09	9	Economic	Local	SOLR	2917	4077
04/09	9	Economic	Local	WIND	40	176
04/09	10	Economic	Local	SOLR	4692	4951
04/09	10	Economic	Local	WIND	210	240
04/09	11	Economic	Local	SOLR	5167	5535
04/09	11	Economic	Local	WIND	286	360
04/09	11	Economic	System	WIND	0	3
04/09	11	SelfSchCut	Local	SOLR	0	
04/09	12	Economic	Local	SOLR	5518	5781
04/09	12	Economic	Local	WIND	316	351
04/09	12	SelfSchCut	Local	SOLR	1	
04/09	12	SelfSchCut	Local	WIND	1	2
04/09	13	Economic	Local	SOLR	5230	5641
04/09	13	Economic	Local	WIND	265	252
04/09	13	SelfSchCut	Local	SOLR	2	5
04/09	14	Economic	Local	SOLR	4581	4827
04/09	14	Economic	Local	WIND	251	323
04/09	14	SelfSchCut	Local	SOLR	4	8
04/09	14	SelfSchCut	Local	WIND	0	
04/09	15	Economic	Local	SOLR	3960	4510
04/09	15	Economic	Local	WIND	170	277
04/09	15	Economic	System	SOLR	62	
04/09	15	Economic	System	WIND	25	
04/09	15	SelfSchCut	Local	SOLR	2	8
04/09	16	Economic	Local	SOLR	2386	3367
04/09	16	Economic	Local	WIND	8	14
04/09	16	SelfSchCut	Local	SOLR	0	



04/09	17	Economic	Local	SOLR	1538	1927
04/09	17	Economic	Local	WIND	5	18
04/09	17	Economic	System	SOLR	1	
04/09	18	Economic	Local	SOLR	380	1228
04/09	18	Economic	System	SOLR	2	
04/09	19	Economic	Local	SOLR	11	44
04/09	23	Economic	Local	WIND	0	
04/09	23	Economic	System	WIND	0	4
04/09	24	Economic	Local	WIND	1	7

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.