

Wind and Solar Curtailment September 22, 2022

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.
- 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.

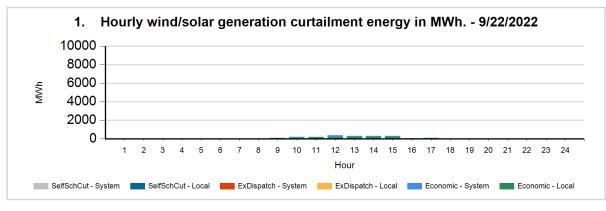
²The Renewables Watch report provides daily actual renewable production within the ISO grid. It is available at: <u>http://www.caiso.com/green/renewableswatch.html</u>.

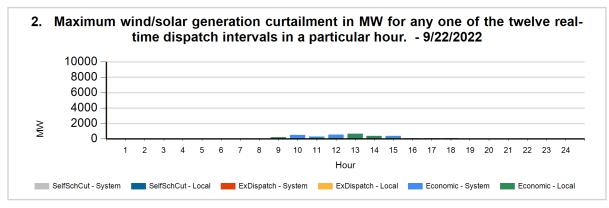
³Congestion occurs when available, least-cost energy cannot be delivered to some loads because transmission facilities do not have sufficient capacity to deliver the energy.

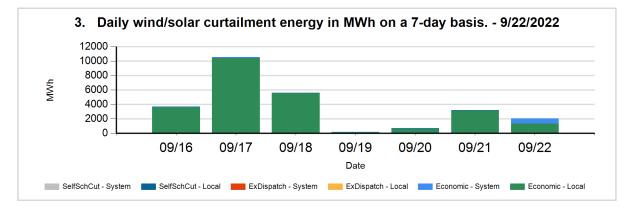
For more information on oversupply conditions, please see: <u>https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables_FastFacts.pdf</u>



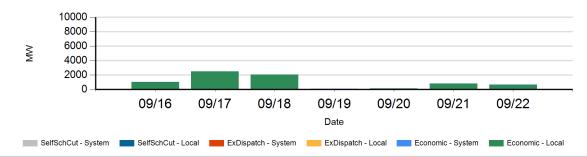
The following charts show the daily and 7-day wind and solar curtailment by category, if any.





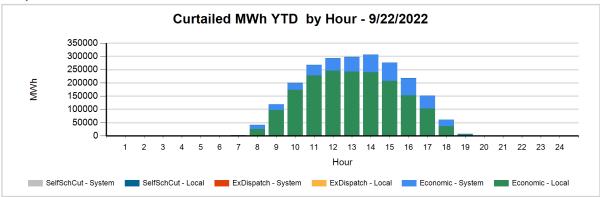


4. Maximum generation curtailment in MW for any one of the twelve real-time dispatch intervals in a particular day on a 7-day basis. - 9/22/2022

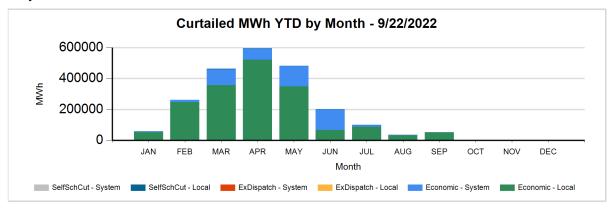




The following charts show hourly year to date wind and solar curtailment by category, if any.



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



TYPE	YTD CURTAILED MWH - 9/22/2022
LocalEconomic	1,757,136
LocalSelfSchCut	5,809
SystemEconomic	484,079
TOTAL	2,247,024



Data used to produce hourly chart

DATE	HOU R	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
09/22	8	Economic	Local	SOLR	6	
09/22	8	Economic	System	SOLR	11	30
09/22	9	Economic	Local	SOLR	65	150
09/22	9	Economic	Local	WIND	35	60
09/22	9	Economic	System	SOLR	1	
09/22	10	Economic	Local	SOLR	98	74
09/22	10	Economic	Local	WIND	2	
09/22	10	Economic	System	SOLR	114	420
09/22	10	Economic	System	WIND	7	17
09/22	11	Economic	Local	SOLR	176	115
09/22	11	Economic	System	SOLR	29	149
09/22	11	Economic	System	WIND	1	8
09/22	12	Economic	Local	SOLR	152	104
09/22	12	Economic	Local	WIND	1	
09/22	12	Economic	System	SOLR	227	443
09/22	12	Economic	System	WIND	4	2
09/22	13	Economic	Local	SOLR	204	644
09/22	13	Economic	Local	WIND	1	8
09/22	13	Economic	System	SOLR	102	
09/22	13	Economic	System	WIND	2	1
09/22	14	Economic	Local	SOLR	201	383
09/22	14	Economic	Local	WIND	1	
09/22	14	Economic	System	SOLR	98	
09/22	14	Economic	System	WIND	2	
09/22	15	Economic	Local	SOLR	205	113
09/22	15	Economic	Local	WIND	3	
09/22	15	Economic	System	SOLR	94	247
09/22	15	Economic	System	WIND	4	16
09/22	16	Economic	Local	SOLR	73	82
09/22	16	Economic	System	SOLR	1	3
09/22	17	Economic	Local	SOLR	76	79



09/22	17	Economic	Local	WIND	8	20
09/22	17	Economic	System	WIND	3	
09/22	18	Economic	Local	SOLR	16	68
09/22	18	Economic	Local	WIND	1	
09/22	18	Economic	System	SOLR	5	

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.