

## Wind and Solar Curtailment April 02, 2019

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 system-wide oversupply<sup>4</sup>.
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.

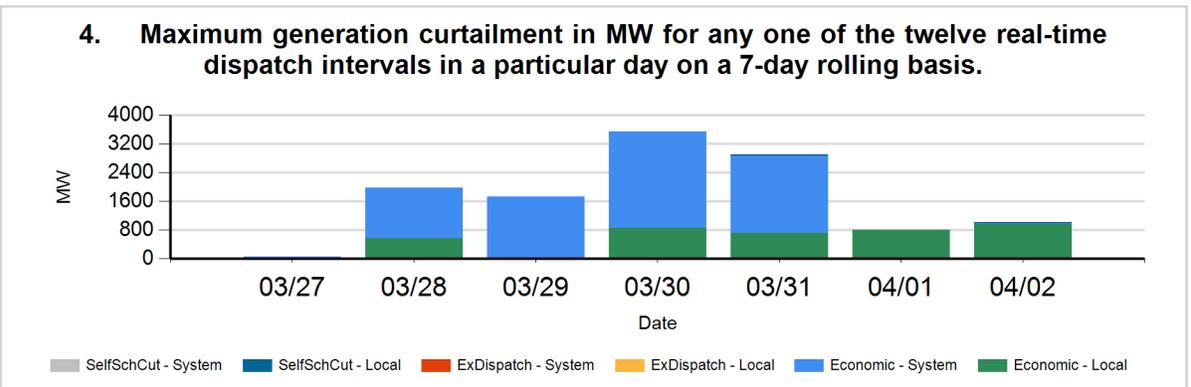
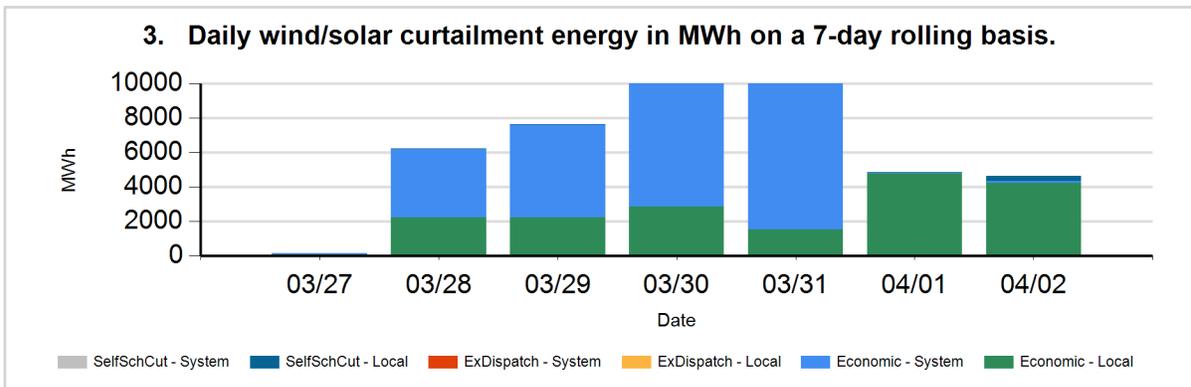
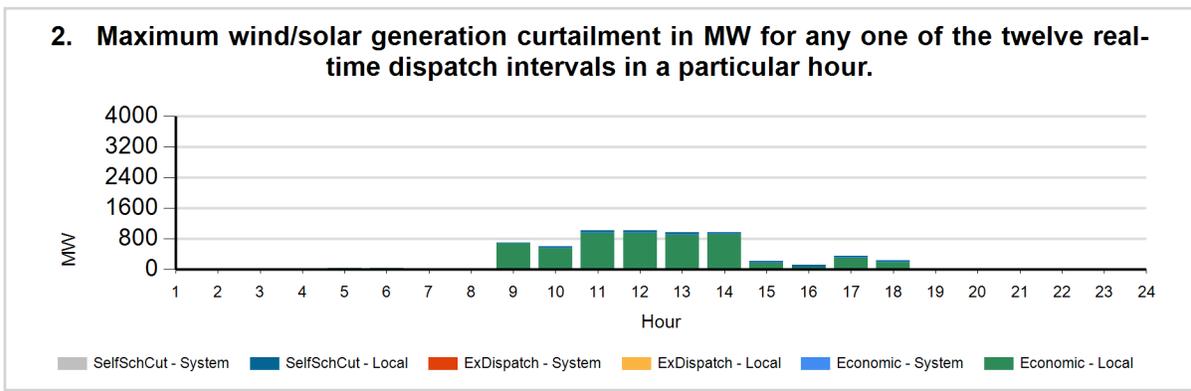
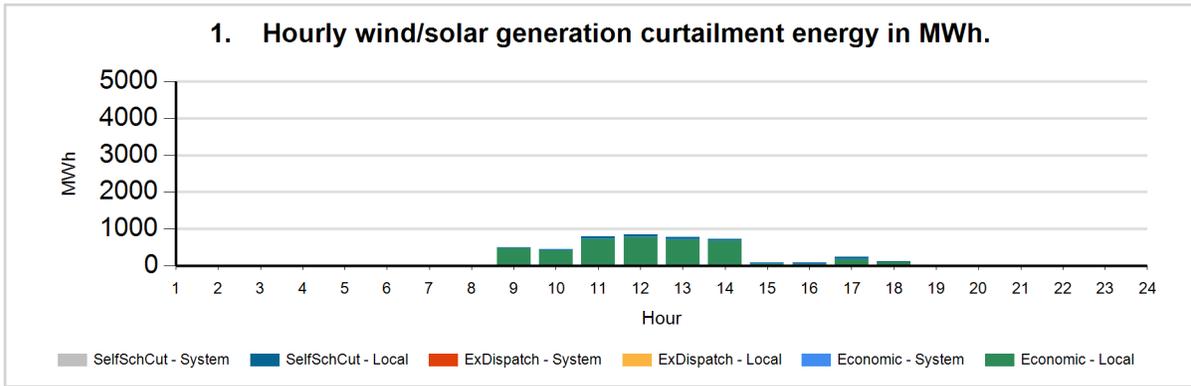
<sup>1</sup>Only wind and solar resources can be reported in this manner because these resources have a forecast. Curtailment is defined as the difference between actual production and the forecast when actual production is less than the forecast.

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

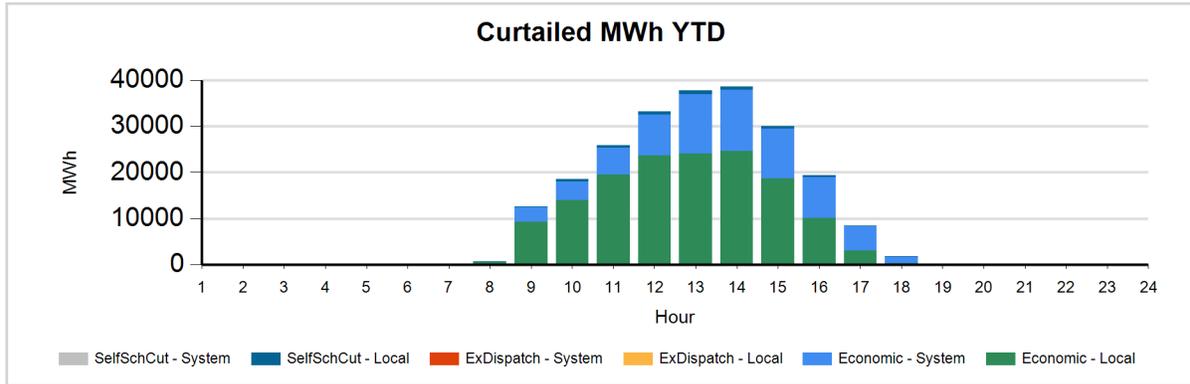
<sup>3</sup>Congestion occurs when available, least-cost energy cannot be delivered to some loads because transmission facilities do not have sufficient capacity to deliver the energy.

<sup>4</sup>For more information on oversupply conditions, please see: [https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables\\_FastFacts.pdf](https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables_FastFacts.pdf)

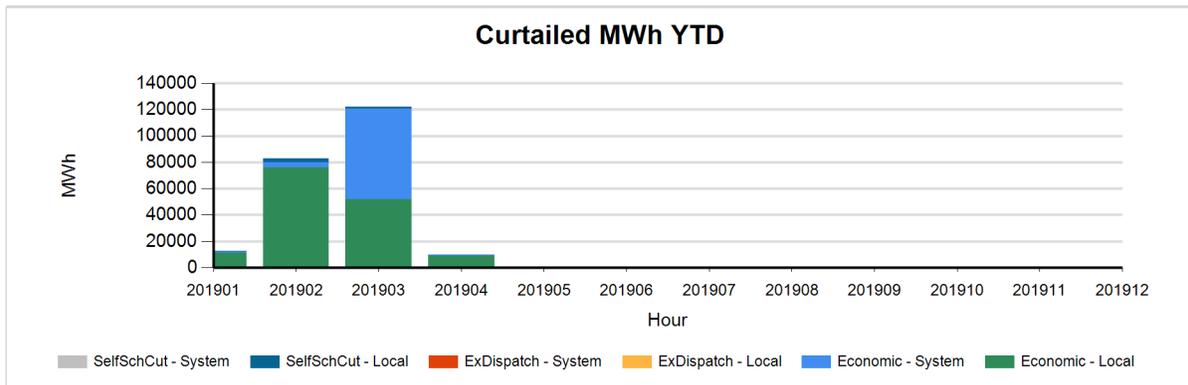
The following charts show the daily and 7-day rolling wind and solar curtailment by category, if any.



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
LocalEconomic	148,058
LocalSelfSchCut	4,971
SystemEconomic	74,082
TOTAL	227,111

Data used to produce hourly chart

DATE	HOUR	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
04/02	5	Economic	Local	WIND	3	30
04/02	6	Economic	Local	WIND	10	29
04/02	8	Economic	System	SOLR	0	4
04/02	9	Economic	Local	SOLR	492	694
04/02	9	Economic	Local	WIND	3	1
04/02	9	Economic	System	SOLR	1	4
04/02	10	Economic	Local	SOLR	398	530
04/02	10	Economic	Local	WIND	17	18
04/02	10	Economic	System	SOLR	9	15
04/02	10	SelfSchCut	Local	SOLR	25	38
04/02	11	Economic	Local	SOLR	717	941
04/02	11	Economic	Local	WIND	17	17
04/02	11	Economic	System	SOLR	15	15
04/02	11	SelfSchCut	Local	SOLR	44	42
04/02	12	Economic	Local	SOLR	767	931
04/02	12	Economic	Local	WIND	17	17
04/02	12	Economic	System	SOLR	17	15
04/02	12	SelfSchCut	Local	SOLR	43	46
04/02	13	Economic	Local	SOLR	700	882
04/02	13	Economic	Local	WIND	17	17
04/02	13	Economic	System	SOLR	16	16
04/02	13	SelfSchCut	Local	SOLR	48	46
04/02	14	Economic	Local	SOLR	669	914
04/02	14	Economic	Local	WIND	17	17
04/02	14	Economic	System	SOLR	10	2
04/02	14	SelfSchCut	Local	SOLR	30	37
04/02	15	Economic	Local	SOLR	60	163
04/02	15	Economic	Local	WIND	2	2
04/02	15	Economic	System	SOLR	9	9
04/02	15	SelfSchCut	Local	SOLR	18	35
04/02	16	Economic	Local	SOLR	37	54

04/02	16	SelfSchCut	Local	SOLR	51	67
04/02	17	Economic	Local	SOLR	190	305
04/02	17	Economic	Local	WIND	1	2
04/02	17	Economic	System	SOLR	4	1
04/02	17	SelfSchCut	Local	SOLR	52	42
04/02	18	Economic	Local	SOLR	97	196
04/02	18	Economic	System	SOLR	0	1
04/02	18	SelfSchCut	Local	SOLR	18	42

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](mailto:ShortTermForecasting@caiso.com).