Wind and Solar Curtailment March 31, 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[1]. This report should be read in the context of the Renewables Watch report for a more complete understanding of both renewable curtailment and generation[2].

Wind and solar curtailments are grouped into the following categories:

1. Economic - Local: Market dispatch of generators with economic bids to mitigate local congestion[3].
2. Economic - System: Market dispatch of generators with economic bids to mitigate system-wide oversupply[4].
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.
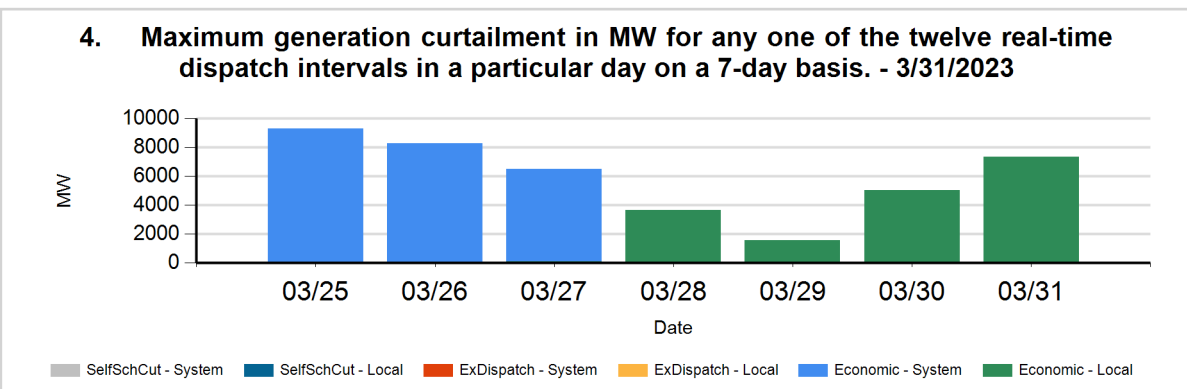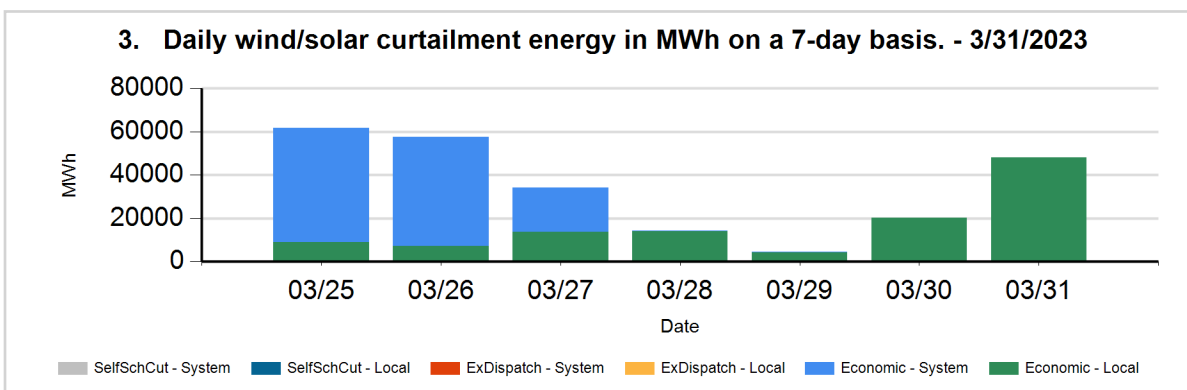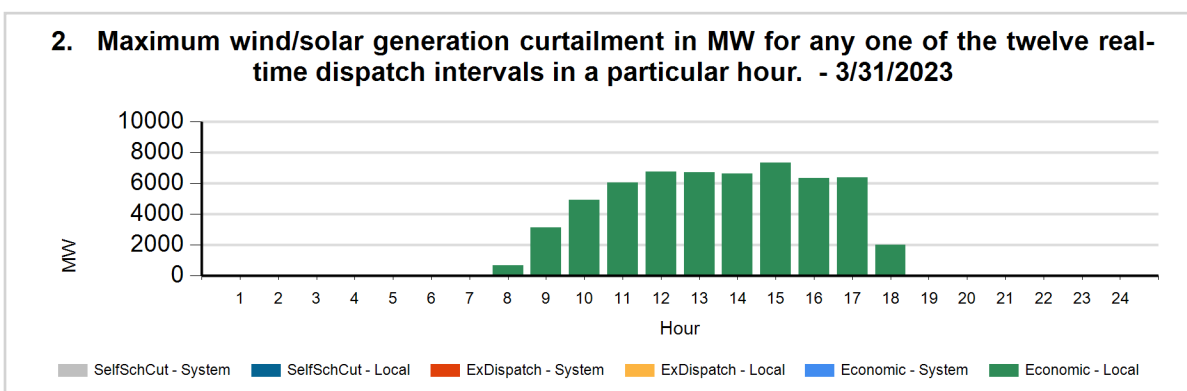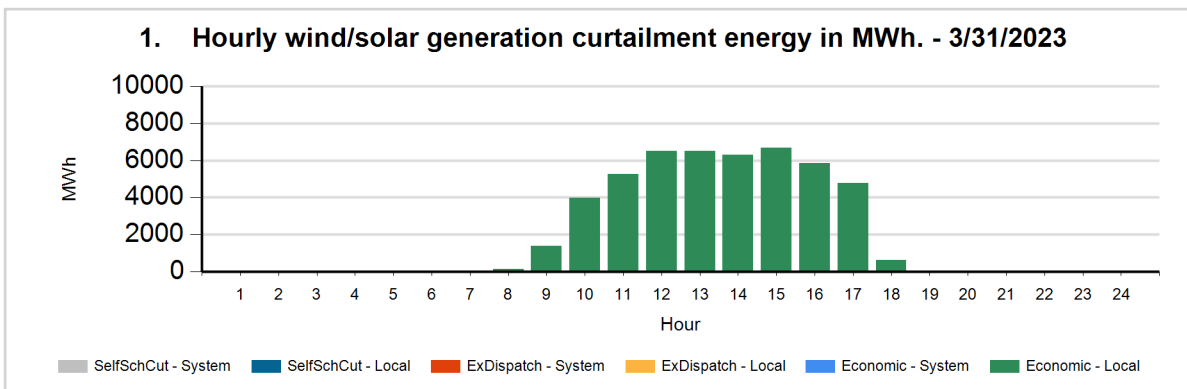
[1]Only wind and solar resources can be reported in this manner because these resources have a forecast. Curtailment is defined as the difference between actual production and the forecast when actual production is less than the forecast.

[2]The Renewables Watch report provides daily actual renewable production within the ISO grid. It is available at: http://www.caiso.com/green/renewableswatch.html.
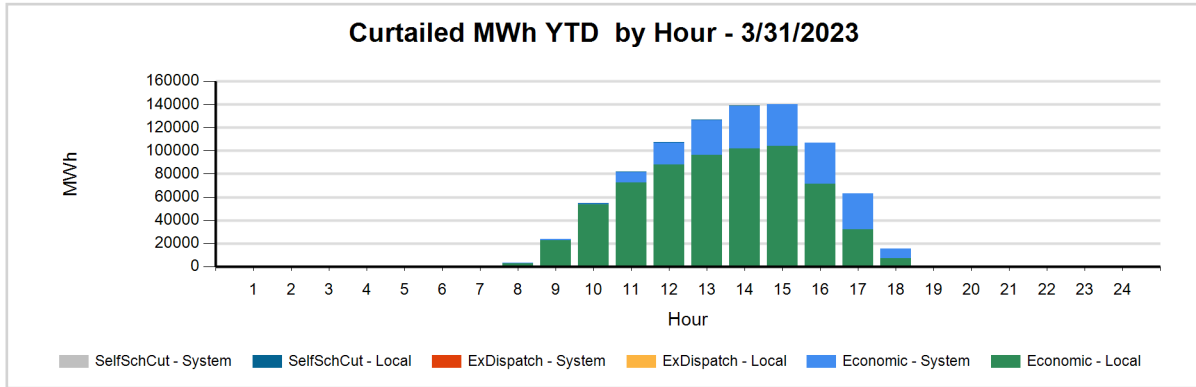
[3]Congestion occurs when available, least-cost energy cannot be delivered to some loads because transmission facilities do not have sufficient capacity to deliver the energy.

[4]For 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. - 3/31/2023

Legend: SelfSchCut - System, SelfSchCut - Local, ExDispatch - System, ExDispatch - Local, Economic - System, Economic - Local

2. Maximum wind/solar generation curtailment in MW for any one of the twelve real-time dispatch intervals in a particular hour. - 3/31/2023

Legend: SelfSchCut - System, SelfSchCut - Local, ExDispatch - System, ExDispatch - Local, Economic - System, Economic - Local

3. Daily wind/solar curtailment energy in MWh on a 7-day basis. - 3/31/2023

Legend: SelfSchCut - System, SelfSchCut - Local, ExDispatch - System, ExDispatch - Local, Economic - System, Economic - Local

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. - 3/31/2023

Legend: SelfSchCut - System, SelfSchCut - Local, ExDispatch - System, ExDispatch - Local, Economic - System, Economic - Local

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

Curtailed MWh YTD by Hour - 3/31/2023

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

Curtailed MWh YTD by Month - 3/31/2023
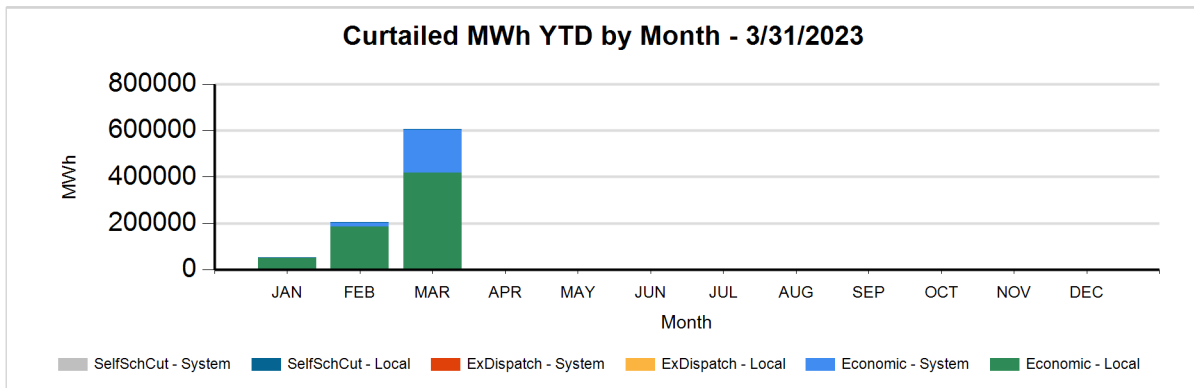
TYPE	YTD CURTAILED MWH - 3/31/2023
LocalEconomic	652,191
LocalSelfSchCut	12
SystemEconomic	211,142
TOTAL	863,345

Data used to produce hourly chart

DATE	HOUR	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
03/31	8	Economic	Local	SOLR	147	656
03/31	9	Economic	Local	SOLR	1367	3097
03/31	9	Economic	Local	WIND	9	12
03/31	10	Economic	Local	SOLR	3962	4794
03/31	10	Economic	Local	WIND	30	106
03/31	11	Economic	Local	SOLR	5196	5940
03/31	11	Economic	Local	WIND	57	114
03/31	12	Economic	Local	SOLR	6406	6658
03/31	12	Economic	Local	WIND	114	118
03/31	13	Economic	Local	SOLR	6426	6620
03/31	13	Economic	Local	WIND	90	91
03/31	14	Economic	Local	SOLR	6217	6551
03/31	14	Economic	Local	WIND	75	75
03/31	15	Economic	Local	SOLR	6603	7279
03/31	15	Economic	Local	WIND	76	58
03/31	16	Economic	Local	SOLR	5757	6265
03/31	16	Economic	Local	WIND	87	93
03/31	17	Economic	Local	SOLR	4716	6265
03/31	17	Economic	Local	WIND	72	106
03/31	18	Economic	Local	SOLR	613	1956
03/31	18	Economic	Local	WIND	18	31
03/31	19	Economic	Local	SOLR	3	21