Wind and Solar Curtailment February 06, 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[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.
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.
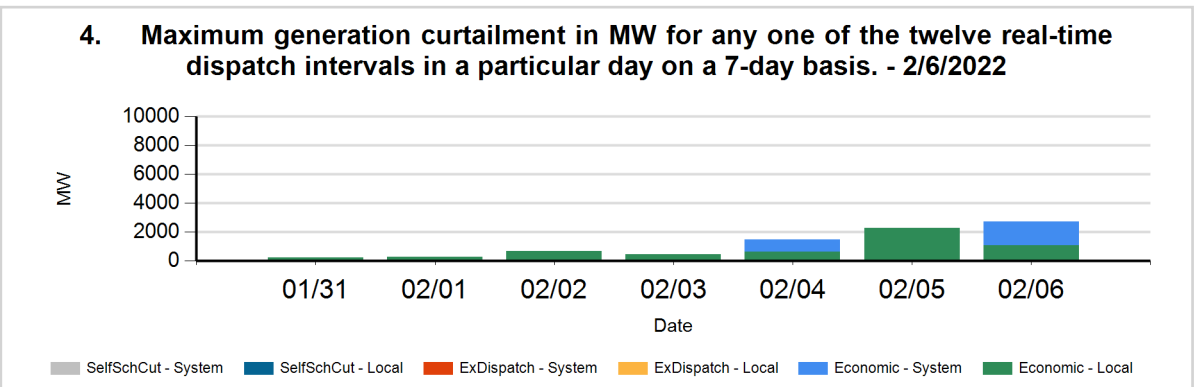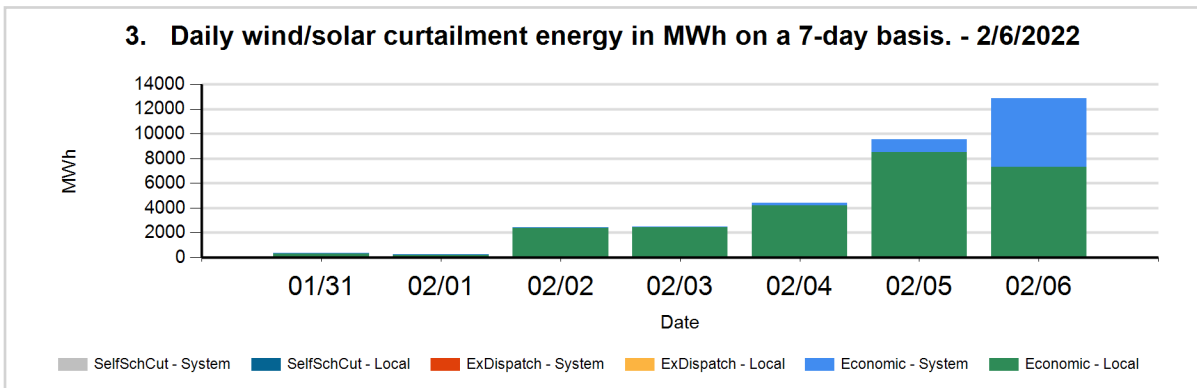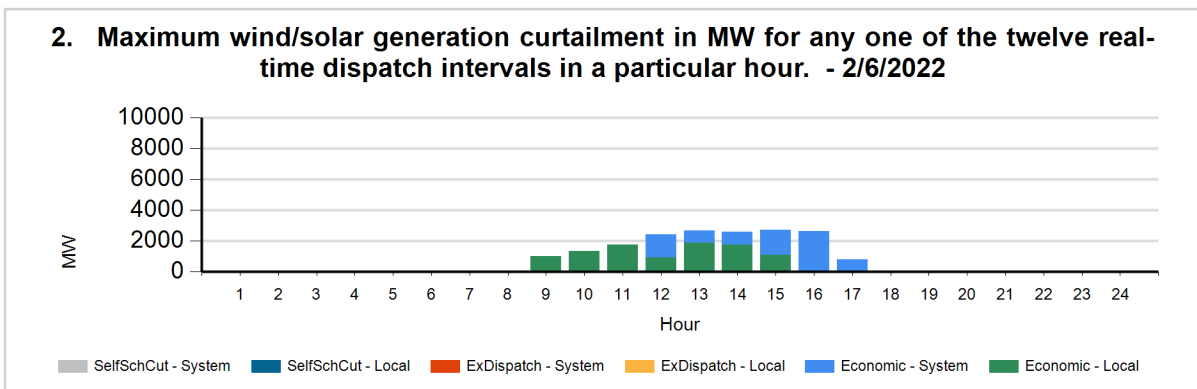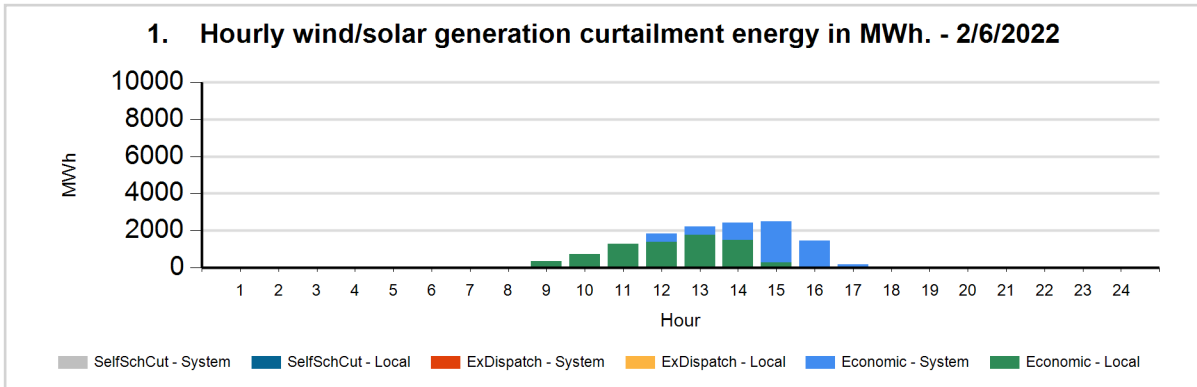
[1]Only wind and solar resources can be reported in this manner because these resources have a forecast. Curtailment is defined as the difference between actual production and the forecast when actual production is less than the forecast.

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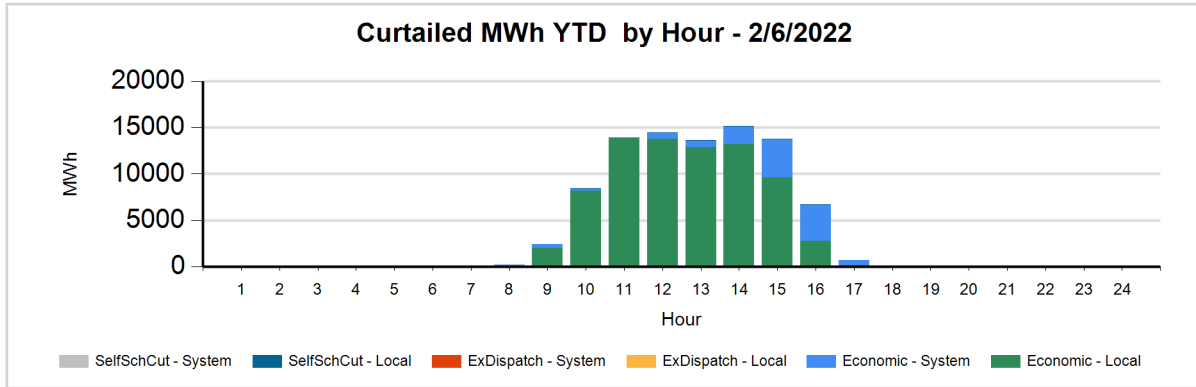
[3]Congestion occurs when available, least-cost energy cannot be delivered to some loads because transmission facilities do not have sufficient capacity to deliver the energy.

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. - 2/6/2022

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. - 2/6/2022

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. - 2/6/2022

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. - 2/6/2022

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 - 2/6/2022

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

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

Curtailed MWh YTD by Month - 2/6/2022

Legend: SelfSchCut - System | SelfSchCut - Local | ExDispatch - System | ExDispatch - Local | Economic - System | Economic - Local
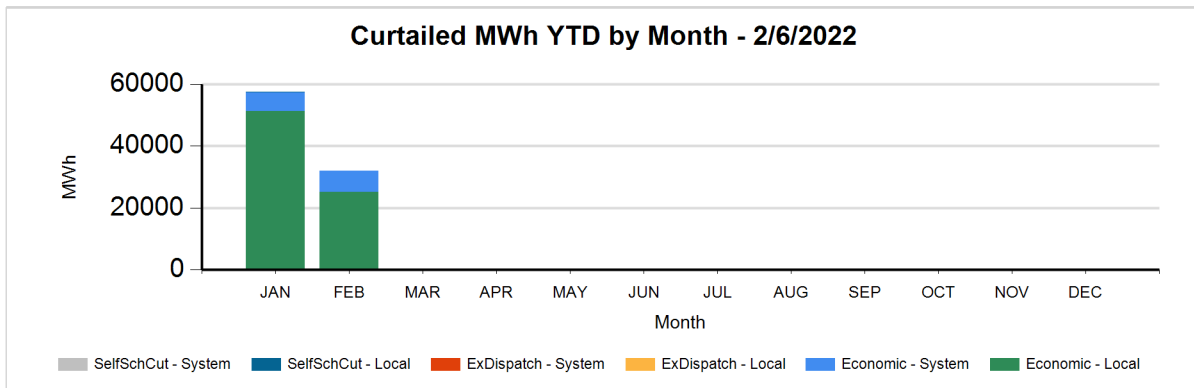
TYPE	YTD CURTAILED MWH - 2/6/2022
LocalEconomic	76,468
LocalSelfSchCut	64
SystemEconomic	12,918
TOTAL	89,450

Data used to produce hourly chart

DATE	HOUR	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
02/06	8	Economic	Local	SOLR	5	27
02/06	9	Economic	Local	SOLR	344	958
02/06	9	Economic	Local	WIND	2	27
02/06	9	Economic	System	SOLR	0	
02/06	10	Economic	Local	SOLR	723	1348
02/06	10	Economic	Local	WIND	4	
02/06	11	Economic	Local	SOLR	1274	1764
02/06	11	Economic	Local	WIND	7	5
02/06	12	Economic	Local	SOLR	1394	916
02/06	12	Economic	Local	WIND	2	1
02/06	12	Economic	System	SOLR	423	1516
02/06	12	Economic	System	WIND	2	1
02/06	13	Economic	Local	SOLR	1749	1864
02/06	13	Economic	Local	WIND	11	8
02/06	13	Economic	System	SOLR	456	784
02/06	13	Economic	System	WIND	3	1
02/06	14	Economic	Local	SOLR	1486	1728
02/06	14	Economic	Local	WIND	2	4
02/06	14	Economic	System	SOLR	912	839
02/06	14	Economic	System	WIND	5	2
02/06	15	Economic	Local	SOLR	263	1076
02/06	15	Economic	Local	WIND	0	3
02/06	15	Economic	System	SOLR	2206	1639
02/06	15	Economic	System	WIND	3	
02/06	16	Economic	Local	SOLR	22	21
02/06	16	Economic	System	SOLR	1414	2619
02/06	16	Economic	System	WIND	15	
02/06	17	Economic	System	SOLR	153	726
02/06	17	Economic	System	WIND	4	45