Wind and Solar Curtailment October 19, 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.
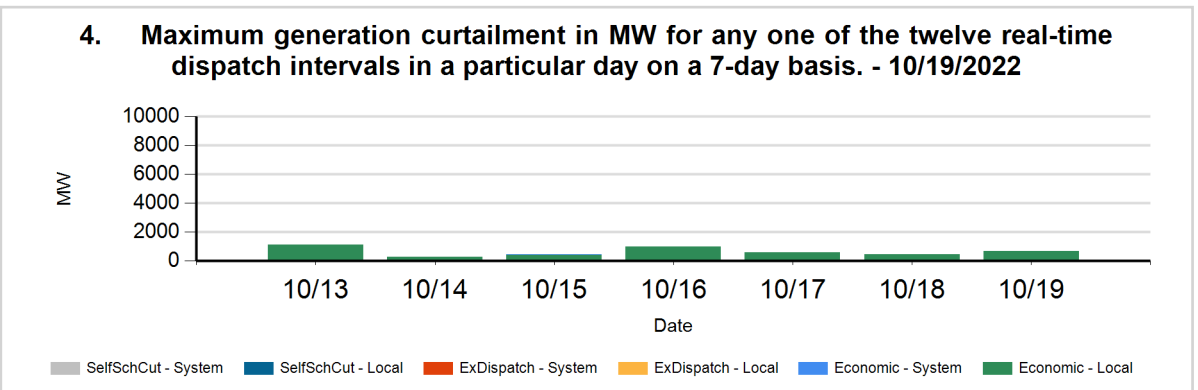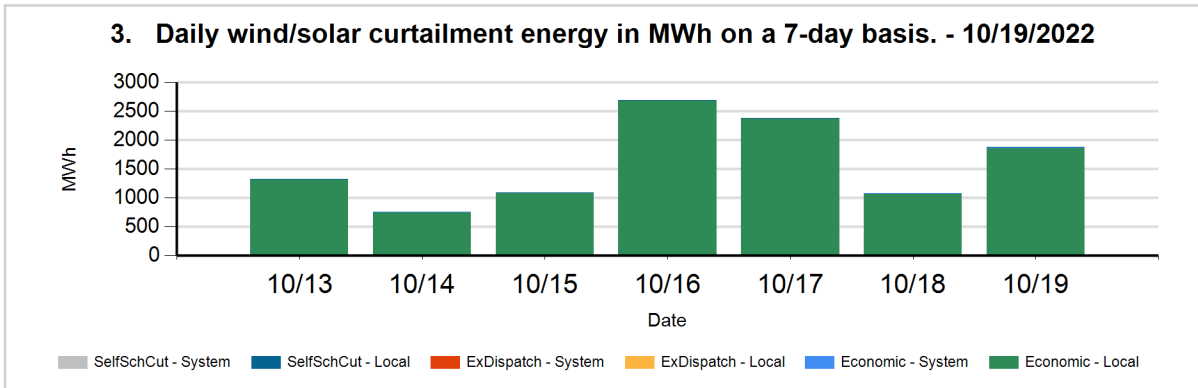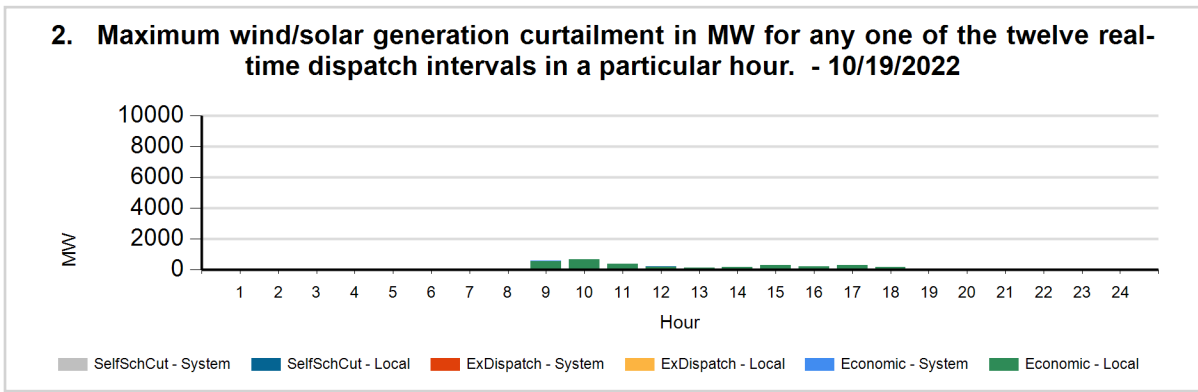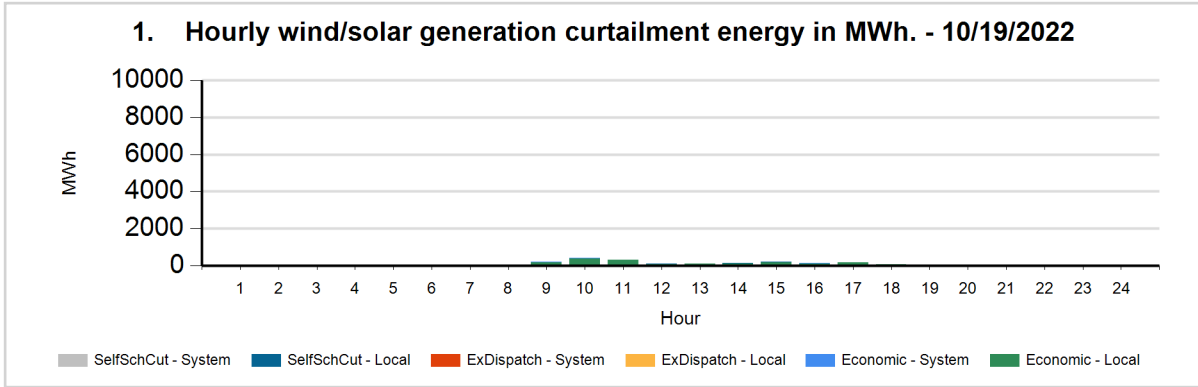
[1]Only wind and solar resources can be reported in this manner because these resources have a forecast. Curtailment is defined as the difference between actual production and the forecast when actual production is less than the forecast.

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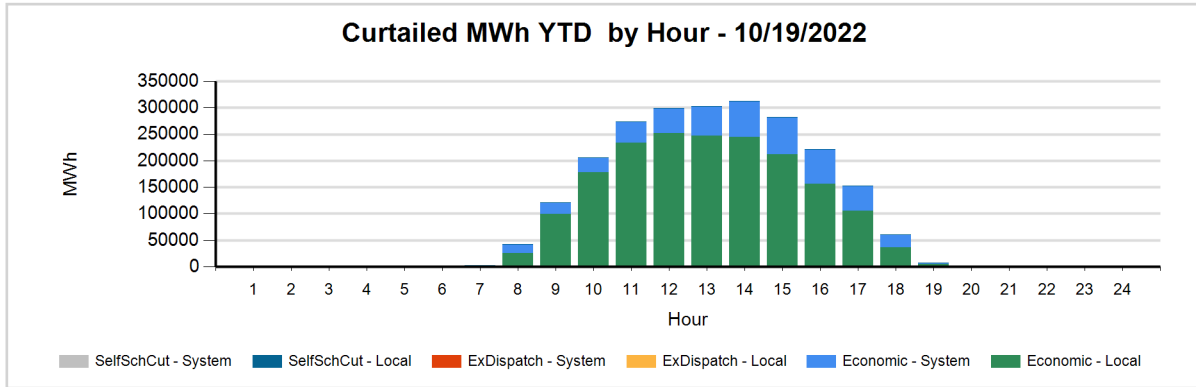
[3]Congestion occurs when available, least-cost energy cannot be delivered to some loads because transmission facilities do not have sufficient capacity to deliver the energy.

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.

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1. Hourly wind/solar generation curtailment energy in MWh. - 10/19/2022

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

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2. Maximum wind/solar generation curtailment in MW for any one of the twelve real-time dispatch intervals in a particular hour. - 10/19/2022

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

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3. Daily wind/solar curtailment energy in MWh on a 7-day basis. - 10/19/2022

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

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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. - 10/19/2022

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 - 10/19/2022

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 - 10/19/2022

SelfSchCut - System   SelfSchCut - Local   ExDispatch - System   ExDispatch - Local   Economic - System   Economic - Local
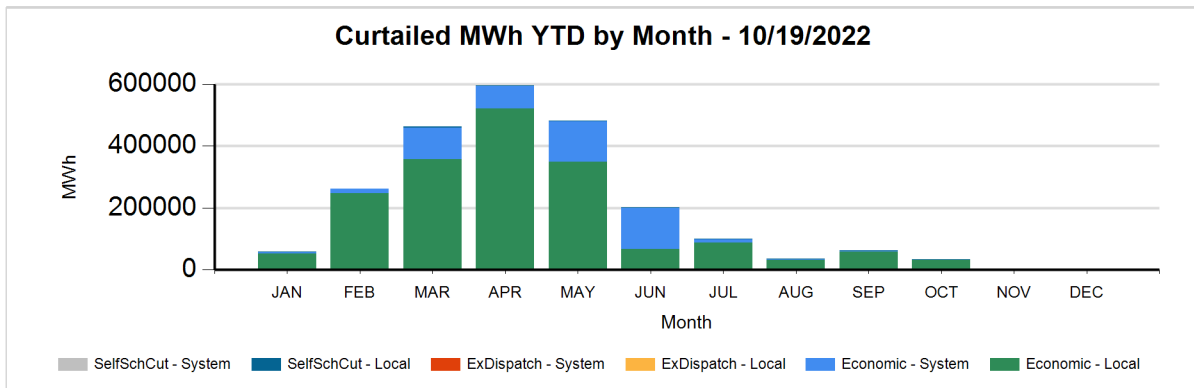
TYPE	YTD CURTAILED MWH - 10/19/2022
LocalEconomic	1,798,871
LocalSelfSchCut	6,287
SystemEconomic	485,349
TOTAL	2,290,507

Data used to produce hourly chart

DATE	HOUR	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
10/19	8	Economic	Local	SOLR	11	31
10/19	9	Economic	Local	SOLR	186	550
10/19	9	Economic	Local	WIND	17	43
10/19	9	Economic	System	SOLR	4	1
10/19	10	Economic	Local	SOLR	336	574
10/19	10	Economic	Local	WIND	89	102
10/19	10	Economic	System	SOLR	1	
10/19	11	Economic	Local	SOLR	218	272
10/19	11	Economic	Local	WIND	87	118
10/19	11	SelfSchCut	Local	SOLR	0	
10/19	12	Economic	Local	SOLR	81	155
10/19	12	Economic	Local	WIND	22	61
10/19	12	SelfSchCut	Local	SOLR	2	2
10/19	13	Economic	Local	SOLR	65	76
10/19	13	Economic	Local	WIND	20	24
10/19	13	SelfSchCut	Local	SOLR	0	
10/19	14	Economic	Local	SOLR	89	135
10/19	14	Economic	Local	WIND	37	39
10/19	14	SelfSchCut	Local	SOLR	1	
10/19	15	Economic	Local	SOLR	138	171
10/19	15	Economic	Local	WIND	75	110
10/19	15	SelfSchCut	Local	SOLR	1	
10/19	16	Economic	Local	SOLR	56	104
10/19	16	Economic	Local	WIND	63	110
10/19	16	Economic	System	SOLR	1	
10/19	17	Economic	Local	SOLR	96	188
10/19	17	Economic	Local	WIND	80	110
10/19	18	Economic	Local	SOLR	20	69
10/19	18	Economic	Local	WIND	43	81
10/19	19	Economic	Local	WIND	35	37
10/19	22	Economic	Local	WIND	1	4