ERCOT Monthly Operational Overview
(June 2021)

ERCOT Public
July 19, 2021

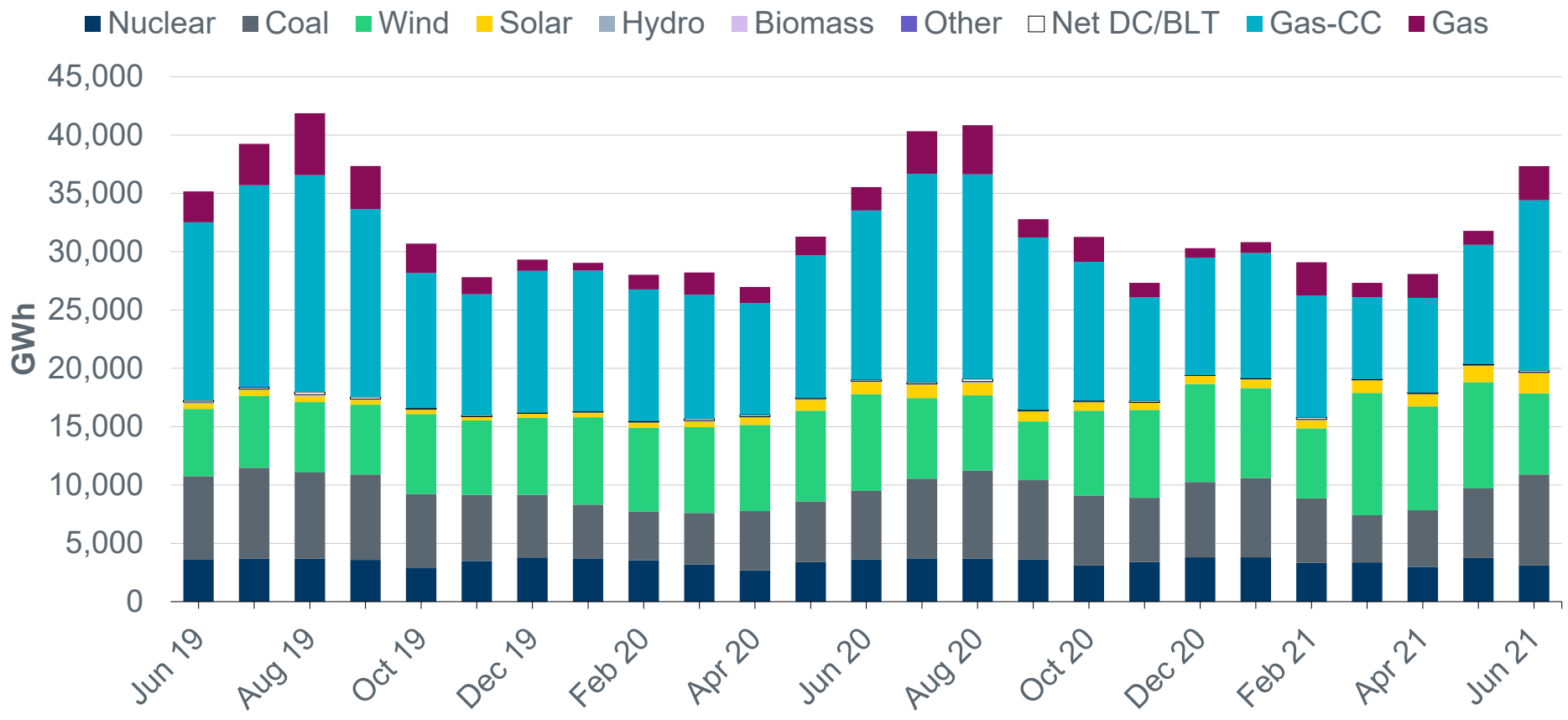
Notifications and Records

- ERCOT set an all-time June peak demand of 70,219 MW on June 23, 2021, which is 1,096 MW more than the previous record of 69,123 MW set on June 27, 2018. This is also 2,073 MW more than the June 2020 peak demand of 68,146 MW.

- ERCOT issued 17 notifications:
  - 3 Advisories for Physical Responsive Capability < 3000 MW.
  - 14 OCNs for projected reserve capacity shortages.

* Preliminary value from July release of Demand and Energy 2021 report.

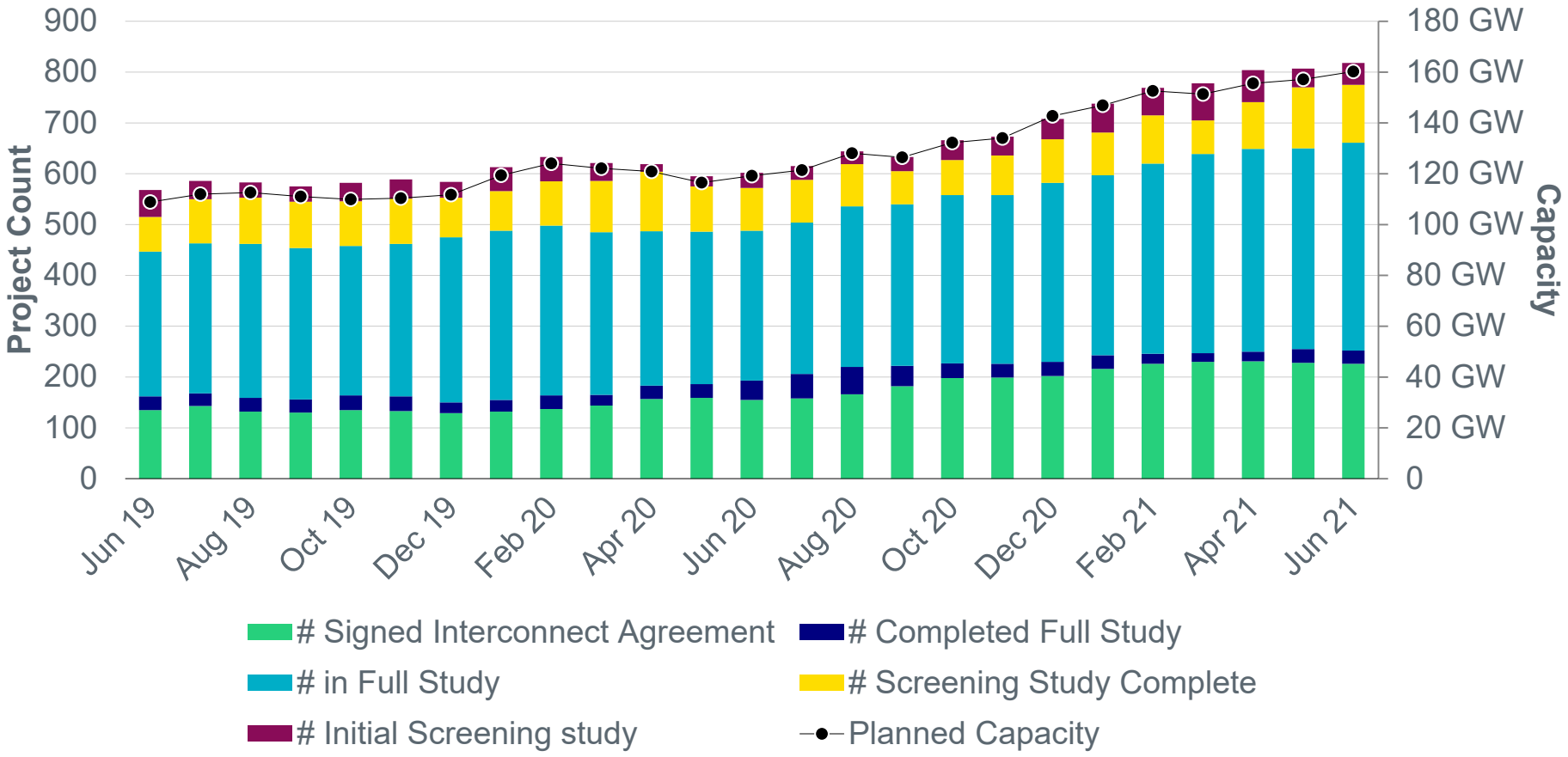
Monthly energy generation increased by 5.1% year-over-year to 37,334 GWh in June 2021, compared to 35,530 GWh in June 2020



Data for latest two months are based on preliminary settlements.

Generation Interconnection activity by project phase

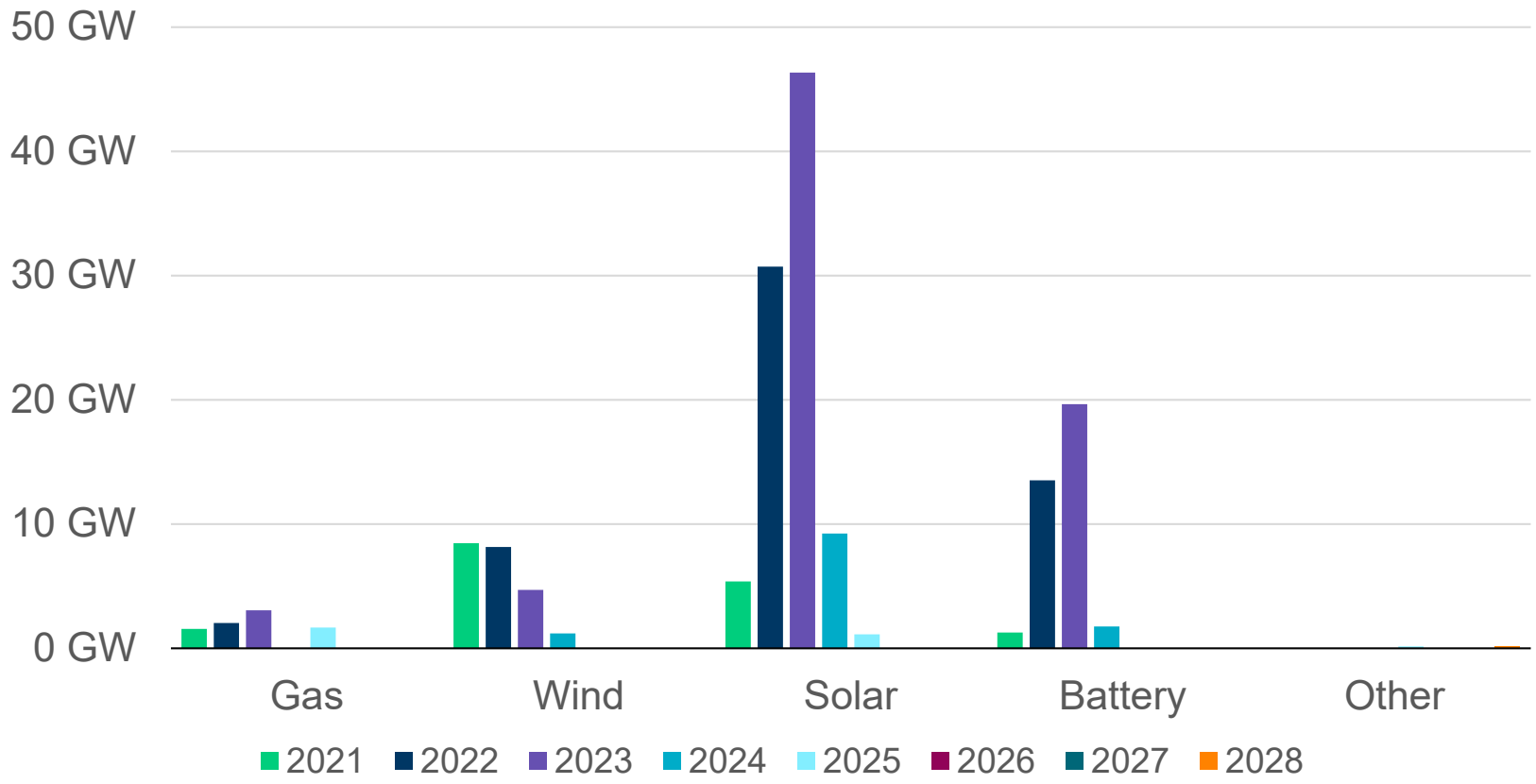
(Excludes capacity associated with Projects designated as Inactive per Planning Guide Section 5.7.6)



A break-out by fuel type can be found in the monthly Generator Interconnection Status (GIS) reports available on the ERCOT Resource Adequacy Page: http://www.ercot.com/gridinfo/resource

Interconnection Queue Capacity by Fuel Type

Queue totals: Solar 93 GW (57.9%), Wind 23 GW (14.1%), Gas 8 GW (5.2%), Battery 36 GW (22.6%)
(Excludes capacity associated with Projects designated as Inactive per Planning Guide Section 5.7.6)



A break-out by zone can be found in the monthly Generator Interconnection Status (GIS) reports available on the ERCOT Resource Adequacy Page: http://www.ercot.com/gridinfo/resource

Planning Summary

- ERCOT was tracking 818 active generation interconnection requests totaling 160,231 MW as of June 30. This includes 92,815 MW of solar, 22,519 MW of wind, 36,207 MW of battery, and 8,341 MW of gas projects as of June 30, 2021; 61 projects were categorized as inactive, up from 57 inactive projects in May.

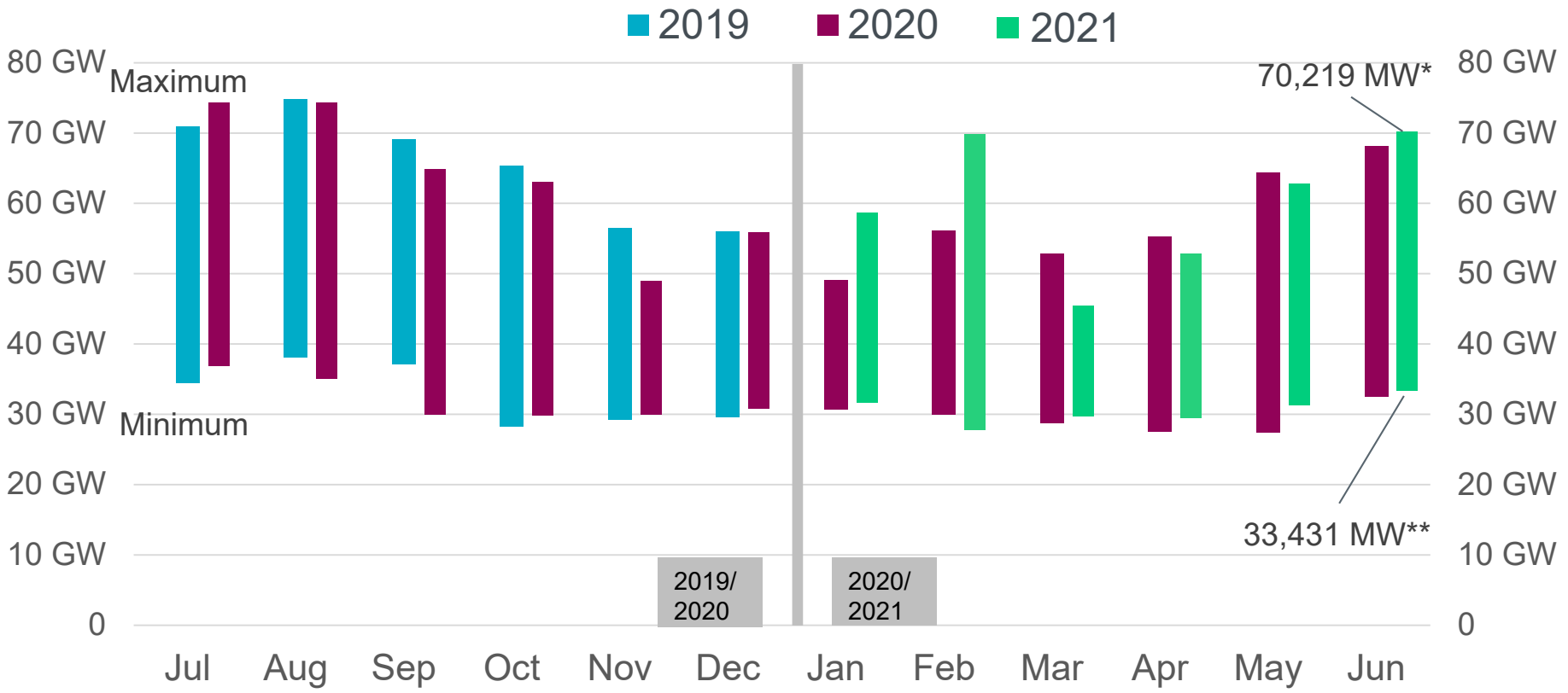
- ERCOT is currently reviewing proposed transmission improvements with a total estimated cost of $1,237.55 Million as of June 30, 2021.

- Transmission Projects endorsed in 2021 total $527.76 Million as of June 30, 2021.

- All projects (in engineering, routing, licensing and construction) total approximately $7.44 Billion as of June 1, 2021.

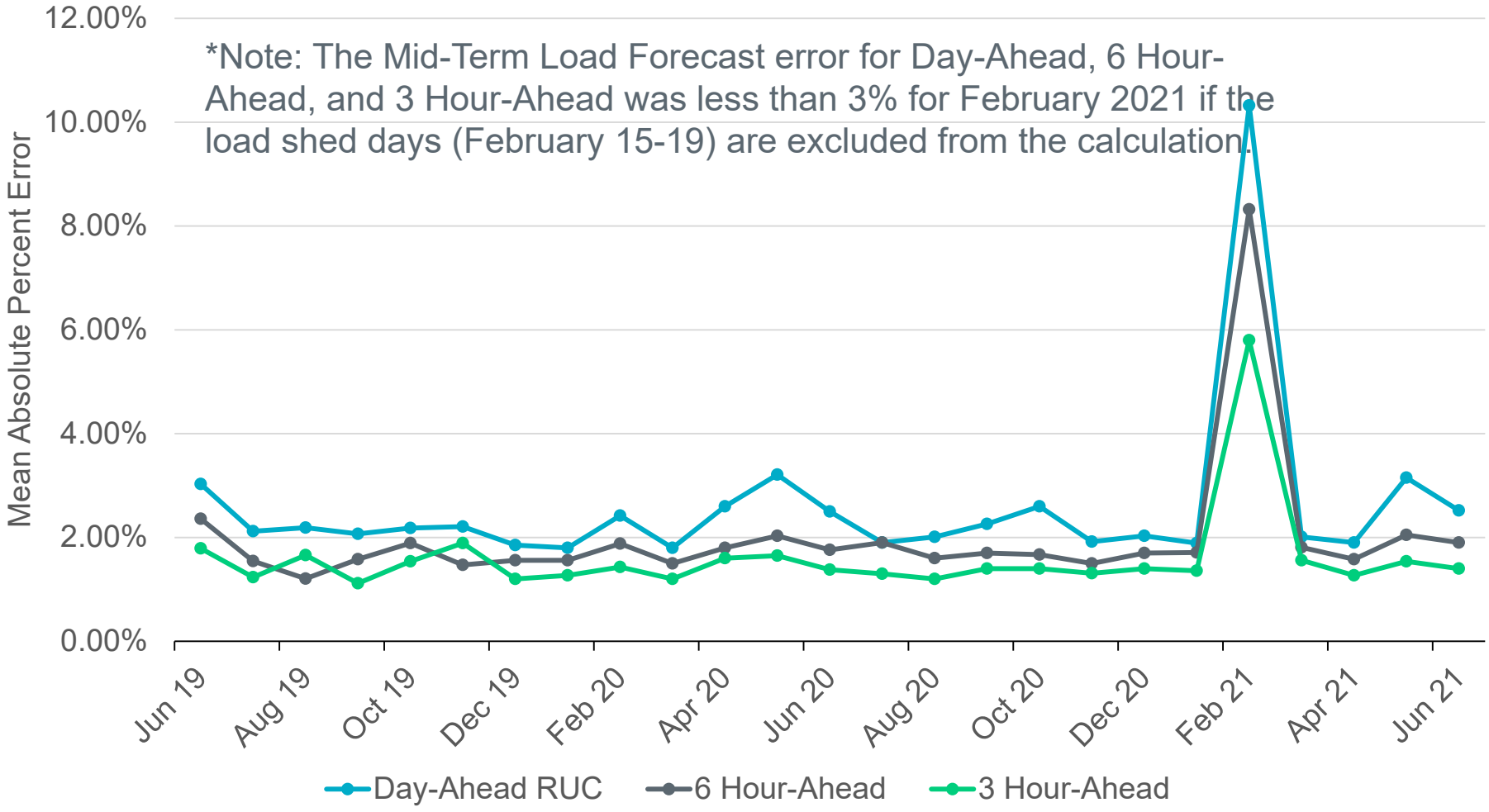
- Transmission Projects energized in 2021 total about $999.2 Million as of June 1, 2021.

ERCOT set a maximum peak demand of 70,219 MW* in June 2021, which is 2,073 MW more than the June 2020 demand of 68,146 MW



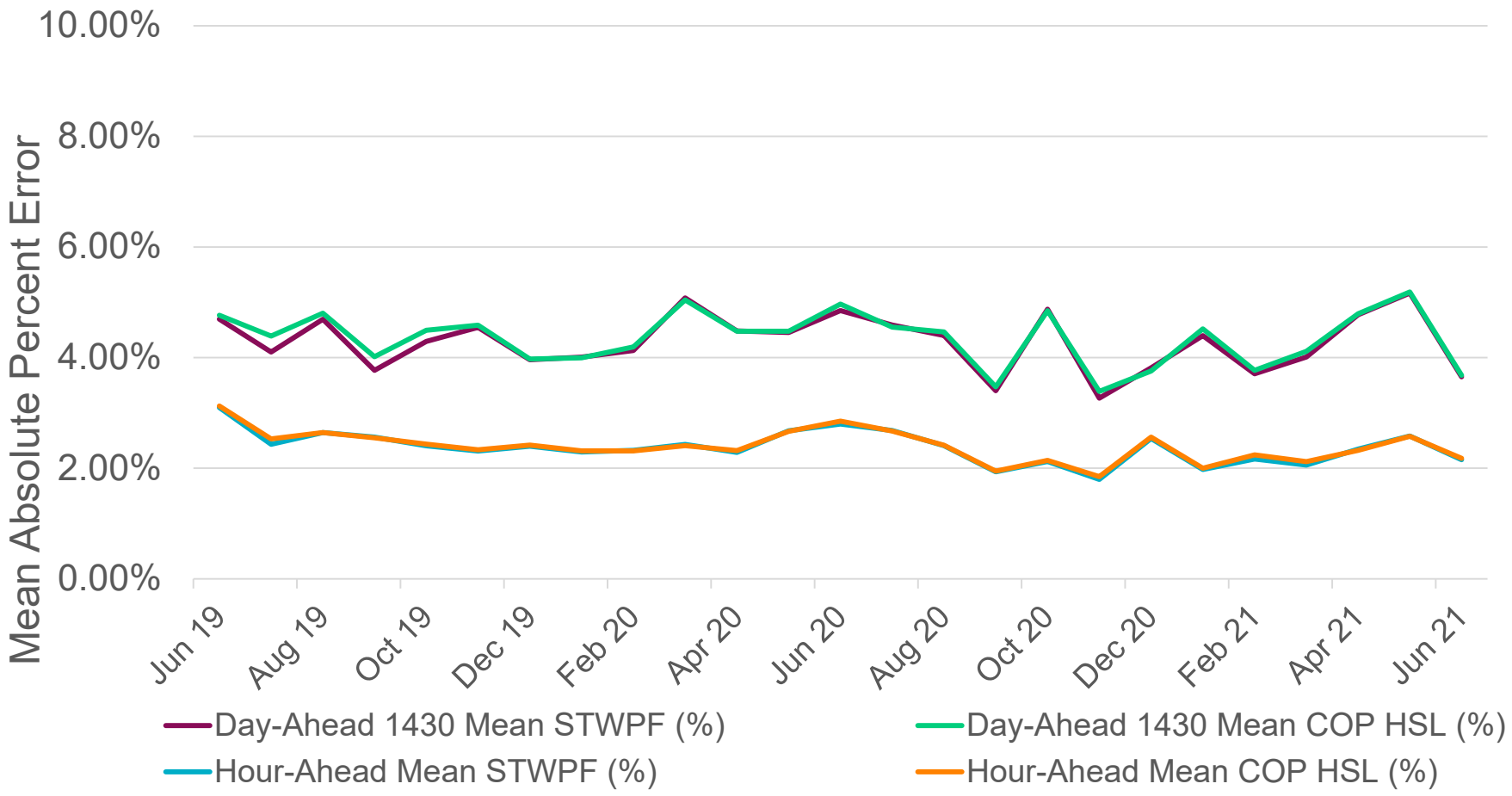
*Based on the maximum net system hourly value from July release of Demand and Energy 2021 report.
**Based on the minimum net system 15-minute interval value from July release of Demand and Energy 2021 report.
Data for latest two months are based on preliminary settlements.

Mid-Term Load Forecast Performance



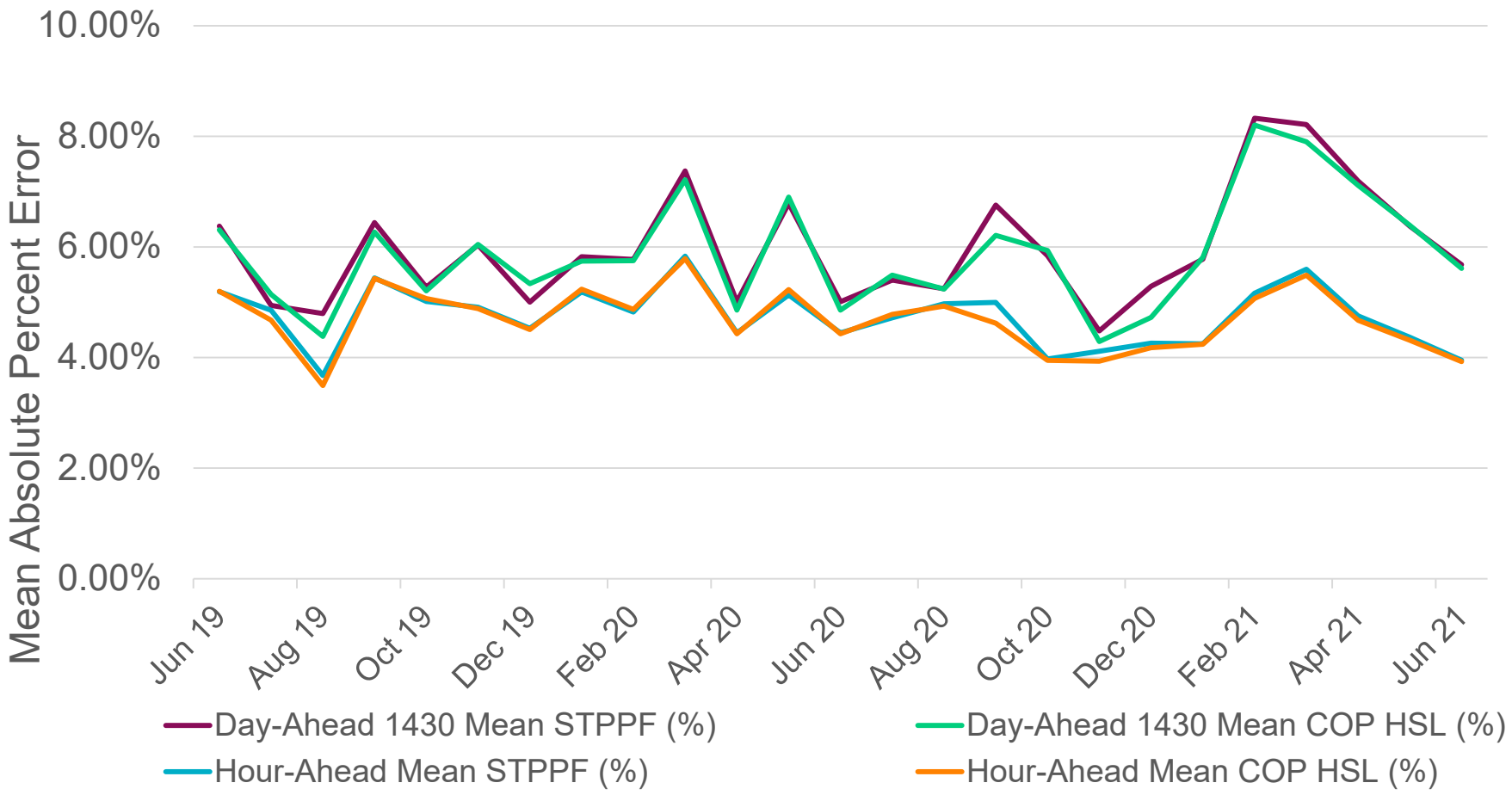
The Mid-Term Load Forecast is an hourly forecast that looks 7 days into the future

Wind Forecast Performance



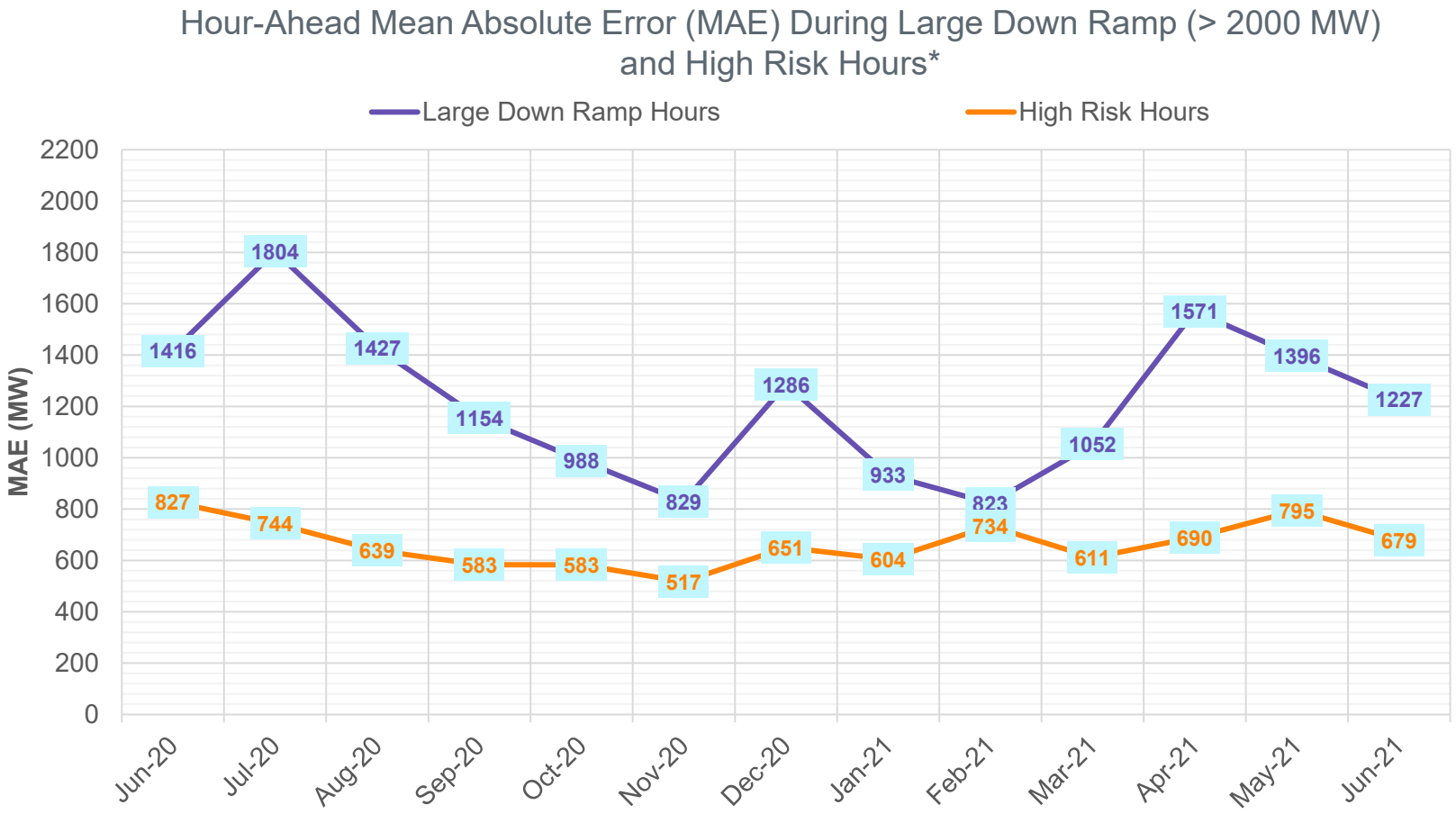
The Short-Term Wind Power Forecast (STWPF) is an ERCOT produced hourly 50% probability of exceedance forecast of the generation in MWh per hour from each Wind Generation Resource.

Solar Forecast Performance



The Short-Term Photovoltaic Power Forecast (STPPF) is an ERCOT-produced hourly 50% probability of exceedance forecast of the generation in MWh per hour from each PVGR.

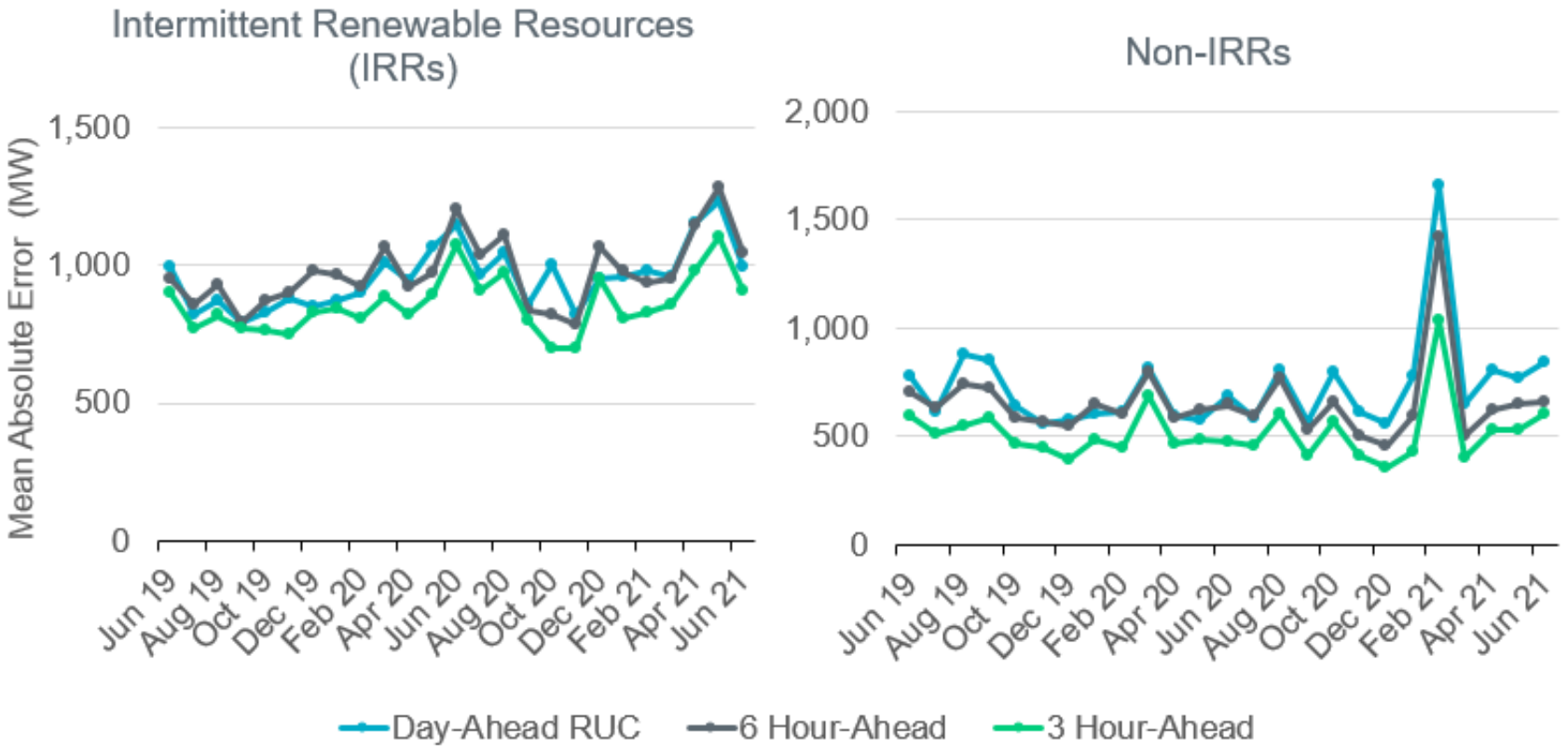
Hour-Ahead Wind Forecast Performance



**ERCOT's performance based payment structure for Wind Forecasts with both vendors incentivizes improvements in forecast performance during hours that are of more importance to operational reliability. This approach is a paradigm shift from the "traditional" methodology of measuring wind forecast performance as a singular monthly average metric.*

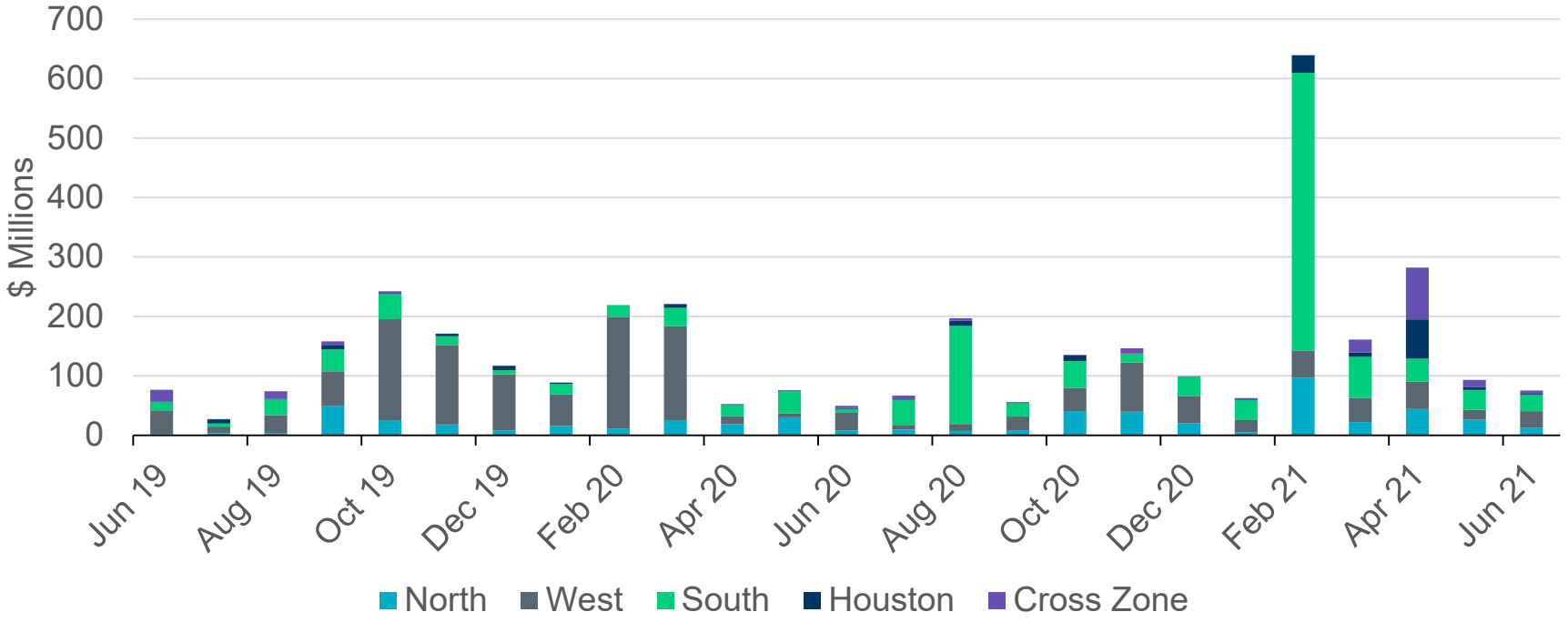
Forecast performance during large down ramp (wind ramp > 2000 MW) hours and high risk hours (historic risk of load ramping up and wind ramping down is high) is focused upon. Note that for the purposes of forecast performance measurement every hour in a month is classified as either a large down ramp hour or a high risk hour or something else. Any hour that is a high risk hour wherein a large down ramp was experienced will be tracked as a large down ramp hour.

Current Operating Plan (COP) Performance



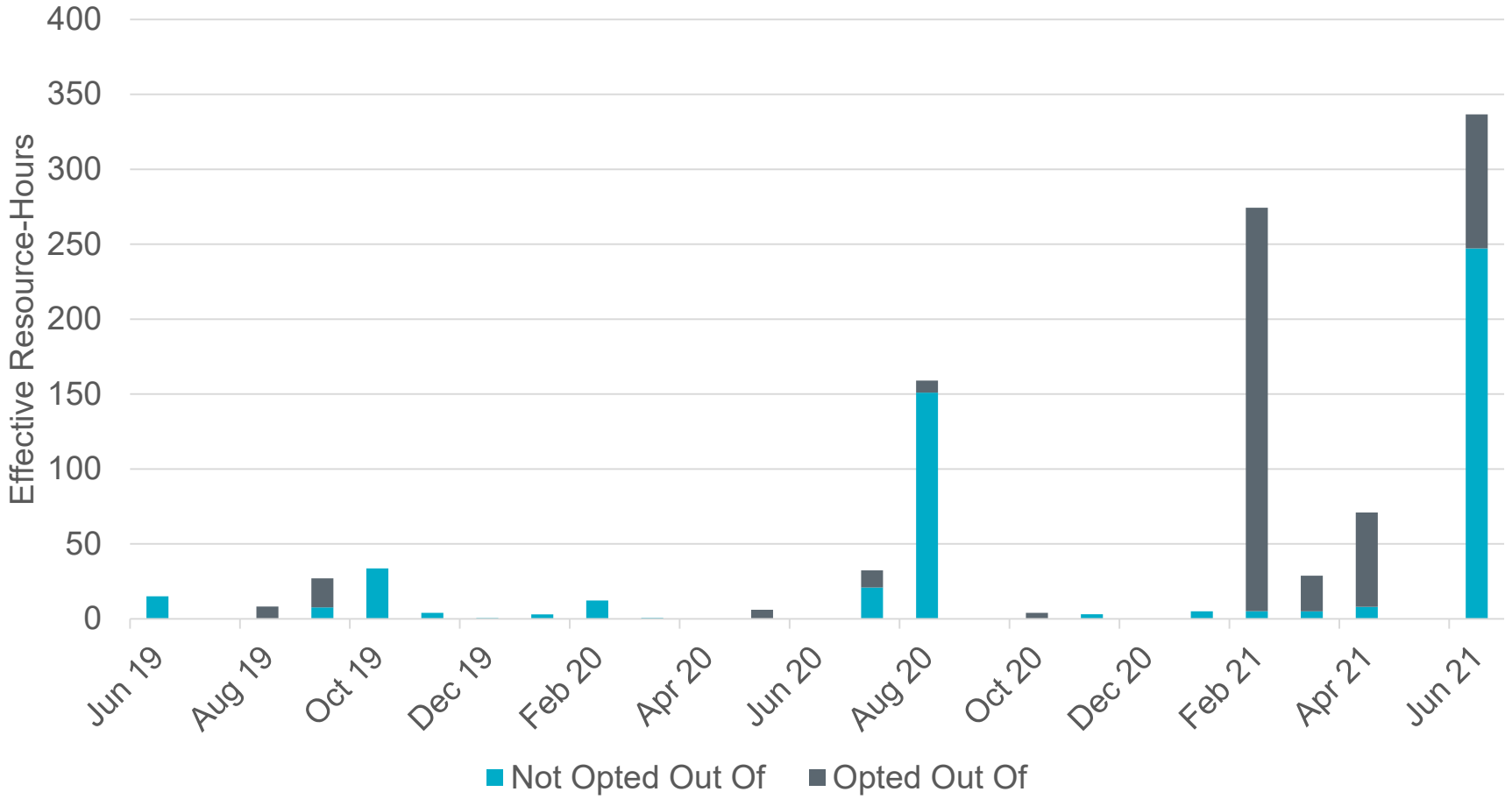
- COPs for IRRs are derived from wind and solar forecasts from ERCOT with any adjustments from Qualified Scheduling Entities.
- The installed capacity of approved Wind Units is 32,581 MW (as of June 30, 2021).
- The installed capacity of approved Solar Units is 7,880 MW (as of June 30, 2021).

Real-Time Congestion Rent by Zone



- The congestion rent for June decreased in the North Zone, Cross Zone, and increased in the West Zone when compared to May. The most significant constraints for June are BASE CASE: NE_LOB in the South Zone and XMDL58: TALLCITY_TELPR_1 in the West Zone.
- Congestion Rent is determined using the shadow prices and MW flows for individual constraints in SCED as well as the length in time of SCED intervals.
- The “Cross Zone” category consists of cases in which the substations on either end of the constraint are in different zones.

Twenty-Eight Resources were Committed through RUC in June for Capacity



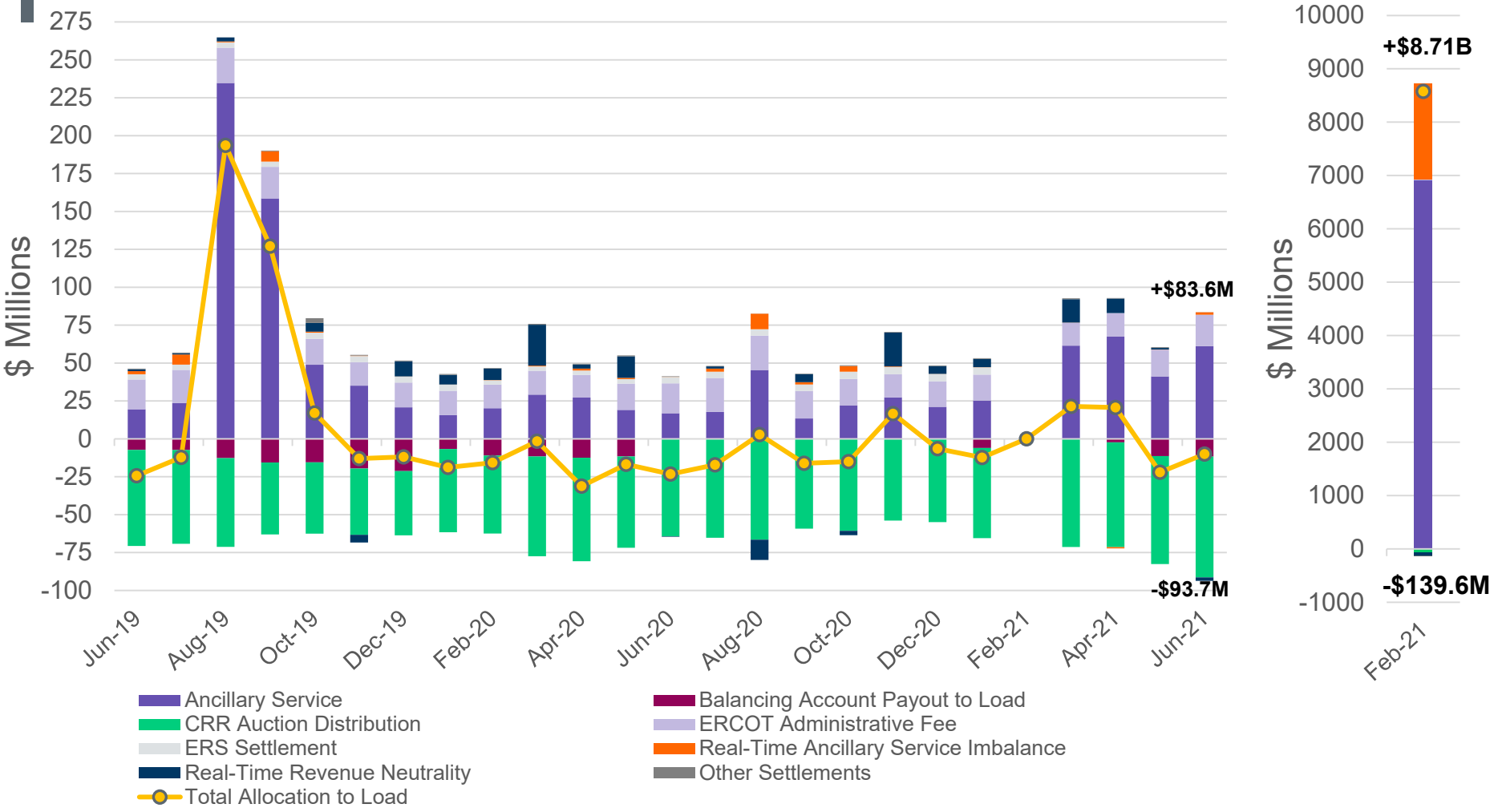
"Effective Resource-hours" excludes any period during a Reliability Unit Commitment hour when the RUC-committed Resource was starting up, shutting down, off-line, or otherwise not available for dispatch by SCED.

Twenty-Eight Resources were Committed through RUC in June for Capacity

Resource #	Effective Resource-hours	Non Opt Out (Effective Hours)	Opt Out (Effective Hours)
1	0.0	0.0	0.0
2	22.0	22.0	0.0
3	20.0	0.0	20.0
4	12.0	12.0	0.0
5	0.0	0.0	0.0
6	20.0	15.0	5.0
7	26.7	22.7	4.0
8	4.4	0.0	4.4
9	4.4	4.4	0.0
10	4.9	0.0	4.9
11	15.0	15.0	0.0
12	12.0	12.0	0.0
13	15.0	15.0	0.0
14	4.0	2.0	2.0
15	18.0	3.0	15.0
16	18.6	18.6	0.0
17	11.7	11.7	0.0
18	15.2	6.9	8.2
19	6.0	0.0	6.0
20	9.9	9.9	0.0
21	12.0	12.0	0.0
22	0.9	0.0	0.9
23	11.8	10.9	0.9
24	10.0	10.0	0.0
25	22.0	11.0	11.0
26	20.8	20.8	0.0
27	8.2	8.2	0.0
28	11.0	4.0	7.0

“Effective Resource-hours” excludes any period during a Reliability Unit Commitment hour when the RUC-committed Resource was starting up, shutting down, off-line, or otherwise not available for dispatch by SCED.

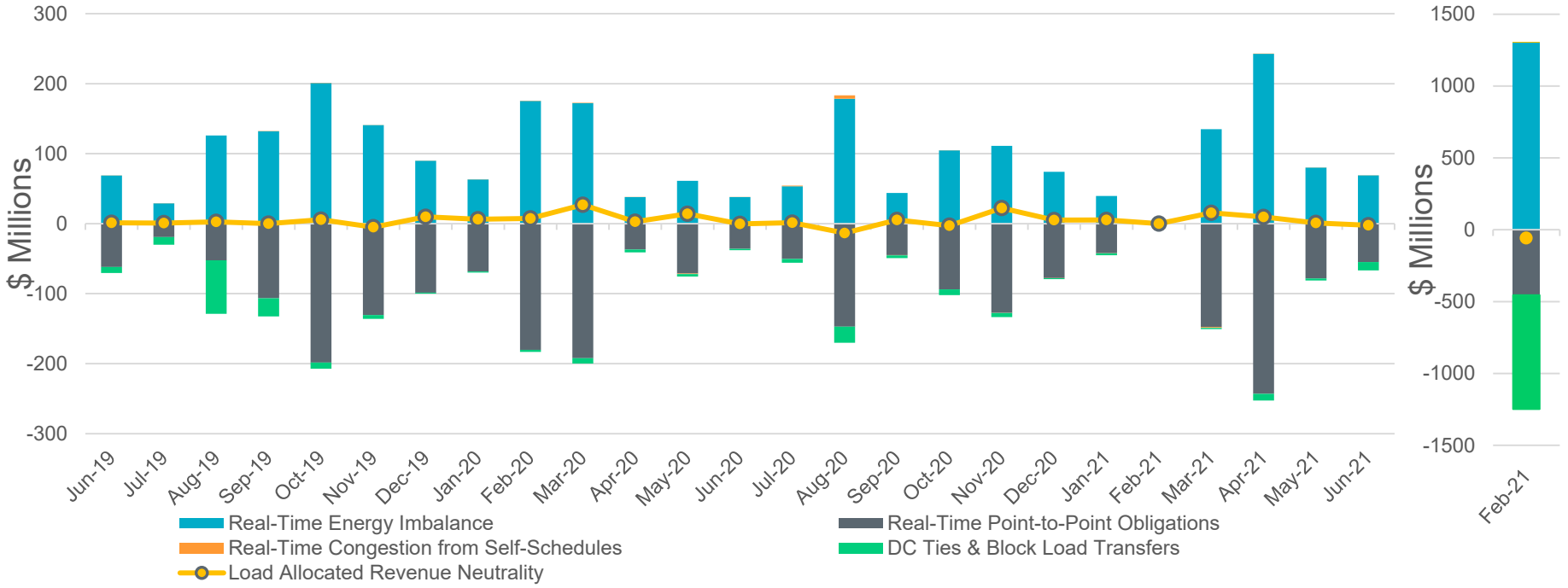
Net Allocation to Load in June 2021 was ($10.1) Million



This information is available in tabular form in the Settlement Stability Report presented quarterly to the [Wholesale Market Subcommittee]

Note: For visual purposes, February 2021 has been separated into its own graph with different scaling. The legend applies for both graphs.

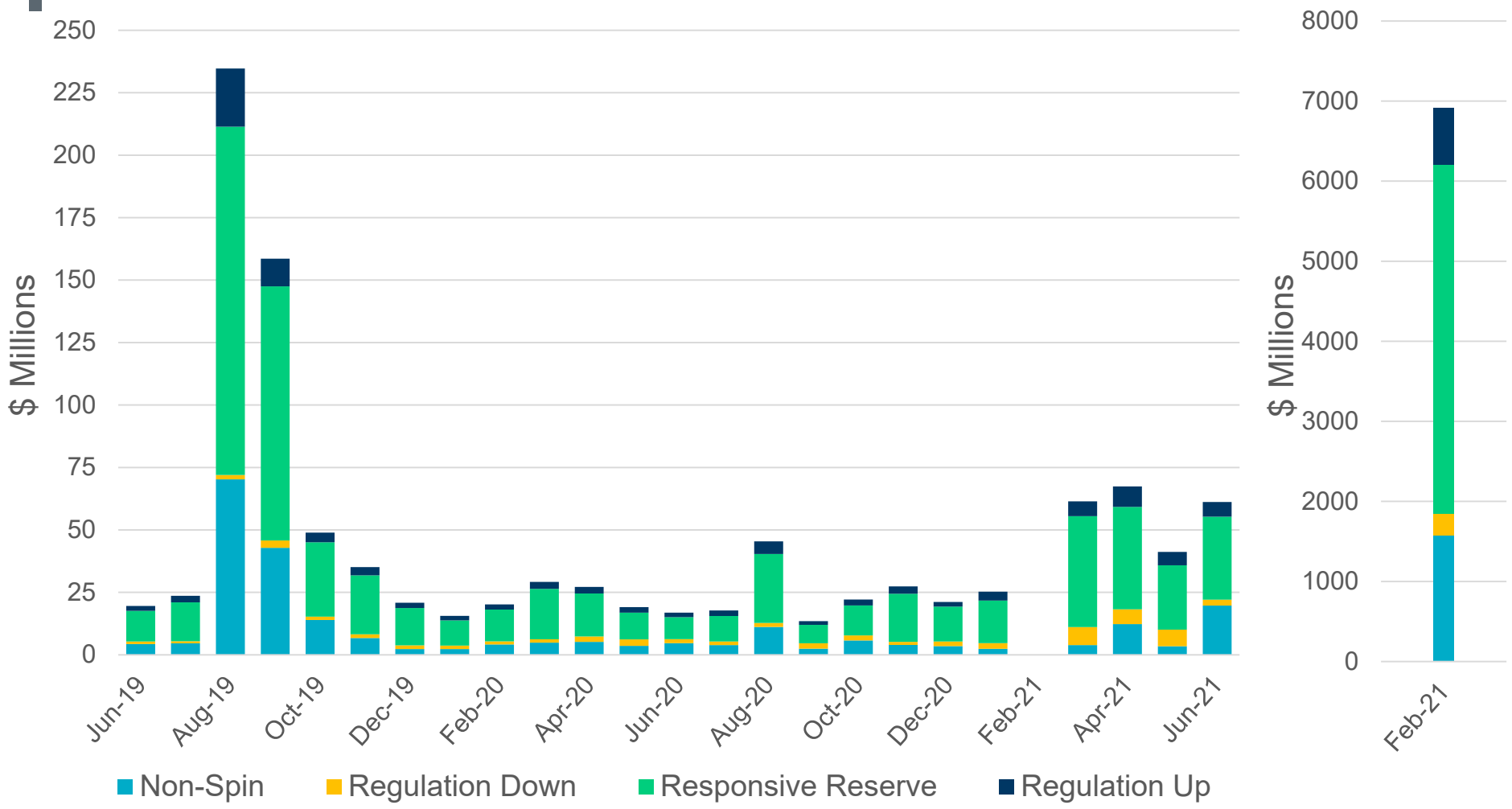
Real-Time Revenue Neutrality Allocated to Load was ($2.30M) for June 2021



	June 2021 ($M)
Real-Time Energy Imbalance	$68.99
Real-Time Point-to-Point Obligation	($54.82)
Real-Time Congestion from Self-Schedules	$0.12
DC Tie & Block Load Transfer	($11.98)
Load Allocated Revenue Neutrality	**($2.30)**

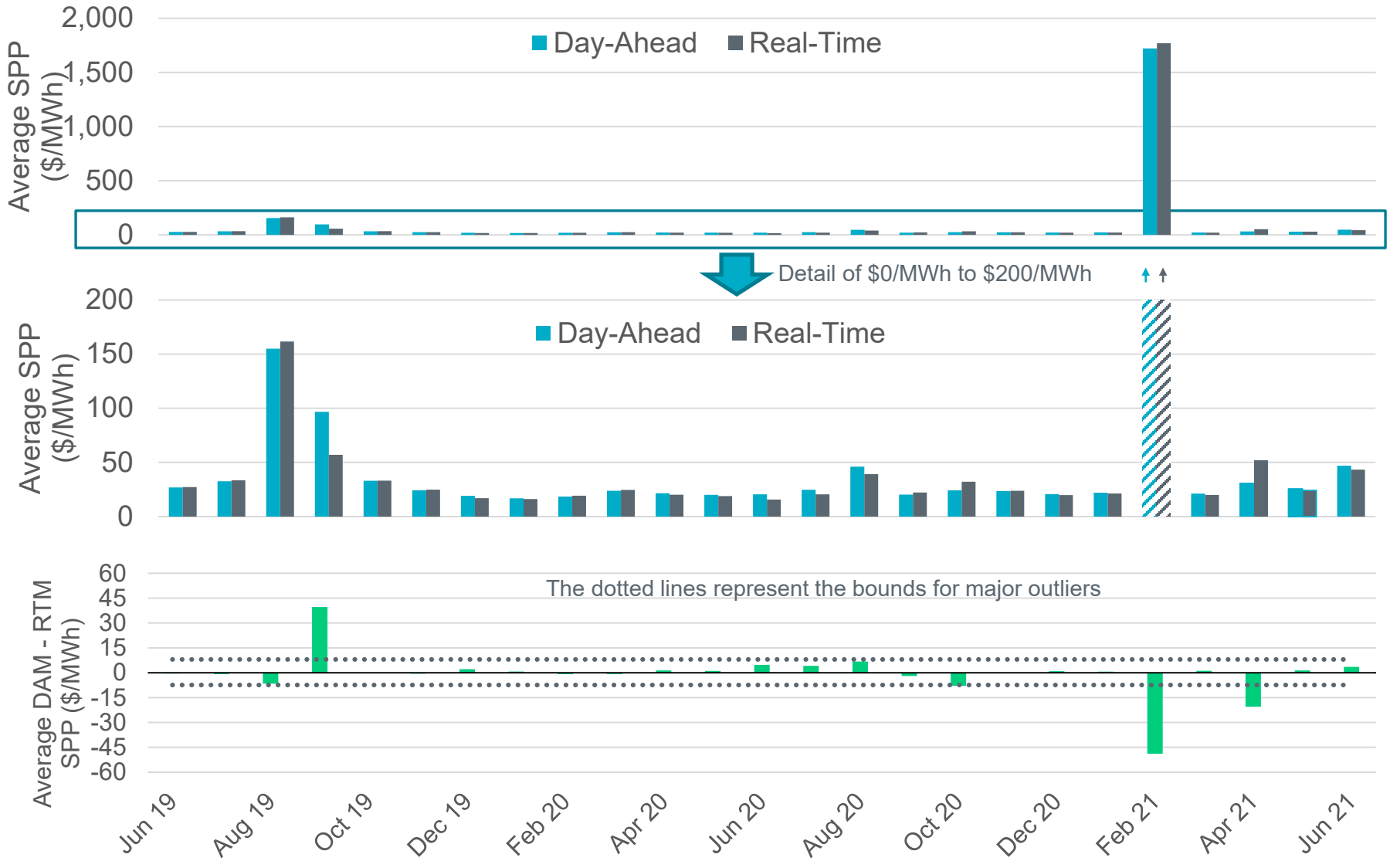
Note: For visual purposes, February 2021 has been separated into its own graph with different scaling. The legend applies for both graphs.

Ancillary Services for June 2021 totaled $61.17M



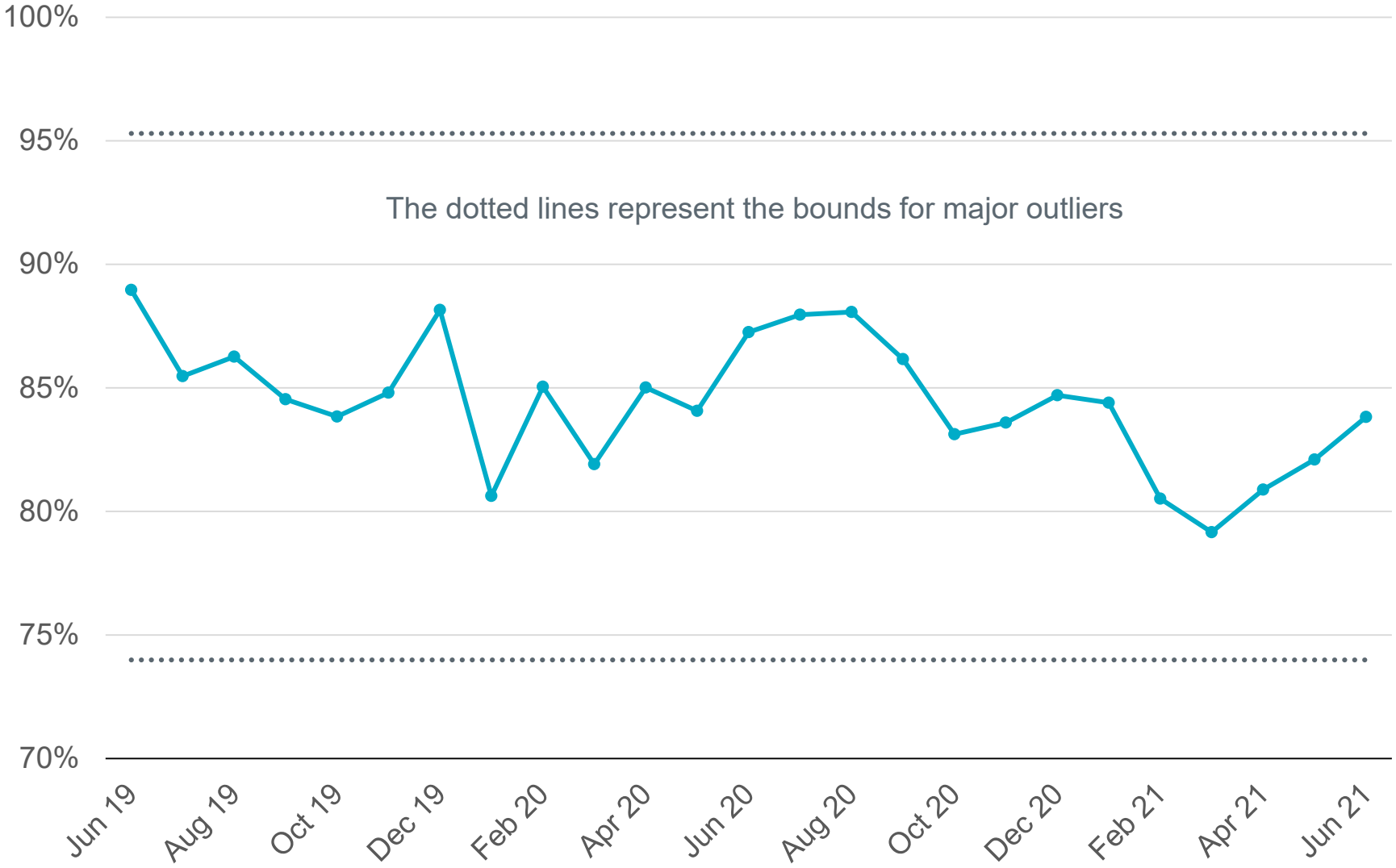
Note: For visual purposes, February 2021 has been separated into its own graph with different scaling. The legend applies for both graphs.

Day-Ahead and Real-Time Market Price Differences

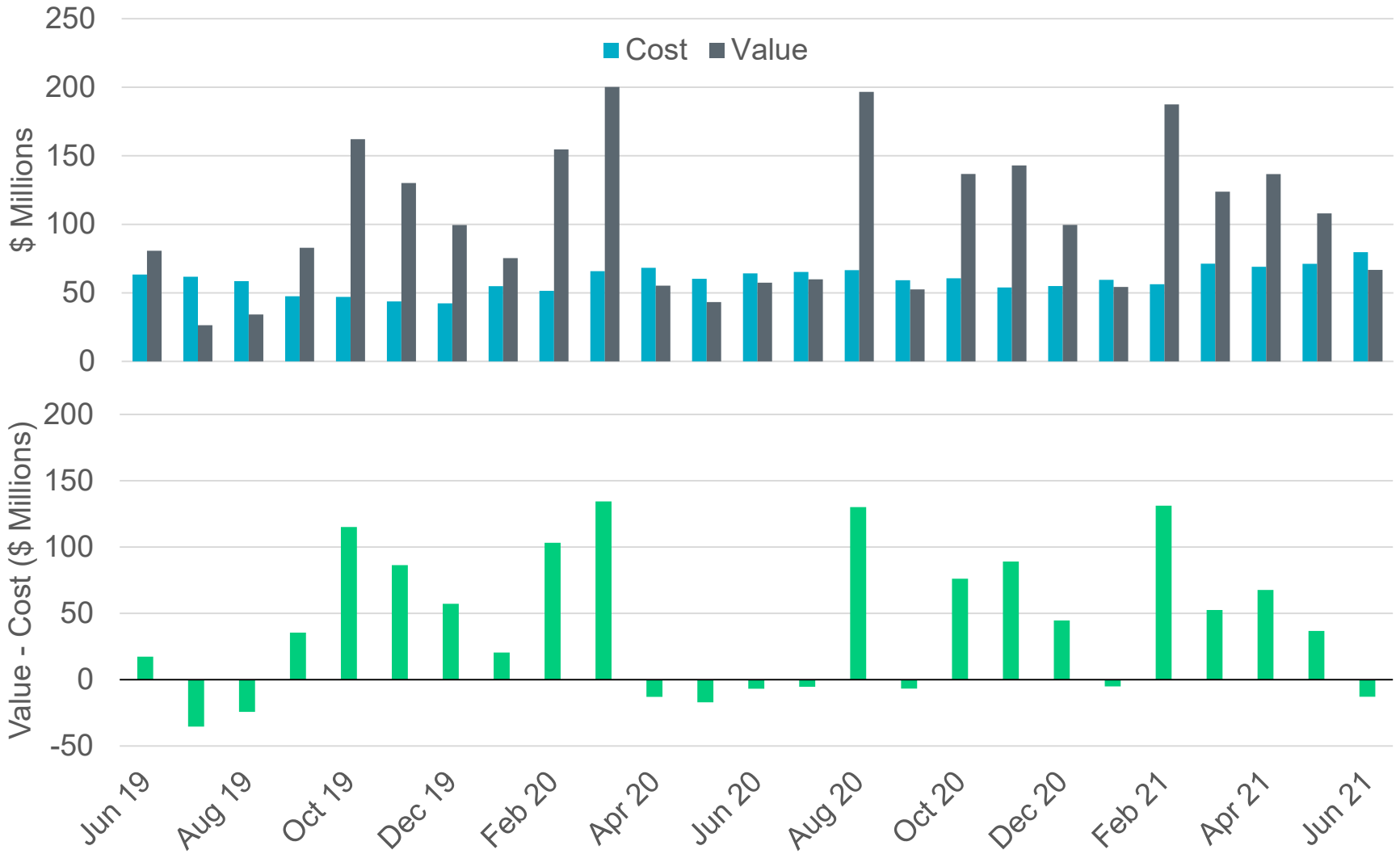


*Averages are weighted by Real-Time Market Load

Percentage of Real-Time Load Transacted in the Day-Ahead Market



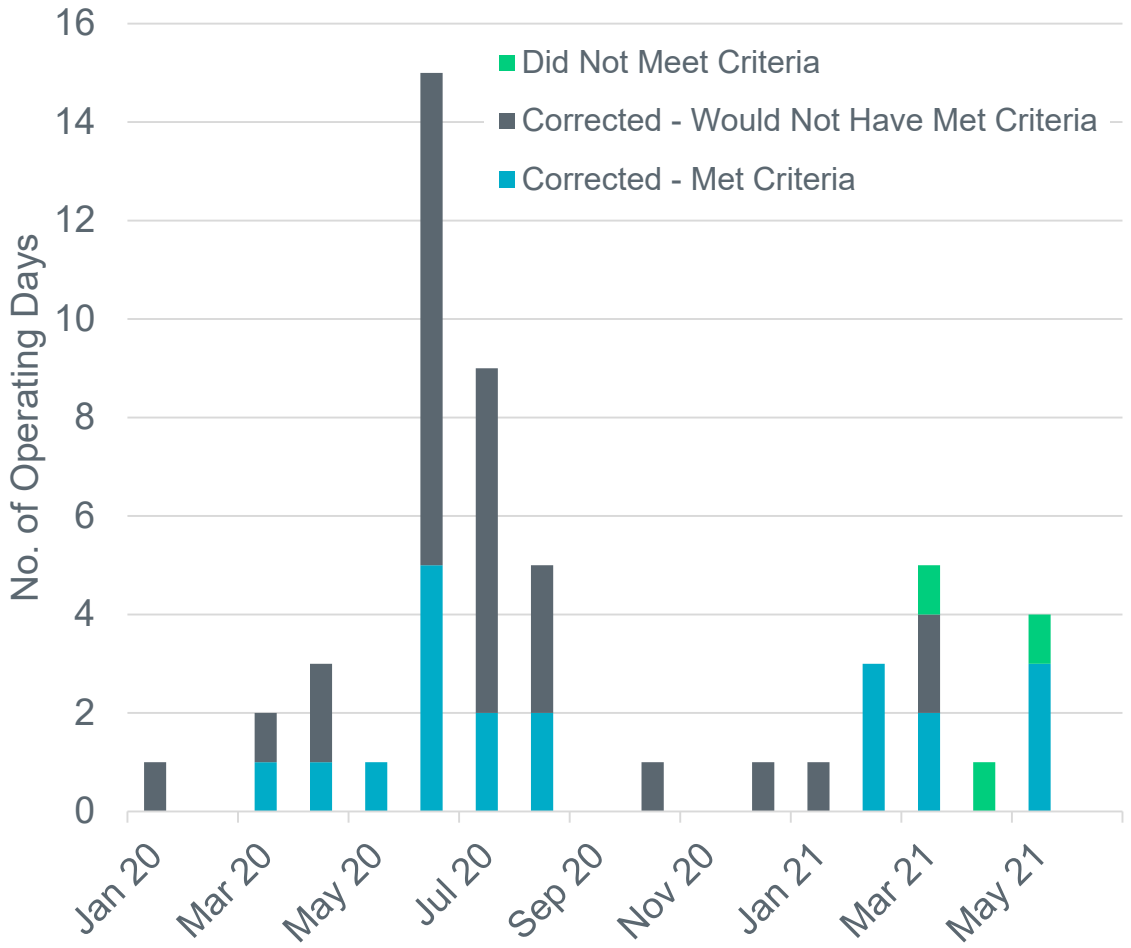
CRR Value and Cost Differences



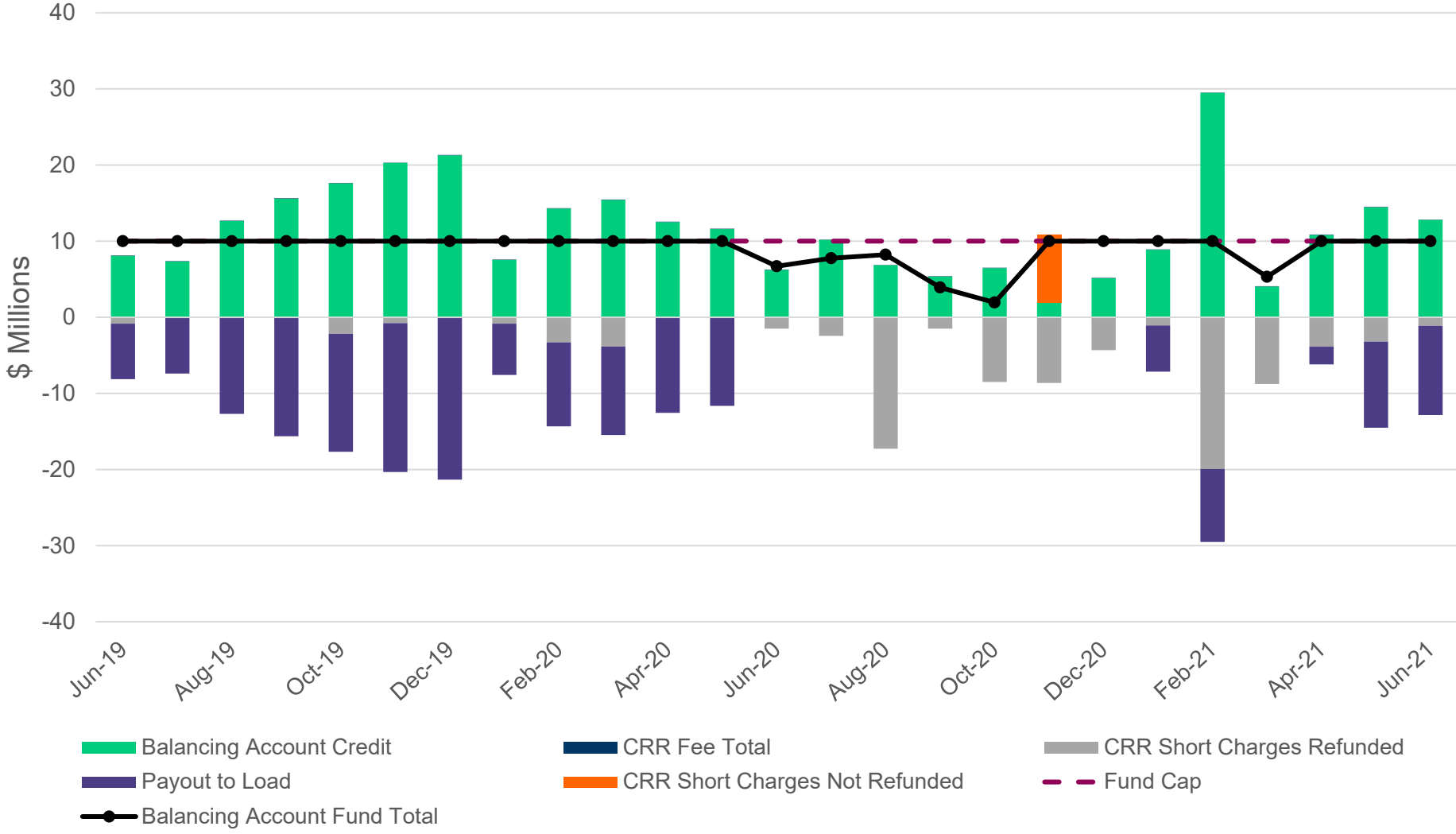
Price Issues and the Impact of Nodal Protocol Revision Request (NPRR) 1024 on Price Corrections

This graph looks at the recent history of price issues in the RTM or DAM and breaks the impacted Operating Days into three categories:

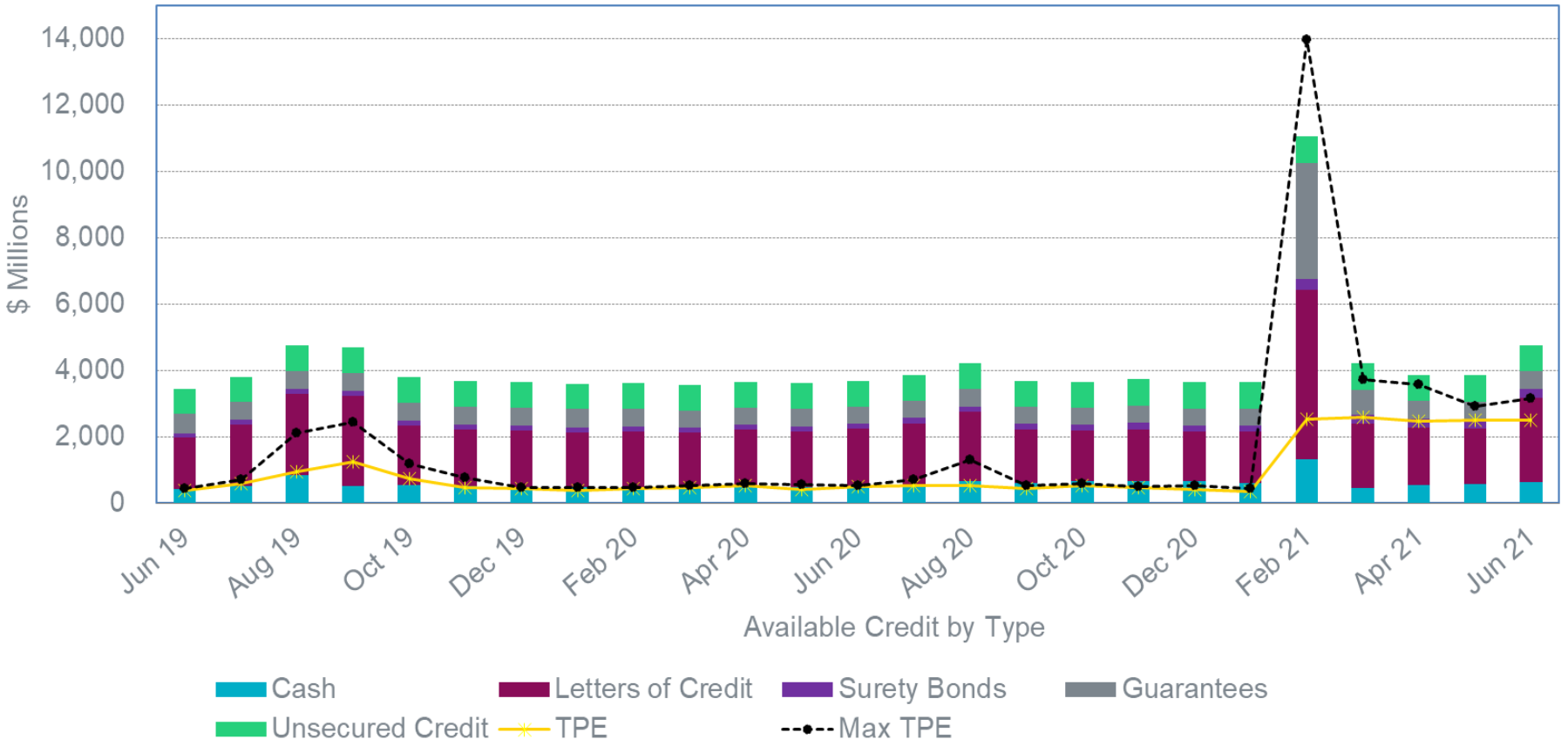
- Days that met the criteria for “significance” under NPRR1024 and were corrected;
- Days that would not have met the criteria for “significance” under NPRR1024, but were corrected because NPRR1024 was not yet in place; and
- Days that were not corrected because they did not meet the criteria for “significance” under NPRR1024.



The CRR Balancing Account was fully funded and excess amounts were allocated to Load



Available Credit by Type Compared to Total Potential Exposure (TPE)



*Numbers are as of month end except for Max TPE

Retail Transaction Volumes – Summary – June 2021

	Year-To-Date		Transactions Received	
Transaction Type	June 2021	June 2020	June 2021	June 2020
Switches	788,003	571,069	136,150	146,804
Acquisitions	48,862	0	0	0
Move - Ins	1,320,771	1,301,531	243,969	241,696
Move - Outs	615,005	638,545	115,390	121,138
Continuous Service Agreements (CSA)	348,949	280,414	48,525	38,279
Mass Transitions	26,584	0	0	0
Total	3,148,174	2,791,559	544,034	547,917