ERCOT Monthly Operational Overview
(October 2020)

ERCOT Public
November 16, 2020

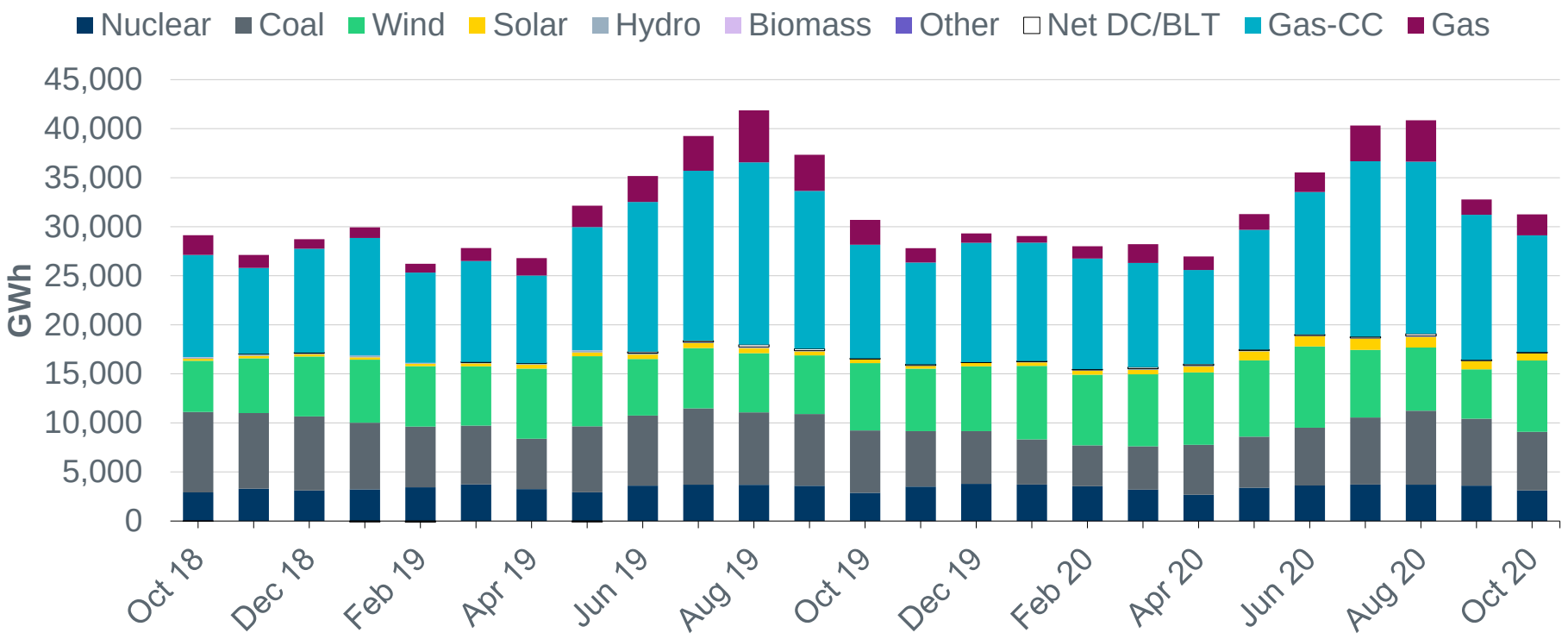
Monthly Highlights

- ERCOT set a maximum peak demand of 63,060 MW* in October 2020, which is 2,244 MW less than the October 2019 demand of 65,304 MW.

- ERCOT issued 11 notifications:
  - 1 OCN for Hurricane Delta possibility of making landfall in the ERCOT Region
  - 1 OCN due to ERCOT modifying the WESTEX Generic Transmission Constraint
  - 1 OCN for freezing precipitation, which caused multiple forced Transmission outages in the South and West of Lubbock, Panhandle, and including the Childress area
  - 1 OCN due to ERCOT modifying the PNHNDL Generic Transmission Constraint
  - 6 Advisories for delay in clearing DAM and posting DAM solution
  - 1 Transmission Emergency Notice for the freezing precipitation event which caused multiple forced Transmission outages in the Panhandle

* Preliminary value from November release of Demand and Energy 2020 report.

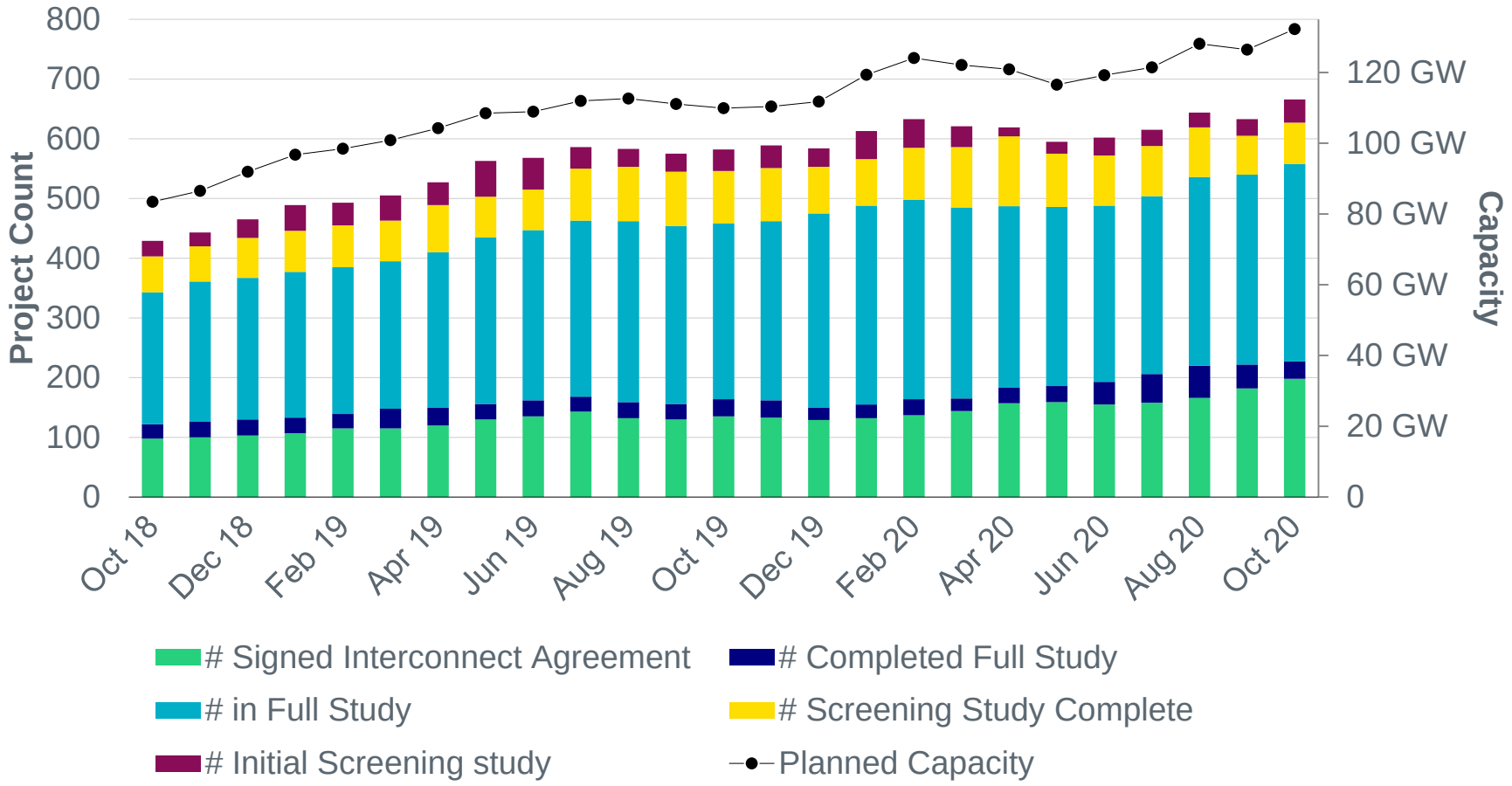
Monthly energy generation increased by 1.8% year-over-year to 31,257 GWh in October 2020, compared to 30,695 GWh in October 2019



Data for latest two months are based on preliminary settlements.

Generation Interconnection activity by project phase

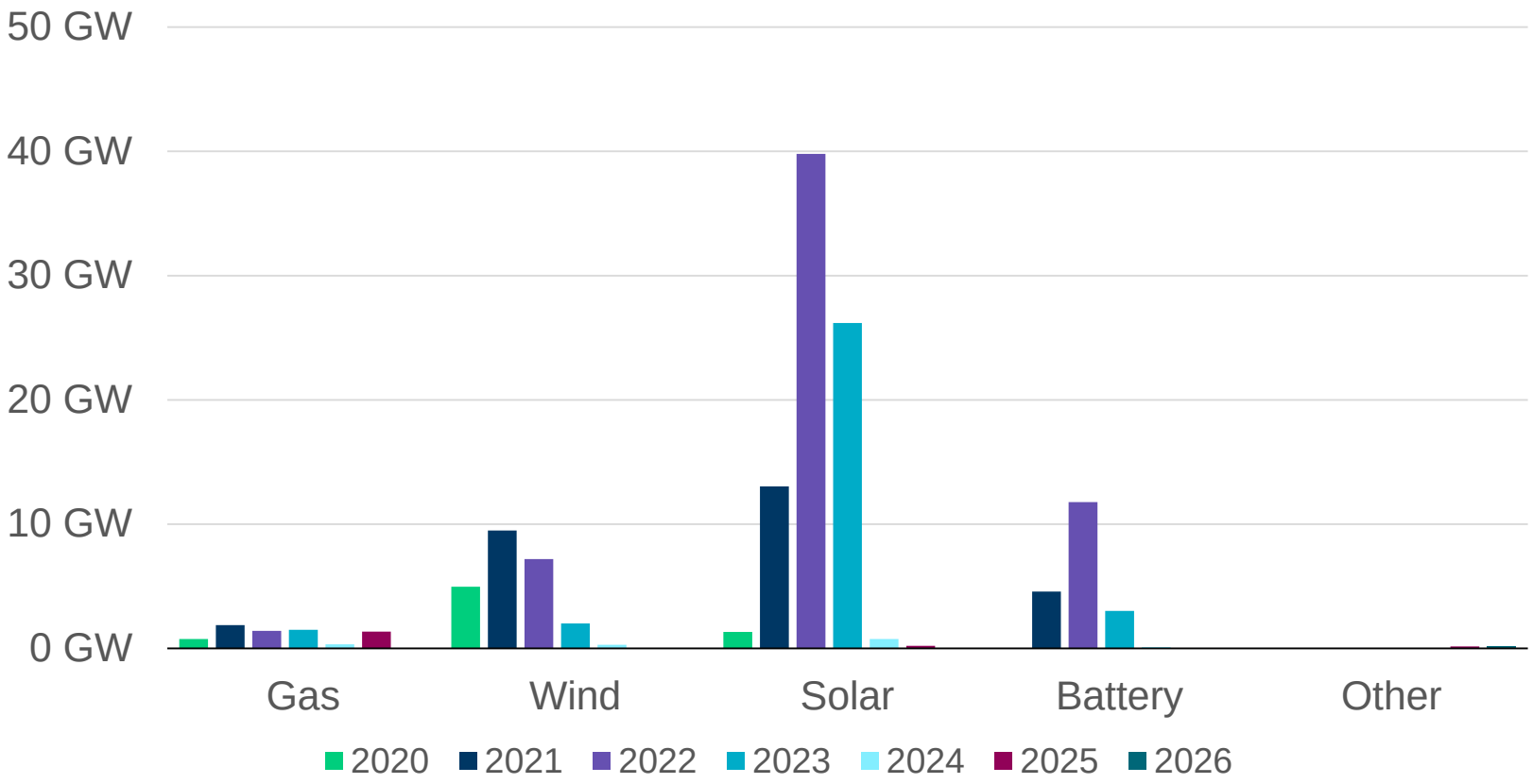
(Excludes capacity associated with Projects designated as Inactive per Planning Guide Section 5.7.6)



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 81 GW (61.5%), Wind 24 GW (18.1%), Gas 7 GW (5.4%), Battery 19 GW (14.7%)
(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 is currently tracking 666 active generation interconnection requests totaling 132,248 MW. This includes 81,302 MW of solar, 23,926 MW of wind, 19,459 MW of battery, and 7,197 MW of gas projects as of October 31, 2020.

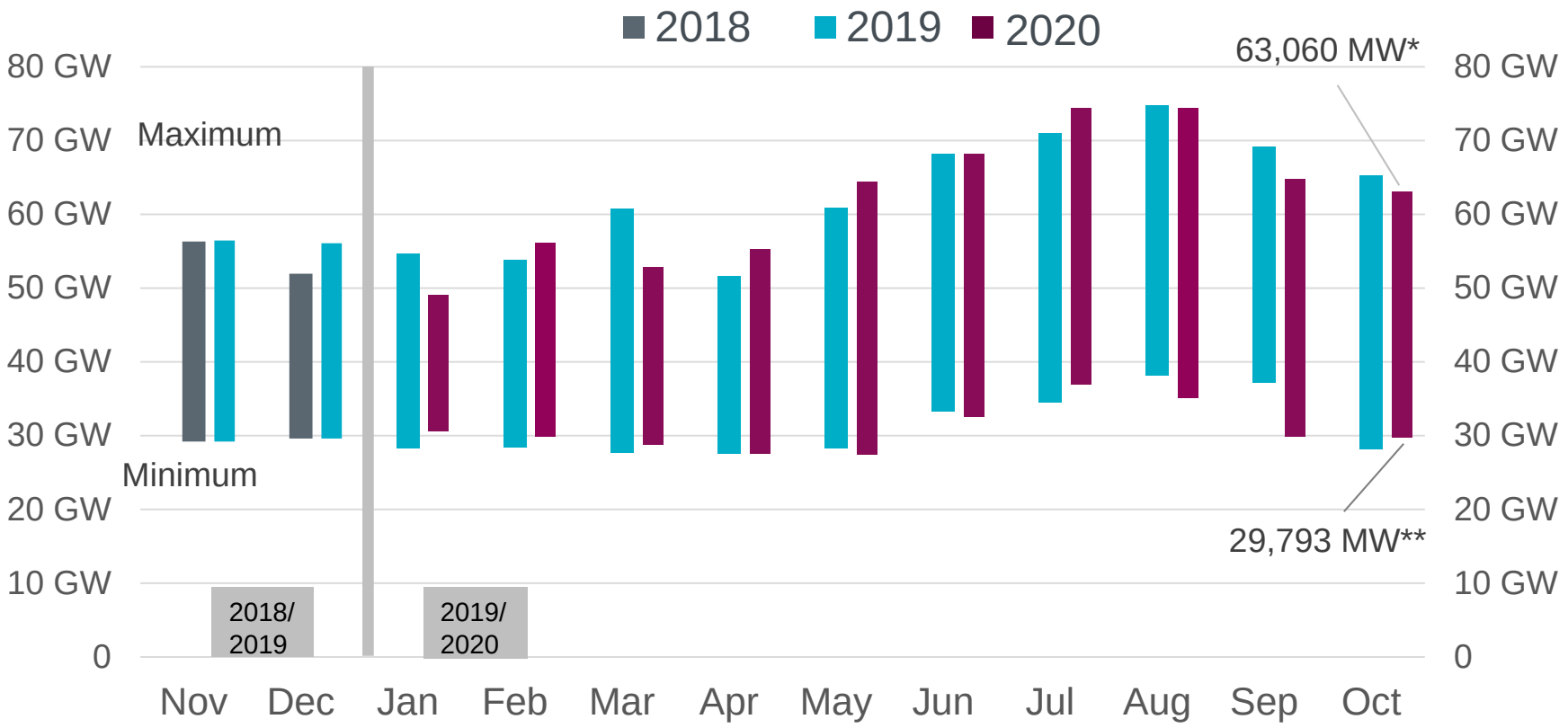
- ERCOT is currently reviewing proposed transmission improvements with a total estimated cost of $1,153.14 Million as of October 31, 2020.

- Transmission Projects endorsed in 2020 total $903.01 Million as of October 31, 2020.

- All projects (in engineering, routing, licensing and construction) total approximately $7.6 Billion as of October 1, 2020.

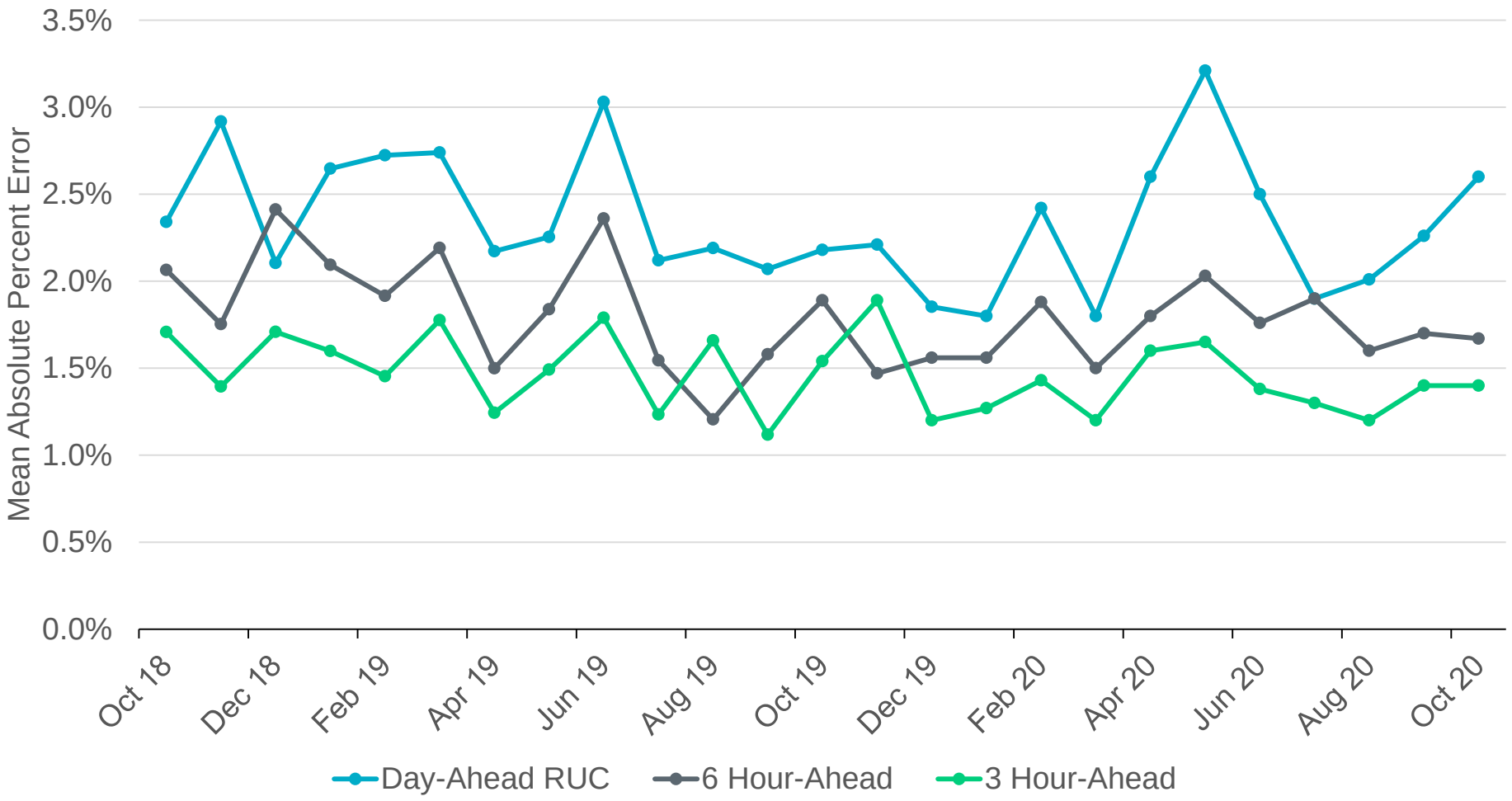
- Transmission Projects energized in 2020 total about $1.20 Billion as of October 1, 2020.

ERCOT set a maximum peak demand of 63,060 MW* in October 2020, which is 2,244 MW less than the October 2019 demand of 65,304 MW



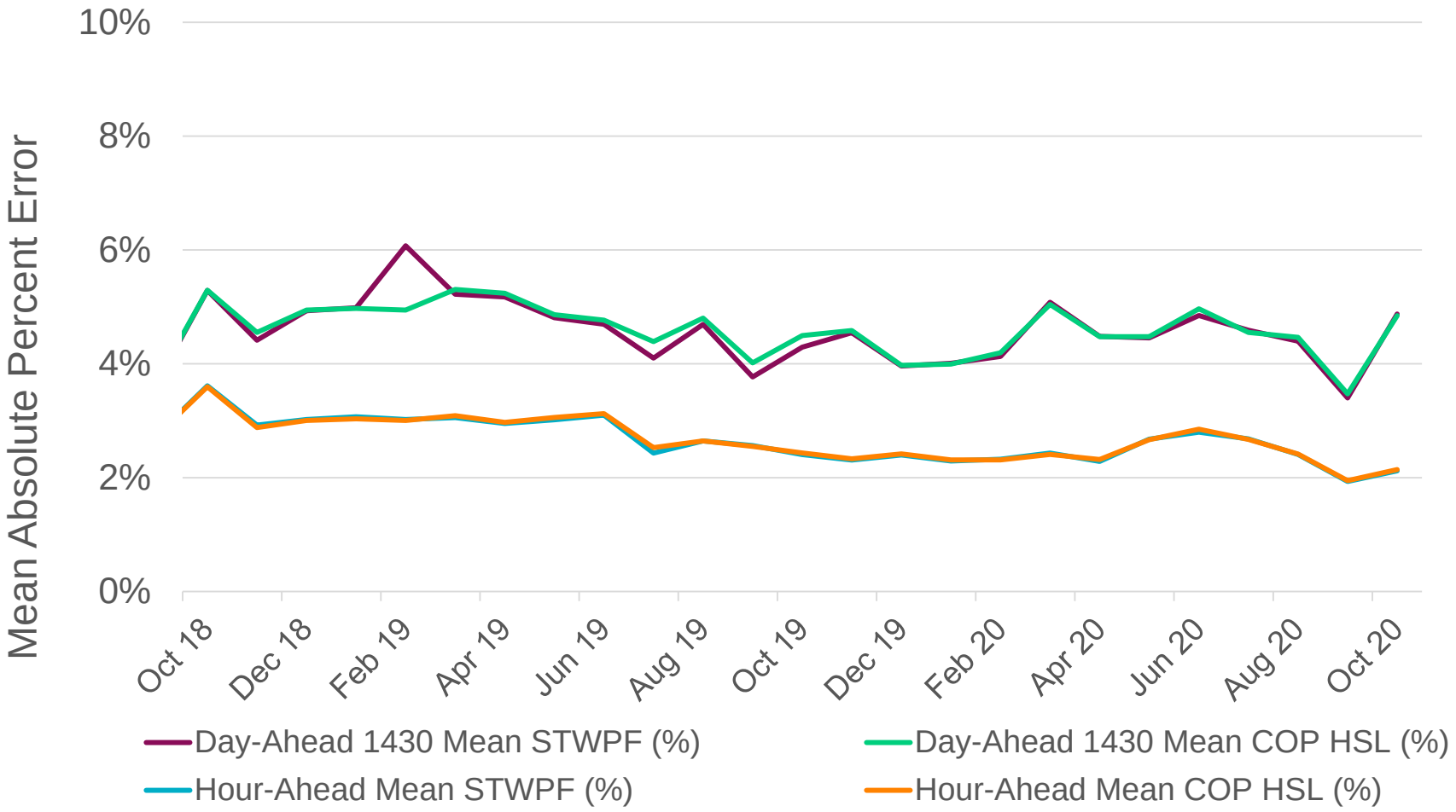
*Based on the maximum net system hourly value from November release of Demand and Energy 2020 report.
**Based on the minimum net system 15-minute interval value from November release of Demand and Energy 2020 report.
Data for latest two months are based on preliminary settlements.

Mid-Term Load Forecast Performance



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

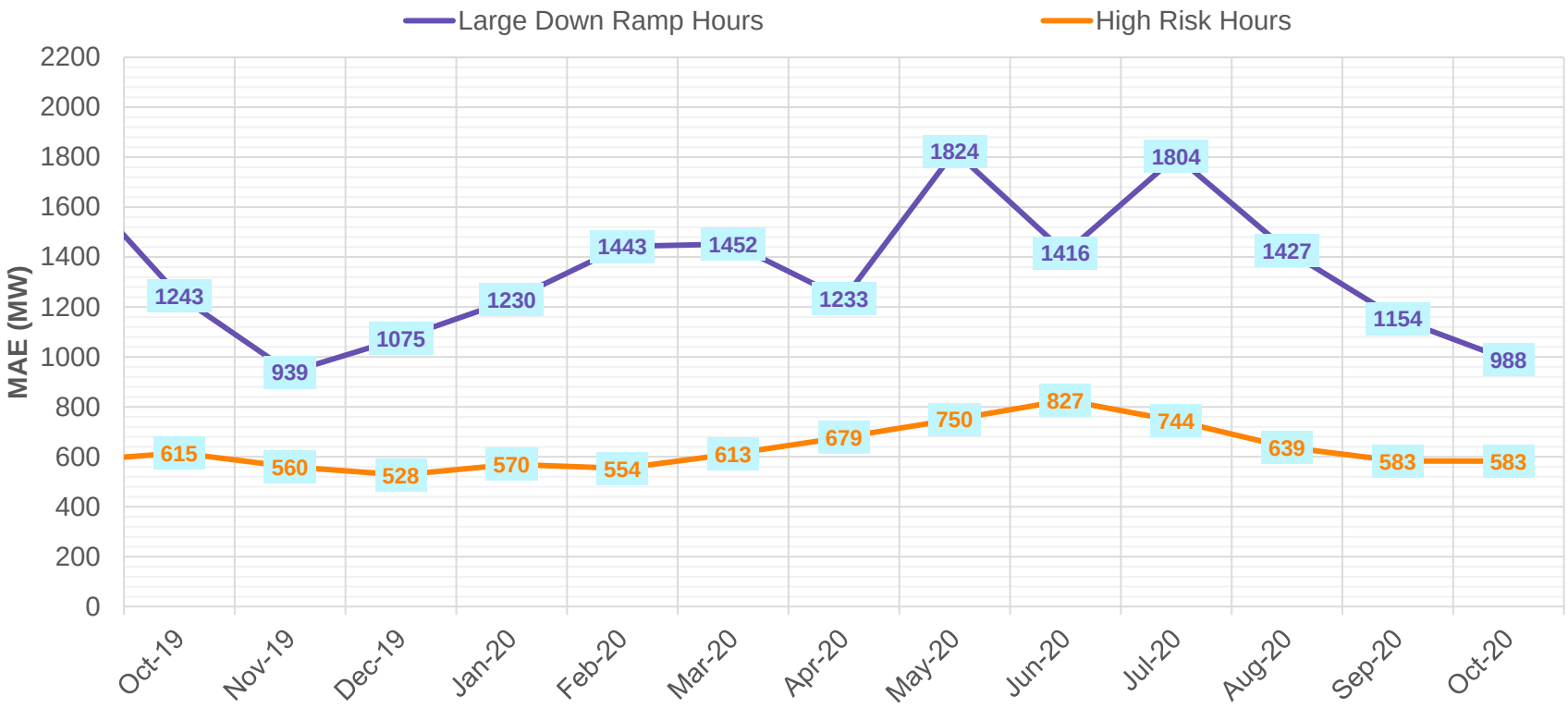
Wind Forecast Performance



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.

Hour-Ahead Wind Forecast Performance

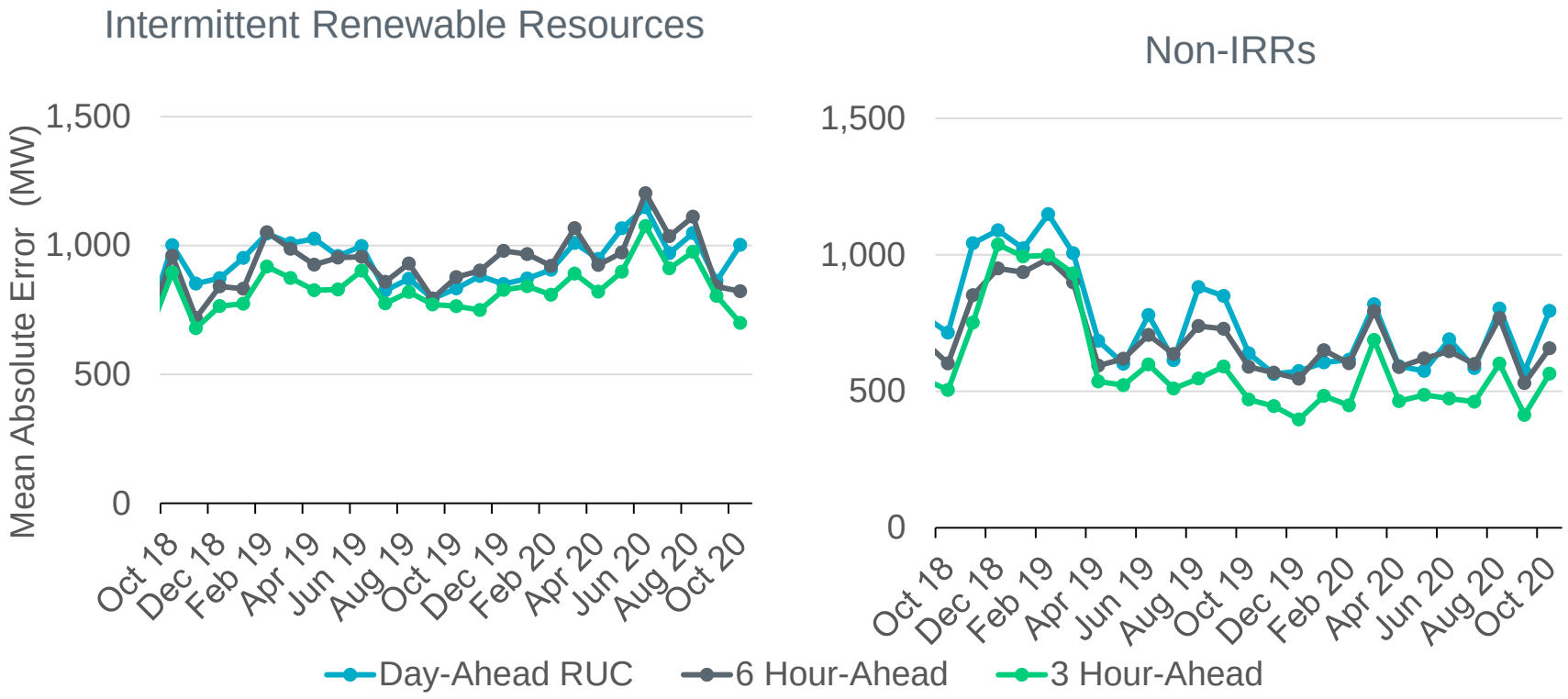
Hour-Ahead Mean Absolute Error (MAE) During Large Down Ramp (> 2000 MW) and High Risk Hours*



**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.*

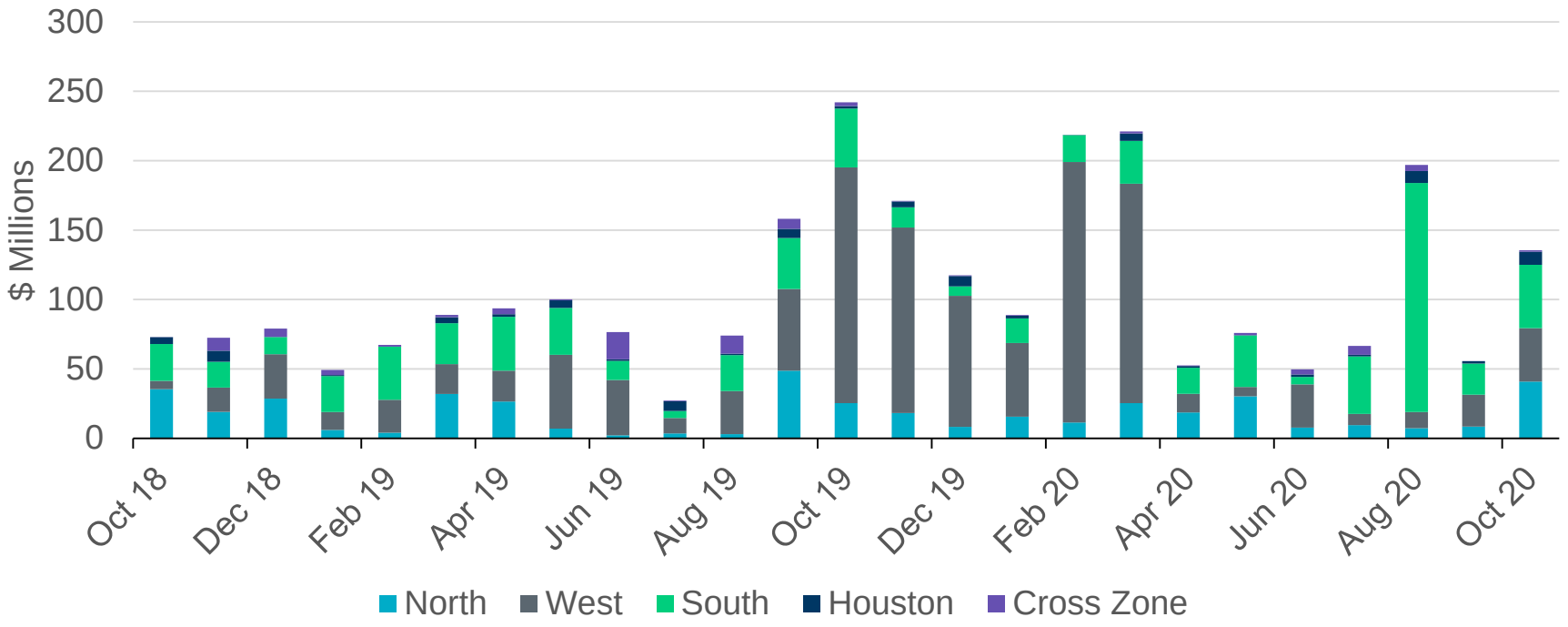
Forecast performance during large down ramp (wind ramp > 2000 MW) hours and high risk hours (historic risk of load ramping up and wind ramping down is high) is focused upon. Note that for the purposes of forecast performance measurement every hour in a month is classified as either a large down ramp 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 29,447 MW (as of October 31, 2020).
- The installed capacity of approved Solar Units is 4,403 MW (as of October 31, 2020).

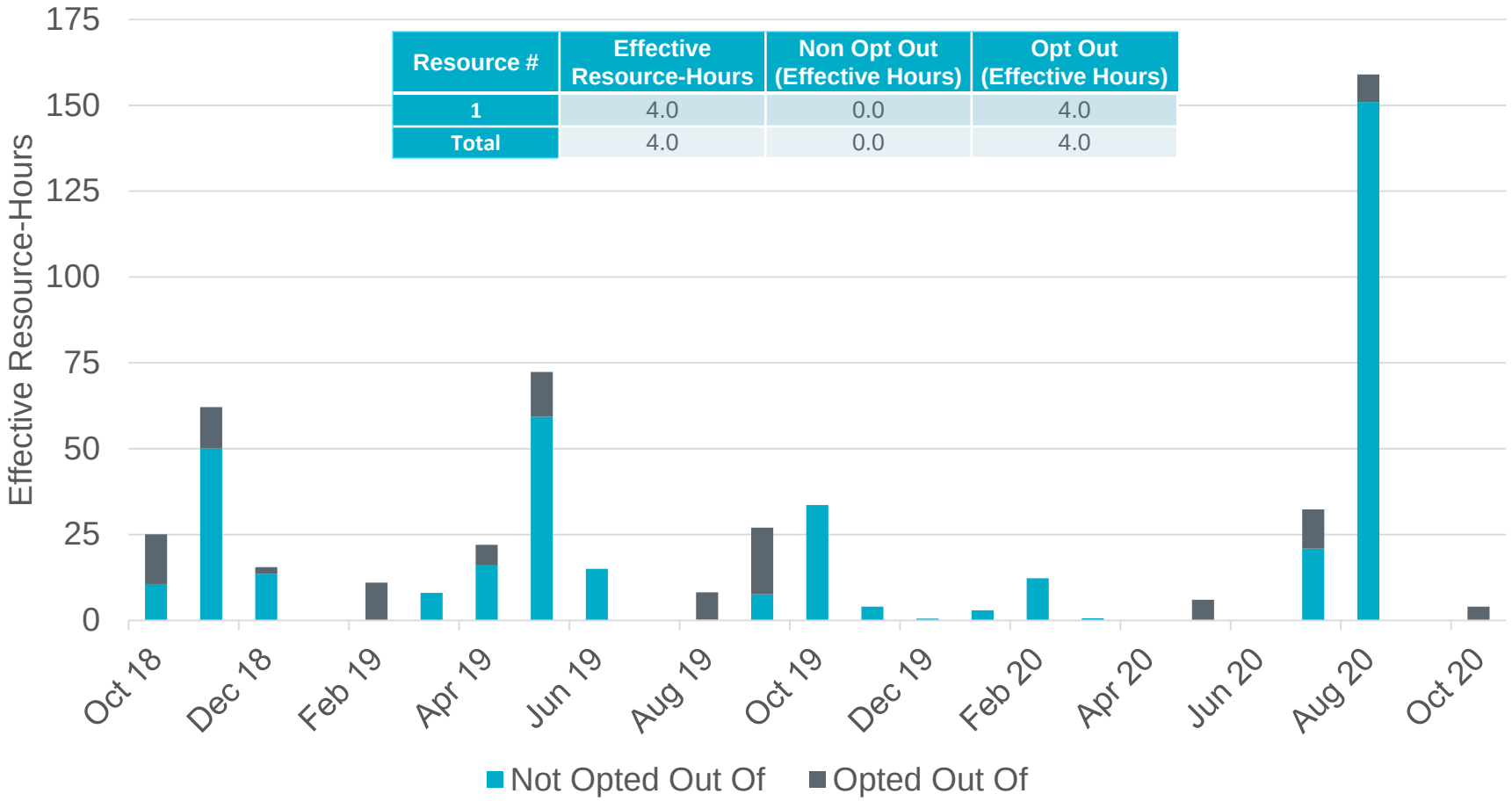
Real-Time Congestion Rent by Zone



- The congestion rent for October increased significantly compared to September. The most significant constraints for October are BASE CASE:PNHNDL in the West Zone and DCRLLSW5:588_A_1 in the North 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.

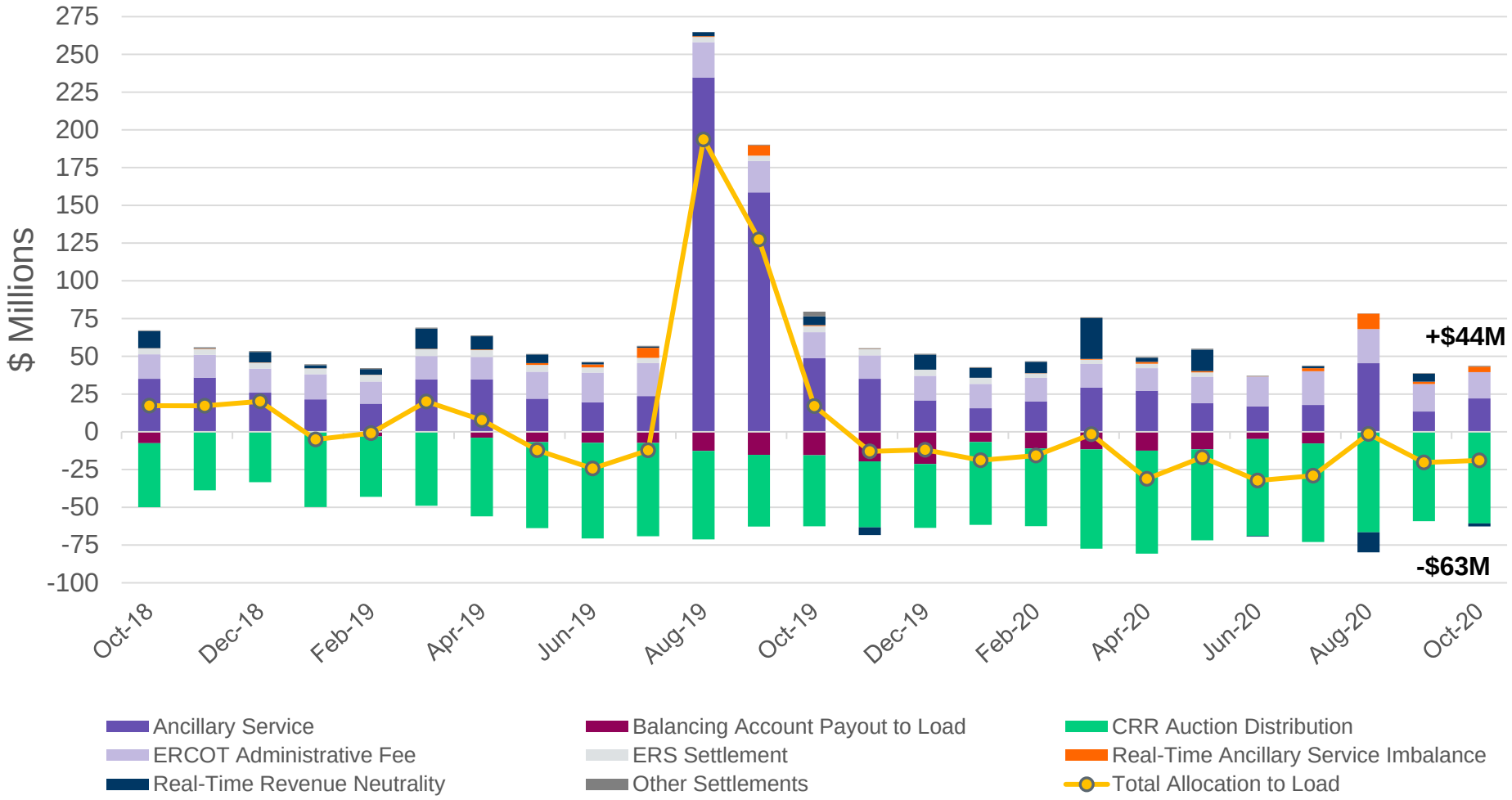
One Resource was Committed in October for Congestion

Resource #	Effective Resource-Hours	Non Opt Out (Effective Hours)	Opt Out (Effective Hours)
1	4.0	0.0	4.0
Total	4.0	0.0	4.0



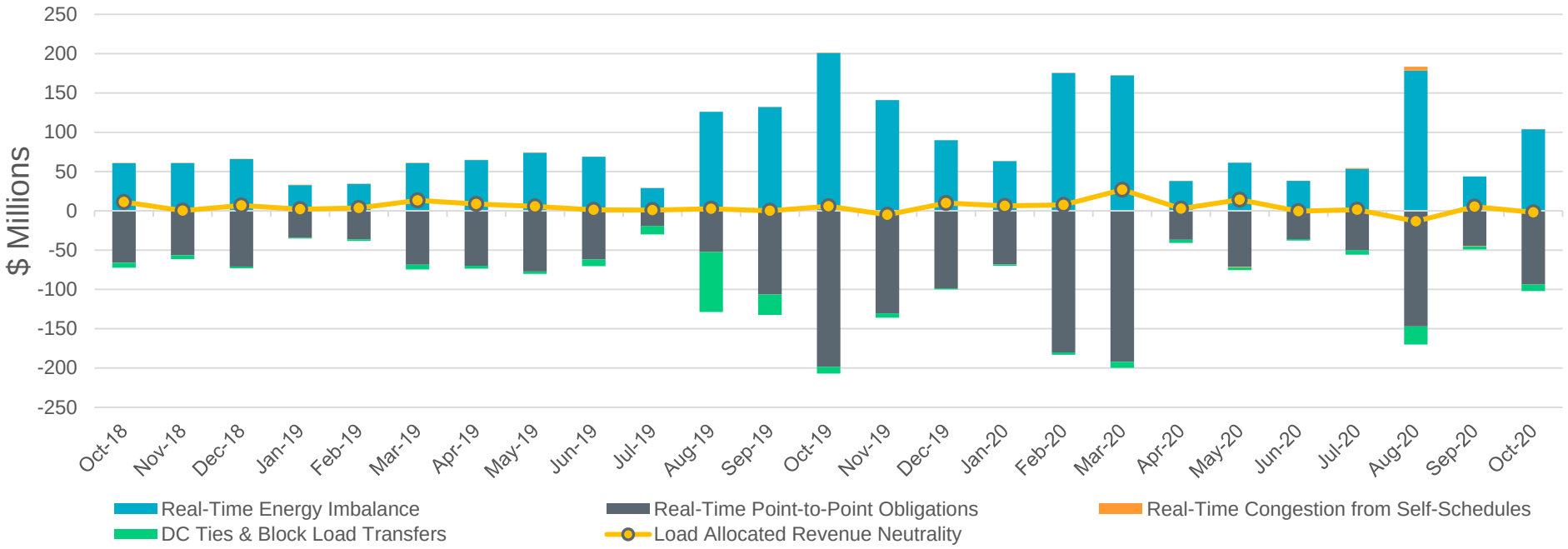
"Effective Resource-hours" excludes any period during a Reliability Unit Commitment hour when the RUC-committed Resource was starting up, shutting down, off-line, or otherwise not available for dispatch by SCED.

Net Allocation to Load in October 2020 was ($18.9 Million)



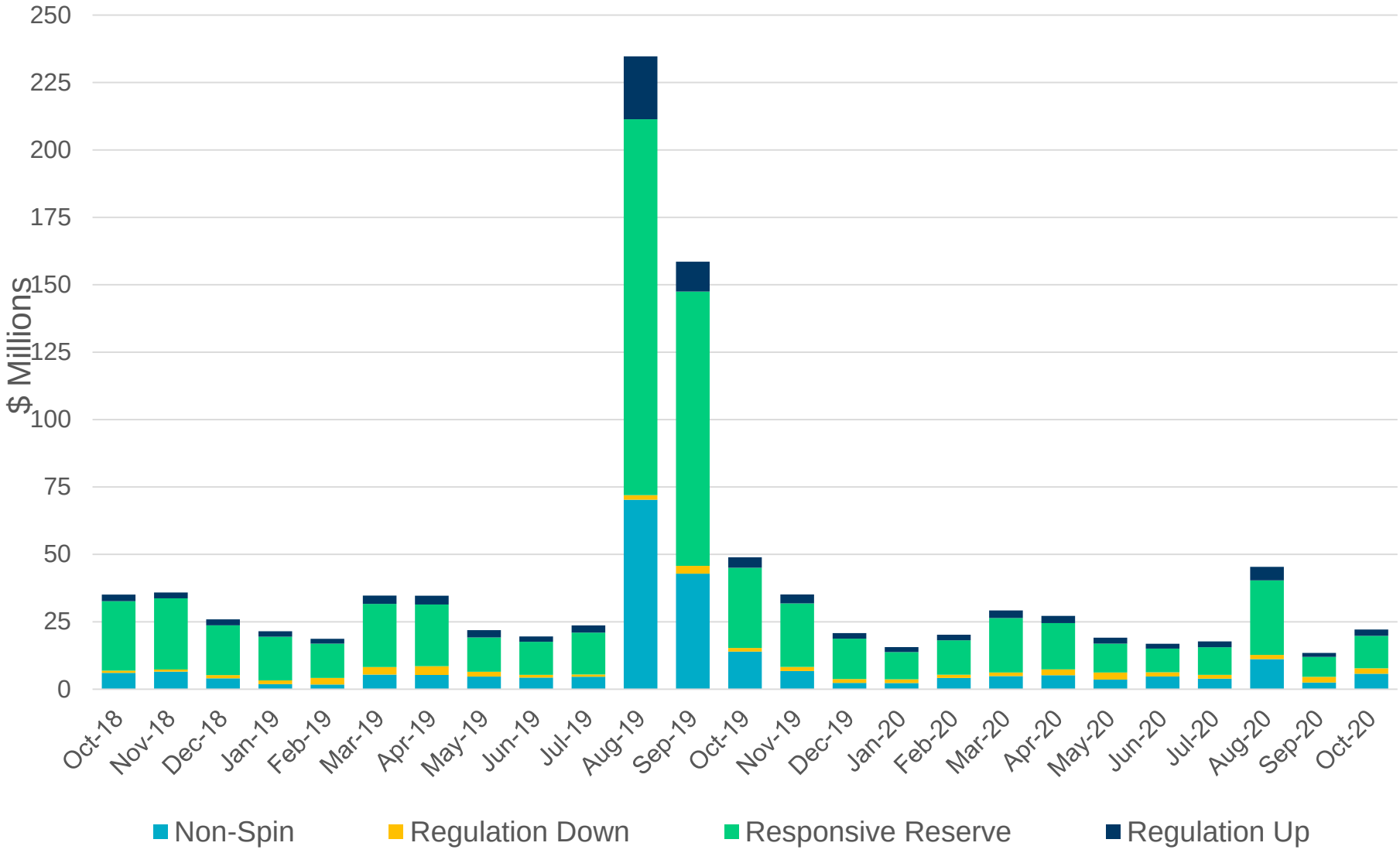
This information is available in tabular form in the Settlement Stability Report presented quarterly to the Wholesale Market Subcommittee

Real-Time Revenue Neutrality Allocated to Load was ($2.00M) for October 2020



	October 2020 ($M)
Real-Time Energy Imbalance	$103.88
Real-Time Point-to-Point Obligation	($93.82)
Real-Time Congestion from Self-Schedules	$0.25
DC Tie & Block Load Transfer	($8.31)
Load Allocated Revenue Neutrality	**($2.00)**

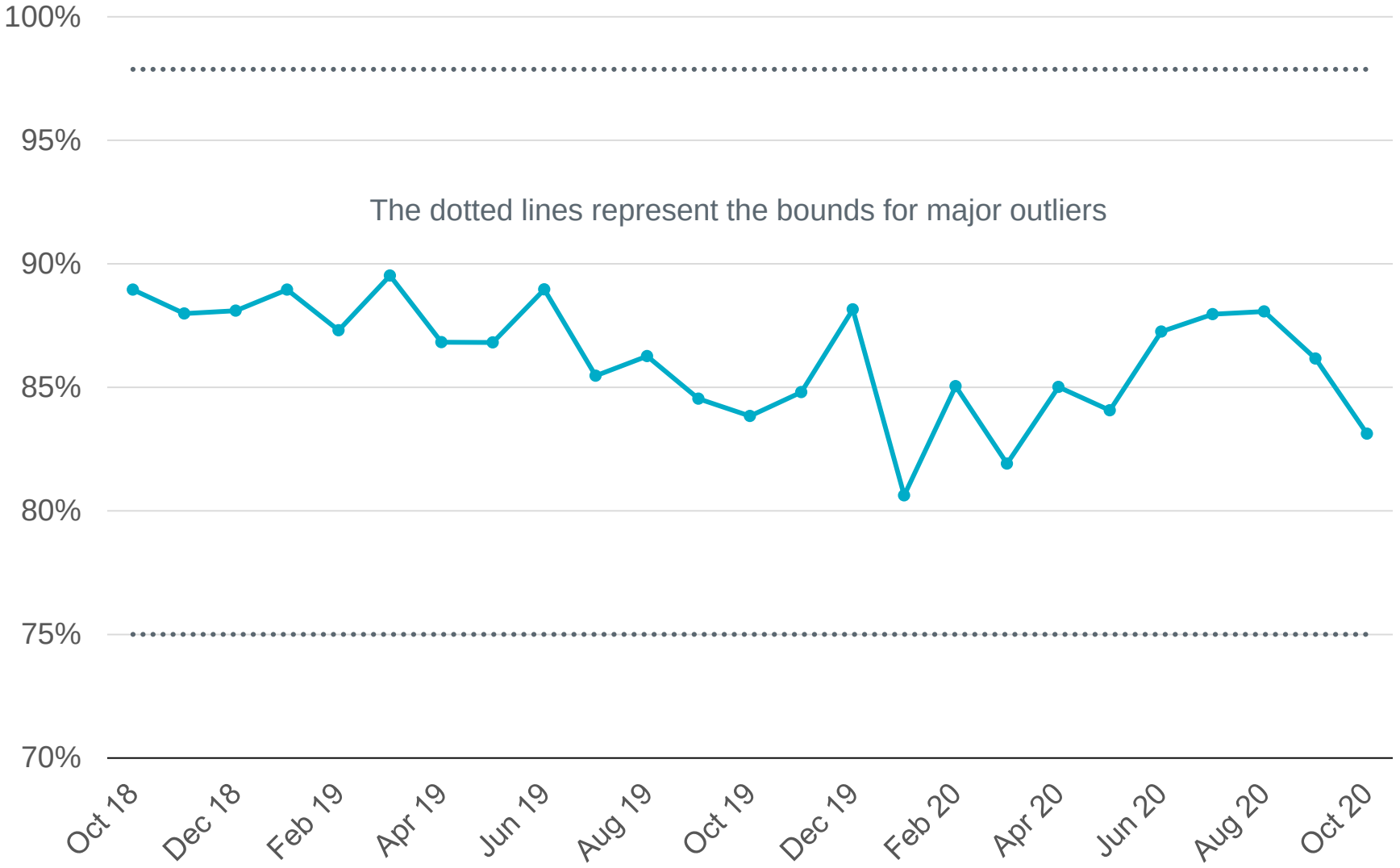
Ancillary Services for October 2020 totaled $22.12M



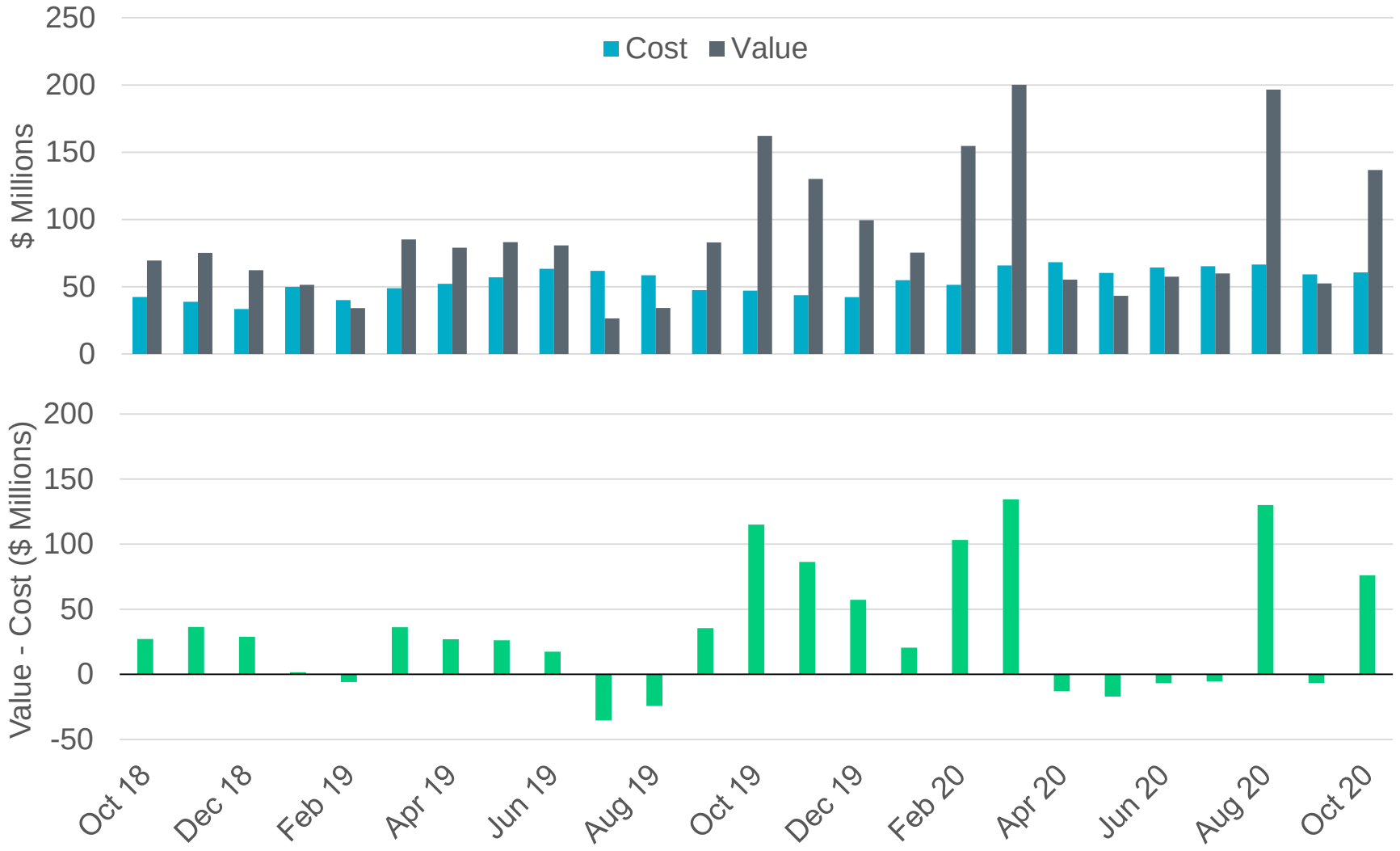
Day-Ahead and Real-Time Market Price Differences

*Averages are weighted by Real-Time Market Load

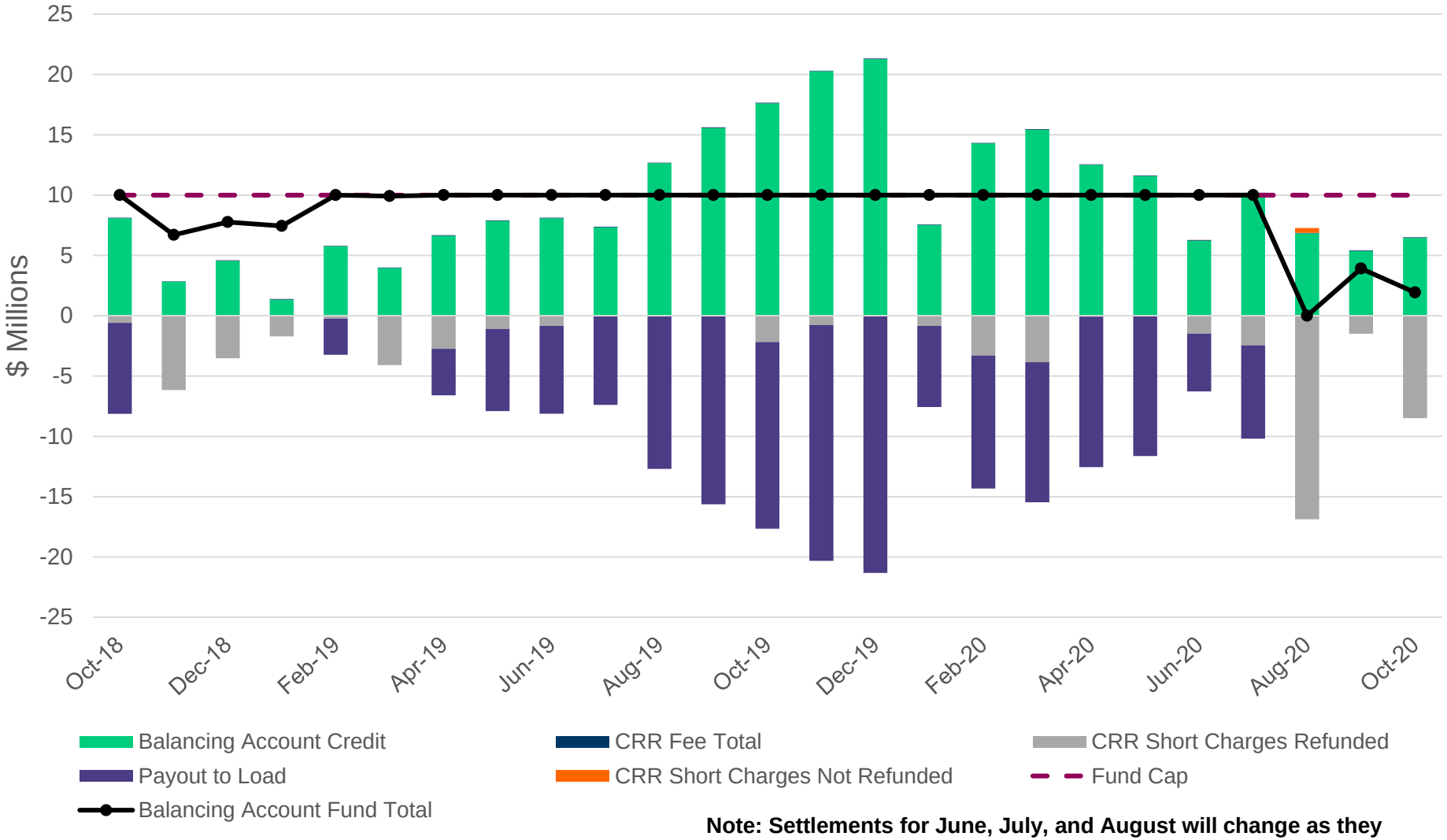
Percentage of Real-Time Load Transacted in the Day-Ahead Market



CRR Value and Cost Differences

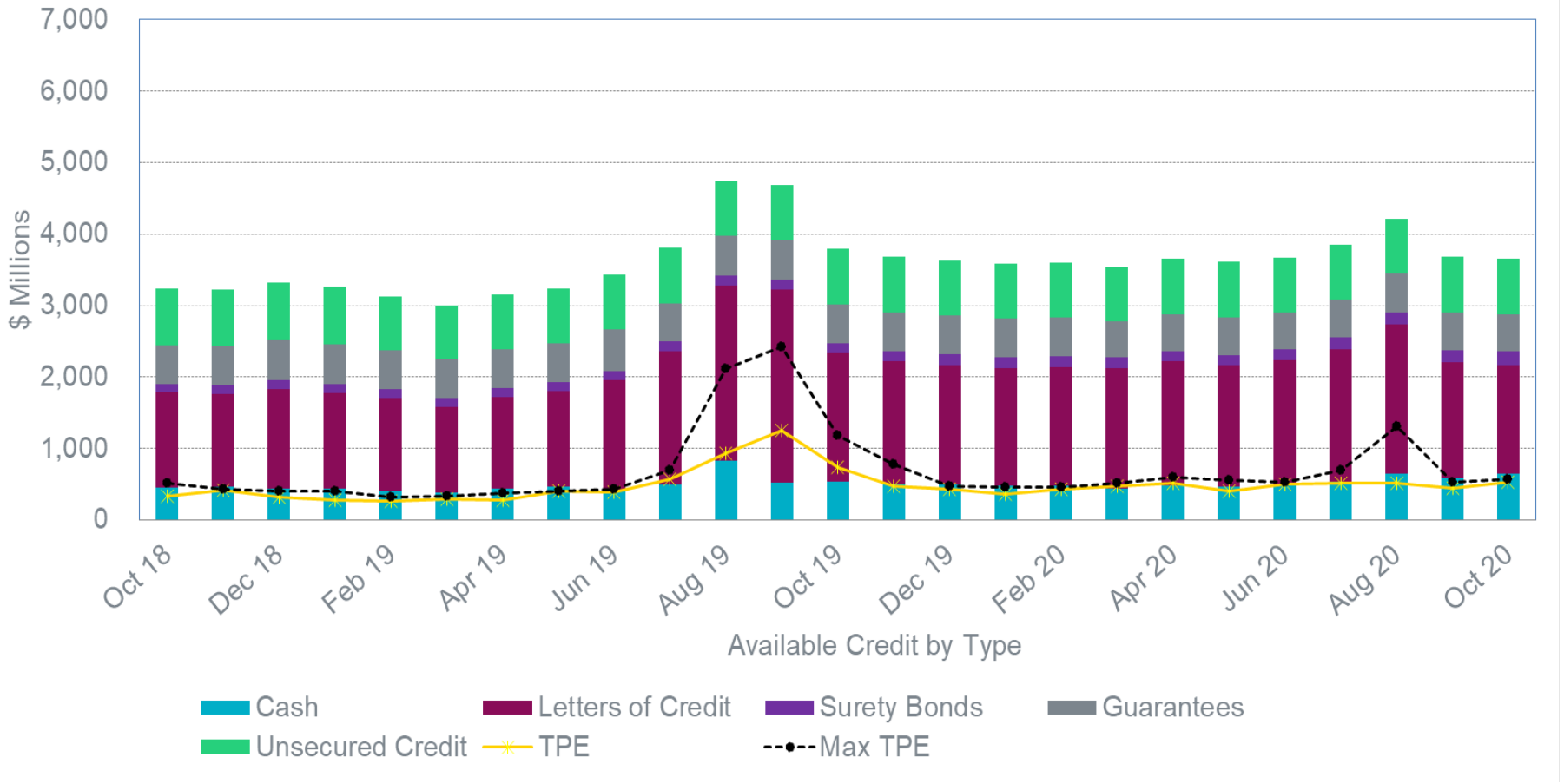


Congestion Revenue Rights settlement payments were fully funded using additional funds from the CRR Balancing Account Fund. No excess amounts remained to allocate to Load. The CRR Balancing Account fund balance is $1.93M.



Note: Settlements for June, July, and August will change as they are resettled due to DAM price corrections

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



*Numbers are as of month end except for Max TPE

Retail Transaction Volumes – Summary – October 2020

	Year-To-Date		Transactions Received	
Transaction Type	October 2020	October 2019	October 2020	October 2019
Switches	983,750	1,178,418	98,008	97,443
Acquisition	0	0	0	0
Move - Ins	2,306,969	2,522,658	244,865	259,662
Move - Outs	1,115,452	1,171,931	112,080	120,353
Continuous Service Agreements (CSA)	413,354	768,755	43,823	28,670
Mass Transitions	0	0	0	0
Total	4,819,525	5,641,762	498,776	506,128