



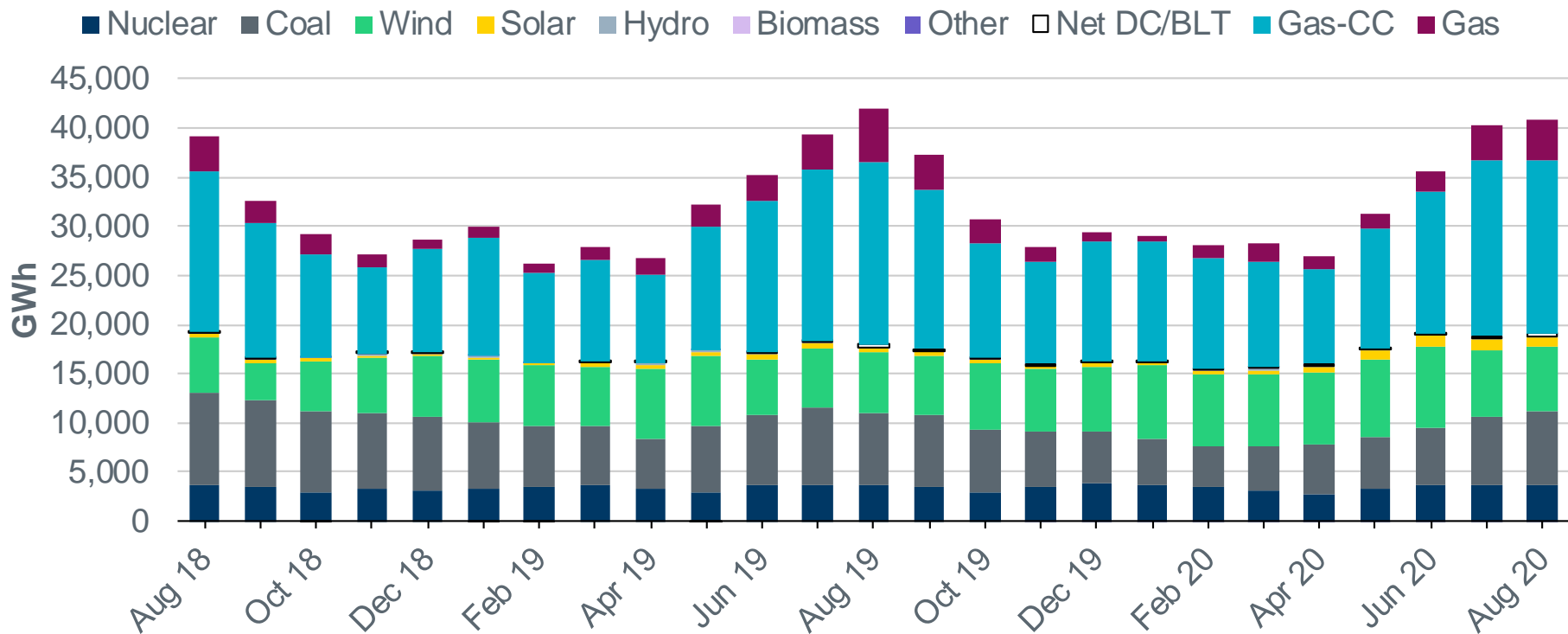
ERCOT Monthly Operational Overview (August 2020)

ERCOT Public
September 16, 2020

Monthly Highlights

- ERCOT set a maximum peak demand of 74,328 MW* in August 2020, which is 492 MW less than the August 2019 demand of 74,820 MW.
- ERCOT issued 14 notifications:
 - 2 Advisories for delay in clearing DAM and posting DAM solution.
 - 1 Advisory for Hurricane Laura projected to impact the ERCOT Region.
 - 6 Advisories for Physical Responsive Capability (PRC) < 3000 MW.
 - 1 OCN for extreme hot weather with forecasted temperatures above 103°F.
 - 1 OCN for Tropical Storm Laura possibility of making landfall in the ERCOT region.
 - 3 DC Tie Curtailment Notices (1 for Laredo, 2 for Railroad).
- Damage to transmission equipment from Hurricane Hanna, which made landfall on July 25th, continued to cause significant congestion in southern Texas in the first part of August. A majority of the instructed RUC hours for the month were associated with this congestion.

Monthly energy generation decreased by 2% year-over-year to 40,835 GWh in August 2020, compared to 41,870 GWh in August 2019

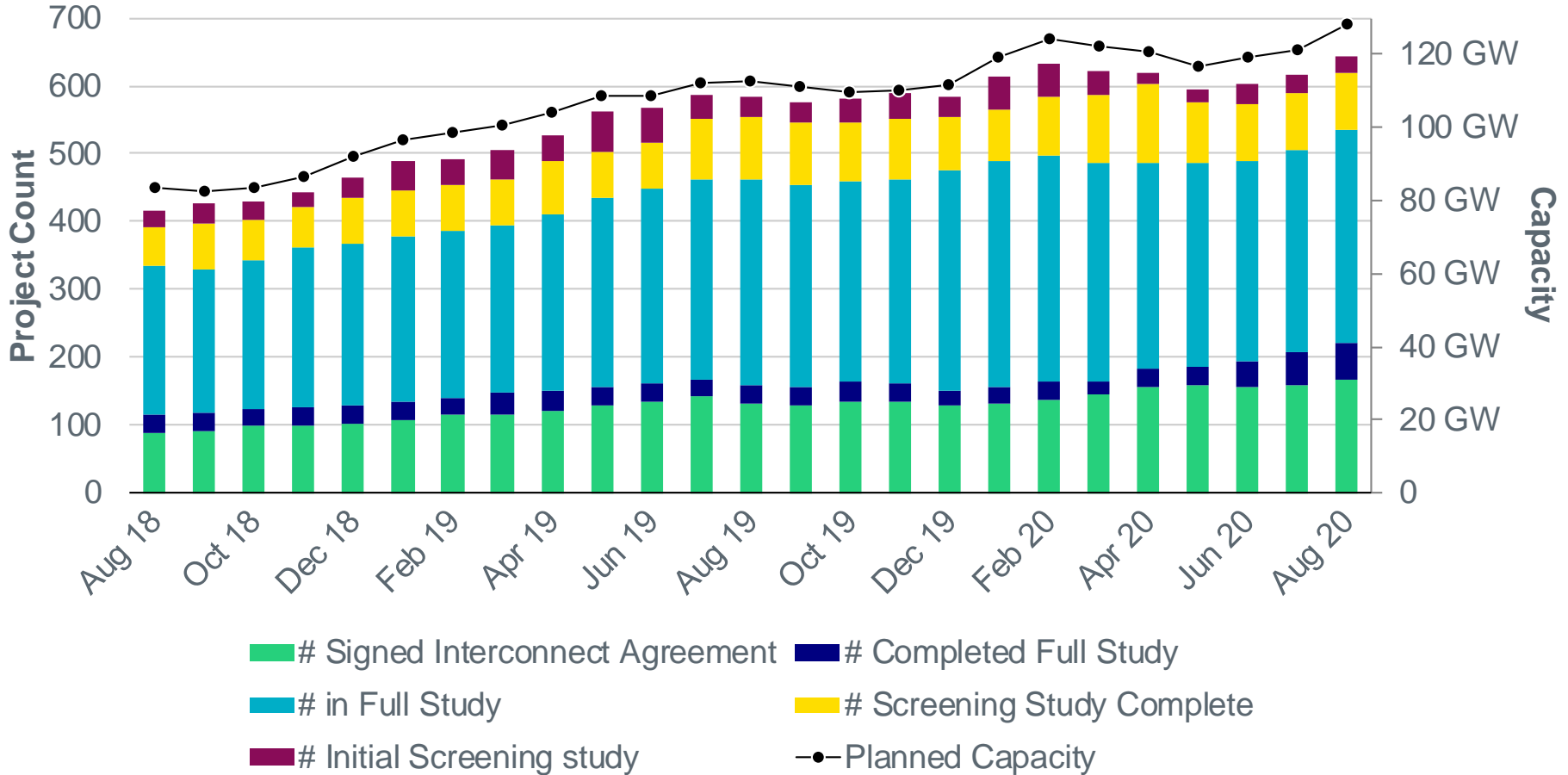


Data for latest two months are based on preliminary settlements.



Generation Interconnection activity by project phase

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



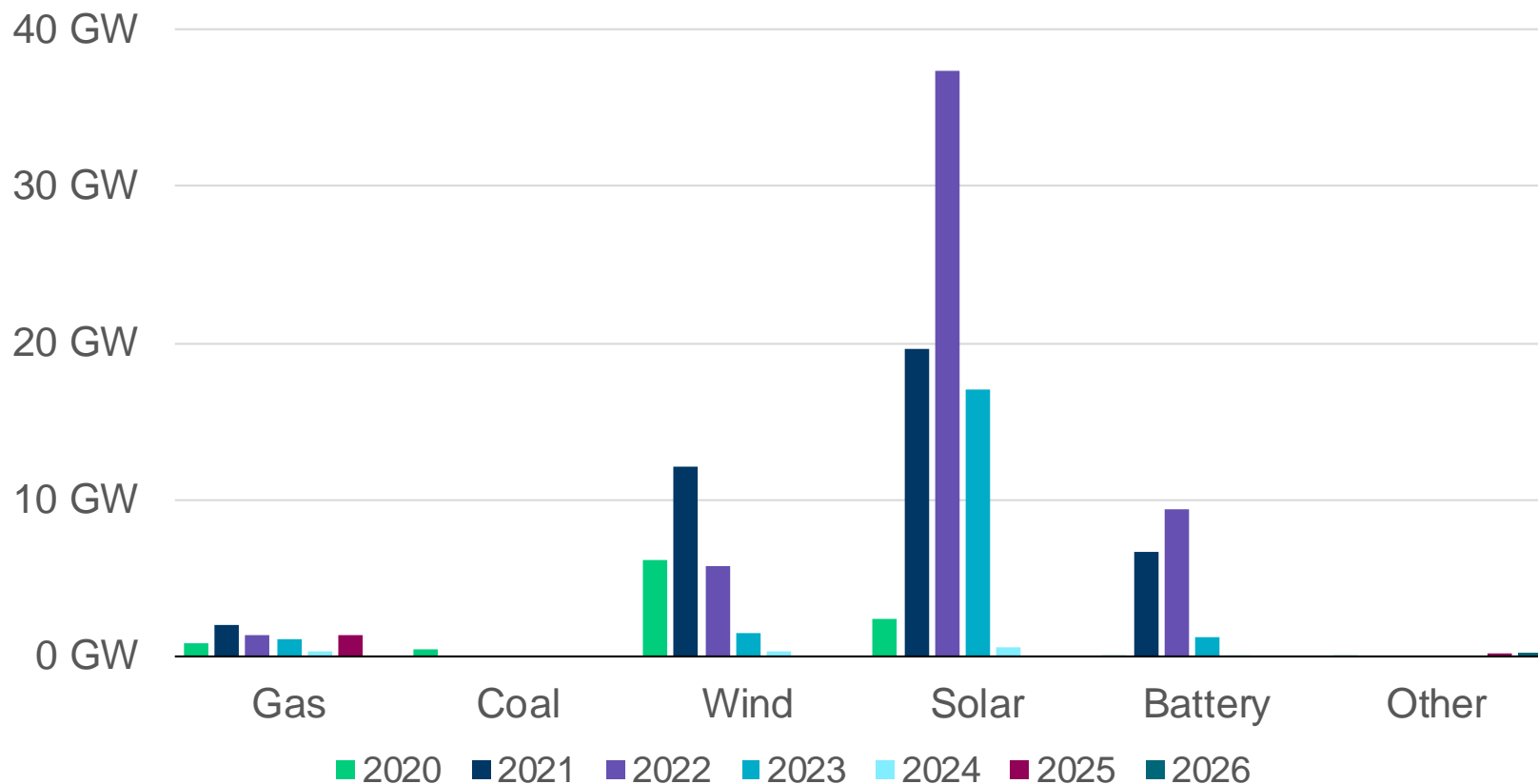
A break out by fuel type can be found in the monthly Generator Interconnection Status (GIS) reports available on the ERCOT Resource Adequacy Page: <http://www.ercot.com/gridinfo/resource>



Interconnection Queue Capacity by Fuel Type

Queue totals: Solar 77 GW (60.1%), Wind 26 GW (20.2%), Gas 7 GW (5.5%), Battery 17 GW (13.6%), Coal 0.4 GW (0.3%)

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

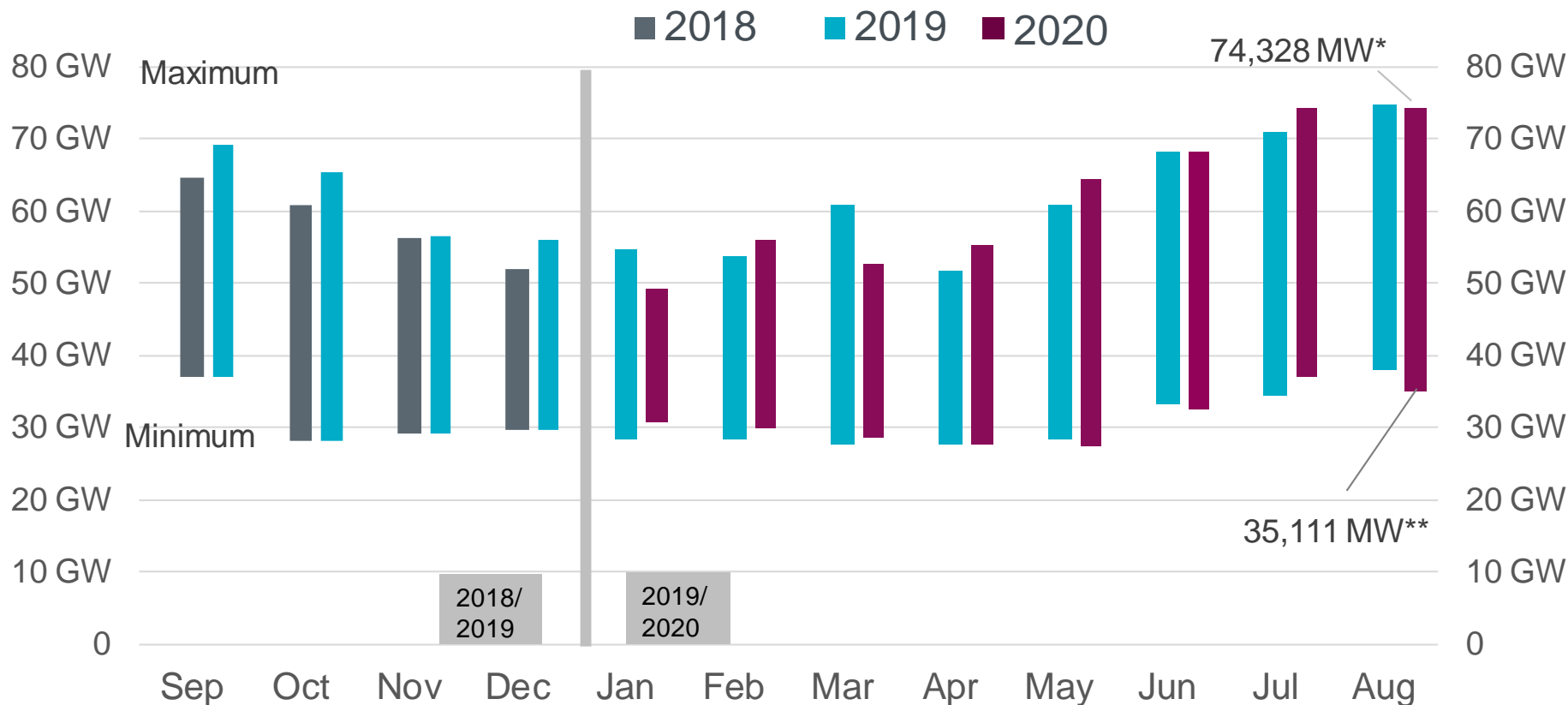


A break out by zone can be found in the monthly Generator Interconnection Status (GIS) reports available on the ERCOT Resource Adequacy Page: <http://www.ercot.com/gridinfo/resource>

Planning Summary

- ERCOT is currently tracking 644 active generation interconnection requests totaling 128,090 MW. This includes 76,961 MW of solar, 25,886 MW of wind, and 17,436 MW of battery projects as of August 31, 2020.
- ERCOT is currently reviewing proposed transmission improvements with a total estimated cost of \$1,116.8 Million as of August 31, 2020.
- Transmission Projects endorsed in 2020 total \$691.4 Million as of August 31, 2020.
- All projects (in engineering, routing, licensing and construction) total approximately \$7.26 Billion as of June 1, 2020.
- Transmission Projects energized in 2020 total about \$1.06 Billion as of June 1, 2020.

ERCOT set a maximum peak demand of 74,328 MW* in August 2020, which is 492 MW less than the August 2019 demand of 74,820 MW



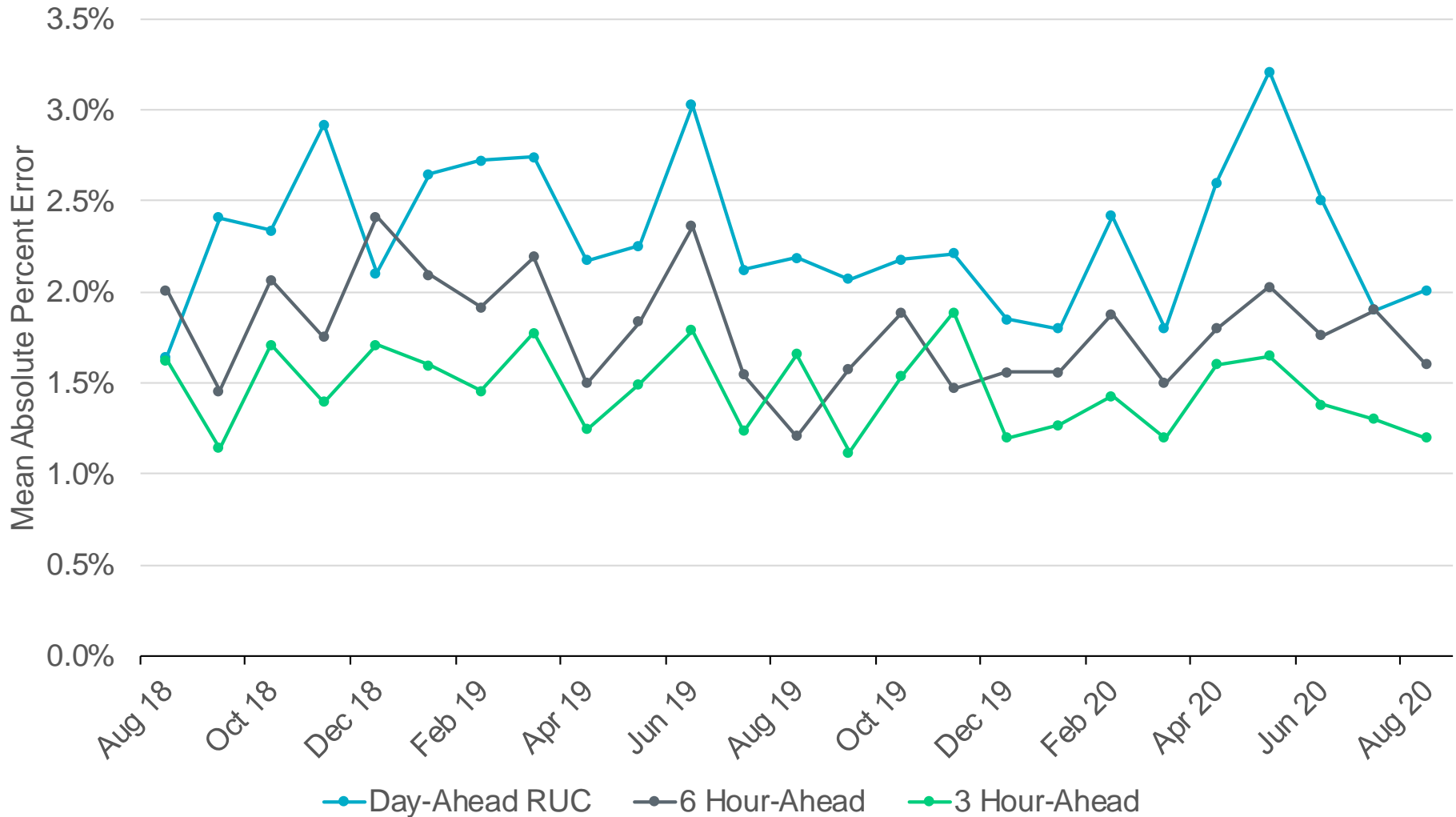
*Based on the maximum net system hourly value from September release of Demand and Energy 2020 report.

**Based on the minimum net system 15-minute interval value from September release of Demand and Energy 2020 report.

Data for latest two months are based on preliminary settlements.



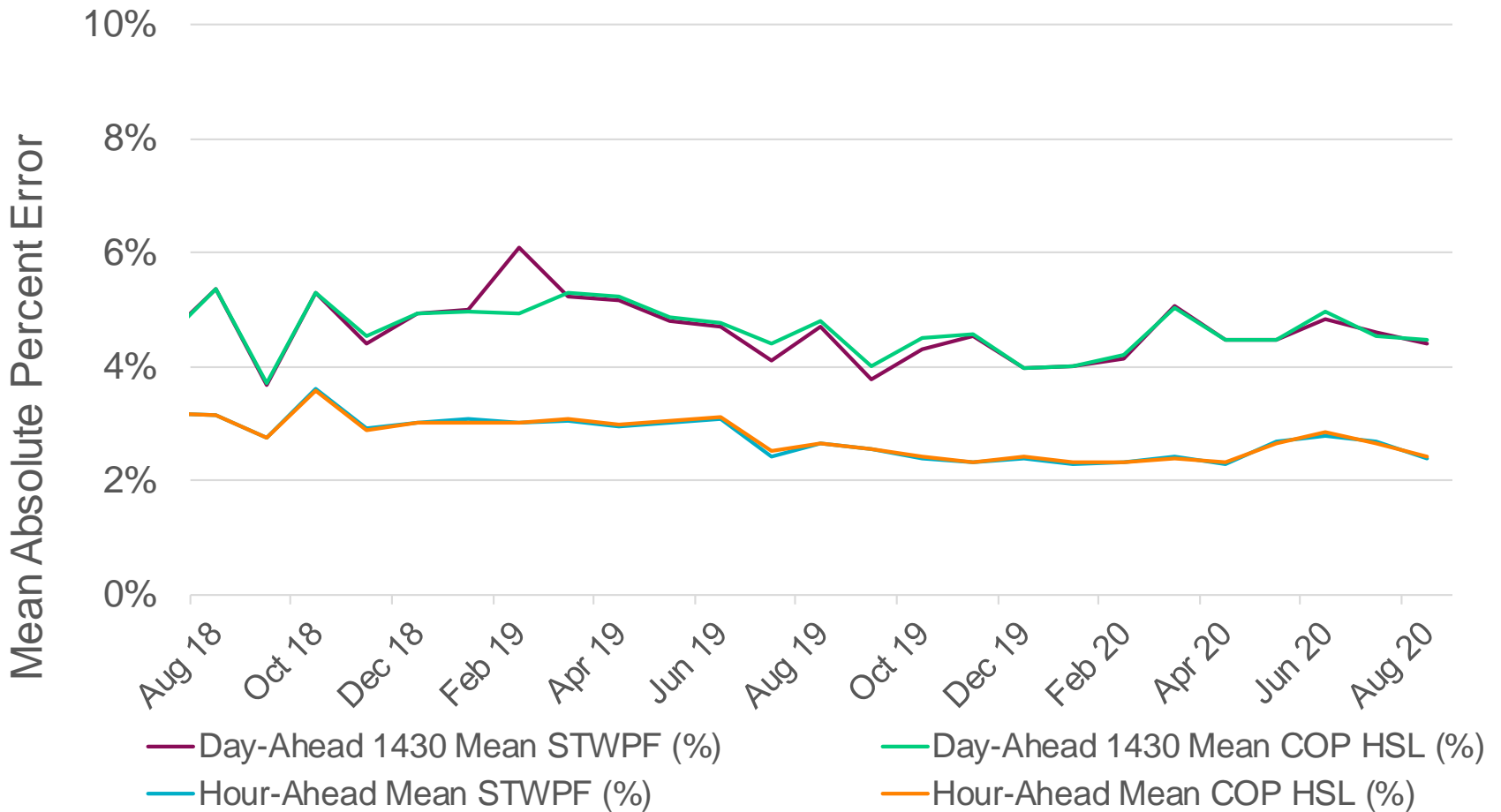
Mid-Term Load Forecast Performance



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



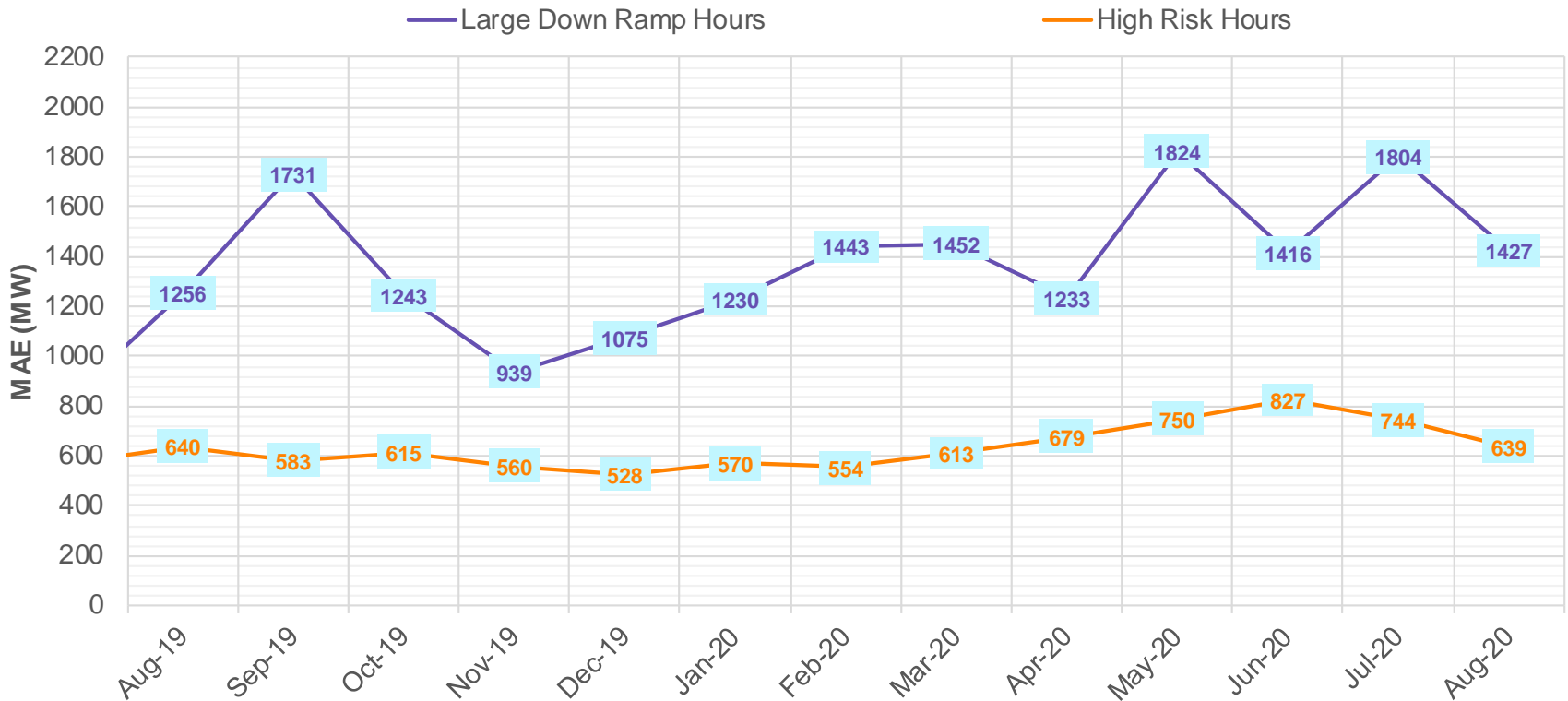
Wind Forecast Performance



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

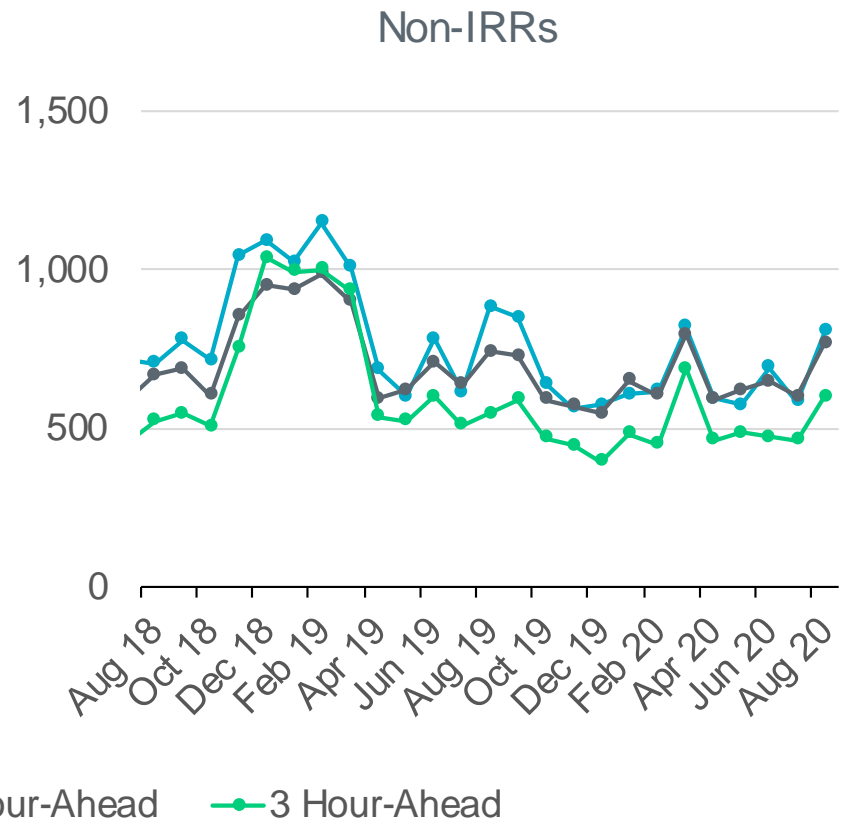
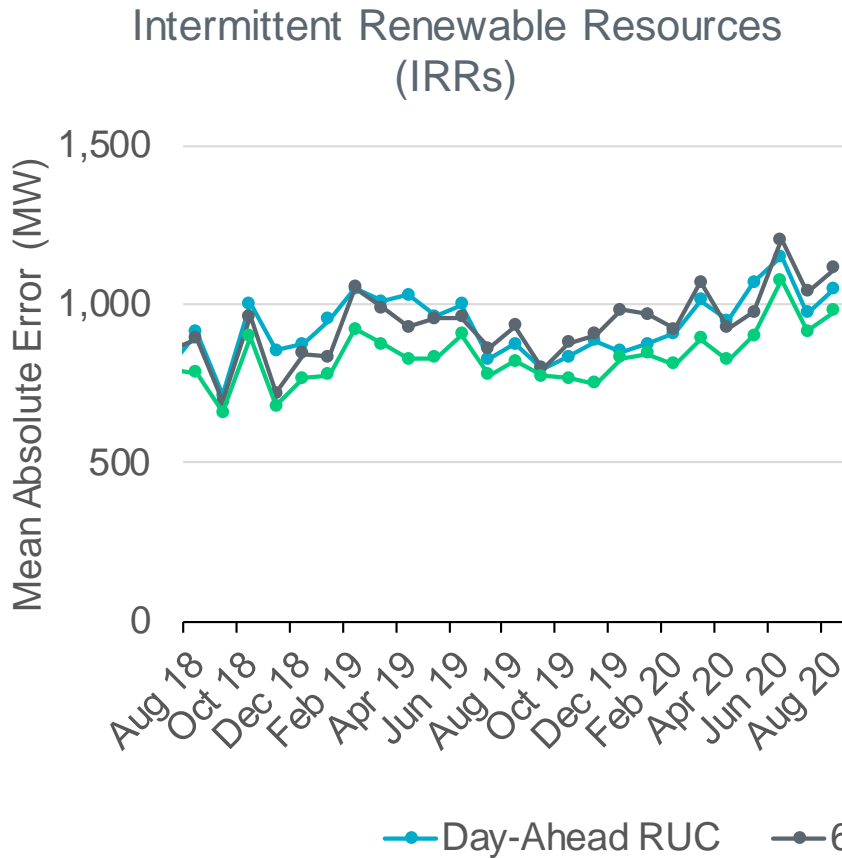
Hour-Ahead Mean Absolute Error (MAE) During Large Down Ramp (> 2000 MW) and High Risk Hours*



*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.

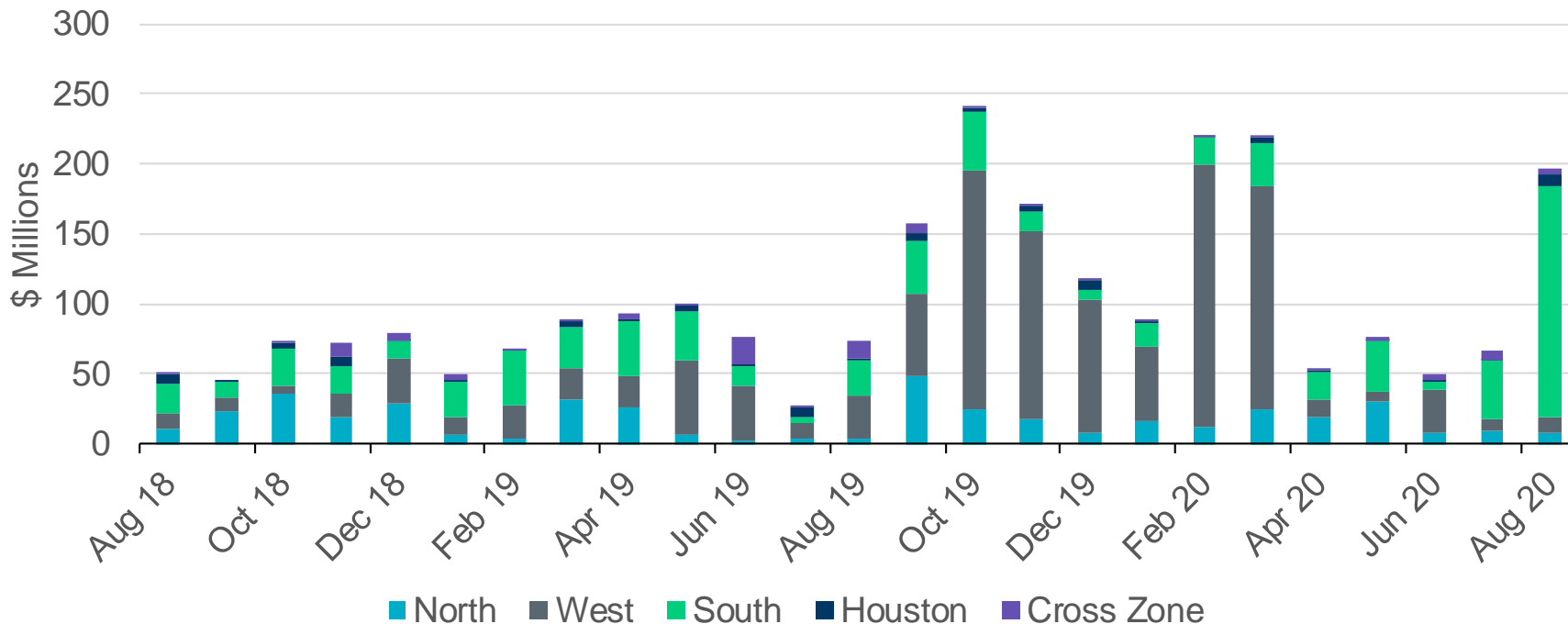
Forecast performance during large down ramp (wind ramp > 2000 MW) hours and high risk hours (historic risk of load ramping up and wind ramping down is high) is focused upon. Note that for the purposes of forecast performance measurement every hour in a month is classified as either a large down ramp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



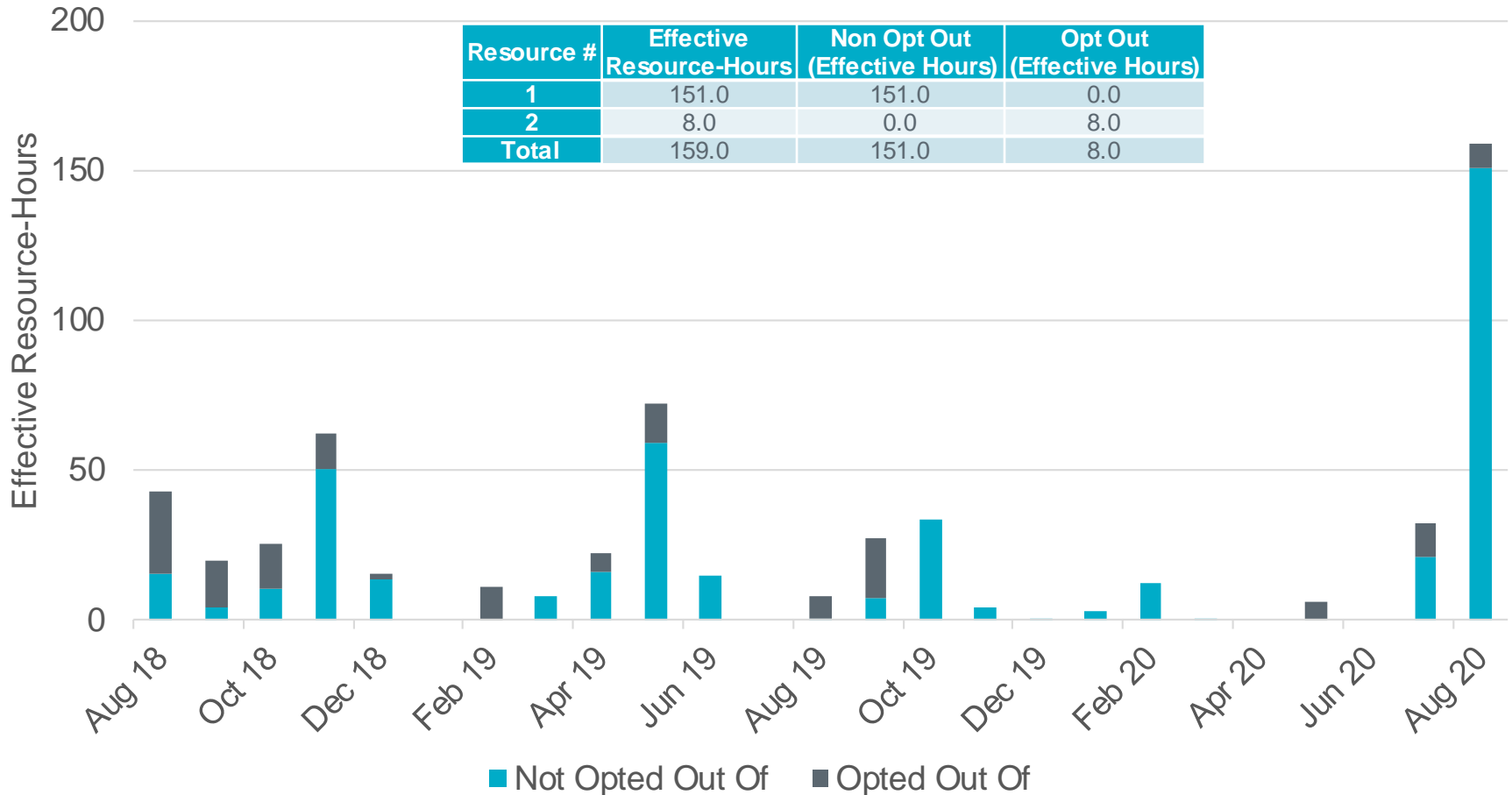
- COPs for IRRs are derived from wind and solar forecasts from ERCOT with any adjustments from Qualified Scheduling Entities.
- The installed capacity of approved Wind Units is 28,961 MW (as of August 31, 2020).
- The installed capacity of approved Solar Units is 3,950 MW (as of August 31, 2020).

Real-Time Congestion Rent by Zone



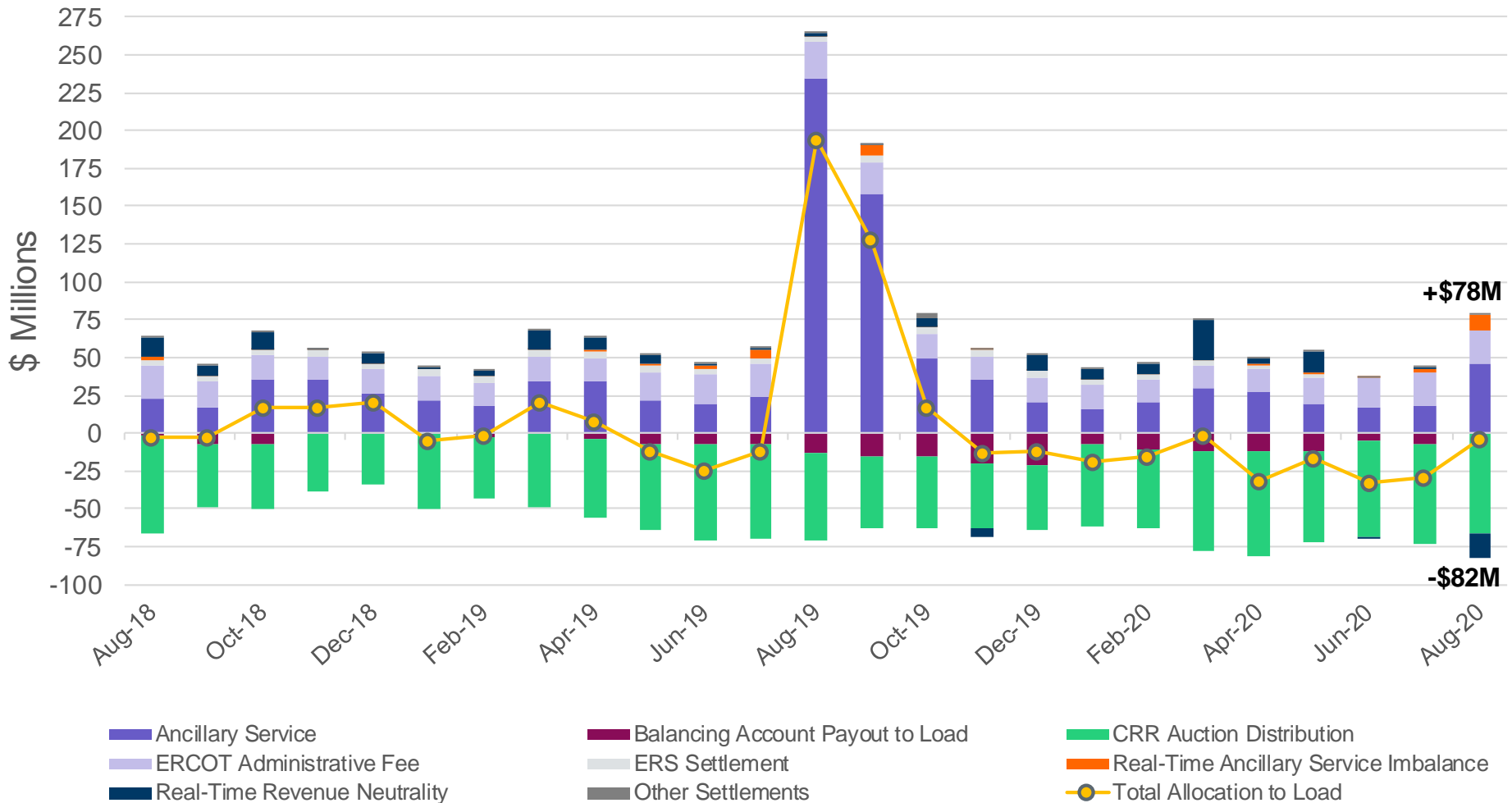
- The congestion rent for August significantly increased in the South Zone primarily due to constraints DNEDWED8: AZTECA_HEC1_1, SMV_ALT8: 479T479_1, and SPHAWES8: KEY_SW_N_MCAL1_1
- Congestion Rent is determined using the shadow prices and MW flows for individual constraints in SCED as well as the length 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.

Two Resources were Committed in August for Congestion



“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.

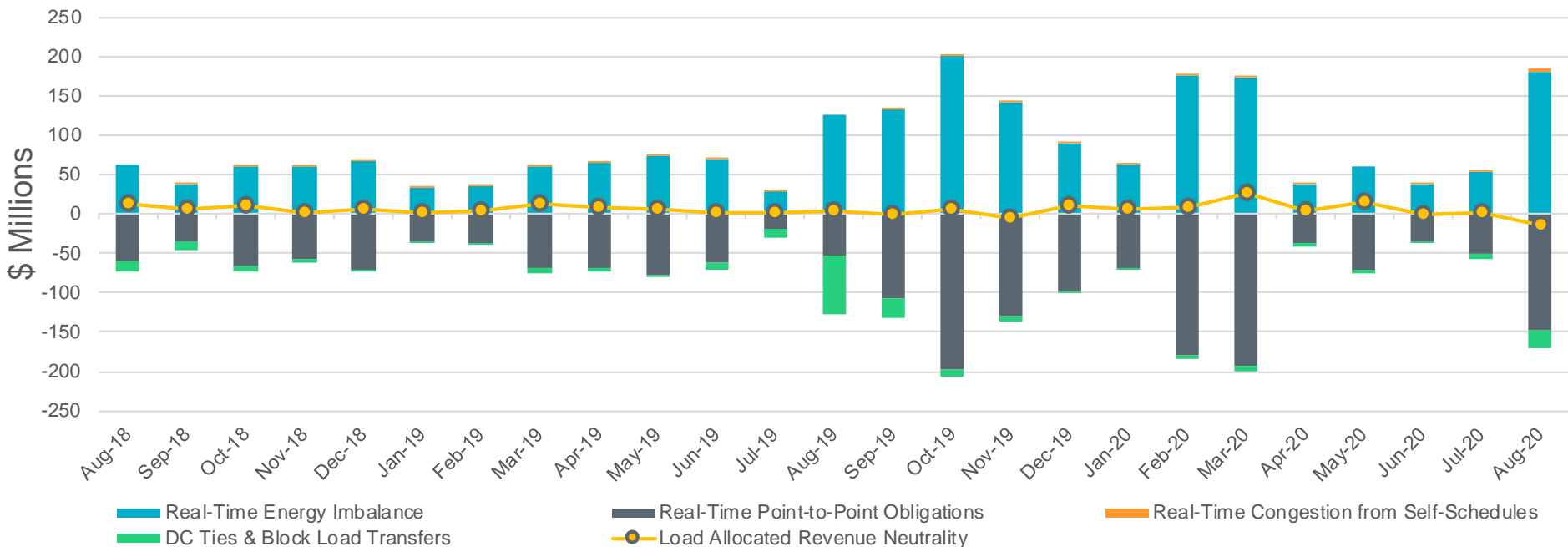
Net Allocation to Load in August 2020 was **\$-3.4 Million**



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



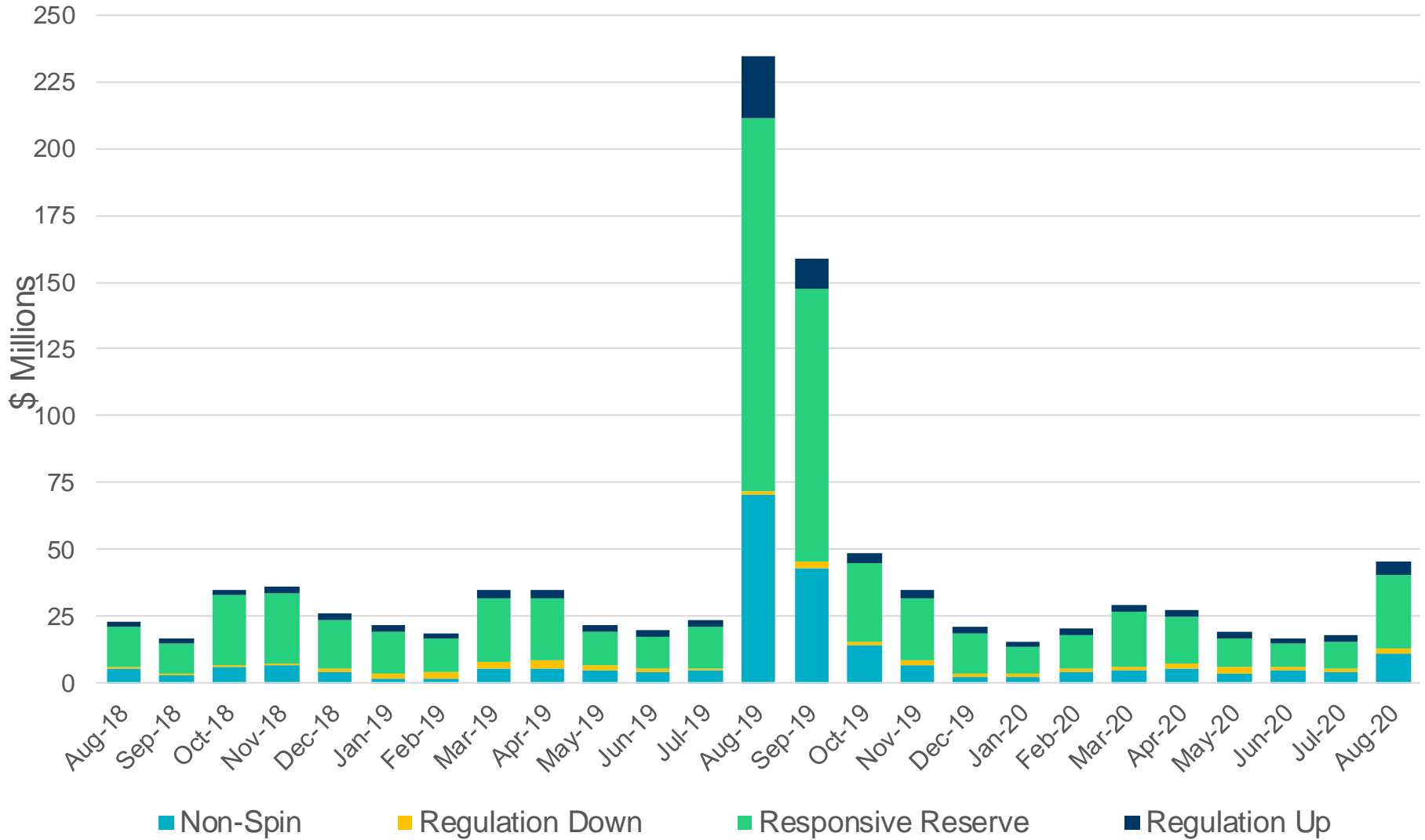
Real-Time Revenue Neutrality Allocated to Load was **\$-15.34M** for August 2020



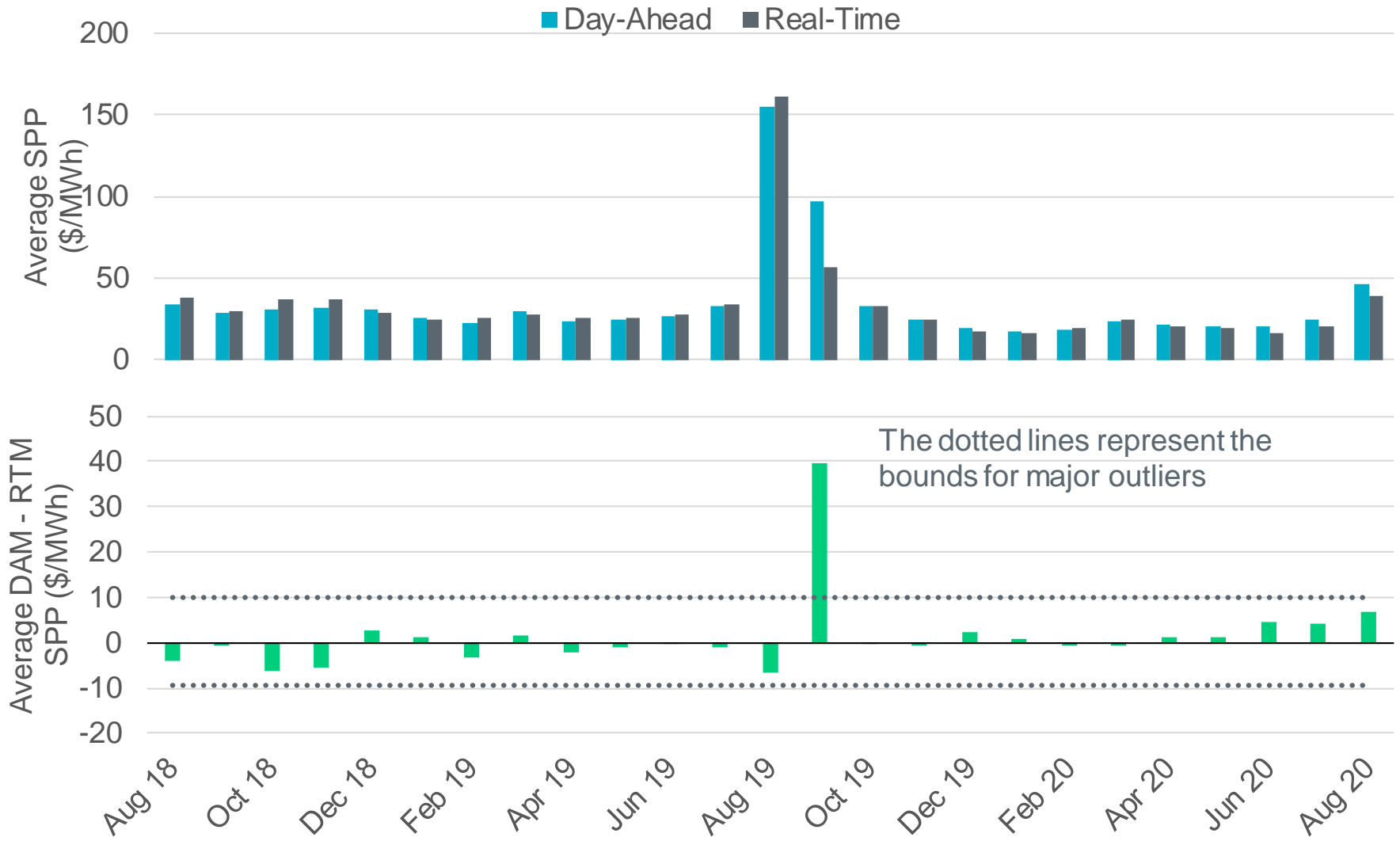
AUGUST 2020 (\$M)	
Real-Time Energy Imbalance	\$180.50
Real-Time Point-to-Point Obligation	(\$147.16)
Real-Time Congestion from Self-Schedules	\$4.90
DC Tie & Block Load Transfer	(\$22.91)
Load Allocated Revenue Neutrality	(\$15.34)



Ancillary Services for August 2020 totaled \$45.39M



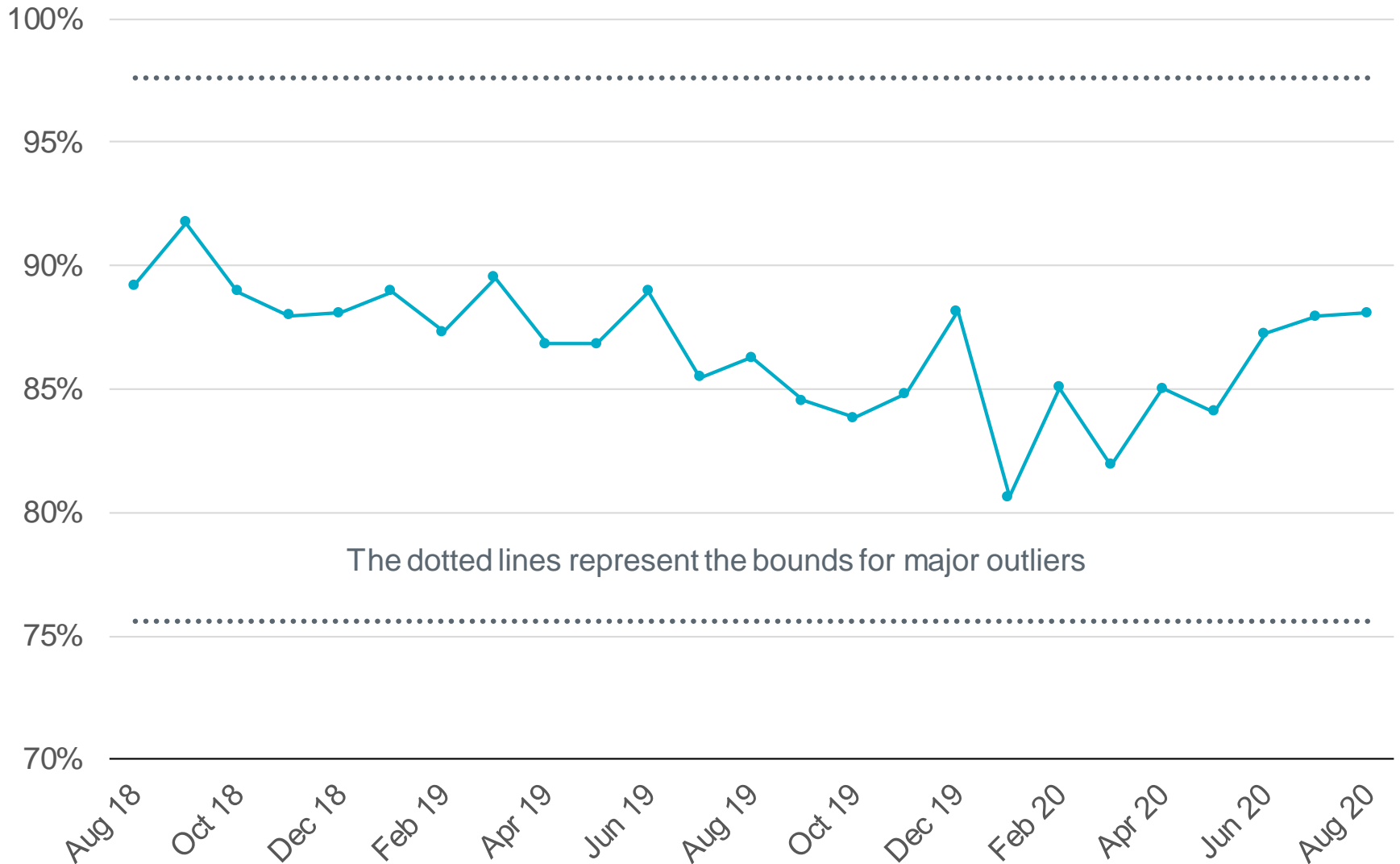
Day-Ahead and Real-Time Market Price Differences



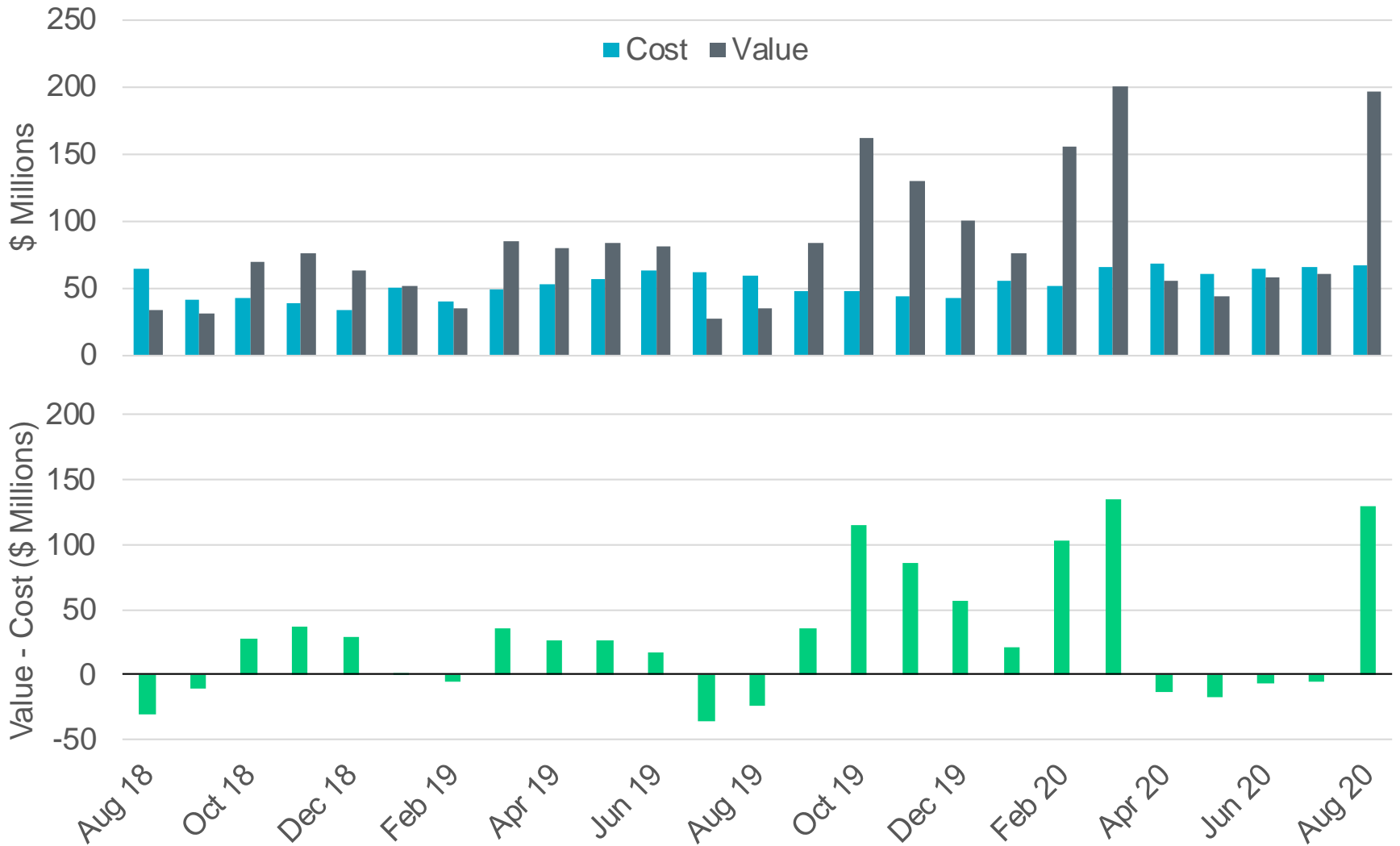
*Averages are weighted by Real-Time Market Load



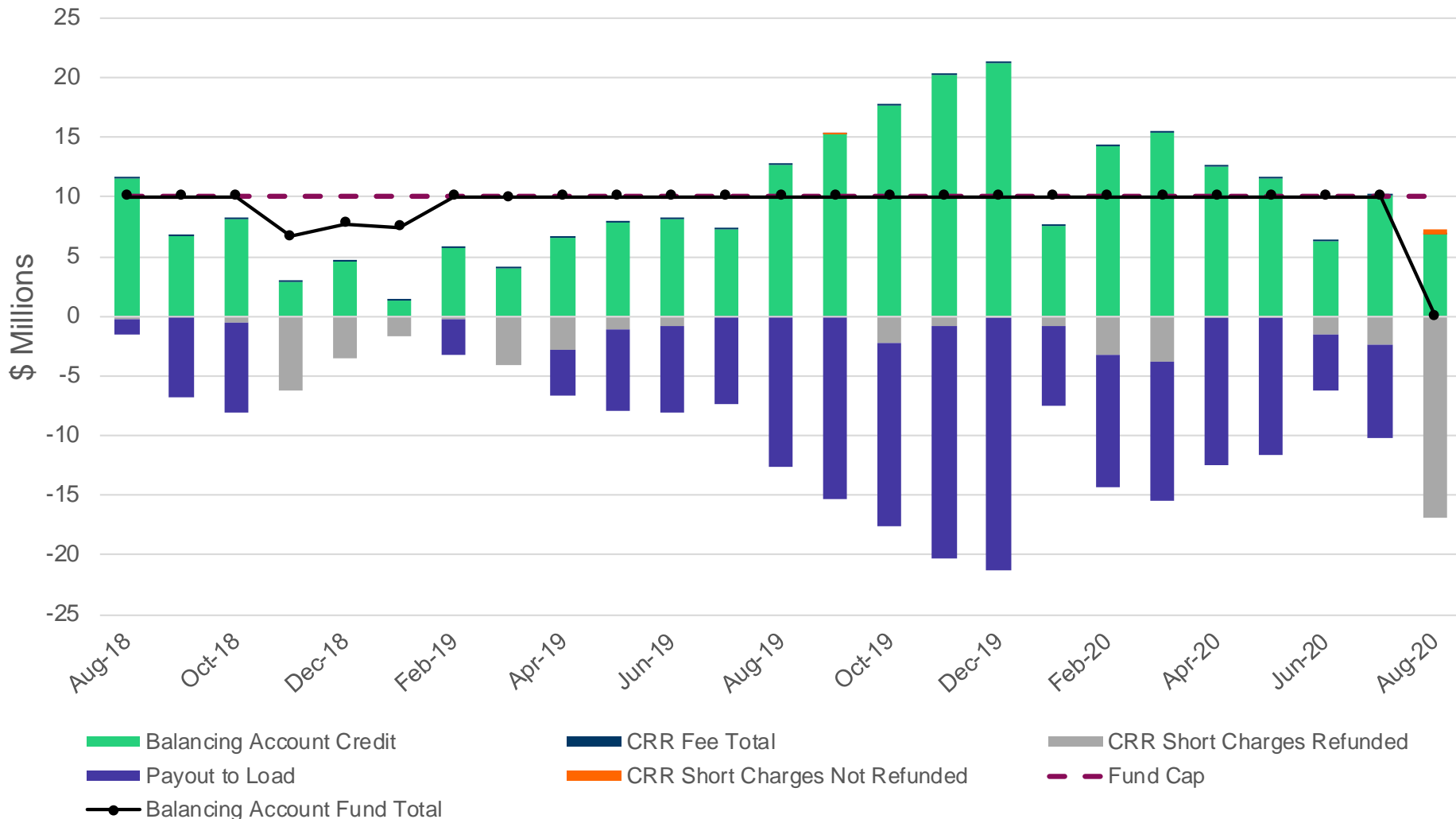
Percentage of Real-Time Load Transacted in the Day-Ahead Market



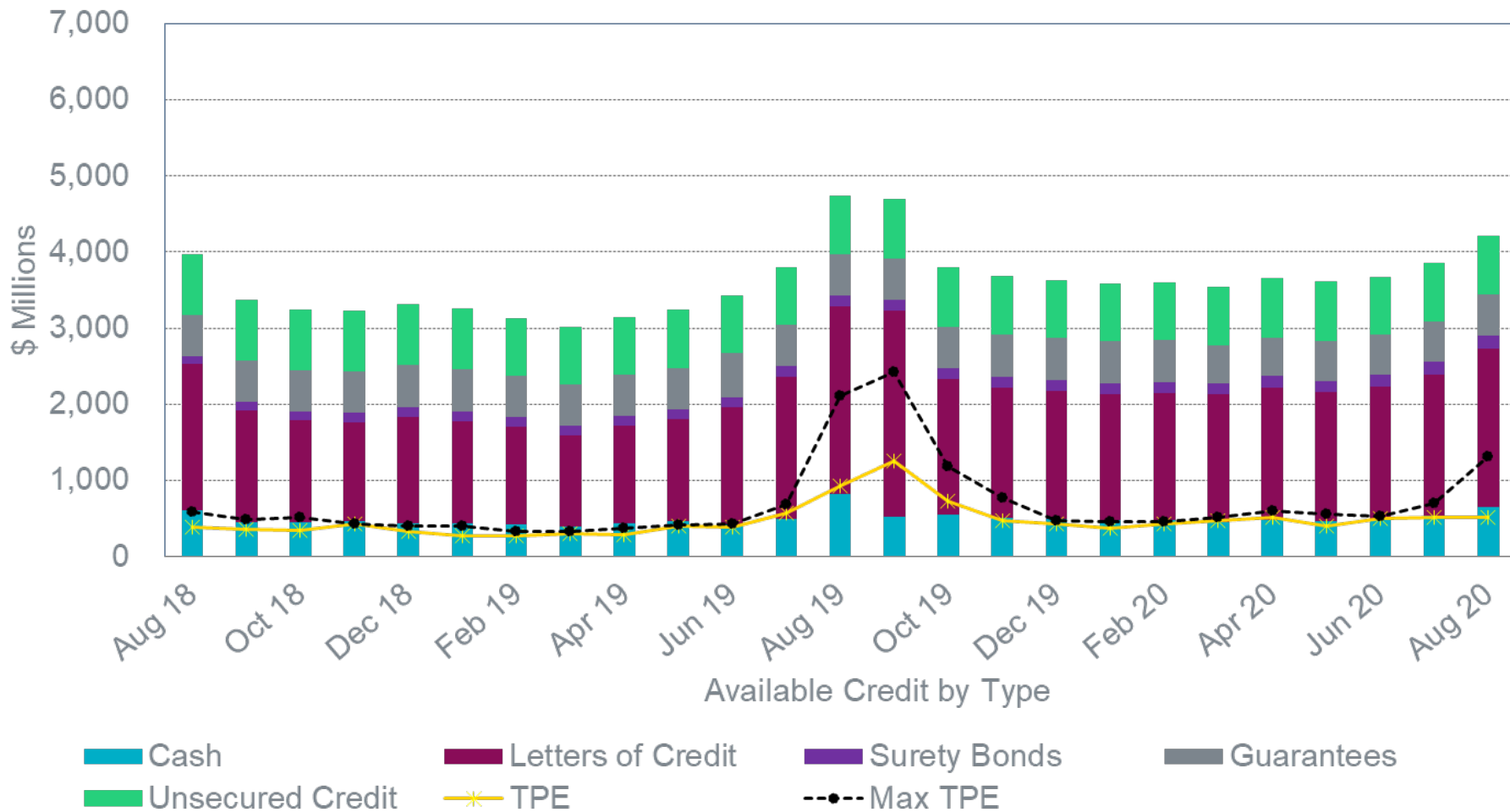
CRR Value and Cost Differences



Congestion Revenue Rights settlement payments were not fully funded. Partial funding to settle CRR short charges was provided from the CRR Balancing Account Fund, with a remaining amount of \$0.39M of CRR short charges not refunded. The beginning CRR Fund Balance for September is \$0.



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



*Numbers are as of month end except for Max TPE



Retail Transaction Volumes – Summary – August 2020

Transaction Type	Year-To-Date		Transactions Received	
	August 2020	August 2019	August 2020	August 2019
Switches	803,791	976,001	123,368	146,534
Acquisition	0	0	0	0
Move - Ins	1,822,656	2,005,936	253,886	278,737
Move - Outs	887,989	934,455	121,000	127,564
Continuous Service Agreements (CSA)	341,557	708,023	26,001	43,827
Mass Transitions	0	0	0	0
Total	3,855,993	4,624,415	524,255	596,662