ERCOT Monthly Operational Overview
(August 2023) Revised 11.17.23

ERCOT Public
September 18, 2023

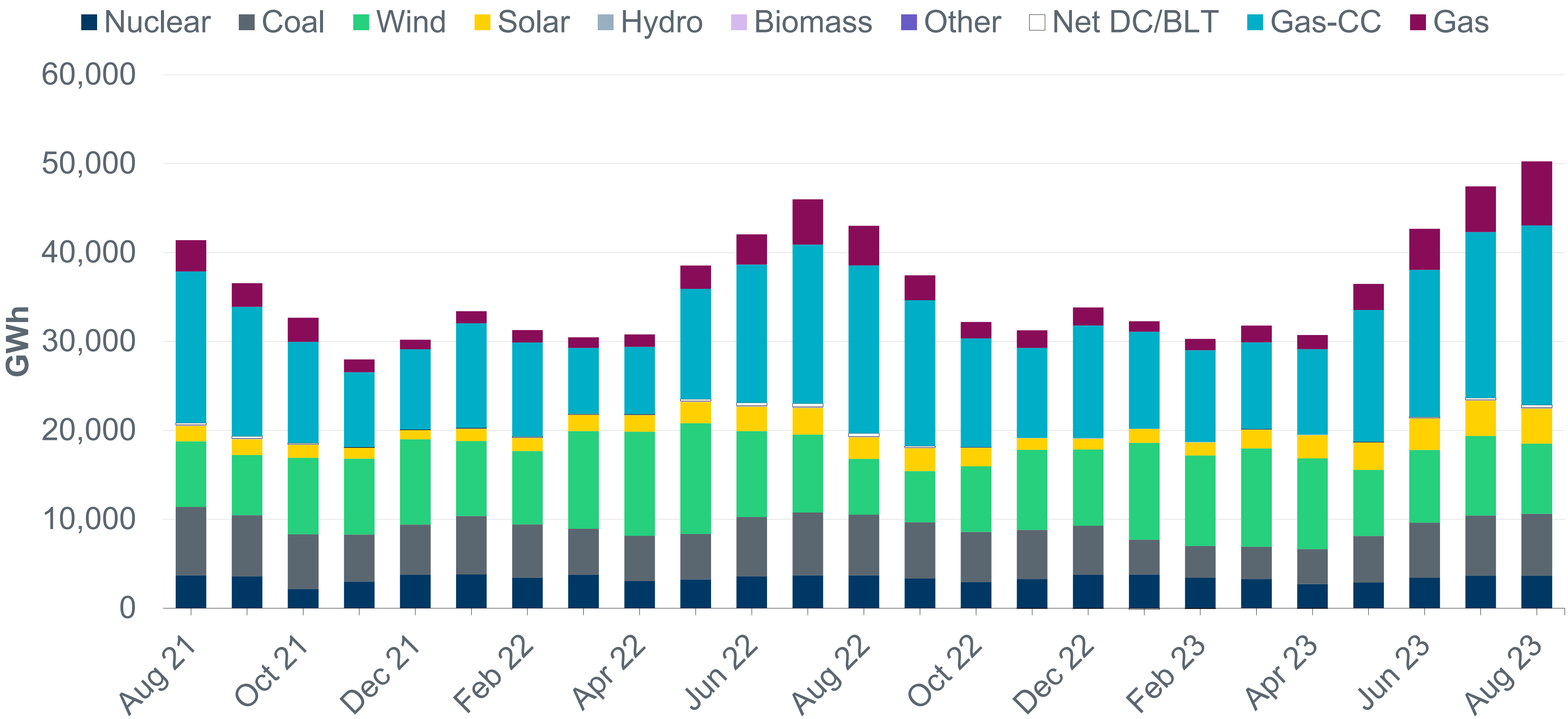
Highlights, Records and Notifications

- ERCOT set a new all-time record of 85,464 MW* for the month of August on 8/10/2023; this is 2,525 MW more than the previous all-time record of 82,939 MW set on 7/31/2023. This is 6,959 MW more than the August 2022 demand of 78,505 MW.

- ERCOT issued 24 notifications:
  - 5 OCN's due to extreme hot weather forecasted in North Central and South Central weather zones
  - 1 OCN due to Tropical Storm Harold
  - 1 Advisory due to Geomagnetic Disturbance
  - 1 Advisory due to PRC falling below 3000 MW
  - 1 Advisory due to DAM publishing delay
  - 2 Watches issued for HRUC failure
  - 6 Watches due to projected reserve capacity shortage with no market solution.
  - 4 Watches due to Transmission congestion, south of San Antonio constraint.
  - 2 DC Tie Curtailment Notices for DC_L due to a planned or unplanned outages and an actual or anticipated emergency
  - 1 DC Tie Curtailment Notice for for DC_R due to a planned or unplanned outage

* Preliminary value from September release of Demand and Energy 2023 report.

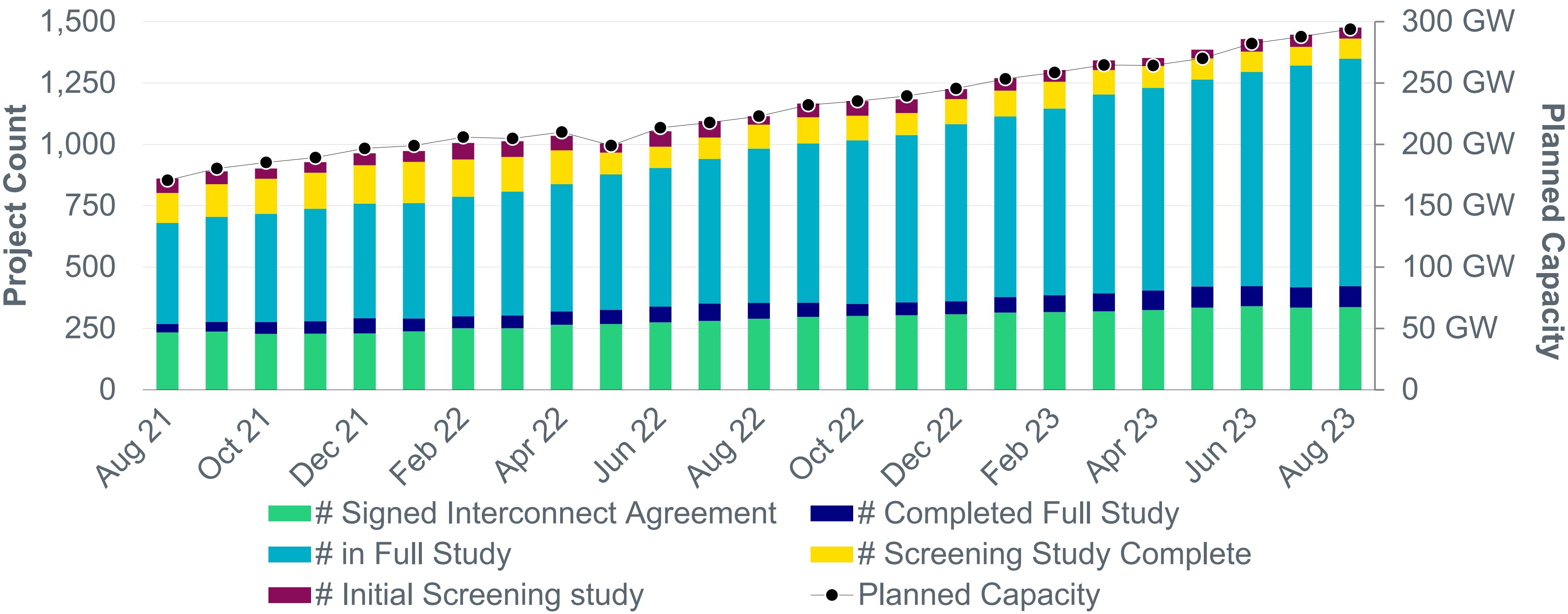
Monthly energy generation increased by 16.8% year-over-year to 50,241 GWh in August 2023, compared to 43,002 GWh in August 2022



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)

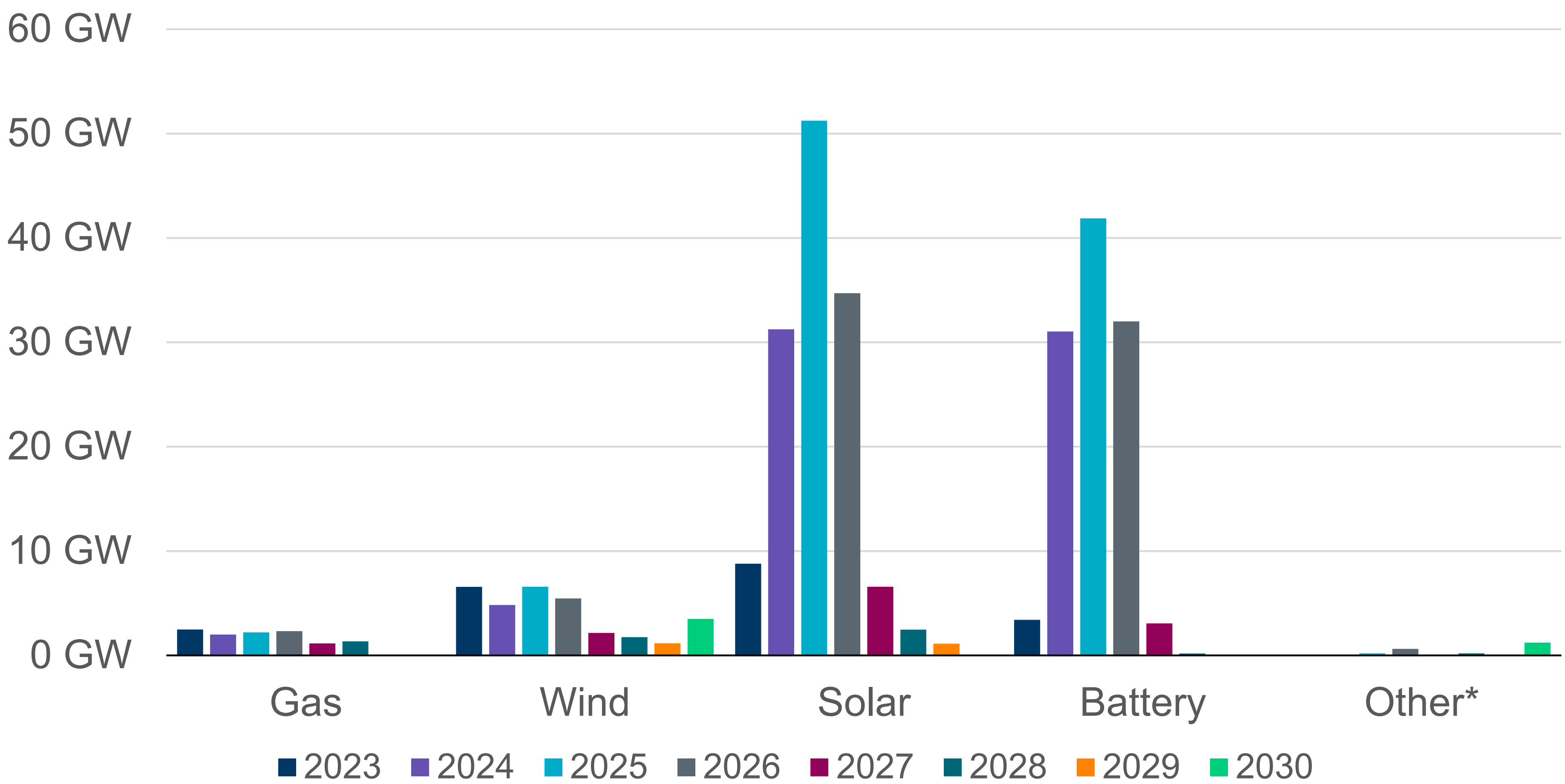


- There are an additional 30 “Small Generator” projects totaling 284 MW that are going through the simplified interconnection process.

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 136 GW (46.4%), Wind 32 GW (11%), Gas 12 GW (4%), Battery 112 GW (38%)
(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

* Other includes petroleum coke (pet coke), hydroelectric, fuel oil, geothermal energy, other miscellaneous fuels reported by developers, and fuel cells that use fuels other than natural gas.

Planning Summary

- ERCOT is tracking 1,537 active generation interconnection requests totaling 293,908 MW as of August 31. This includes 136,165 MW of solar, 32,034 MW of wind, 111,579 MW of battery, and 11,842 MW of gas projects; 76 projects were categorized as inactive, this is no change from 76 inactive projects in July 2023.

- ERCOT is currently reviewing proposed transmission improvements with a total estimated cost of $585.48 million as of August 31, 2023.

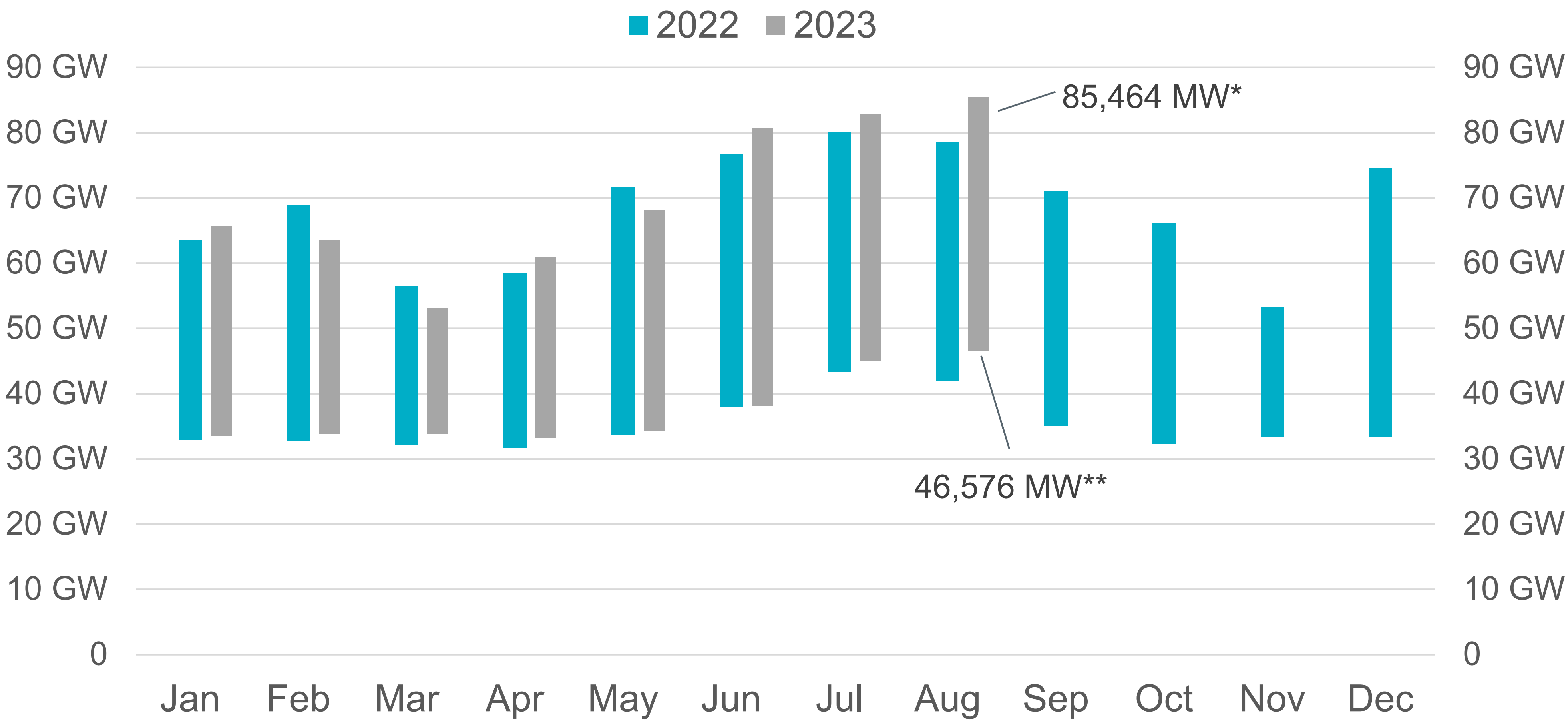
- Transmission Projects endorsed in 2023 total $1.589 billion as of August 31, 2023.

- All projects (in engineering, routing, licensing and construction) total approximately $12.469 billion as of May 12, 2023.

- Transmission Projects energized in 2023 total about $442 million as of May 12, 2023.

Corrected

ERCOT set a new all-time record of 85,464 MW* for the month of August on 8/10/2023; this was 2,525 MW more than the previous all time record of 82,939 MW set on 7/31/2023. This is 6,959 MW more than the August 2022 demand of 78,505 MW.

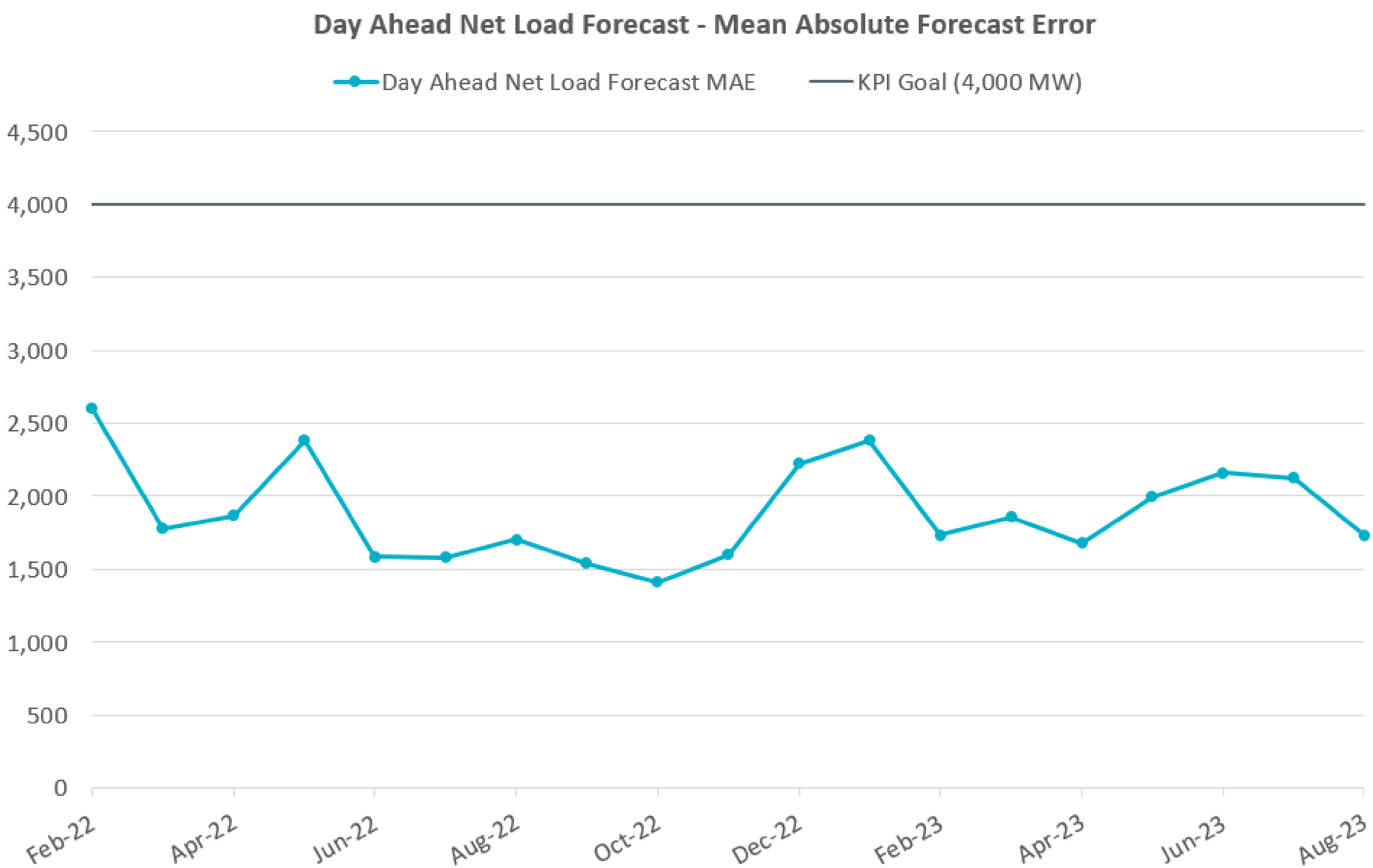


*Based on the maximum net system hourly value from the August Demand and Energy 2023 report.

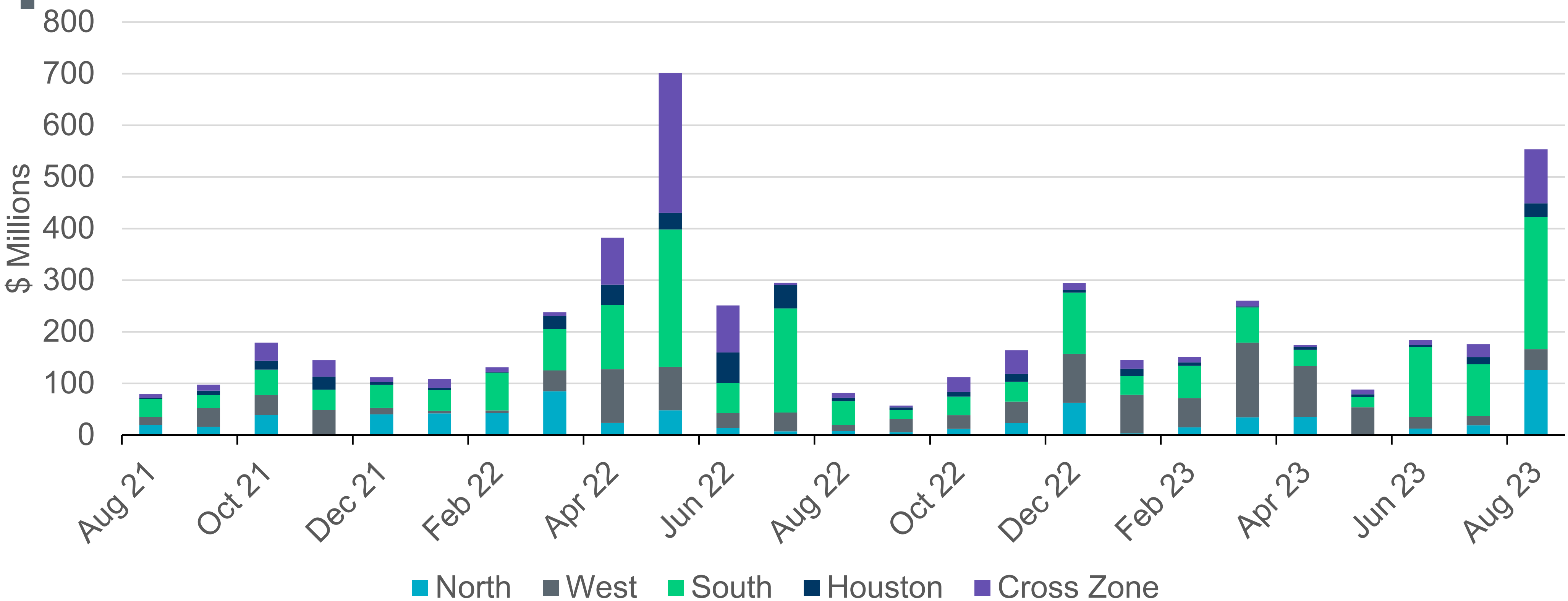
**Based on the minimum net system 15-minute interval value from the August Demand and Energy 2023 report.

Data for latest two months are based on preliminary settlements.

Net Load Forecast Performance

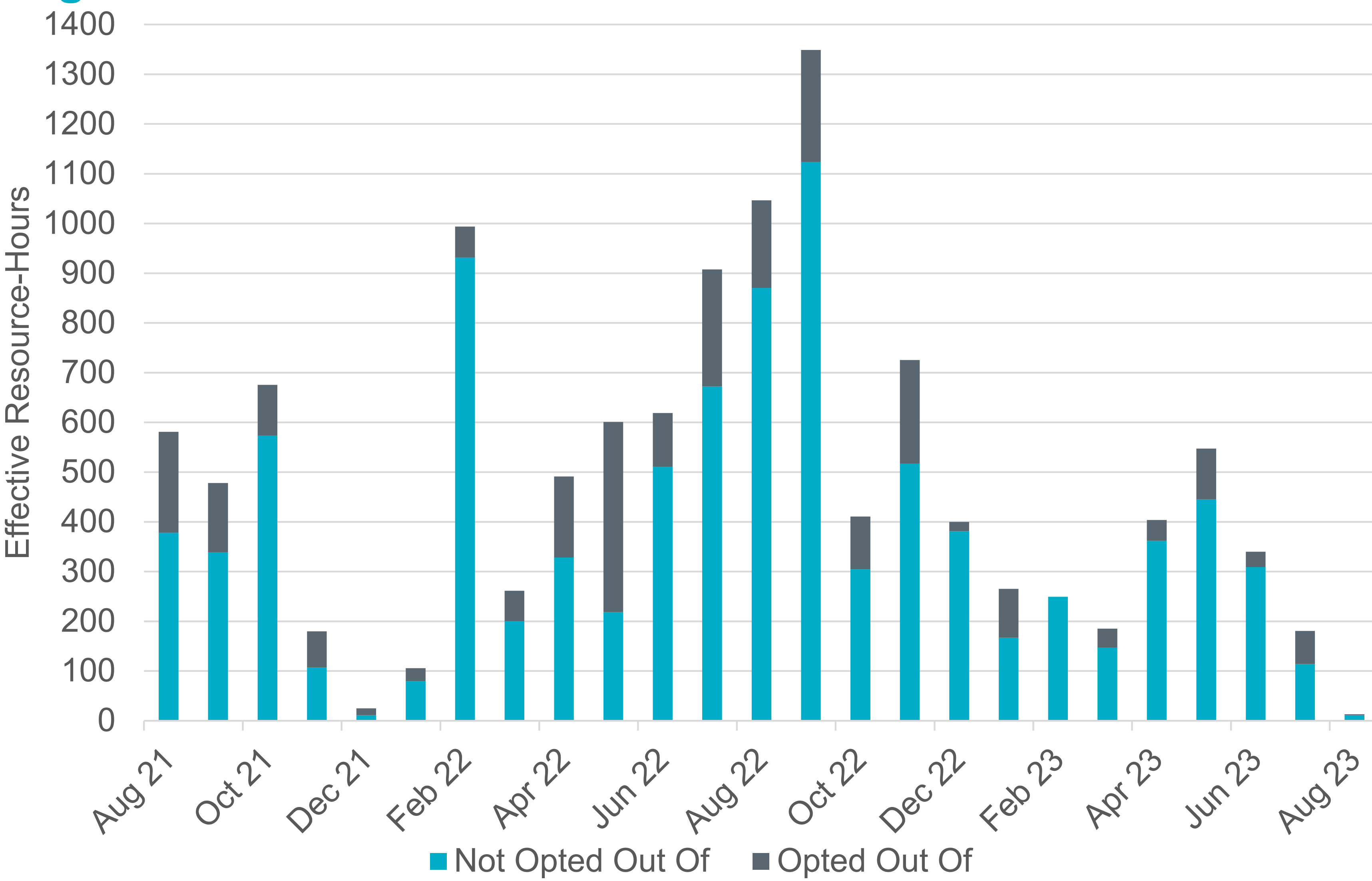


Real-Time Congestion Rent by Zone



- Congestion rent increased in all zones in August compared to July.
- The two zones with the highest congestion rent were the South and North Zones.
  - Congestion rent in the South Zone was primarily driven by the loss of the double circuit 345 kV contingency from Elmcreek to San Miguel Gen overloading the 345 kV transmission line from Pawnee Switching Station to Calaveras.
  - Congestion rent in the North Zone was primarily driven by the loss of the 345 kV contingency from Rattlesnake Road Switch to Lake Creek overloading the 345 kV transmission line from St Johns Switch to Jewett.
- 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.

Eight Resources were Committed in August for Capacity or Congestion

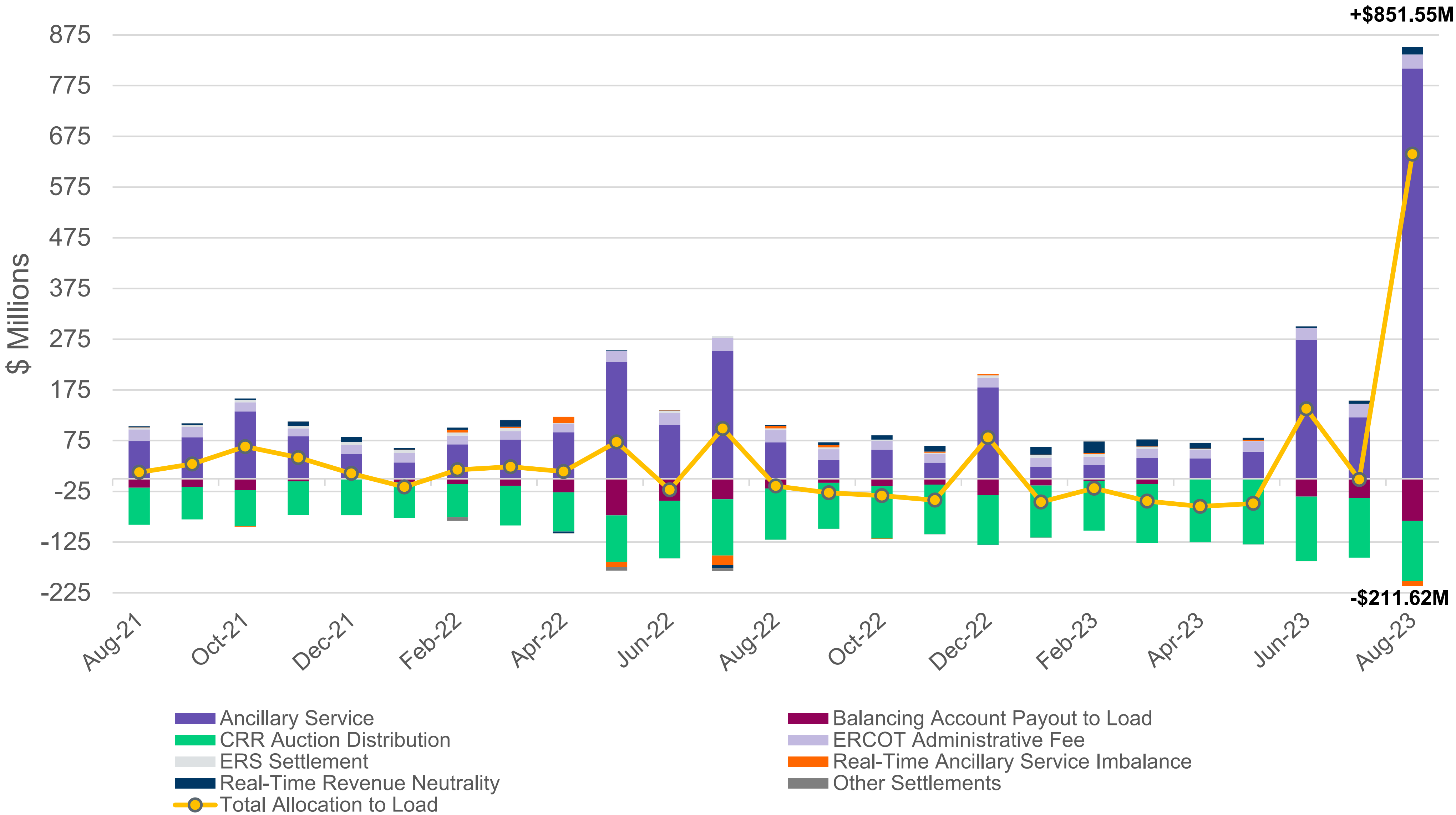


“Effective Resource-Hours” excludes any period during a Reliability Unit Commitment hour when the RUC-committed Resource was starting up, shutting down, off-line, or otherwise not available for dispatch by SCED.

Eight Resources were Committed in August for Capacity or Congestion

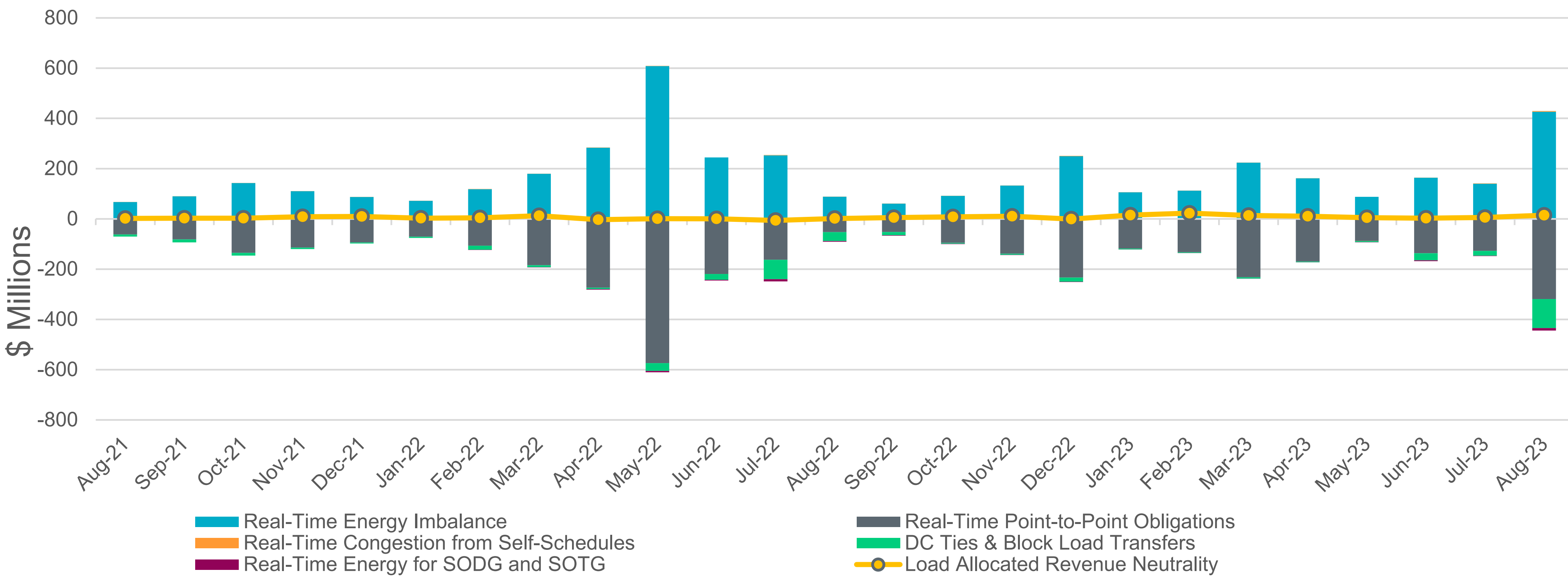
Resource #	Effective Resource-hours	Non Opt Out (Effective Hours)	Opt Out (Effective Hours)
1	2.0	0.0	2.0
2	2.1	2.1	0.0
3	2.1	2.1	0.0
4	1.0	1.0	0.0
5	1.8	1.8	0.0
6	2.0	2.0	0.0
7	1.0	1.0	0.0
8	1.0	1.0	0.0
Total	**13.0**	**11.0**	**2.0**

Net Allocation to Load in August 2023 was $639.93 Million



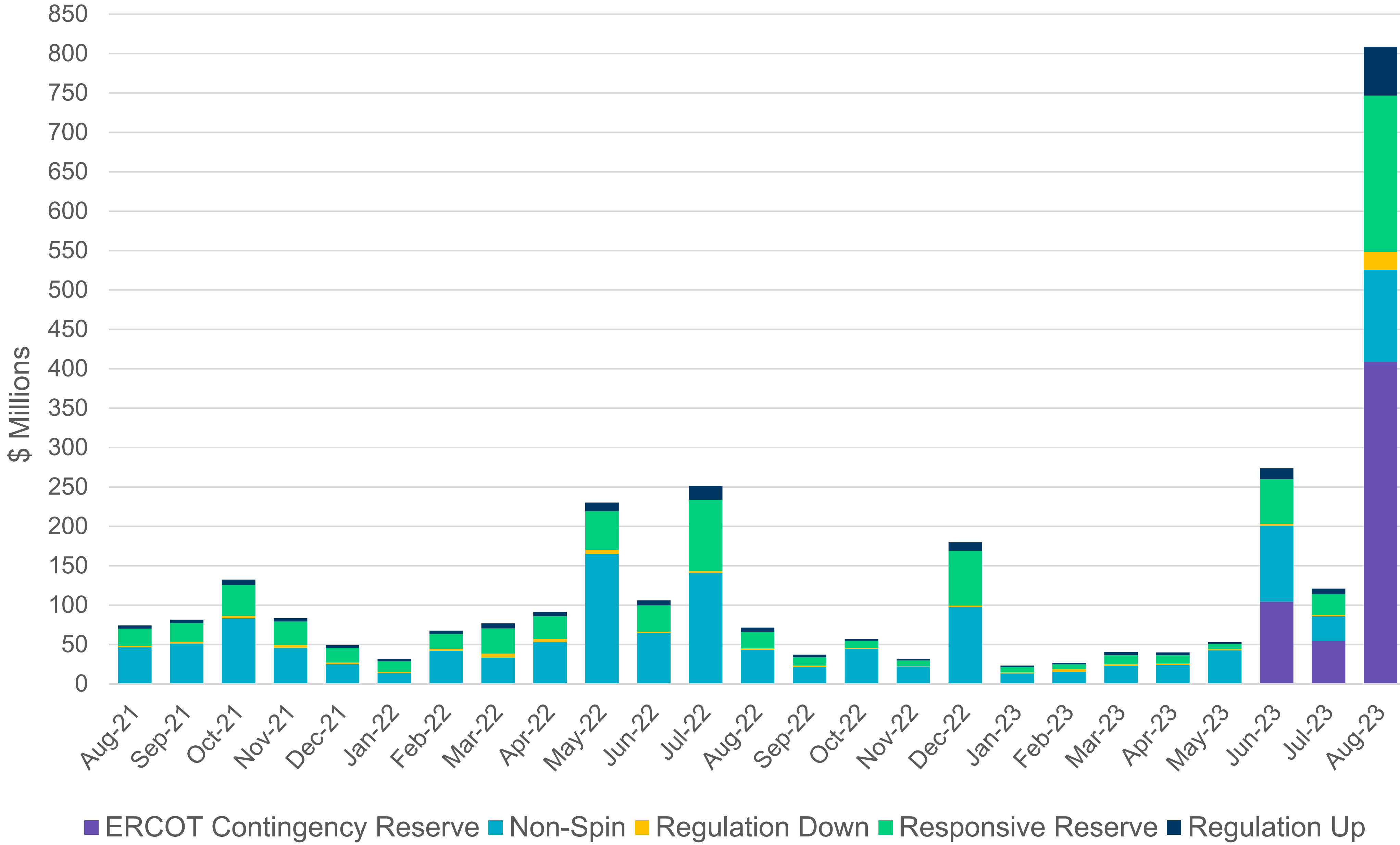
This information is available in tabular form in the Settlement Stability Report presented quarterly to the [Wholesale Market Subcommittee]

Real-Time Revenue Neutrality Allocated to Load was $14.77M for August 2023

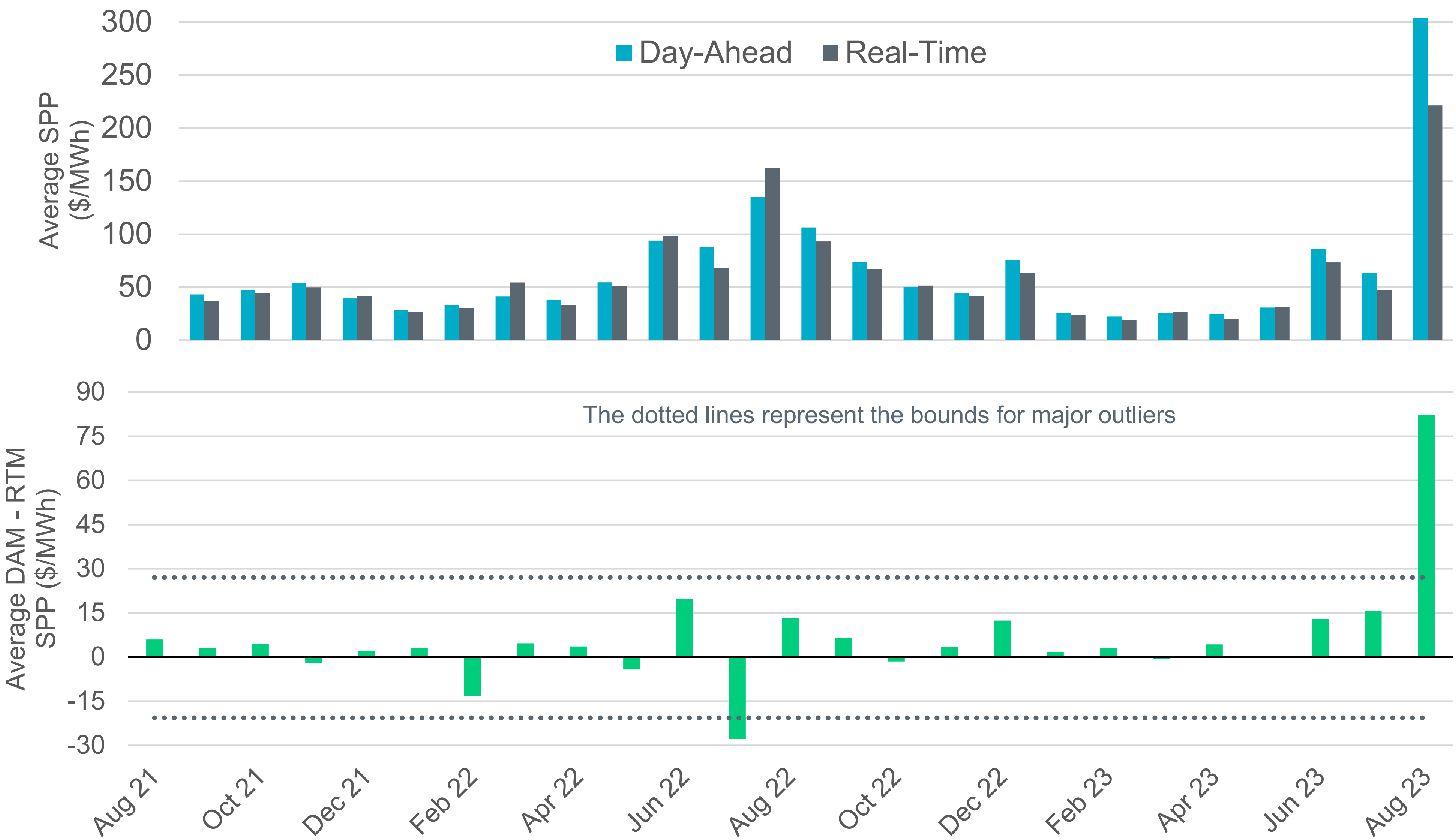


	August 2023 ($M)
Real-Time Energy Imbalance	$426.19
Real-Time Point-to-Point Obligation	($319.10)
Real-Time Congestion from Self-Schedules	$3.04
DC Tie & Block Load Transfer	($115.49)
Real-Time Energy for SODG and SOTG	($9.42)
Load Allocated Revenue Neutrality	**$14.77**

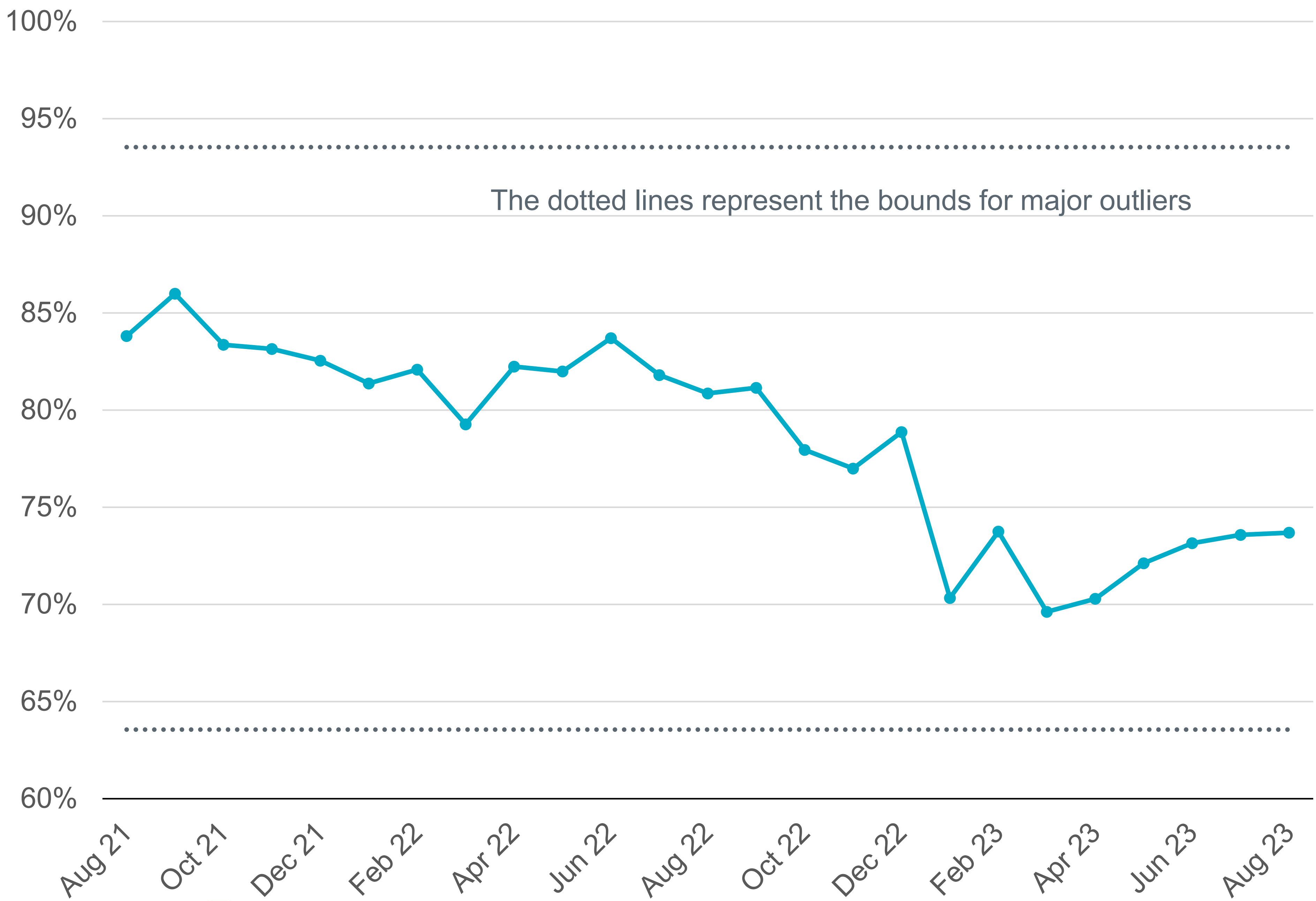
Ancillary Services for August 2023 totaled $808.5M



Day-Ahead and Real-Time Market Price Differences



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

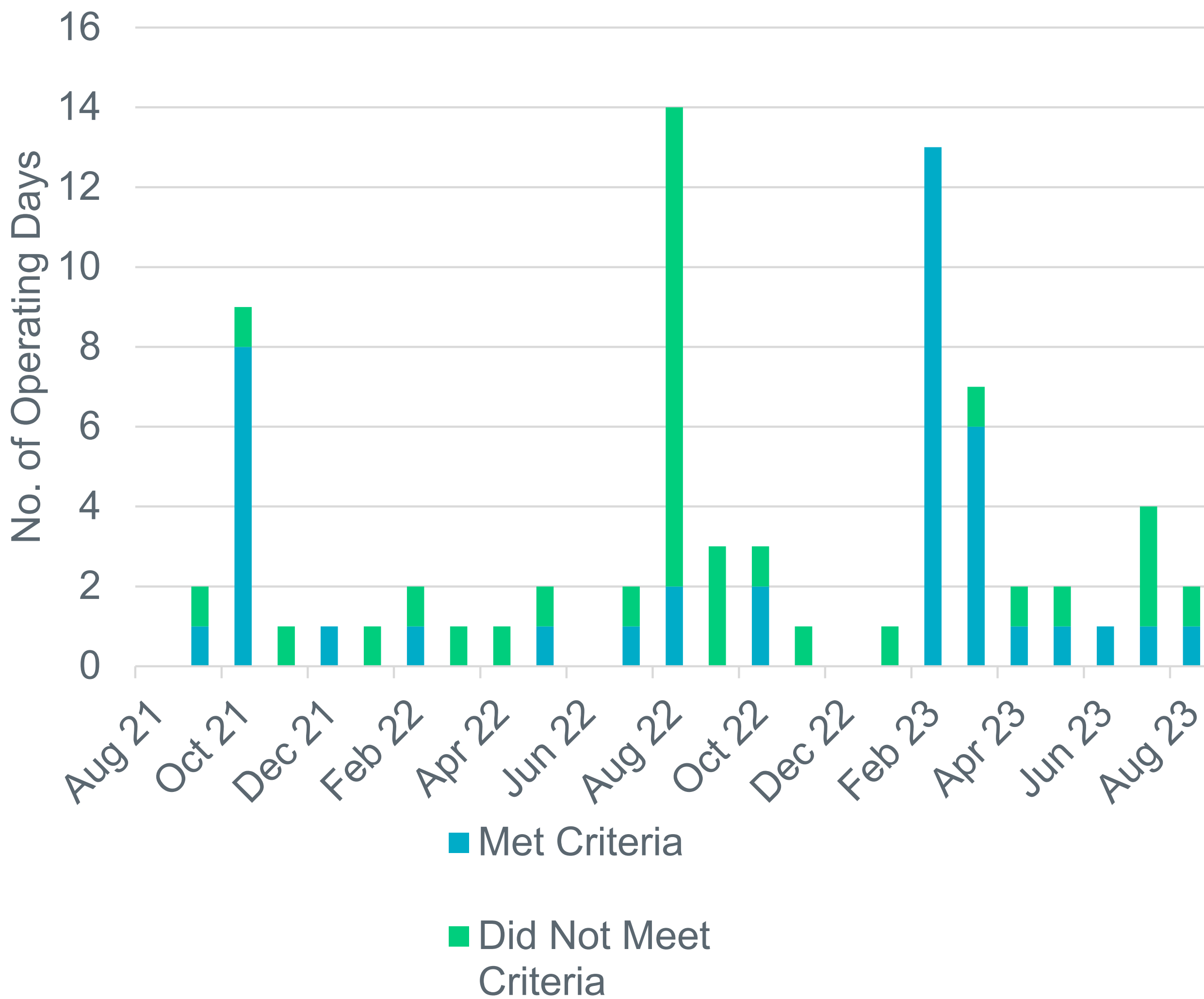


CRR Value and Cost Differences

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 two categories:

- Days that met the criteria for "significance" under NPRR1024 and were corrected; and
- Days that were not corrected because they did not meet the criteria for "significance" under NPRR1024.



Details for Price Corrections Review

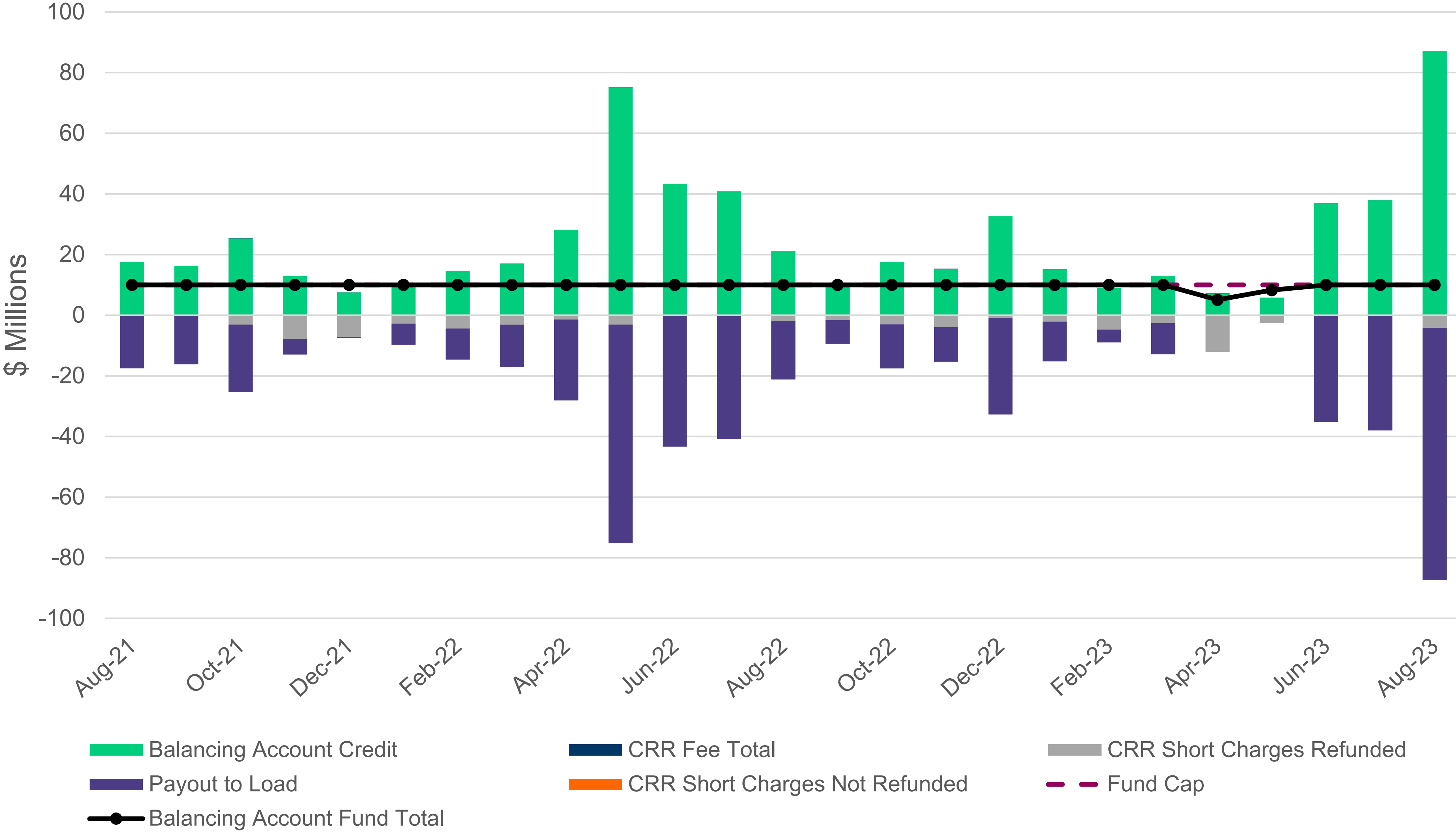
Operating Day Meeting Significance Criteria

- On August 8,2023, SCED failed to run for interval 05:45. Emergency basepoints were activated between 05:47 and 05:50. Upon completion of the impact analysis, ERCOT determined that criteria was met for price correction with the estimated total dollar impact to Real-Time Metered Prices (RTRMPRs) being approximately $786.

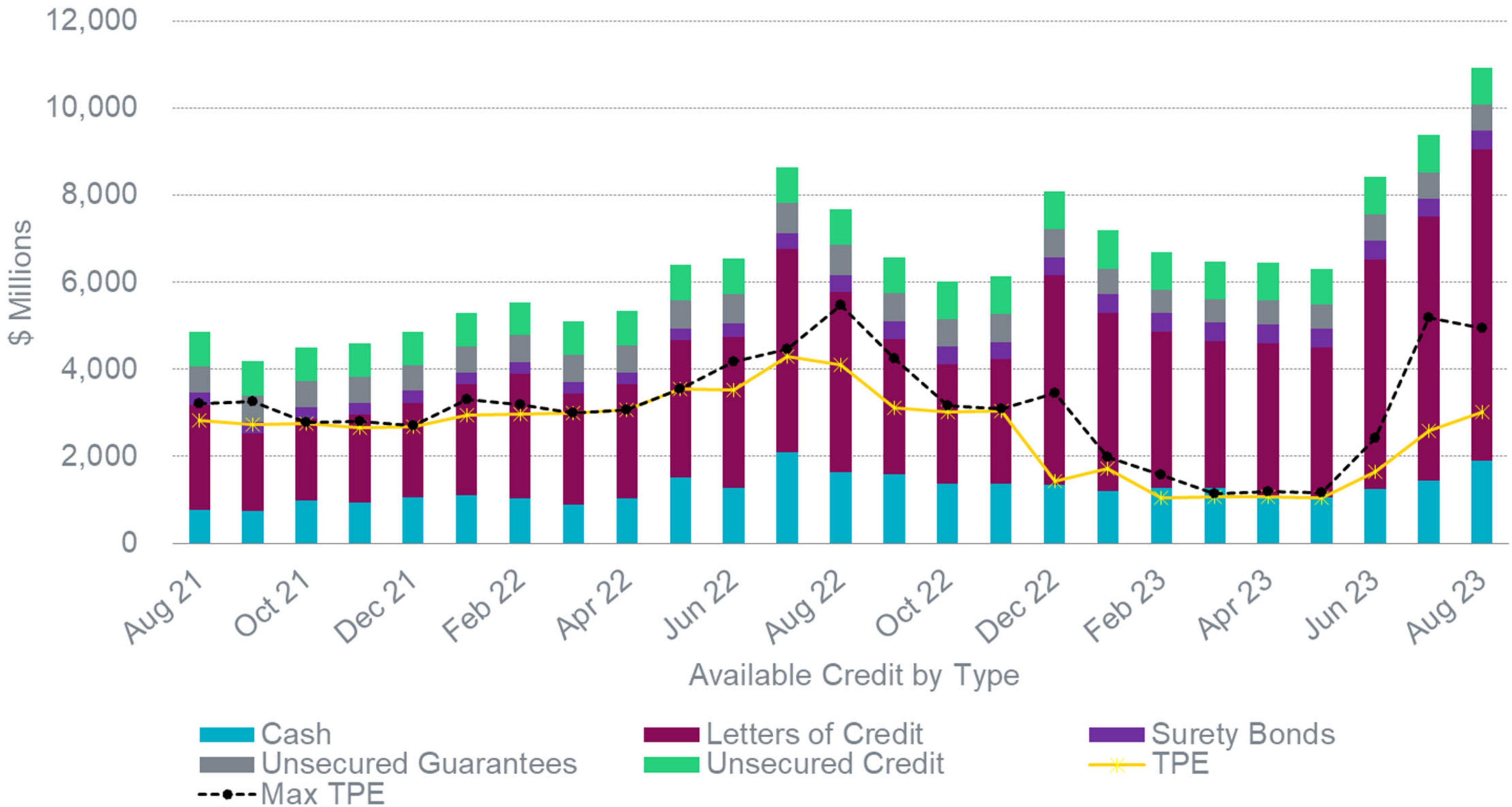
Operating Days Not Meeting Significance Criteria

- On August 9, 2023, Emergency Basepoints were activated during a planned failover. The resulting impact analysis showed that this day had not met criteria for price correction, with an estimated total dollar impact of $272.07.

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 – August 2023

	Year-To-Date		Transactions Received	
Transaction Type	August 2023	August 2022	August 2023	August 2022
Switches	787,775	885,046	119,121	102,478
Acquisitions	0	0	0	0
Move - Ins	2,101,353	2,088,305	282,005	320,855
Move - Outs	944,837	942,892	127,670	142,108
Continuous Service Agreements (CSA)	311,596	518,754	28,454	62,201
Mass Transitions	0	24,463	0	0
Total	4,145,561	4,459,460	557,250	627,642