ERCOT Monthly Operational Overview
(November 2024)

ERCOT Public
December 16, 2024

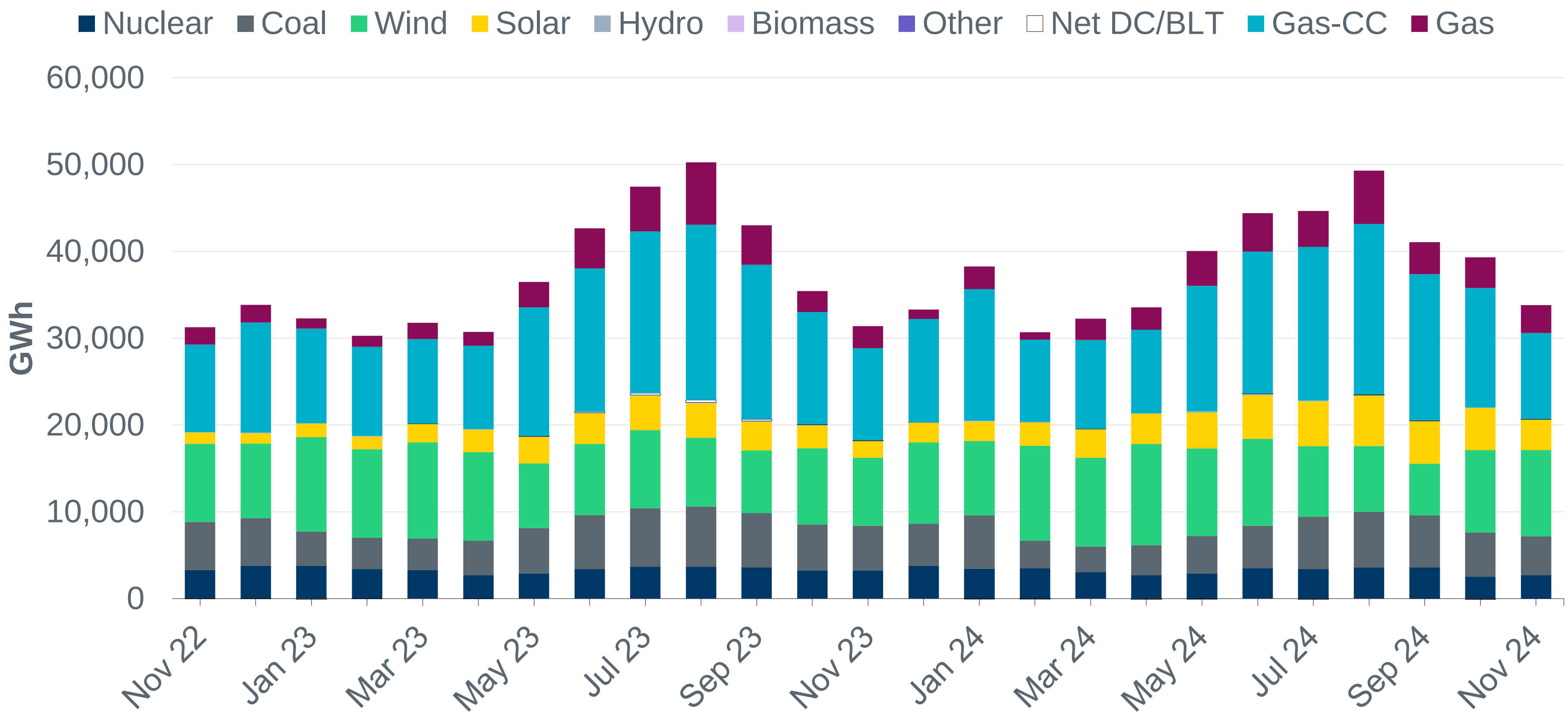
Highlights, Records and Notifications

- ERCOT set a new all-time record of 60,170 MW* for the month of November on 11/04/2024; This is 3,635 MW more than the November 2023 demand of 56,535 MW.

- ERCOT issued 5 notifications:
  - 1 OCNs - For a topology change in the PNHNDL region.
  - 2 OCNs - Due to issued AANs due to a possible future Emergency Conditions of reserve capacity deficiency.
  - 1 Advisory – Due to ERCOT's Voltage Security Assessment tool was unavailable.
  - 1 DC Tie Curtailment – DC_L (Laredo VFT) DC tie curtailed due to outage.

* Preliminary value from December Demand and Energy 2024 report.

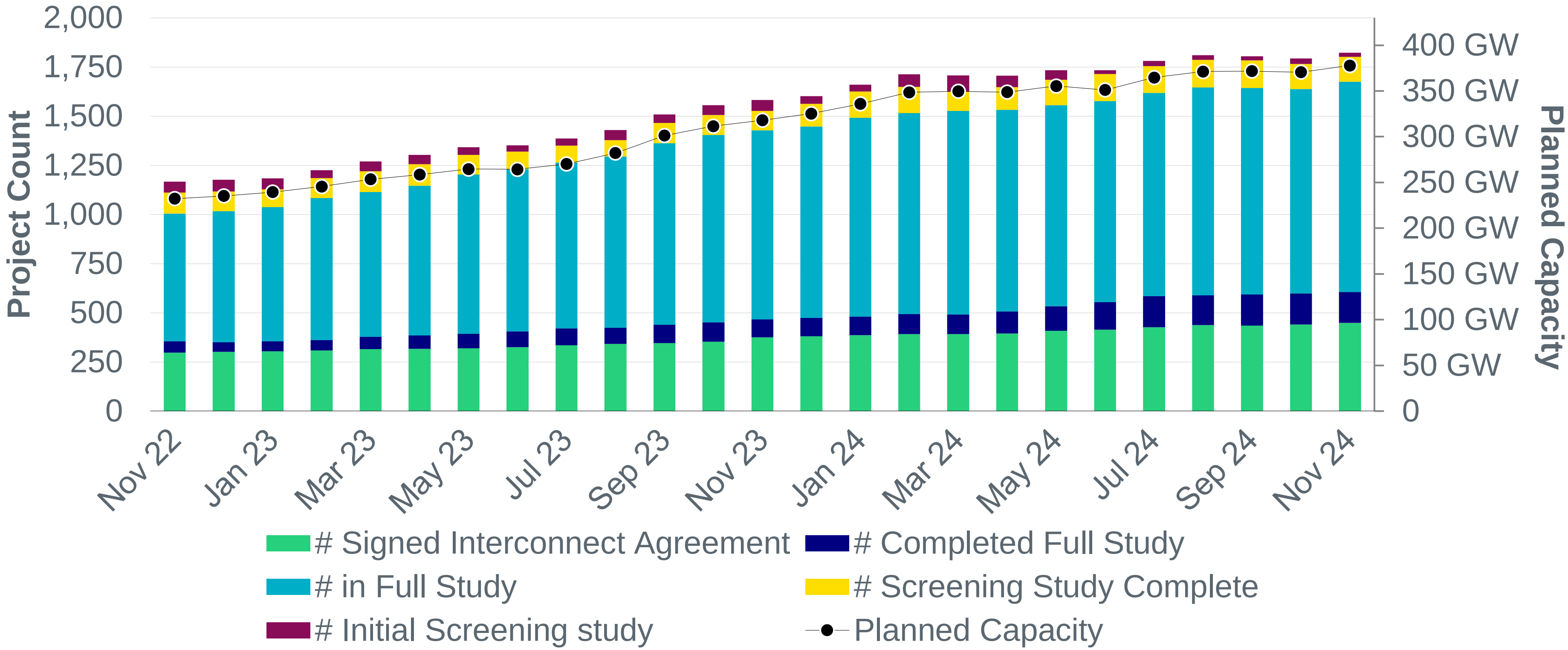
Monthly energy generation increased by 7.6% year-over-year to 33,757 GWh in November 2024, compared to 31,379 GWh in November 2023



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 5.2.5)

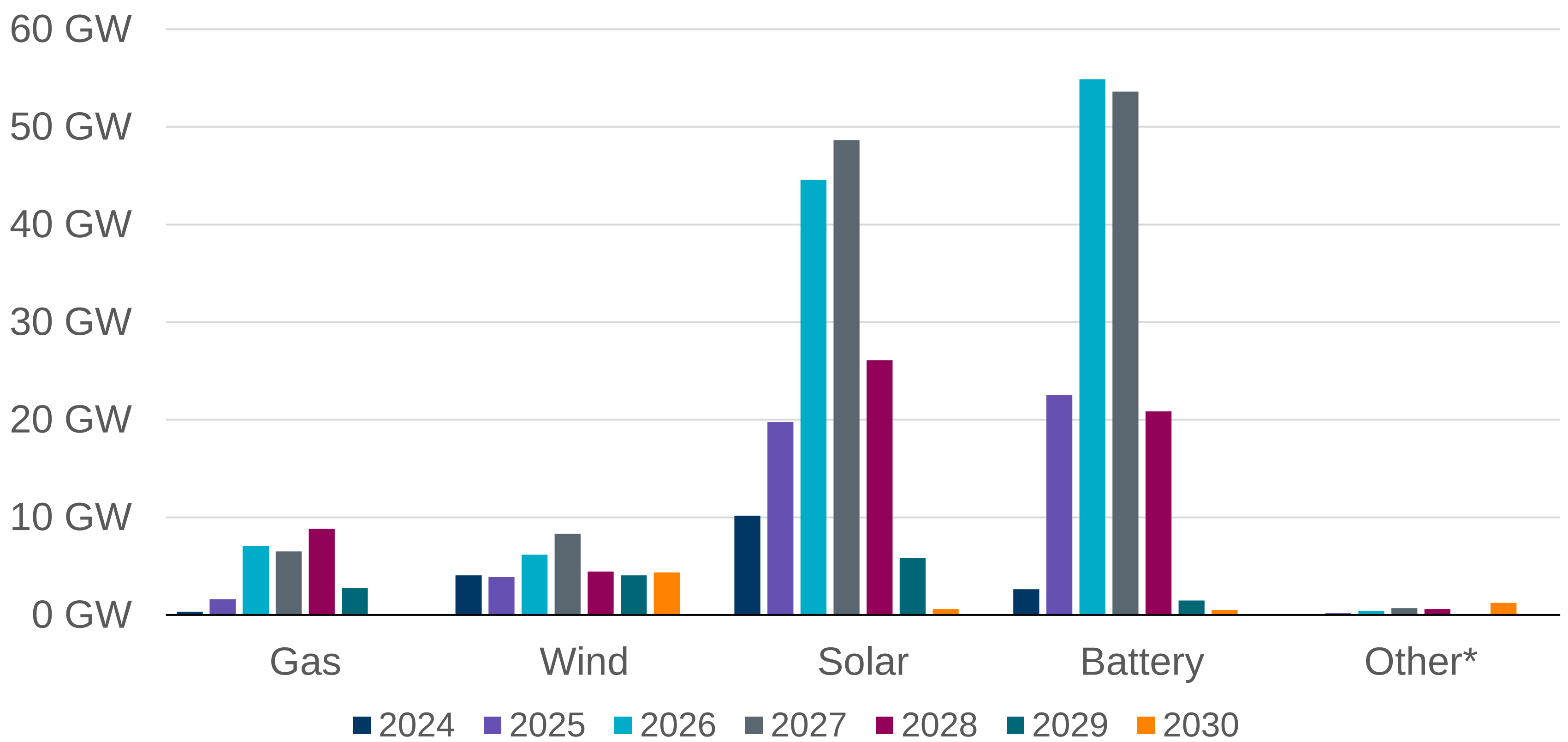


- There are an additional 48 “Small Generator” projects totaling 444 MW that are going through the simplified interconnection process.
- A break-out by fuel type can be found in the monthly Generator Interconnection Status (GIS) reports available on the ERCOT Resource Adequacy Page: http://www.ercot.com/gridinfo/resource

Interconnection Queue Capacity by Fuel Type

Queue totals: Solar 156 GW (41.2%), Wind 35 GW (9.3%), Gas 27 GW (7.2%), Battery 157 GW (41.4%), Other 3 GW (.8%)

(Excludes capacity associated with projects designated as Inactive per Planning Guide Section 5.2.5)



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 1,903 active generation interconnection requests totaling 377,786 MW as of November 30. This includes 155,676 MW of solar, 35,307 MW of wind, 156,530 MW of battery, and 27,160 MW of gas projects; 117 projects were categorized as inactive, no change from 117 inactive projects in October 2024.

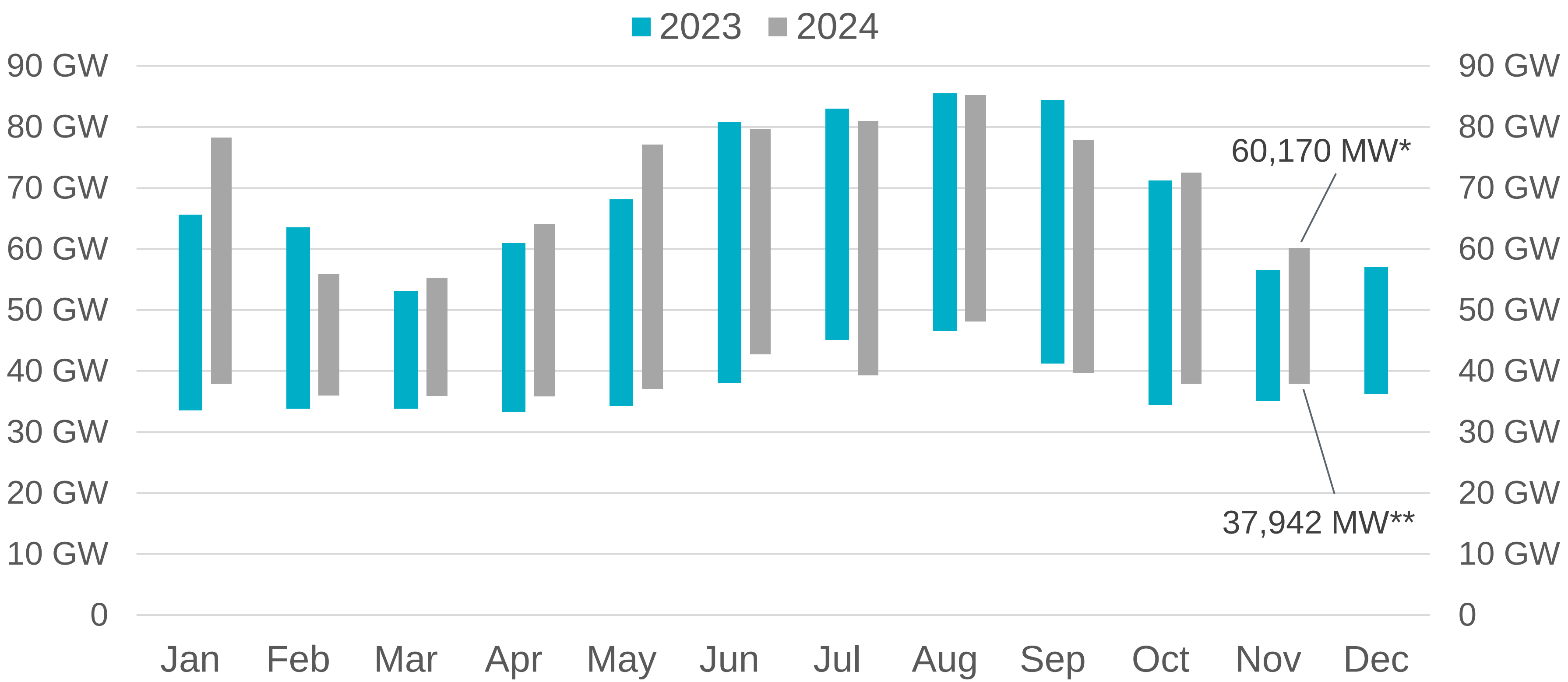
- ERCOT is currently reviewing proposed transmission improvements with a total estimated cost of $3.397 billion as of October 31, 2024.

- Transmission Projects endorsed in 2024 total $3.034 billion as of October 31, 2024.

- All projects (in engineering, routing, licensing and construction) total approximately $16.504 billion as of October 1, 2024.

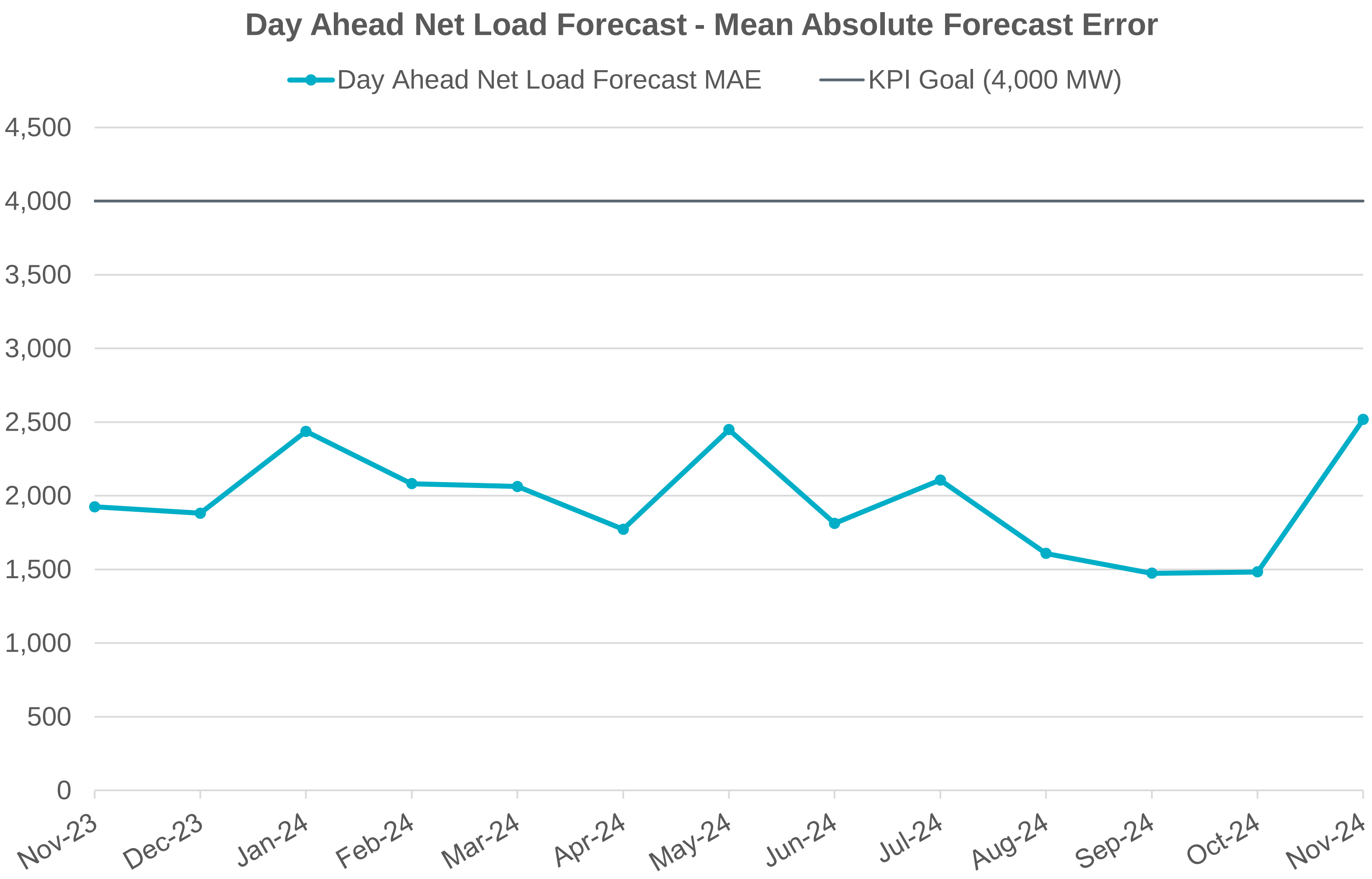
- Transmission Projects energized in 2024 total approximately $2.435 billion as of October 1, 2024.

ERCOT set a new record of 60,170 MW* for the month of November on 11/04/2024; This is 3,635 MW more than the November 2023 demand of 56,535 MW.

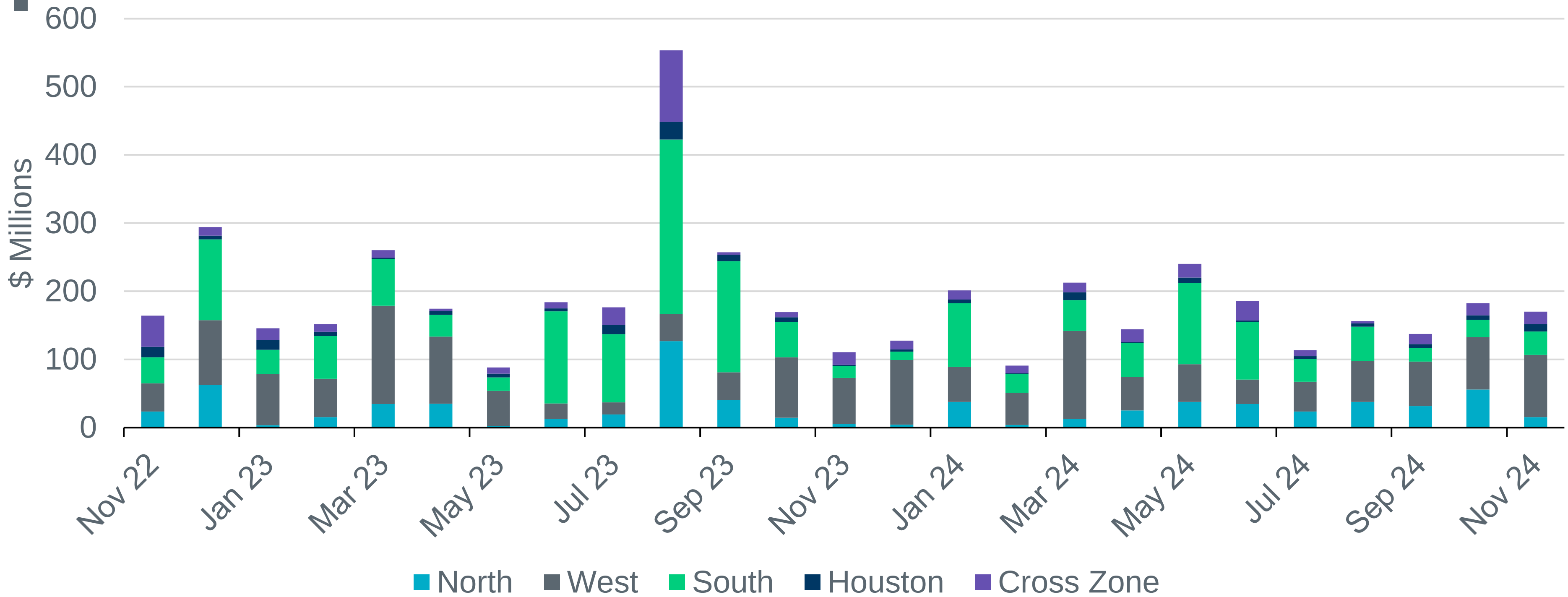


*Based on the maximum net system hourly value from the November 2024 Demand and Energy report.
**Based on the minimum net system 15-minute interval value from the November 2024 Demand and Energy report.
Data for latest two months are based on preliminary settlements.

Net Load Forecast Performance



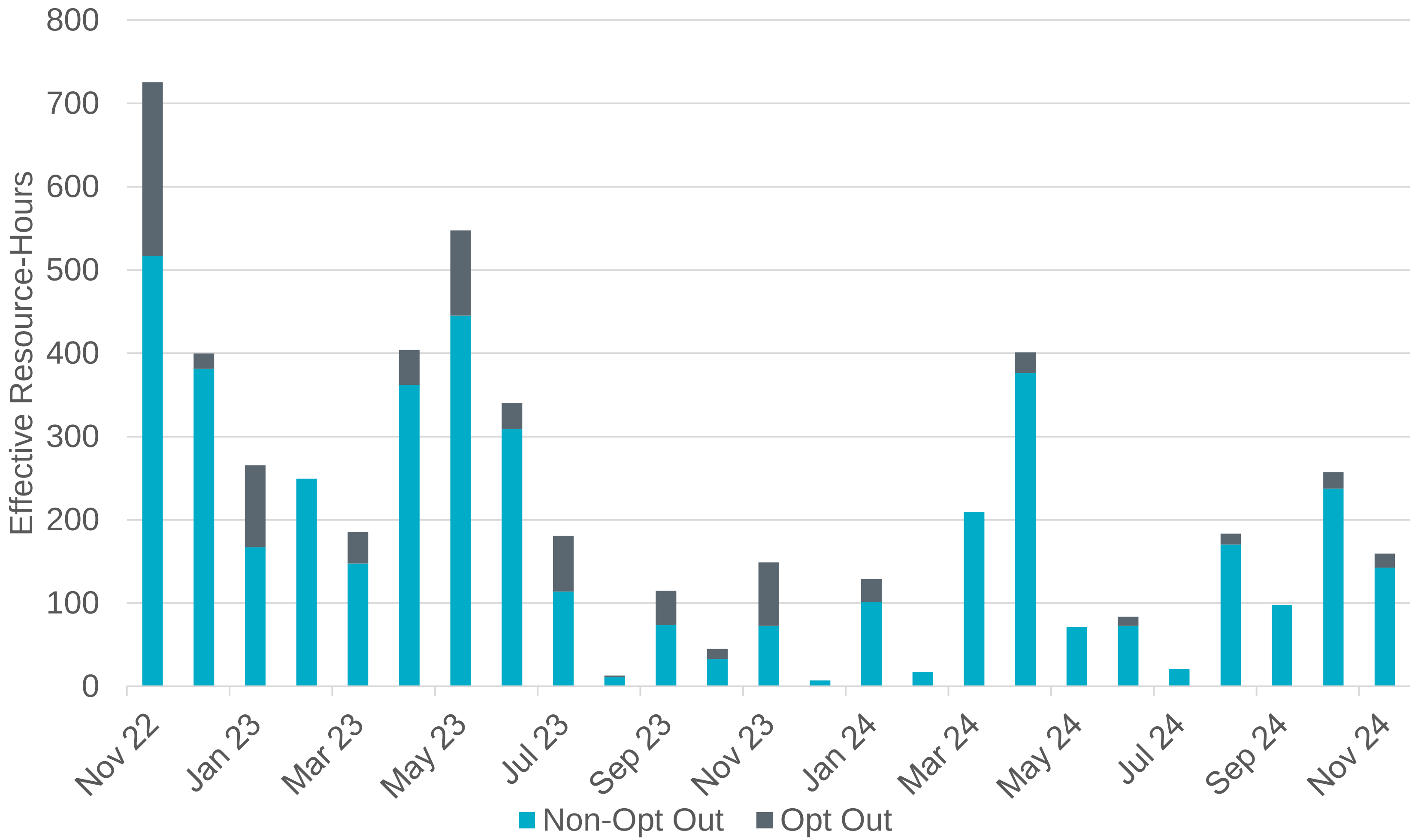
Real-Time Congestion Rent by Zone



- 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.
- Total Real-Time congestion rent decreased in November compared to October, with the highest congestion rent in the West and South Zones.
  - Congestion rent in the West Zone was primarily driven by the loss of the 345kv double circuit Consavvy Switch to Morgan Creek SES and Consavvy Switch to Longshore Switch which overloads the 138kv line from Lamesa to Jim Payne POI.
  - Congestion rent in the South Zone was primarily driven by the South Texas Export Pawnee-Tango (E_PATA) Generic Transmission Constraint.

Note: The “Cross Zone” category consists of cases in which the substations on either end of the constraint are in different zones.

Nineteen Resources were Committed in November for Capacity and Congestion

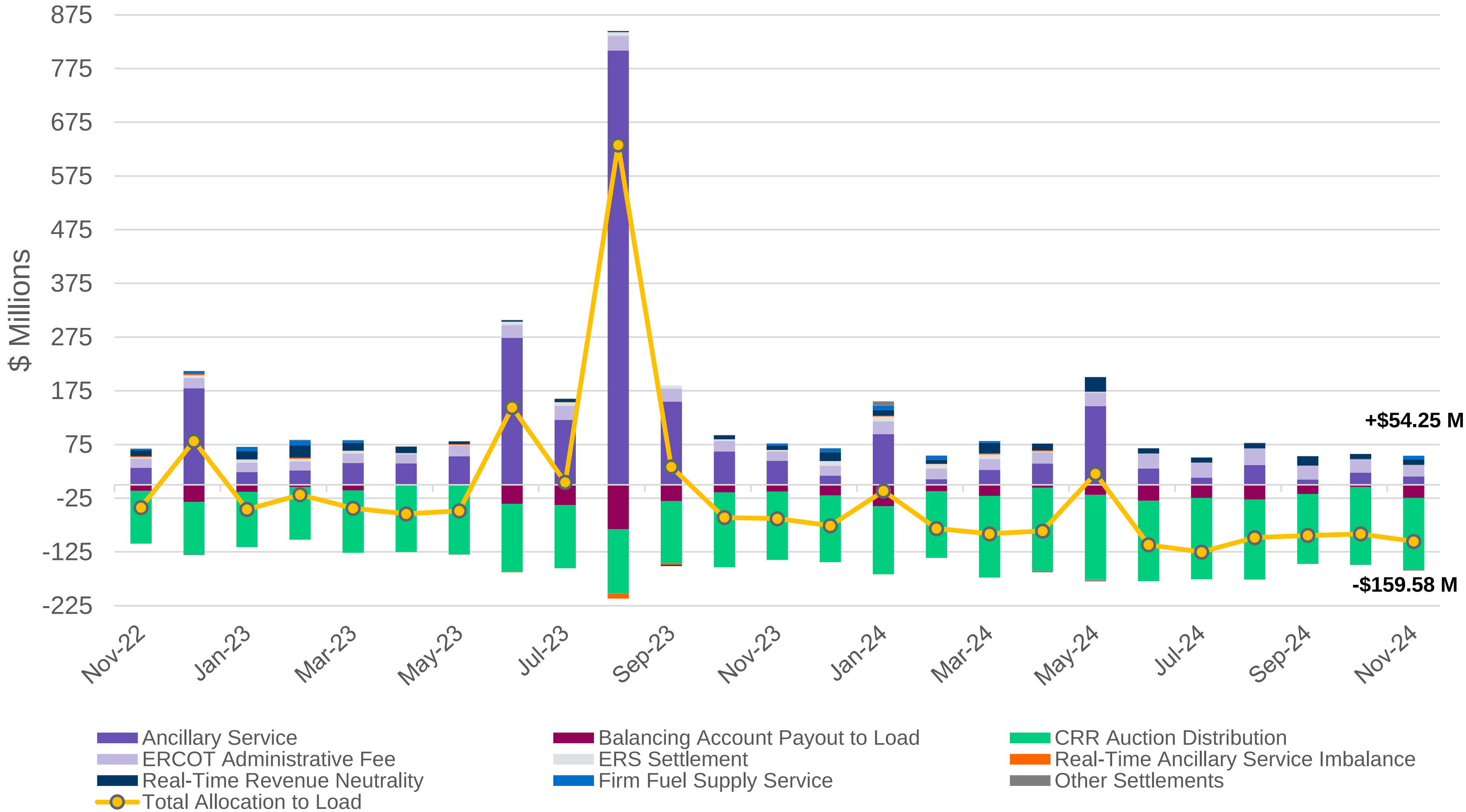


"Effective Resource-Hours" excludes any period during a Reliability Unit Commitment hour when the RUC-committed Resource was starting up, shutting down, off-line, or otherwise not available for dispatch by SCED.

Nineteen Resources were Committed in November for Capacity and Congestion

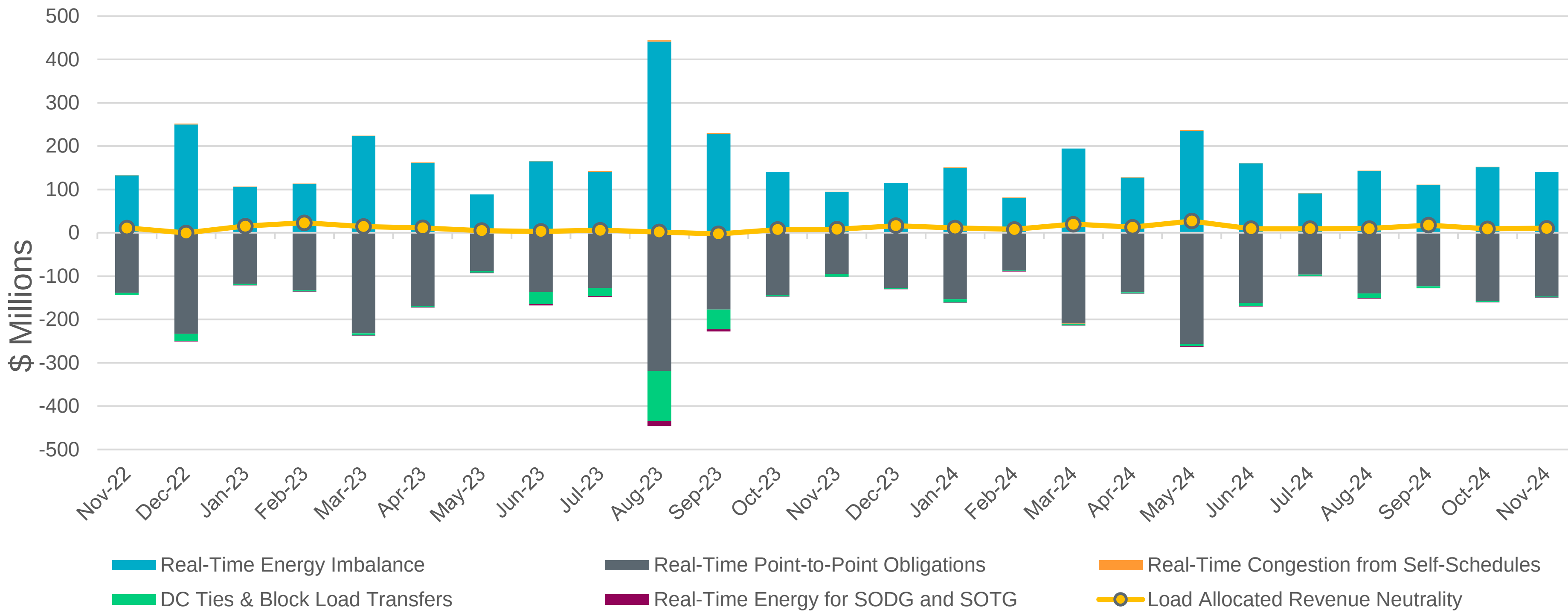
Resource #	Effective Resource-hours	Non-Opt Out (Effective Hours)	Opt Out (Effective Hours)
1	5.8	5.8	0.0
2	4.0	0.0	4.0
3	6.0	6.0	0.0
4	1.5	1.5	0.0
5	2.2	2.2	0.0
6	7.0	7.0	0.0
7	19.0	19.0	0.0
8	4.0	0.0	4.0
9	12.0	12.0	0.0
10	23.5	23.5	0.0
11	23.9	23.9	0.0
12	6.0	6.0	0.0
13	15.8	15.8	0.0
14	3.0	0.0	3.0
15	6.9	6.9	0.0
16	6.0	0.0	6.0
17	3.9	3.9	0.0
18	5.0	5.0	0.0
19	4.0	4.0	0.0
Total	**159.5**	**142.5**	**17.0**

Net Allocation to Load in November 2024 was ($105.33) Million



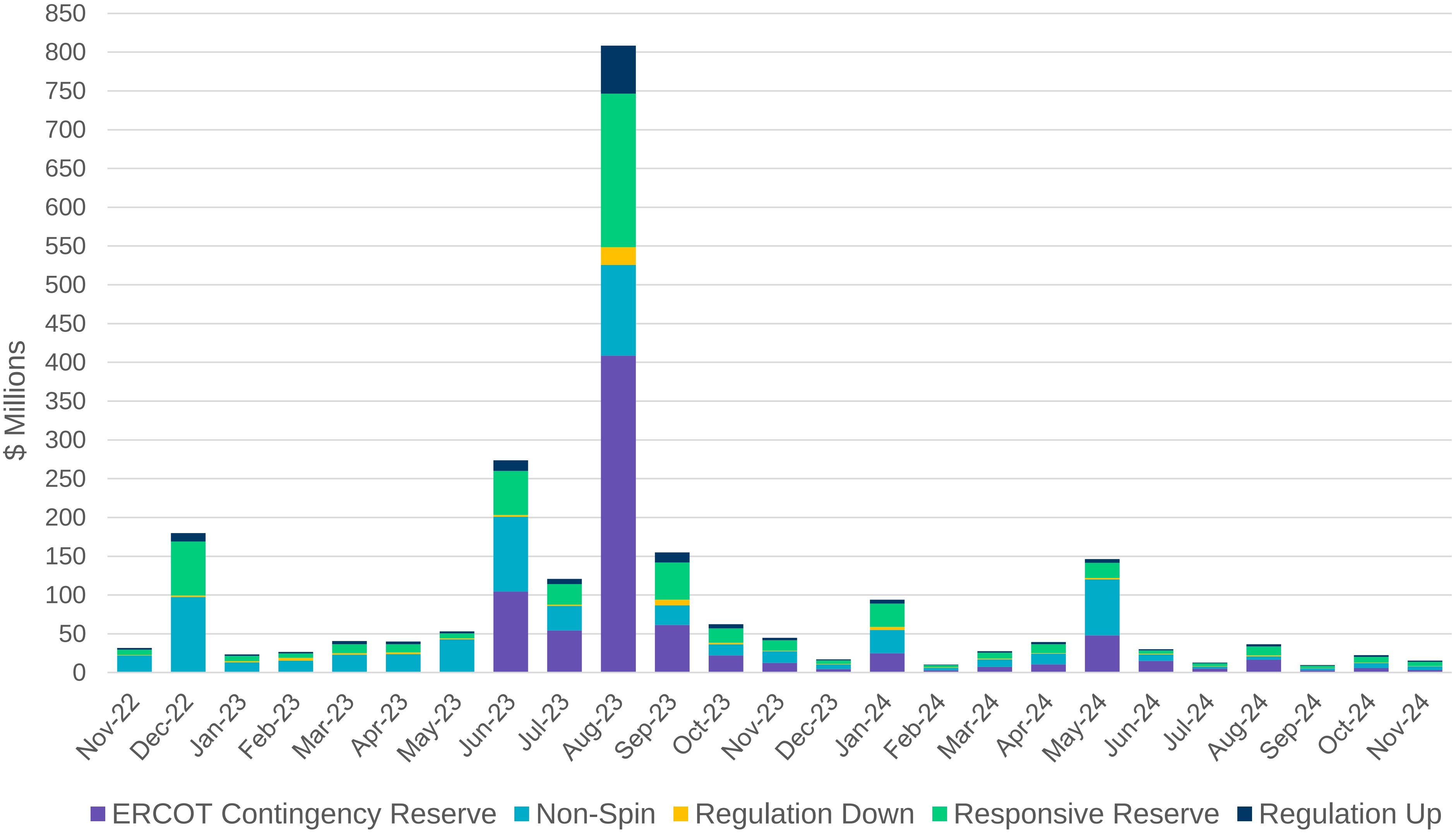
This information is available in tabular form in the Settlement Stability Report presented quarterly to the [Wholesale Market Subcommittee]

Real-Time Revenue Neutrality Allocated to Load was $10.23M for November 2024

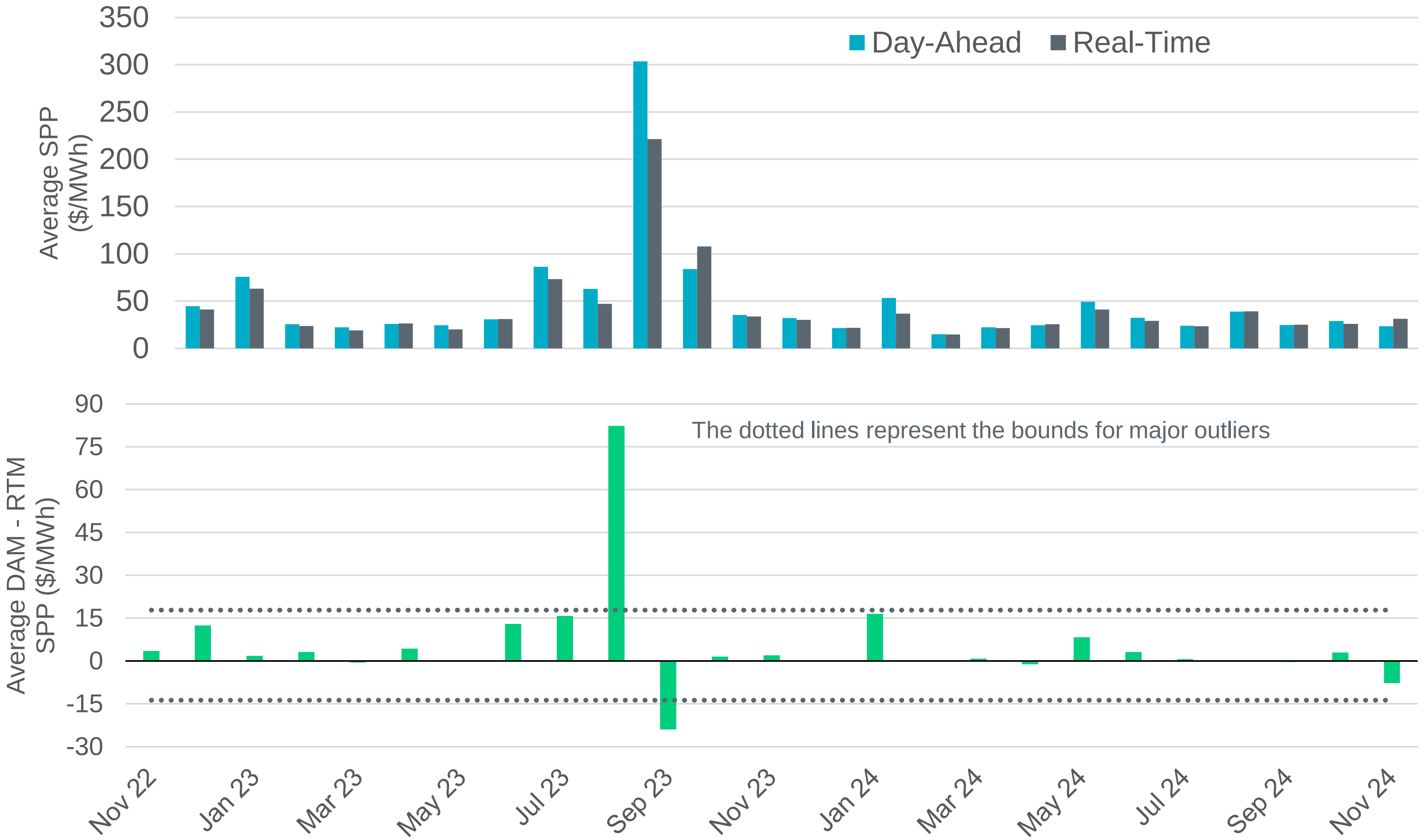


	November 2024 ($M)
Real-Time Energy Imbalance	$140.10
Real-Time Point-to-Point Obligation	($146.76)
Real-Time Congestion from Self-Schedules	$0.01
DC Tie & Block Load Transfer	($2.90)
Real-Time Energy for SODG and SOTG	($0.68)
Load Allocated Revenue Neutrality	**$10.23**

Ancillary Services for November 2024 totaled $15.29M

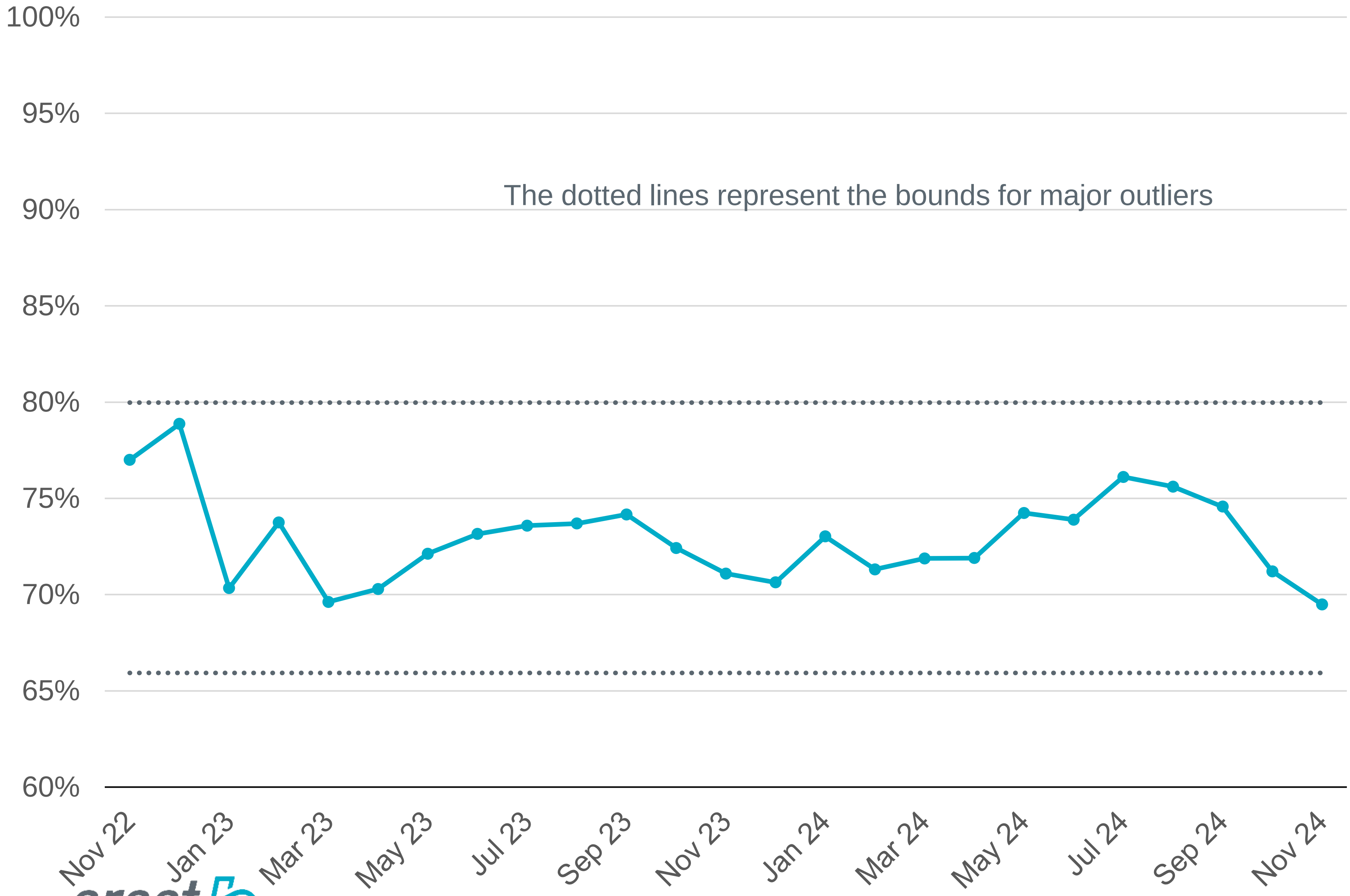


Real-Time prices tended to exceed Day-Ahead prices in November



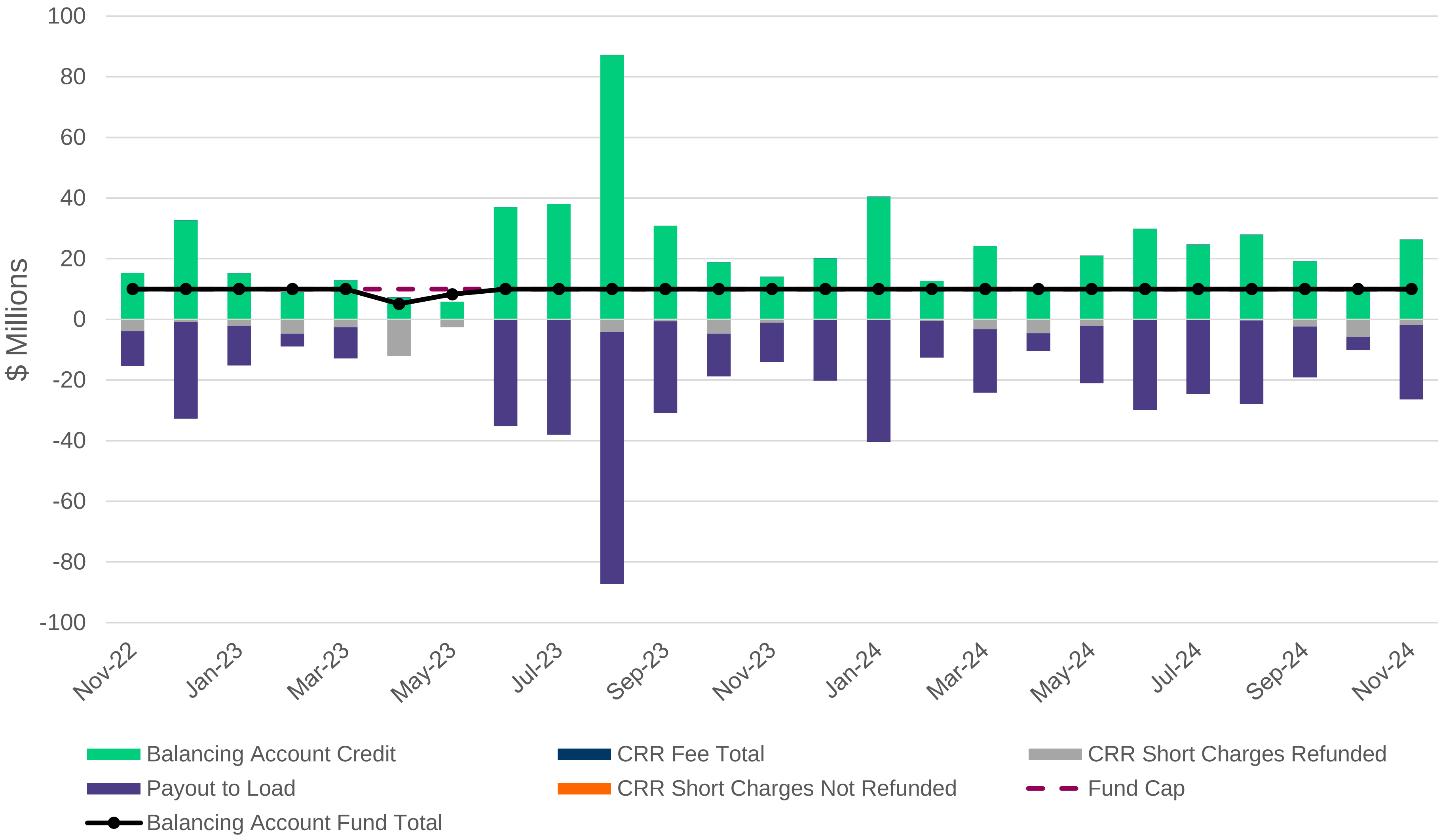
*Averages are weighted by Real-Time Market Load

Percentage of Real-Time Load Transacted in the Day-Ahead Market has been declining since July



Congestion Revenue Right (CRR) Value and Cost Differences

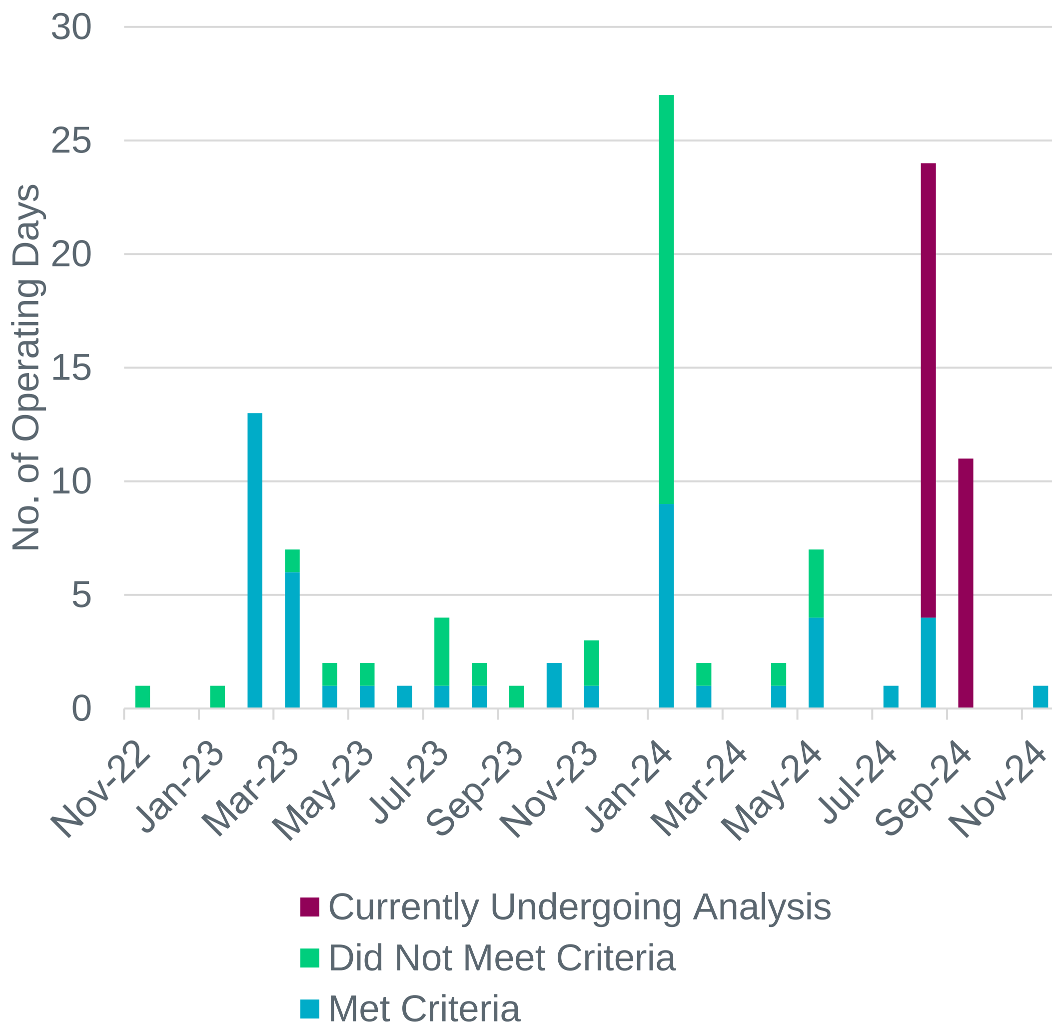
The CRR Balancing Account was fully-funded and excess amounts were allocated to Load



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 were not corrected because they did not meet the criteria for “significance” under NPRR1024; and
- Days that are currently undergoing analysis to determine if criteria for “significance” under NPRR1024 is met.

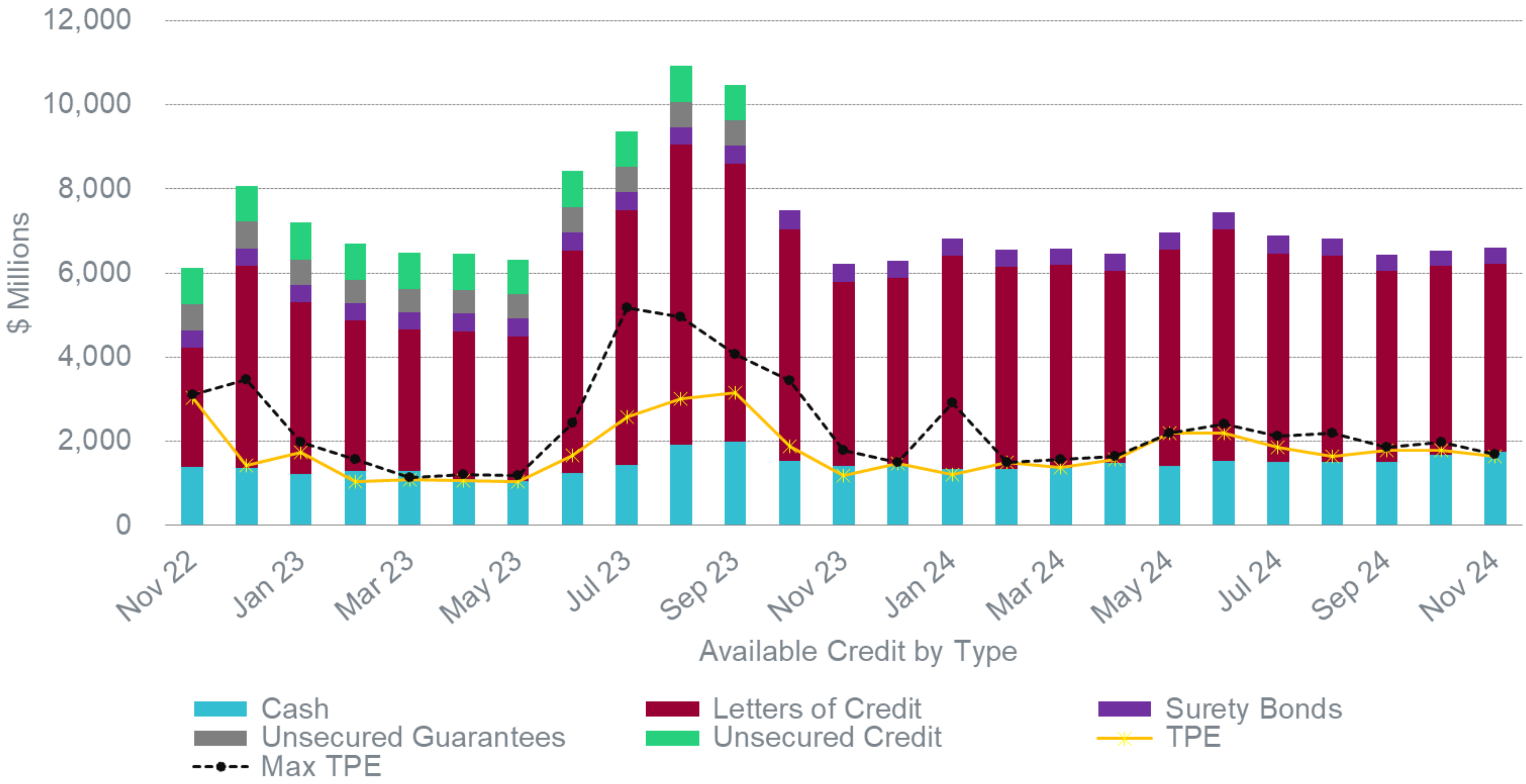


Details for Price Corrections Review

Operating Day Meeting Significance Criteria

- On November 1, 2024, during the weekly update of the Network Model, a data transfer error occurred during the weekly Network Model Load. ERCOT was not able to correct prices before they became final on November 5, 2024. Further analysis was performed, and it was found that the criteria needed to bring the price corrections to the ERCOT Board (Board) for review was met. At the December 3, 2024 Board meeting, the Board directed ERCOT to proceed with the price correction. See Market Notices (M-C110824-01, M-C110824-02, and M-C110824-03)

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



*Numbers are as of month end except for Max TPE

Retail Transaction Volumes – Summary – November 2024

	Year-To-Date		Transactions Received	
Transaction Type	November 2024	November 2023	November 2024	November 2023
Switches	1,120,738	1,030,463	69,512	73,169
Acquisitions	0	0	0	0
Move - Ins	2,914,817	2,862,042	220,829	226,549
Move - Outs	1,330,085	1,305,563	102,615	109,588
Continuous Service Agreements (CSA)	402,430	395,714	34,188	17,589
Mass Transitions	0	0	0	0
Total	**5,768,070**	**5,593,782**	**427,144**	**426,895**