ERCOT Monthly Operational Overview
(April 2025)

ERCOT Public
May 15, 2025

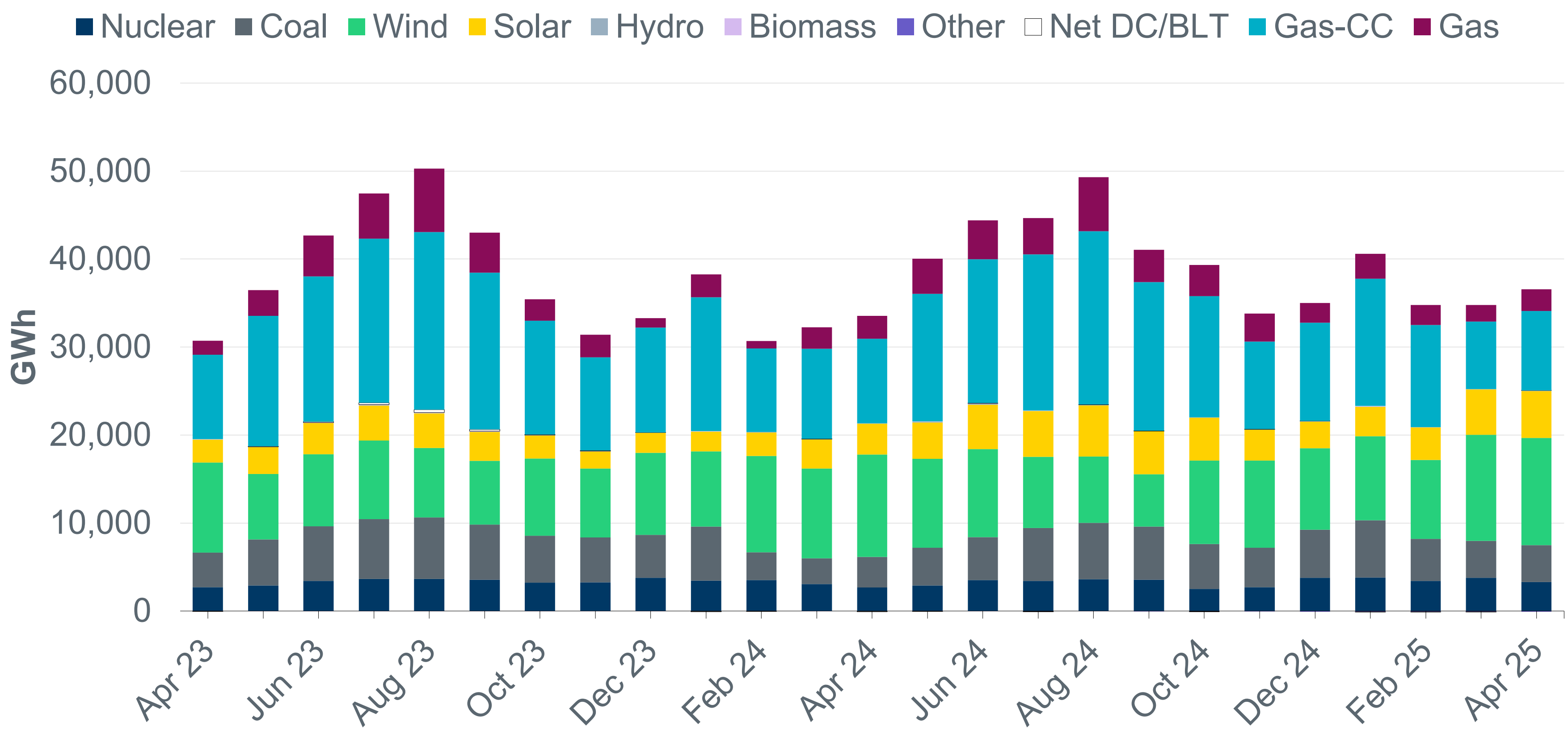
Highlights, Records and Notifications

- ERCOT set a new record of 65,614 MW* for the month of April on 4/14/2025; This is 1,611 MW more than the April 2024 demand of 64,003 MW on 4/30/2024.

- ERCOT issued 5 notifications:
  - 1 Advisory – Due The Space Weather Prediction Center has issued a GMD ALERT of K7 April 16, 2025, K7 threshold was reached at 09:18.
  - 2 OCNs – Due to a TO disabling reclosing in a large portion of their West Texas area for drought.
  - 1 OCN – Due to a potential wildfire risk for a large portion of West Texas and Panhandle areas.
  - 1 OCN – Due a possible future Emergency Condition of reserve capacity deficiency.

* Preliminary value from May Demand and Energy 2025 report.

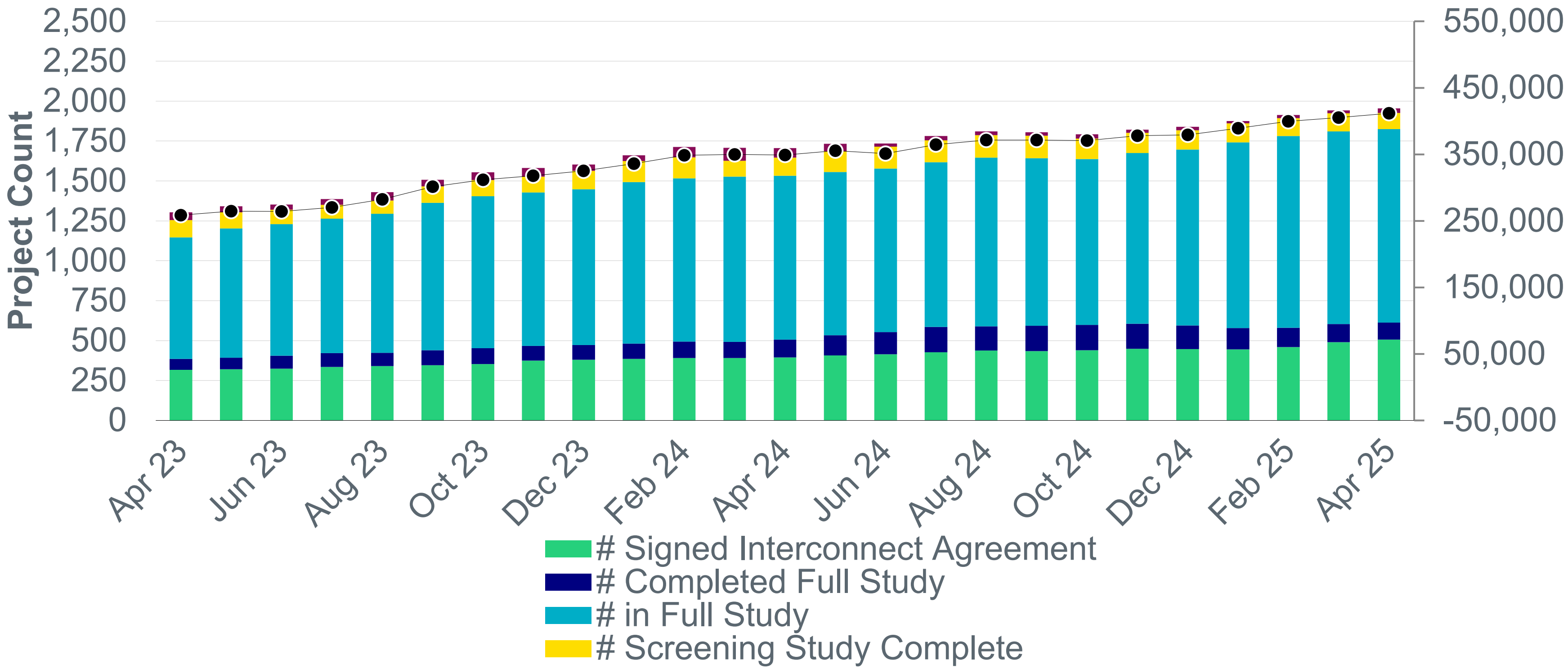
Monthly energy generation increased by 9.1% year-over-year to 36,503 GWh in April 2025, compared to 33,463 GWh in April 2024



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)

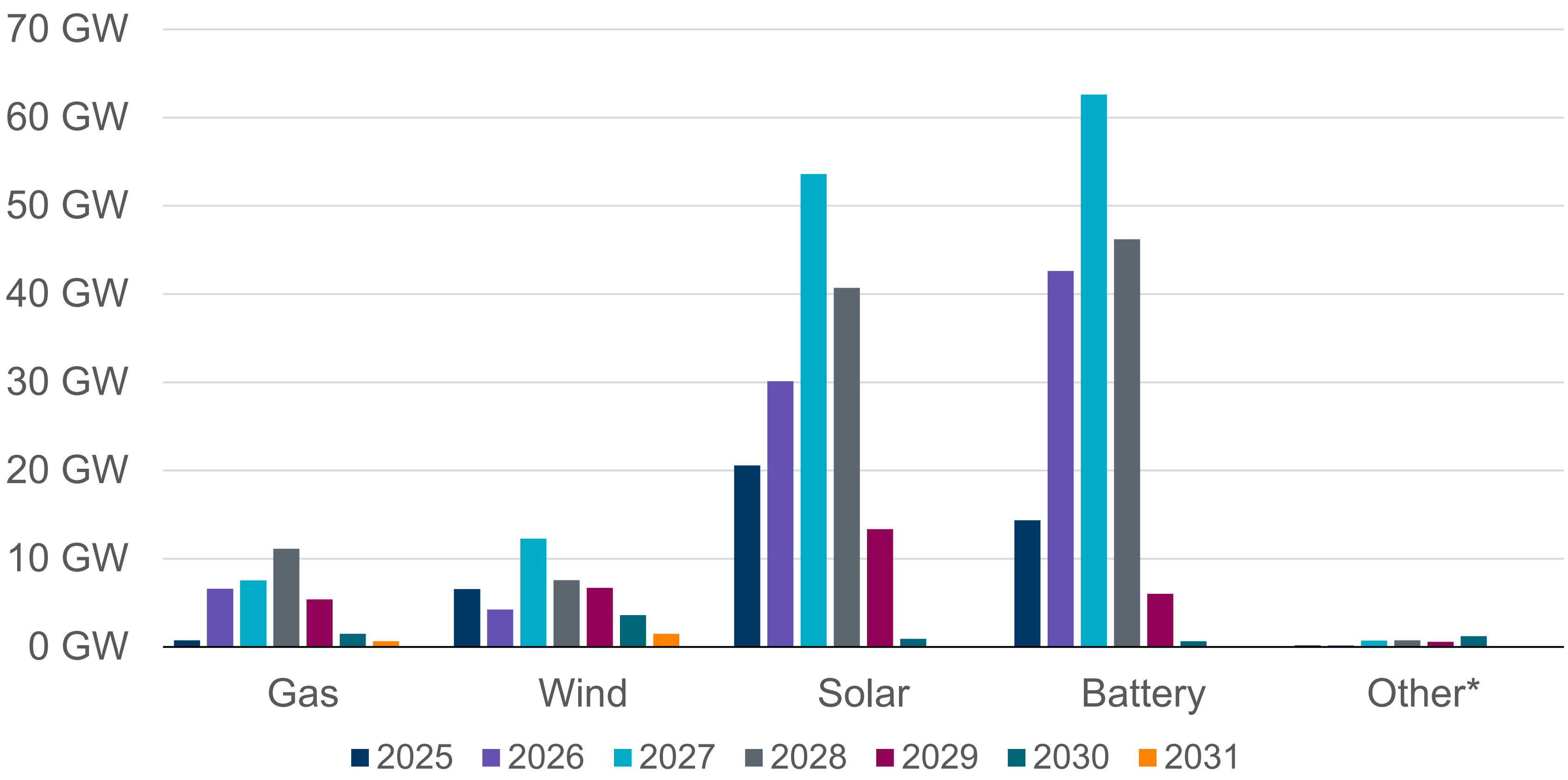


- There are an additional 50 “Small Generator” projects totaling 463 MW that are going through the simplified interconnection process.
- A break-out by fuel type can be found in the monthly Generator Interconnection Status (GIS) reports available on the ERCOT Resource Adequacy Page: http://www.ercot.com/gridinfo/resource

Interconnection Queue Capacity by Fuel Type

Queue totals: Solar 159 GW (38.7%), Wind 42 GW (10.3%), Gas 34 GW (8.2%), Battery 172 GW (41.9%), Other 4 GW (.9%)

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



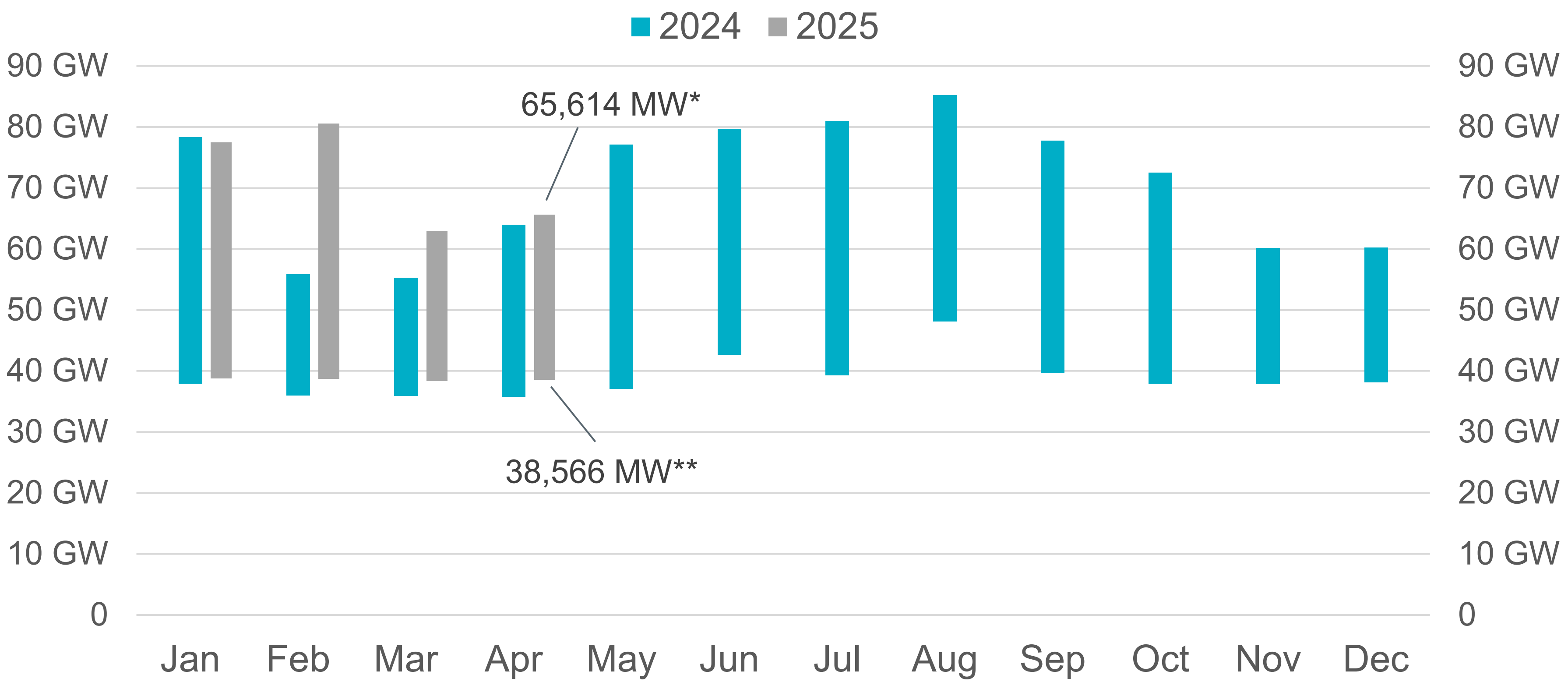
A break-out by zone can be found in the monthly Generator Interconnection Status (GIS) reports available on the ERCOT Resource Adequacy Page: http://www.ercot.com/gridinfo/resource

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

Planning Summary

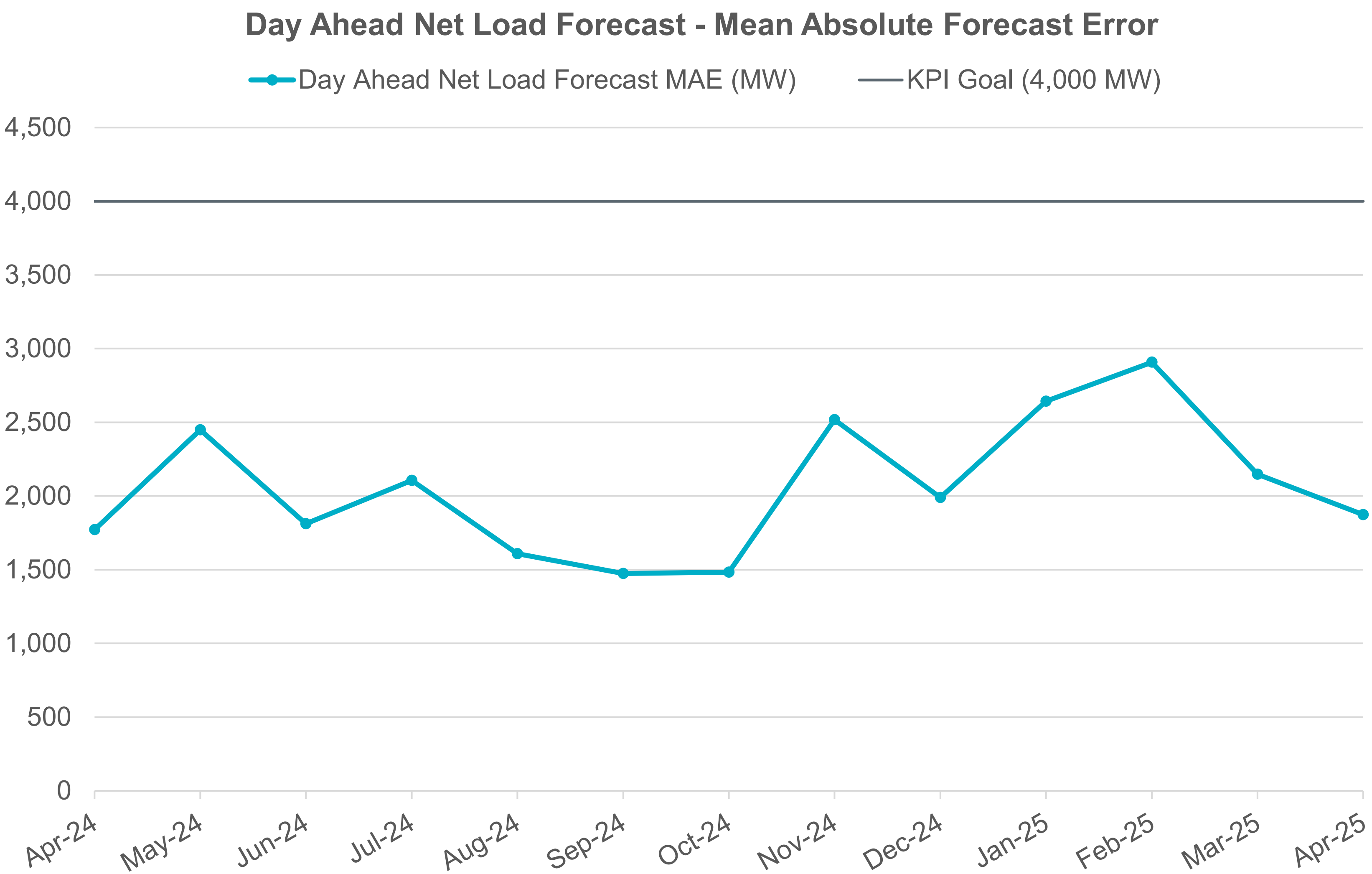
- ERCOT is tracking 2,037 active generation interconnection requests totaling 411,641 MW as of April 30. This includes 159,426 MW of solar, 42,483 MW of wind, 172,486 MW of battery, and 33,583 MW of gas projects; 122 projects were categorized as inactive, up from 118 inactive projects in March 2025.
- ERCOT is currently reviewing proposed transmission improvements with a total estimated cost of $3.727 billion as of April 30, 2025.
- Transmission Projects endorsed in 2025 total $931.52 million as of April 30, 2025.
- All projects (in engineering, routing, licensing and construction) total approximately $16.866 billion as of February 1, 2025.
- Transmission Projects energized in 2025 total approximately $386.78 million as of February 1, 2025.

ERCOT set a new record of 65,614 MW* for the month of April on 4/14/2025; This is 1,611 MW more than the April 2024 demand of 64,003 MW on 4/30/2024.

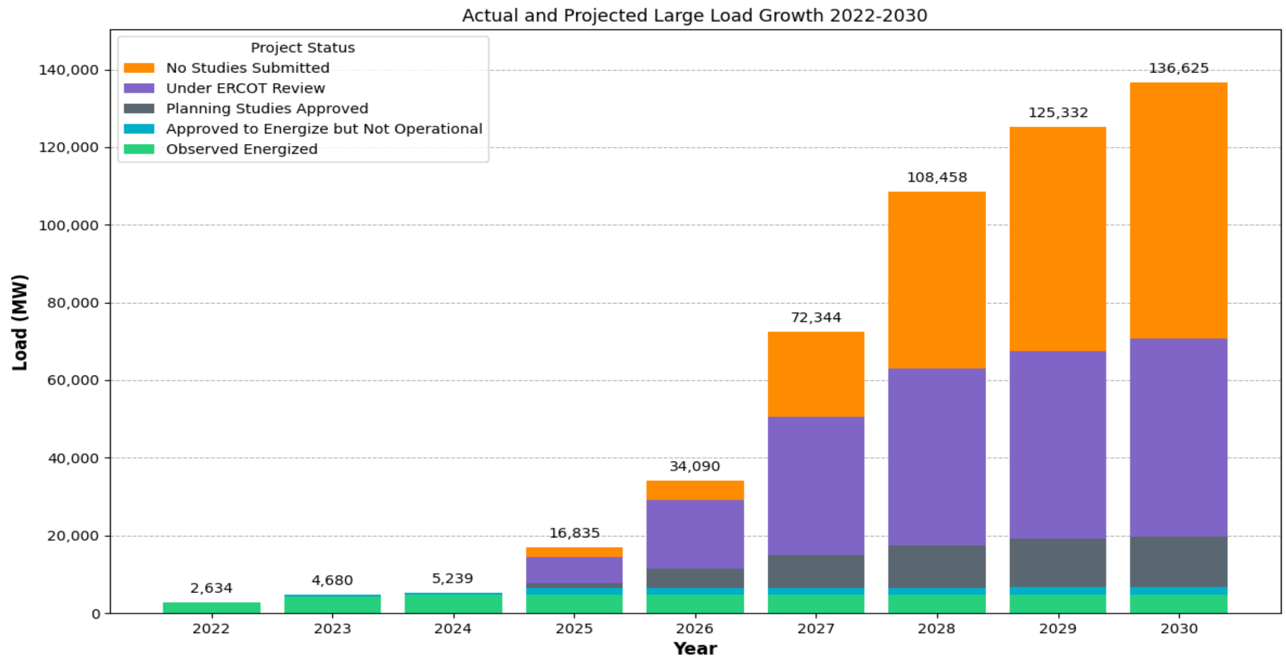


*Based on the maximum net system hourly value from the April 2025 Demand and Energy report.
**Based on the minimum net system 15-minute interval value from the April 2025 Demand and Energy report.
Data for latest two months are based on preliminary settlements.

Net Load Forecast Performance



Current Large Load Interconnection Queue (as of April 28, 2025)

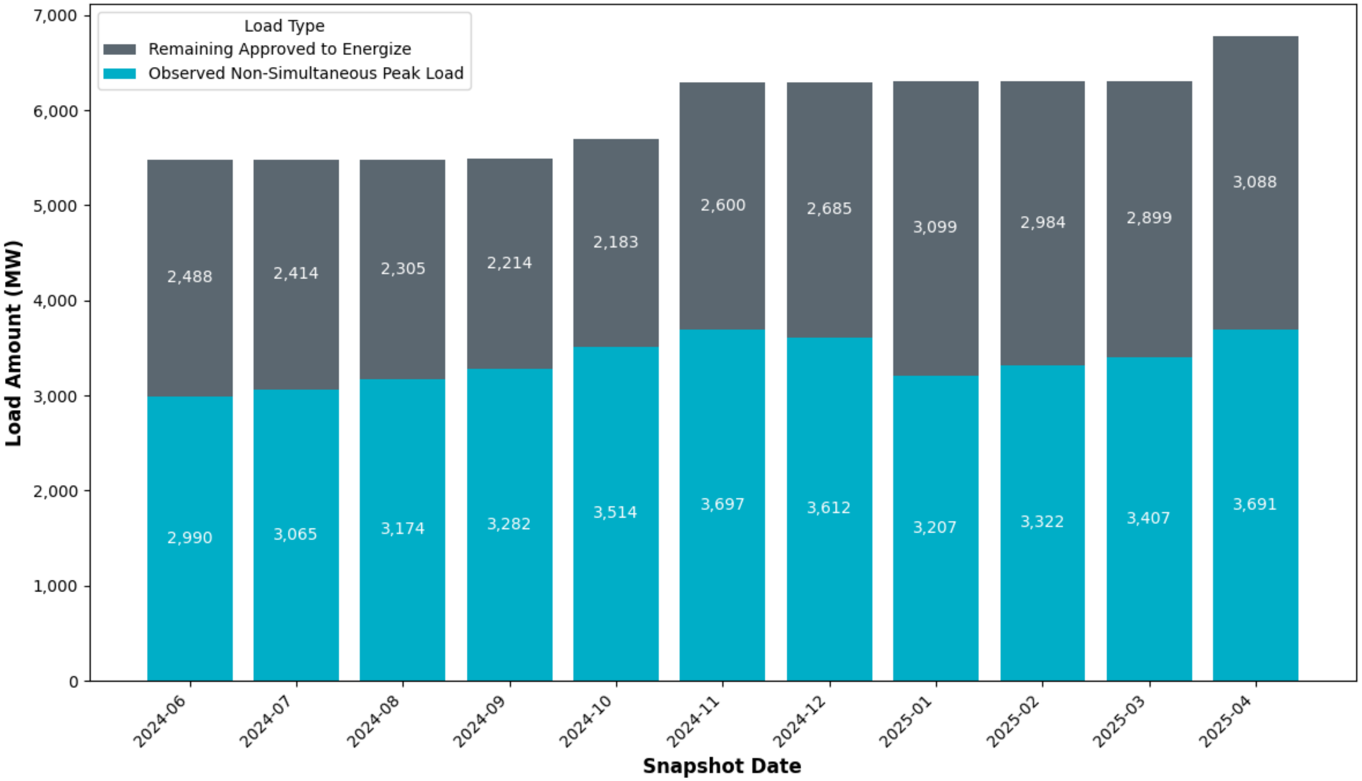


Project Status	2022	2023	2024	2025	2026	2027	2028	2029	2030
No Studies Submitted	0	0	0	2,278	5,046	21,860	45,543	57,773	66,032
Under ERCOT Review	0	0	0	6,864	17,484	35,599	45,438	48,331	50,846
Planning Studies Approved	0	0	0	1,304	5,081	8,406	10,999	12,449	12,968
Approved to Energize but Not Operational	0	569	623	1,773	1,863	1,863	1,863	2,163	2,163
Observed Energized	2,634	4,111	4,616	4,616	4,616	4,616	4,616	4,616	4,616
Total (MW)	**2,634**	**4,680**	**5,239**	**16,835**	**34,090**	**72,344**	**108,459**	**125,332**	**136,625**

ERCOT is tracking approximately 137k MW of Large Loads seeking interconnection compared to 63k MW in December.

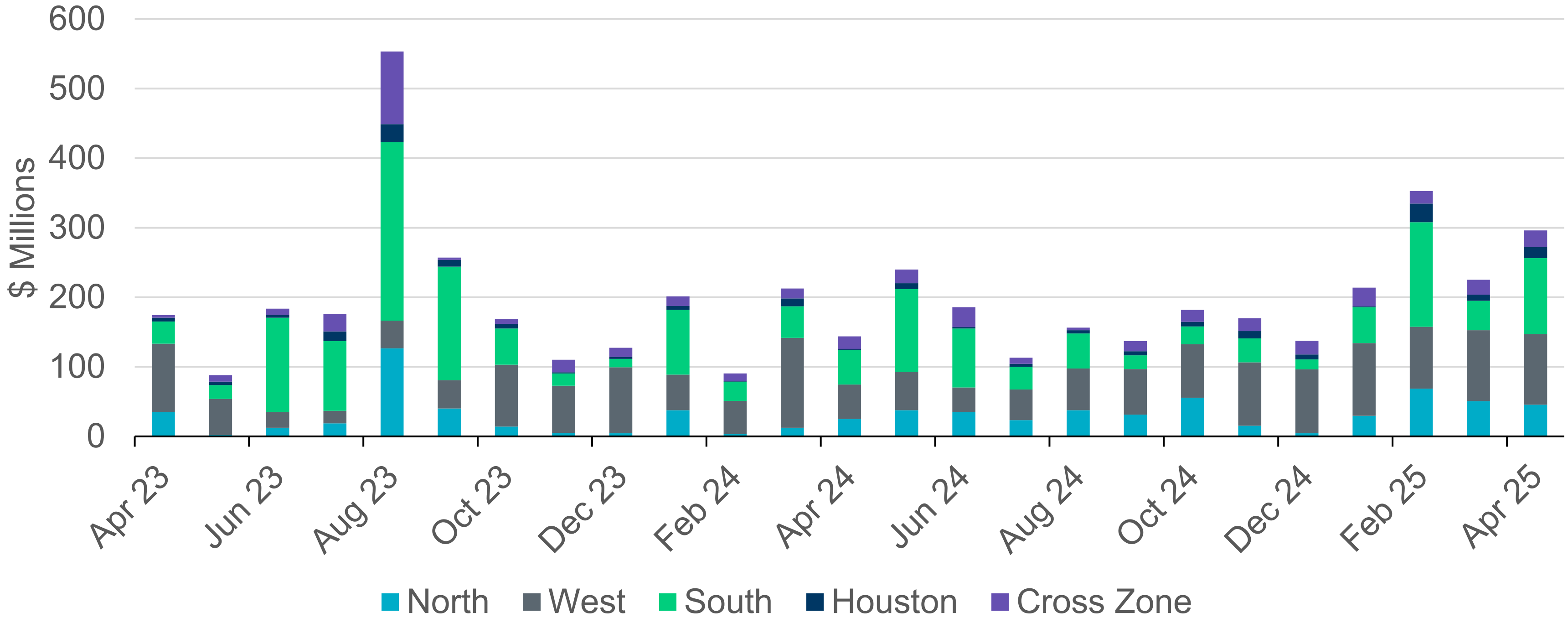
Loads Approved to Energize – Observations

- Of the 6,779 MW that have received Approval to Energize, ERCOT has observed a **non-simultaneous** monthly peak consumption of 3,691 MW in April 2025 which is a slight increase since March 2025.
  - This is calculated as the sum of the maximum value for each individual load per month.



ERCOT has reviewed and approved studies for the interconnection of over 18,000 MW of Large Loads in the past two years of which approximately 1/3 have received Approval to Energize.

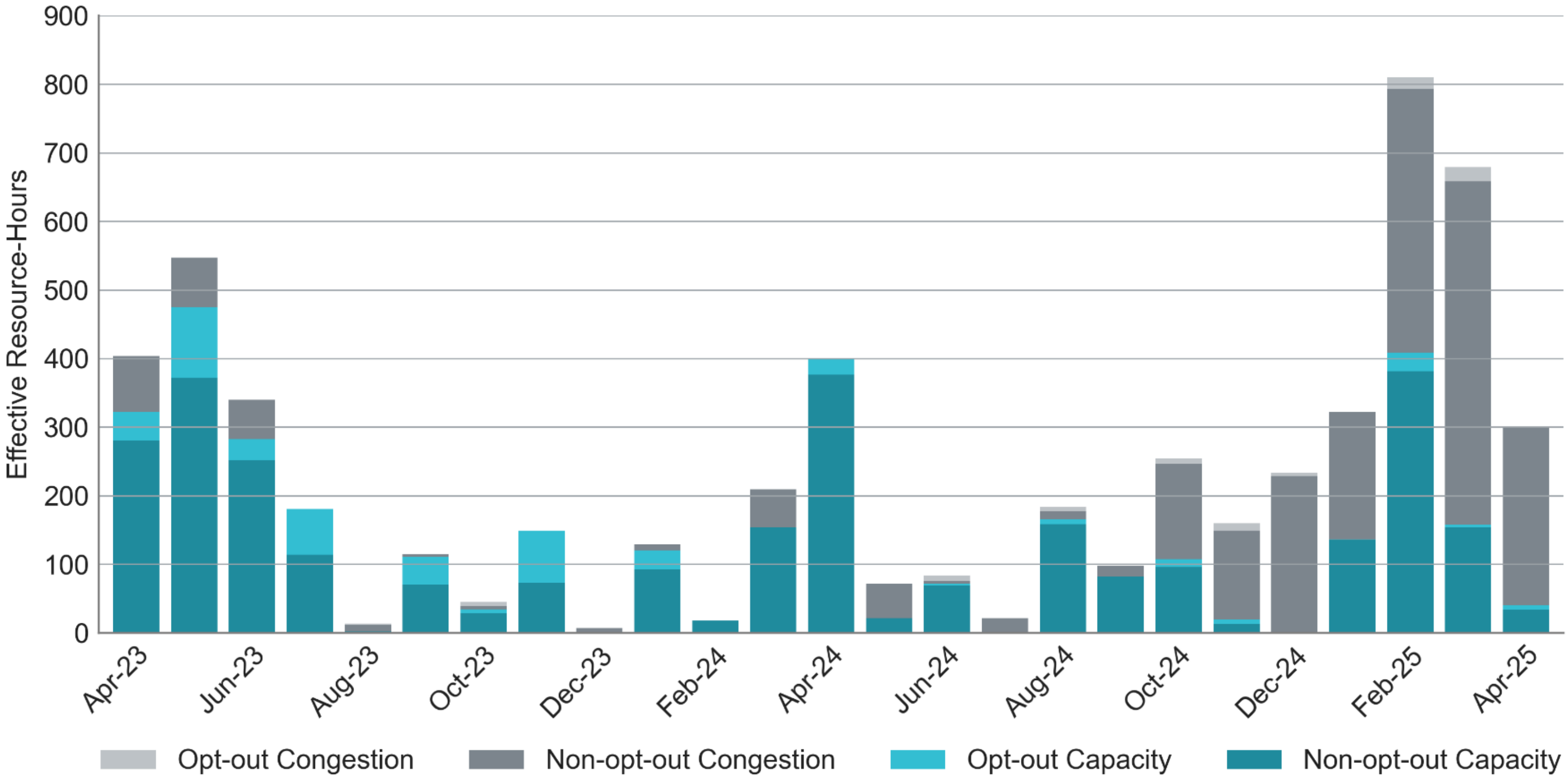
Real-Time Congestion Rent by Zone



- Total Real-Time congestion rent increased in April compared to March, with the highest congestion rent in the South and West Zones.
  - Congestion rent in the South Zone was primarily driven by a constraint representing the loss of the 345kV double circuit from North Edinburg to Bonilla and the 138kV line from Rio Hondo to Primera which would overload the 138kV line from La Palma to Haine Drive.
  - Congestion rent in the West Zone was primarily driven by a constraint representing the loss of the 345 kV line from Wett Long Draw to Volta which would overload the 138 kV line from Vealmoor to Koch Tap.

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

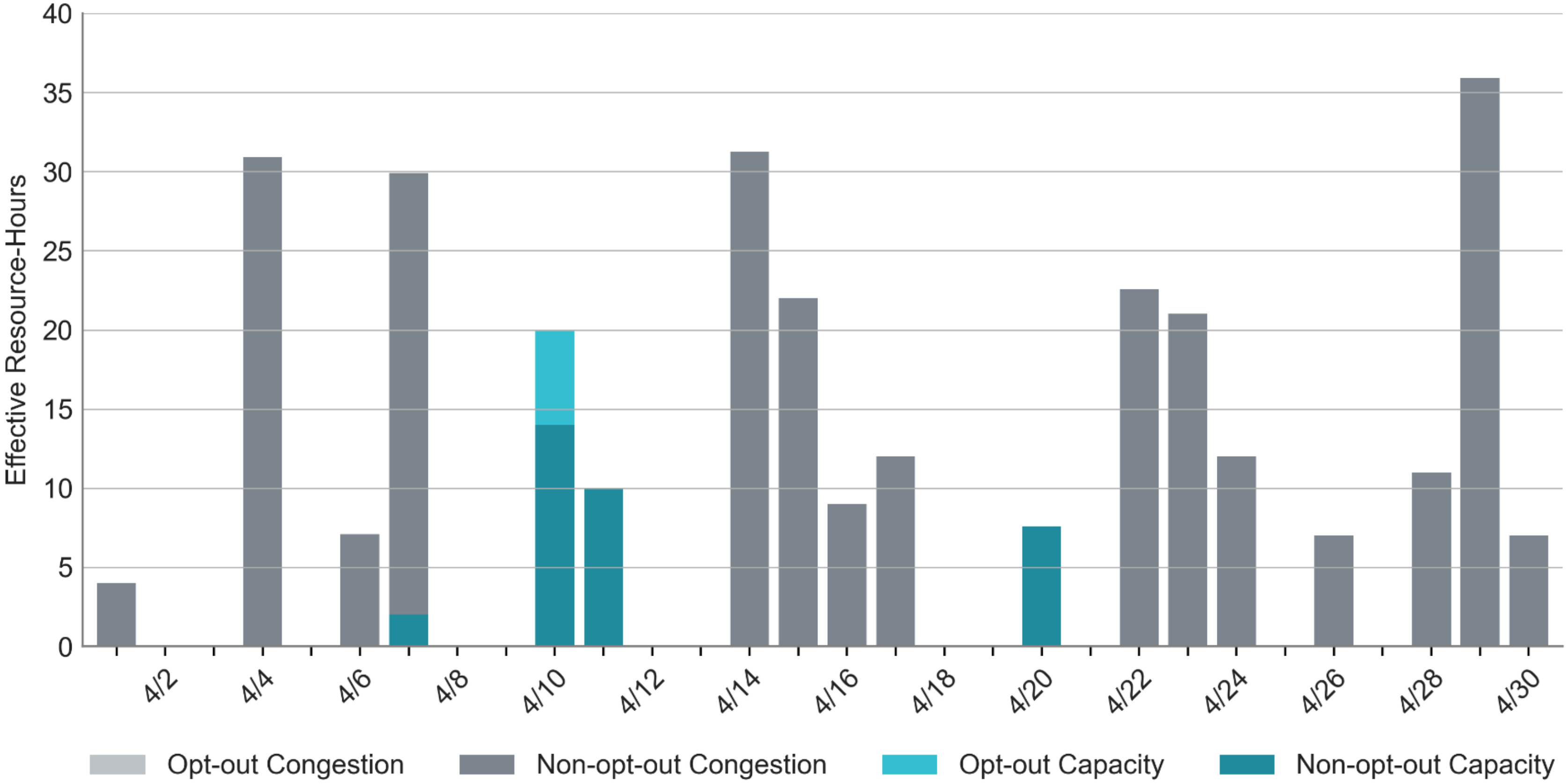
RUC Activity Decreased in April Compared to March, Mostly Managing Congestion, but also for Capacity Needs



Notes:
1) "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.

RUC Instruction Reasons in April 2025

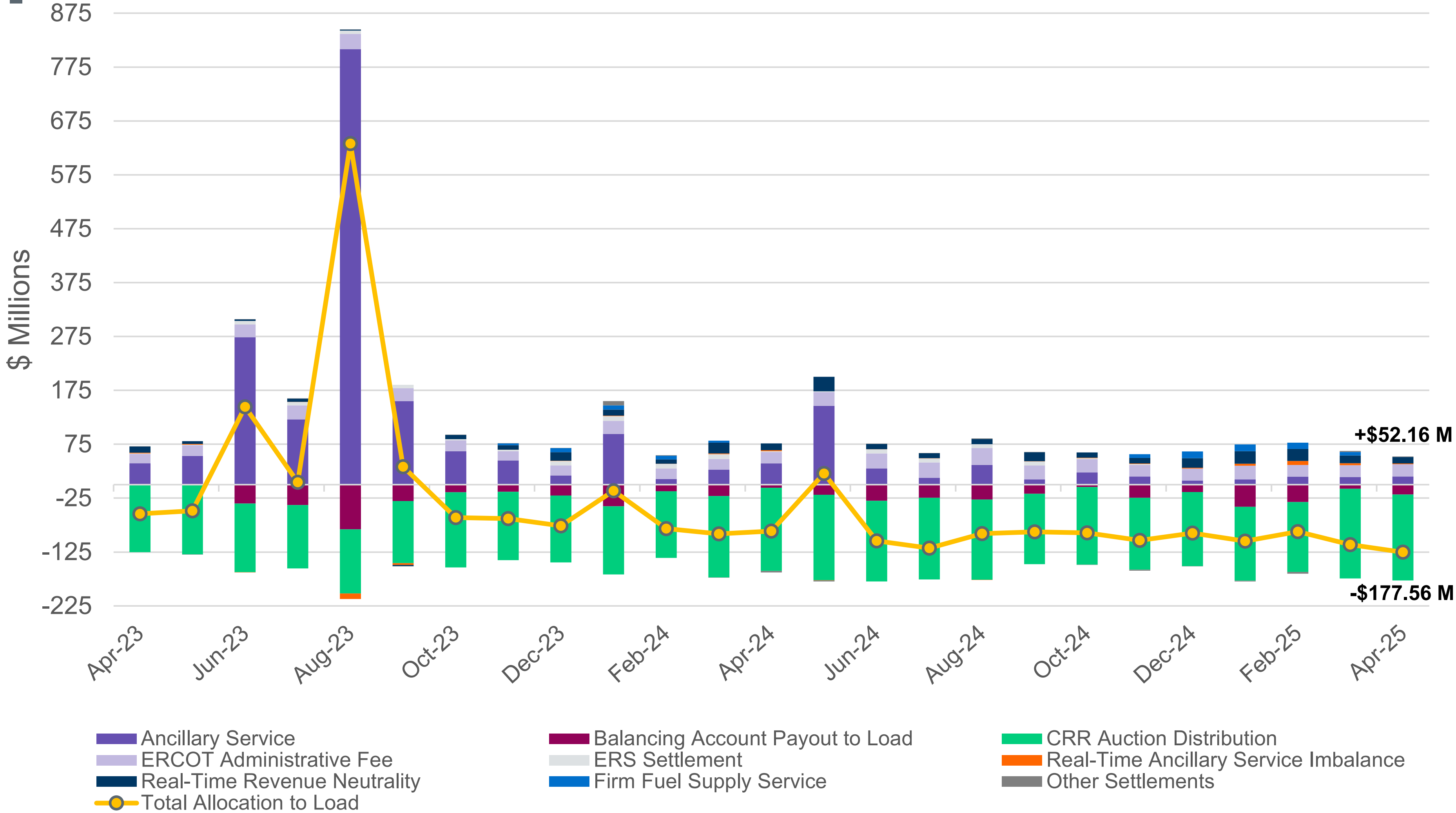
- Factors contributing to need for RUC include seasonal outages and managing transmission constraints in South Texas



Twenty-Three Resources were Committed in April, Mostly to Manage Congestion, but also for Capacity Needs

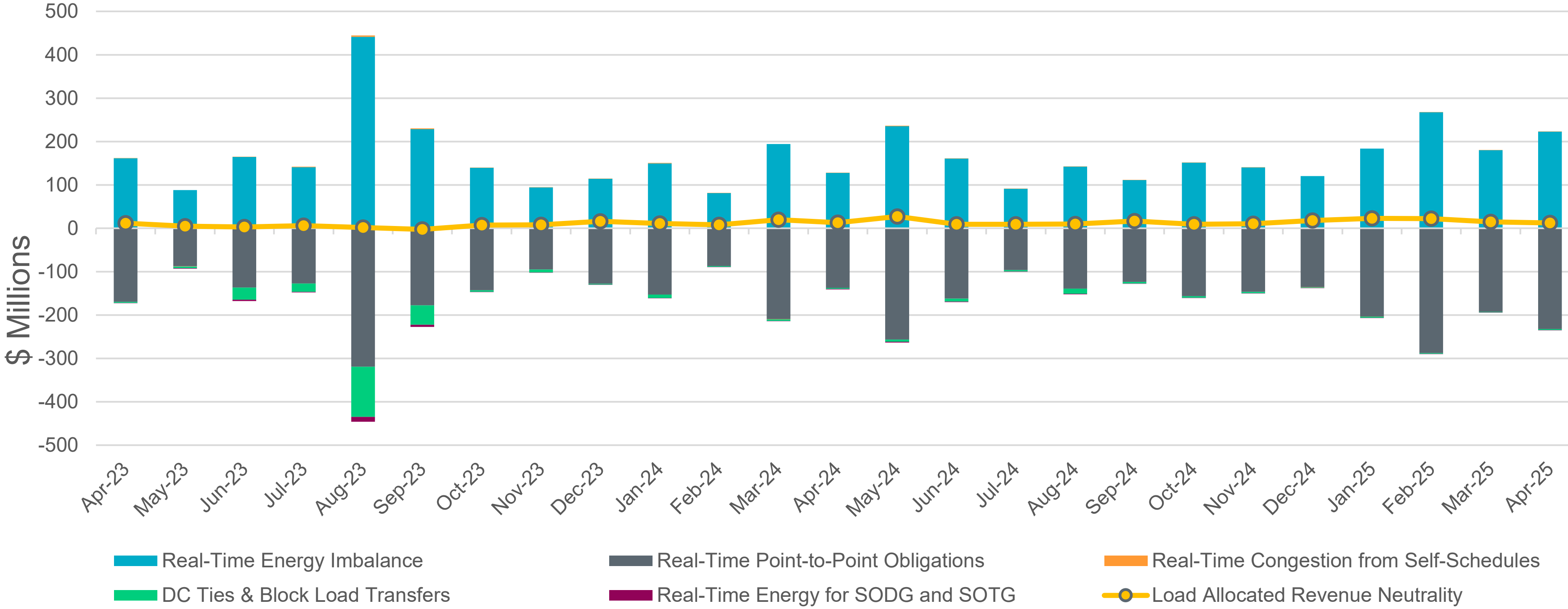
Resource #	Effective Resource-hours	For Congestion		For Capacity	
		Opt-Out	Non-Opt-Out	Opt-Out	Non-Opt-Out
1	5.9	0.0	0.0	5.9	0.0
2	4.0	0.0	4.0	0.0	0.0
3	4.0	0.0	4.0	0.0	0.0
4	2.0	0.0	2.0	0.0	0.0
5	24.0	0.0	24.0	0.0	0.0
6	6.9	0.0	6.9	0.0	0.0
7	8.0	0.0	8.0	0.0	0.0
8	3.6	0.0	0.0	0.0	3.6
9	12.0	0.0	12.0	0.0	0.0
10	13.0	0.0	13.0	0.0	0.0
11	56.9	0.0	48.9	0.0	8.0
12	10.0	0.0	10.0	0.0	0.0
13	54.0	0.0	38.0	0.0	16.0
14	8.0	0.0	8.0	0.0	0.0
15	3.0	0.0	3.0	0.0	0.0
16	11.6	0.0	11.6	0.0	0.0
17	11.0	0.0	11.0	0.0	0.0
18	2.0	0.0	0.0	0.0	2.0
19	21.4	0.0	21.4	0.0	0.0
20	6.0	0.0	6.0	0.0	0.0
21	5.0	0.0	5.0	0.0	0.0
22	12.0	0.0	12.0	0.0	0.0
23	15.8	0.0	11.8	0.0	4.0
Total	300.1	0.0	260.6	5.9	33.6

Net Allocation to Load in April 2025 was ($125.4) Million



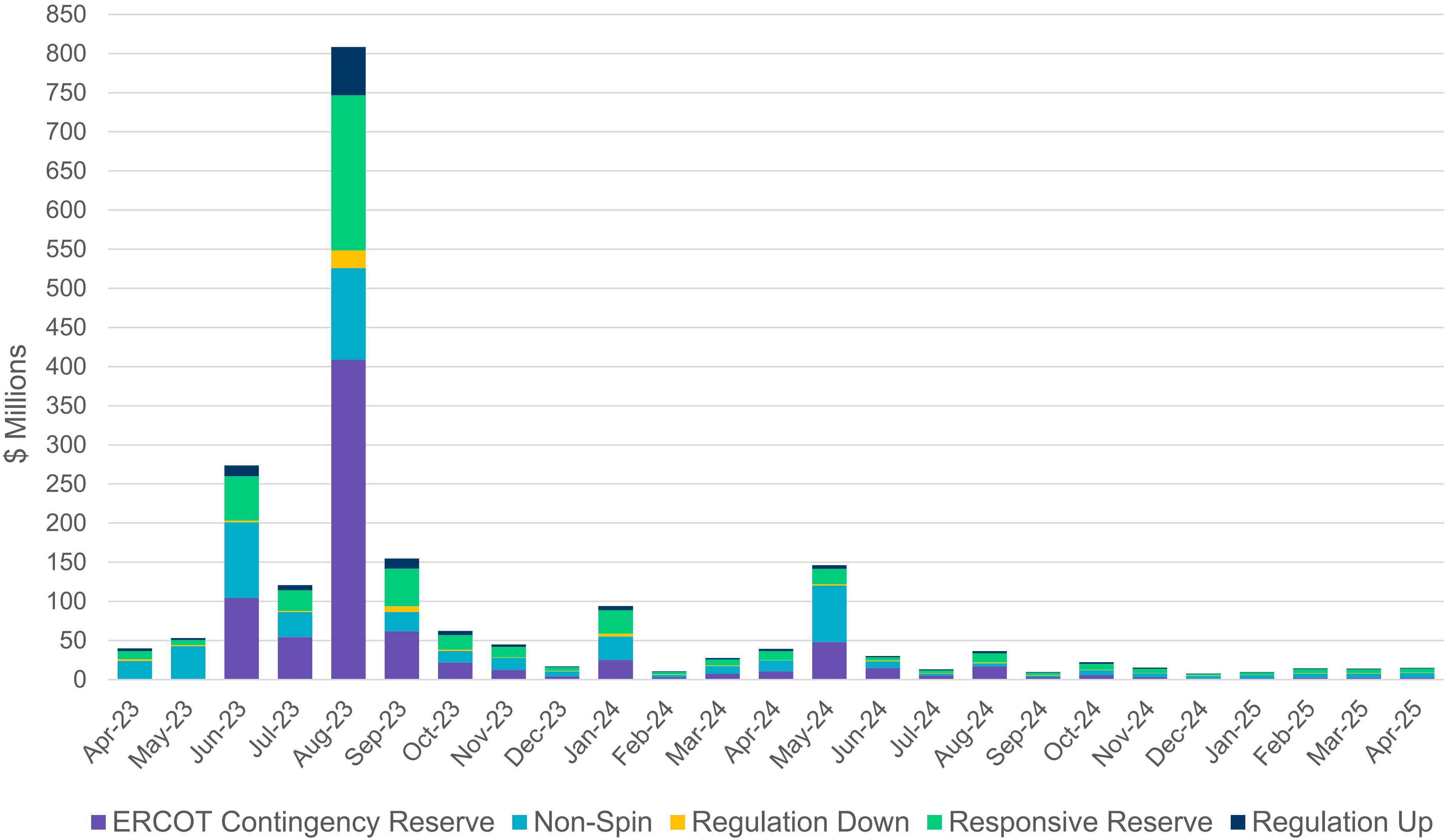
This information is available in tabular form in the Settlement Stability Report presented quarterly to the [Wholesale Market Subcommittee]

Real-Time Revenue Neutrality Allocated to Load was $12.06 M for April 2025

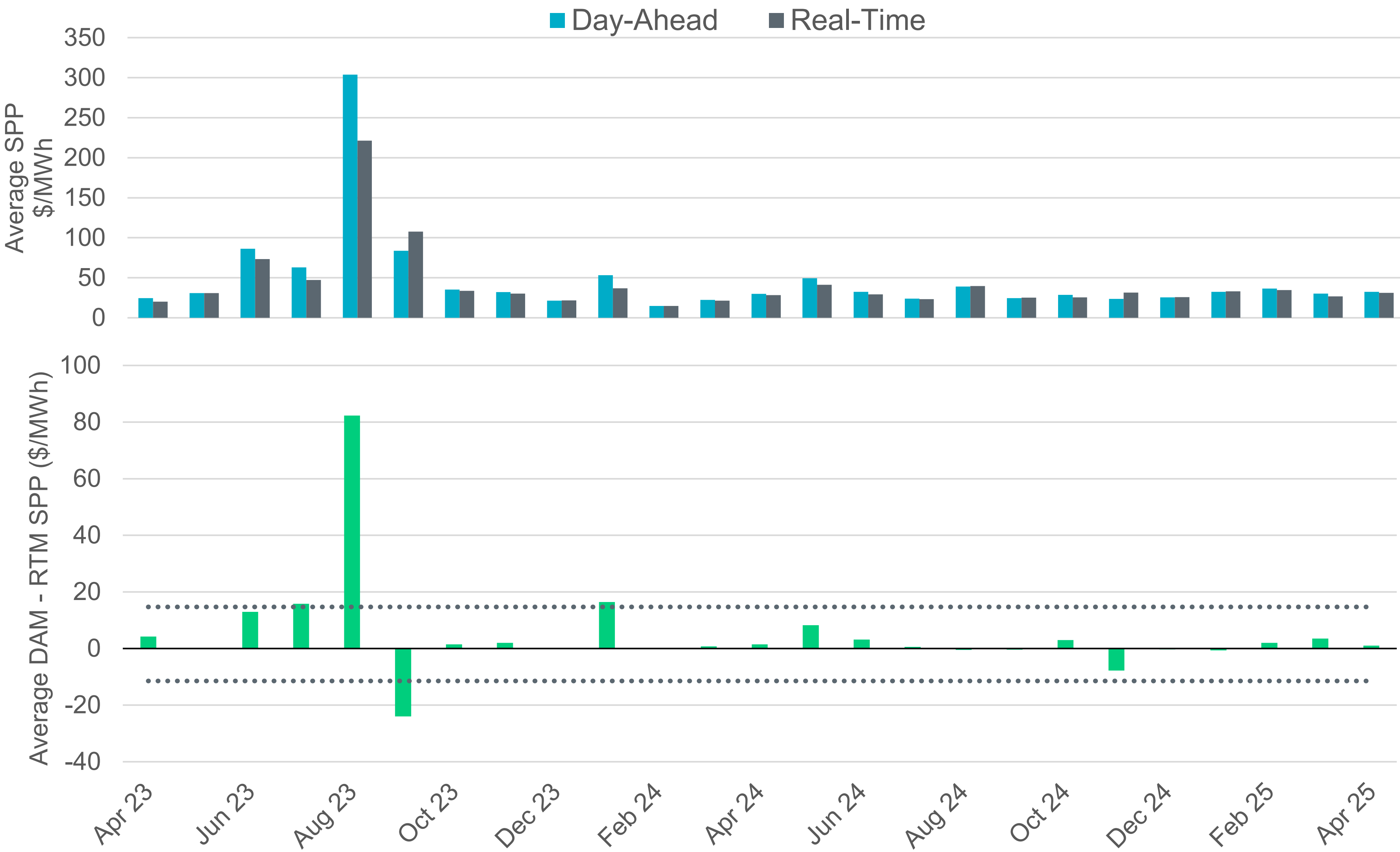


	April 2025 ($M)
Real-Time Energy Imbalance	$222.89
Real-Time Point-to-Point Obligation	($232.59)
Real-Time Congestion from Self-Schedules	$0.53
DC Tie & Block Load Transfer	($2.29)
Real-Time Energy for SODG and SOTG	($0.60)
Load Allocated Revenue Neutrality	**$12.06**

Ancillary Services for April 2025 totaled $15.04M

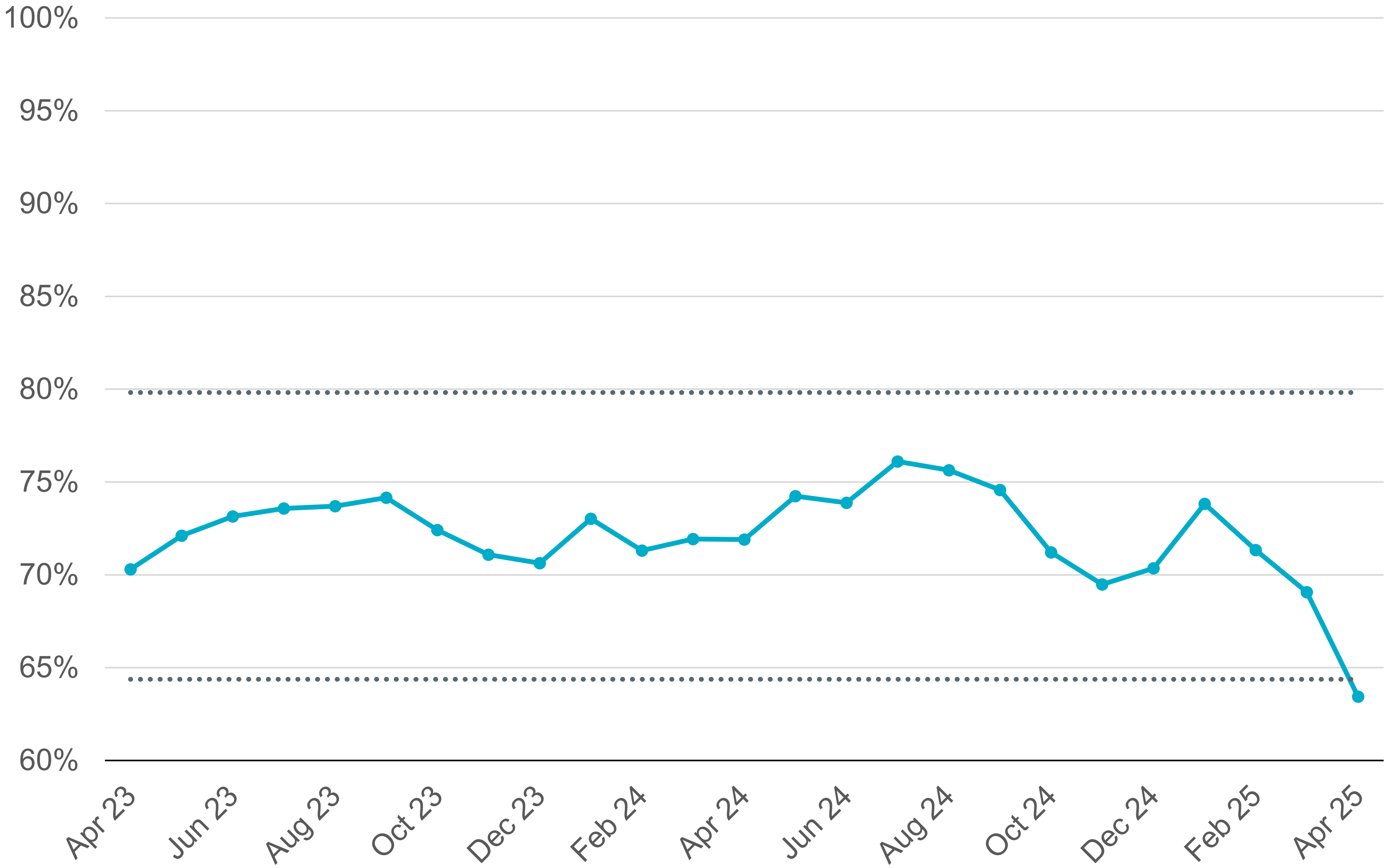


Real-Time prices were aligned with Day-Ahead prices, on average, in April



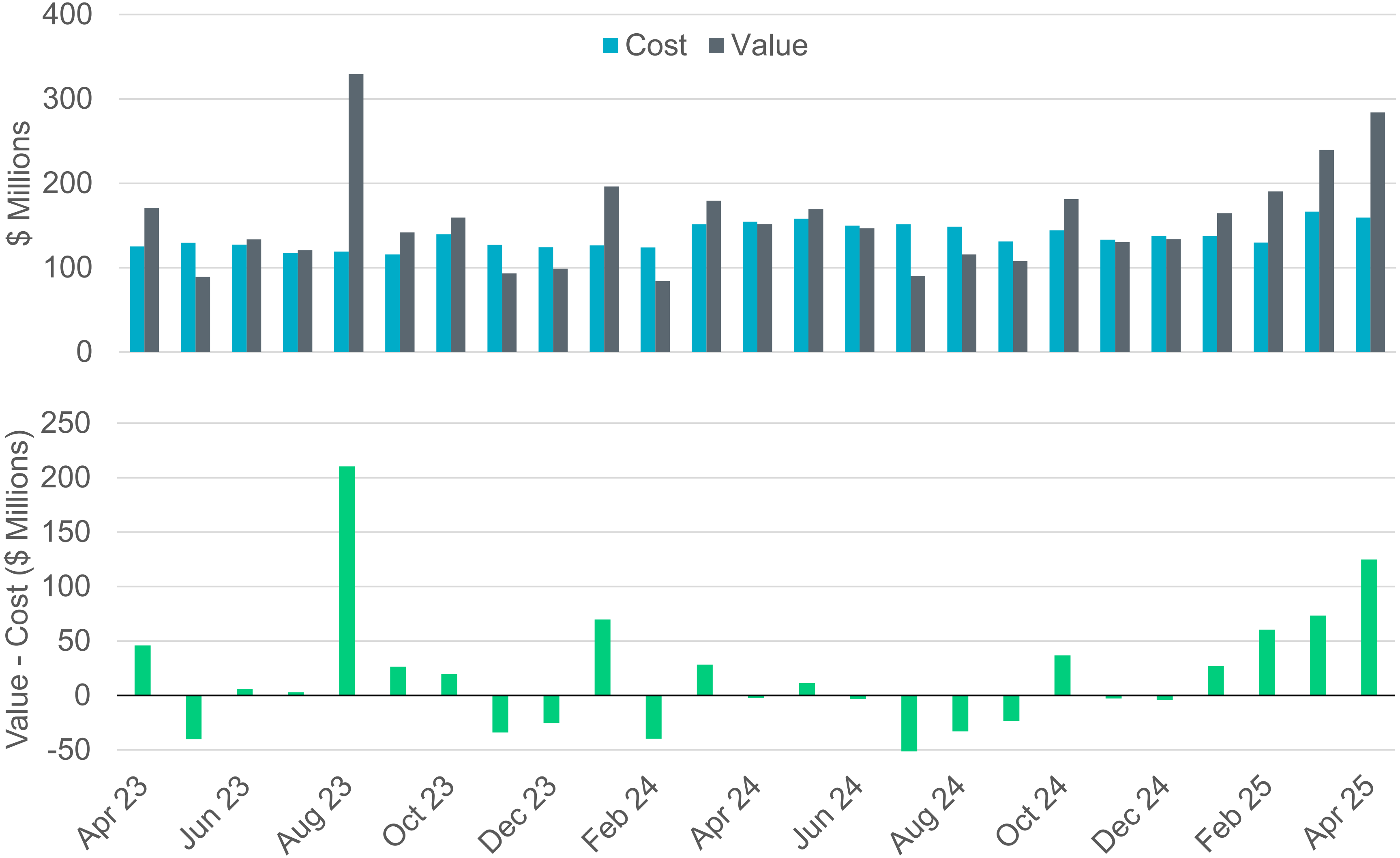
Notes:
1) The dotted lines represent the bounds for major outliers.
2) Averages are weighted by Real-Time Market Load.

Percentage of Real-Time Load Transacted in the Day-Ahead Market decreased significantly in April compared to March

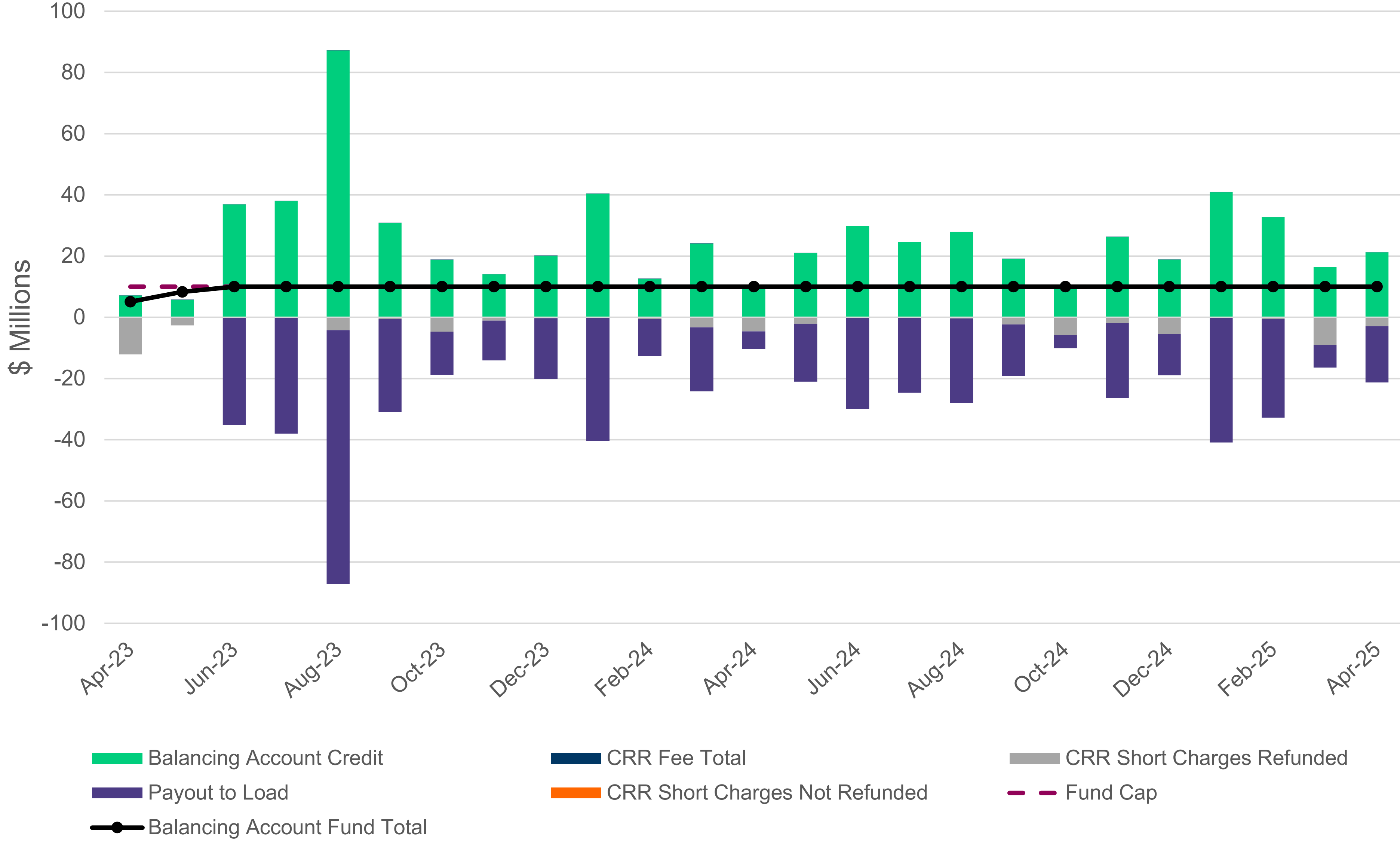


Notes:
1) The dotted lines represent the bounds for major outliers.

Congestion Revenue Right (CRR) Value was Greater than Cost in April due to increased congestion in the Day-Ahead Market



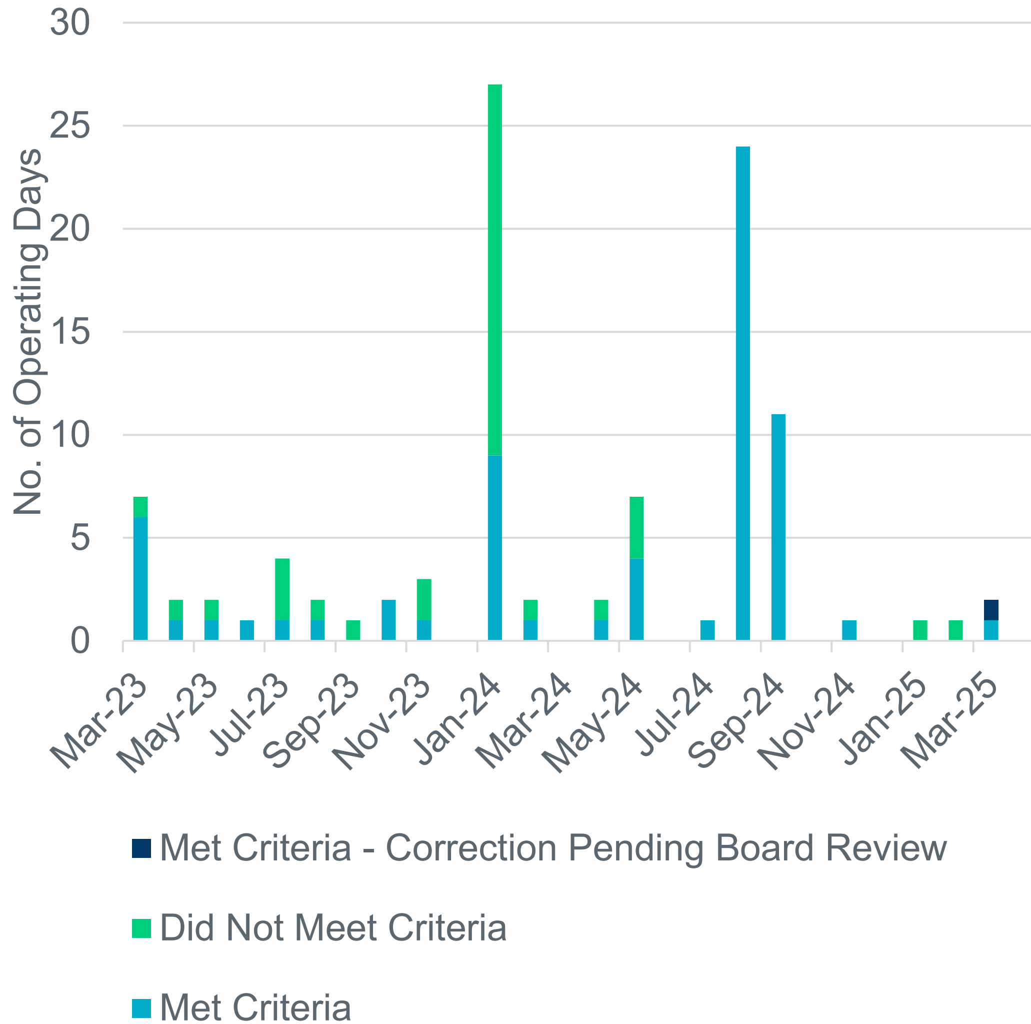
The CRR Balancing Account was fully-funded and excess amounts were allocated to Load



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:

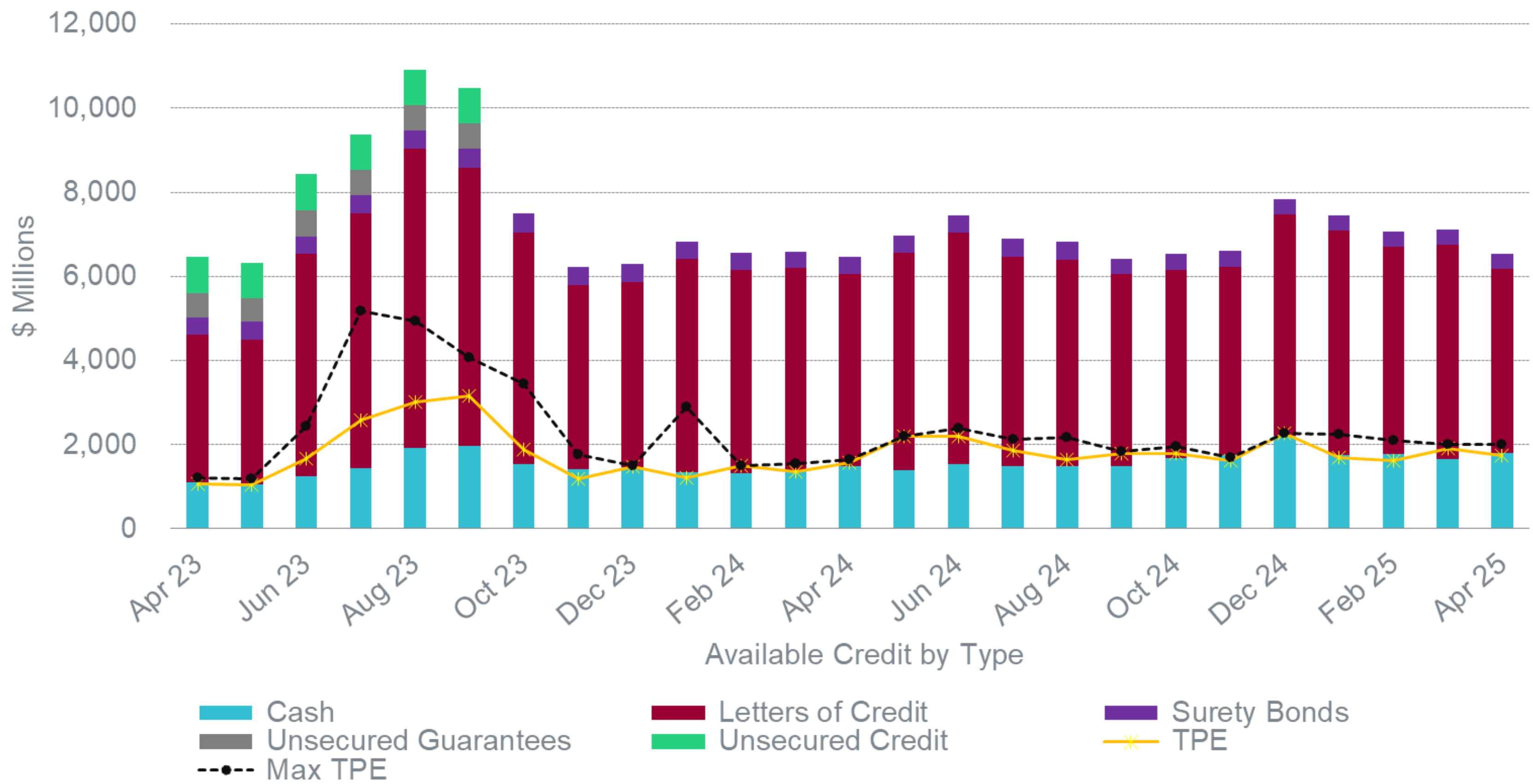
- Days that met the criteria for “significance” under NPRR1024 and were corrected;
- Days that were not corrected because they did not meet the criteria for “significance” under NPRR1024; and
- Days that are currently undergoing analysis to determine if criteria for “significance” under NPRR1024 is met.



Details for Price Corrections Review

There were no price impact events during the month of April 2025.

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



*Numbers are as of month end except for Max TPE

Retail Transaction Volumes – Summary – April 2025

	Year-To-Date		Transactions Received	
Transaction Type	**April 2025**	**April 2024**	**April 2025**	**April 2024**
Switches	495,230	451,201	115,540	145,509
Acquisitions	0	0	0	0
Move - Ins	935,346	1,099,514	238,444	251,888
Move - Outs	456,744	453,553	121,303	120,430
Continuous Service Agreements (CSA)	149,999	121,373	27,290	30,727
Mass Transitions	0	0	0	0
Total	**2,037,319**	**2,125,641**	**502,577**	**548,554**