

ERCOT Monthly Operational Overview (February 2025)

ERCOT Public March 18, 2025

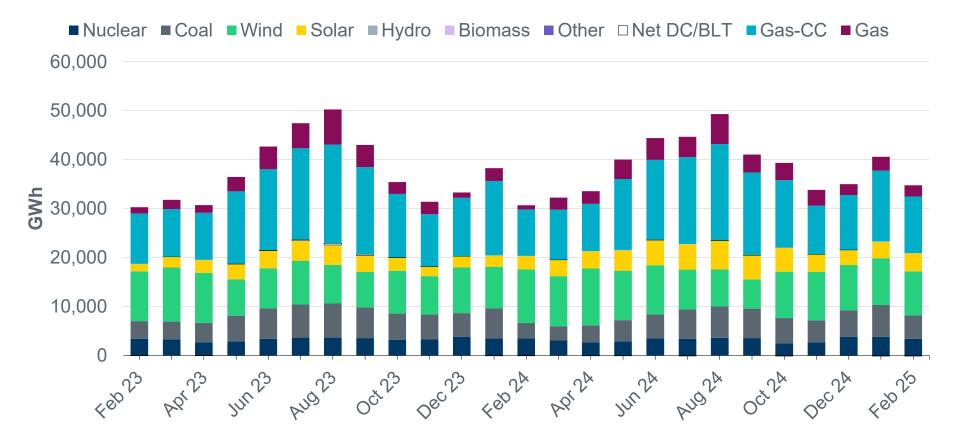
### **Highlights, Records and Notifications**

- ERCOT's maximum peak demand for the month of February was 80,525 MW\* on 2/20/25; this is 24,665 MW more than the February 2024 demand of 55,860 MW set on 2/19/24 and is an all-time winter peak demand record.
- ERCOT issued 6 notifications:
  - 1 Advisory Due to extreme cold weather system impacting ERCOT.
  - 2 Advisories Due to extreme ERCOT's Transient Security Stability Tool being unavailable.
  - 1 OCN Due to extreme cold weather system impacting ERCOT.
  - 1 Watch Due to extreme cold weather system impacting ERCOT.
  - 1 DC Tie Curtailment Notice Due to a planned or unplanned outage.



\* Preliminary value from March Demand and Energy 2025 report.

#### Monthly energy generation increased by 13.3% yearover-year to 34,700 GWh in February 2025, compared to 30,628 GWh in February 2024

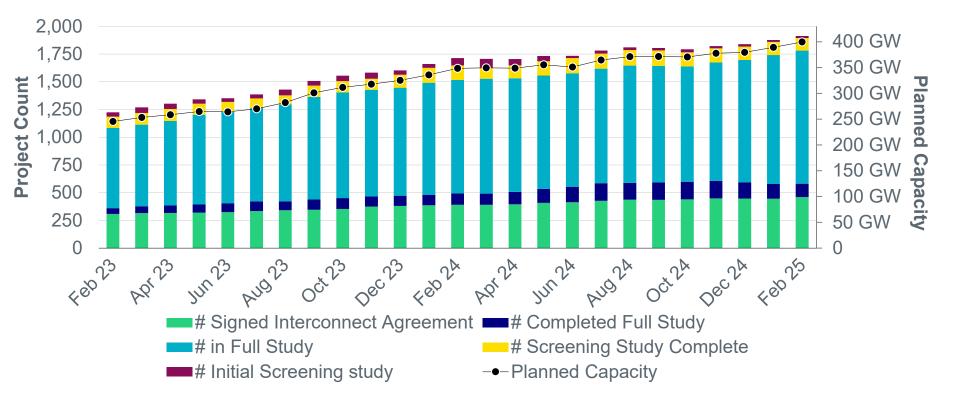


Data for latest two months are based on preliminary settlements.

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#### **Generation Interconnection activity by project phase**

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

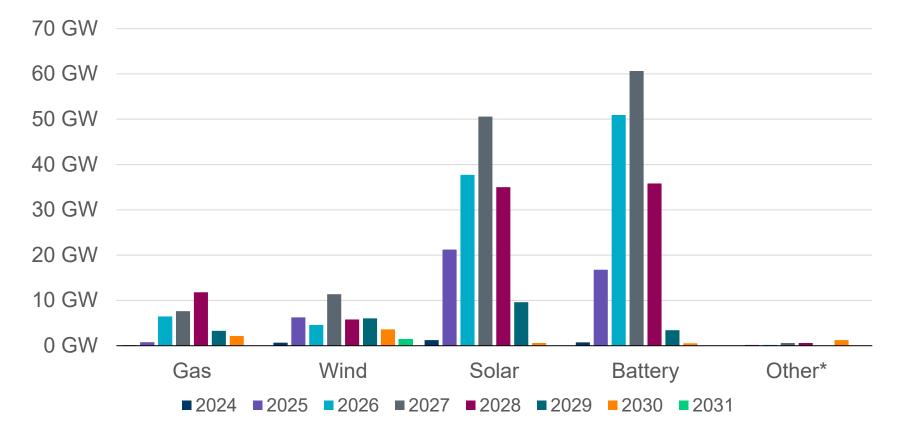


- There are an additional 50 "Small Generator" projects totaling 458 MW that are going through the simplified interconnection process.
- A break-out by fuel type can be found in the monthly Generator Interconnection Status (GIS) reports available on the ERCOT Resource Adequacy Page: <u>http://www.ercot.com/gridinfo/resource</u>



#### **Interconnection Queue Capacity by Fuel Type**

Queue totals: Solar 156 GW (39%), Wind 40 GW (10%), Gas 32 GW (8.1%), Battery 169 GW (42.2%), Other 3 GW (.7%) (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: <u>http://www.ercot.com/gridinfo/resource</u>



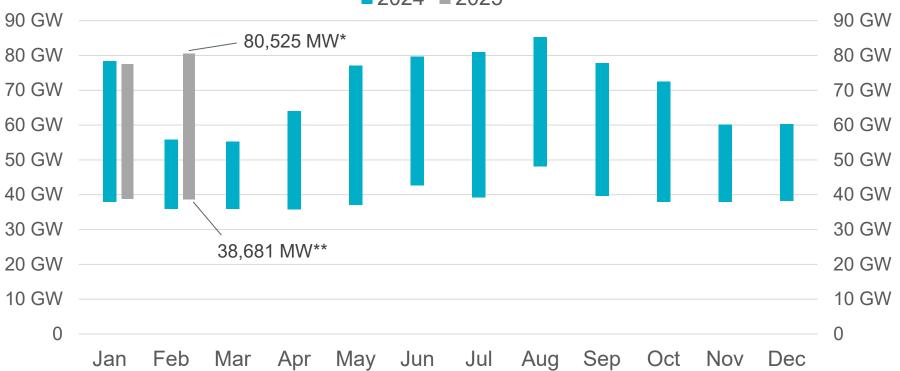
\* Other includes petroleum coke (pet coke), hydroelectric, fuel oil, geothermal energy, other miscellaneous fuels reported by developers, and fuel cells that use fuels other than natural gas.

### **Planning Summary**

- ERCOT is tracking 1,987 active generation interconnection requests totaling 399,689 MW as of February 28. This includes 155,990 MW of solar, 39,893 MW of wind, 168,836 MW of battery, and 32,190 MW of gas projects; 125 projects were categorized as inactive, down from 126 inactive projects in January 2025.
- ERCOT is currently reviewing proposed transmission improvements with a total estimated cost of \$4.402 billion as of February 28, 2025.
- Transmission Projects endorsed in 2025 total \$596.96 million as of February 28, 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's maximum peak demand for the month of February was 80,525 MW\* on 2/20/2025; This is 24,665 MW more than the February 2024 demand of 55,860 MW on 2/19/2024.



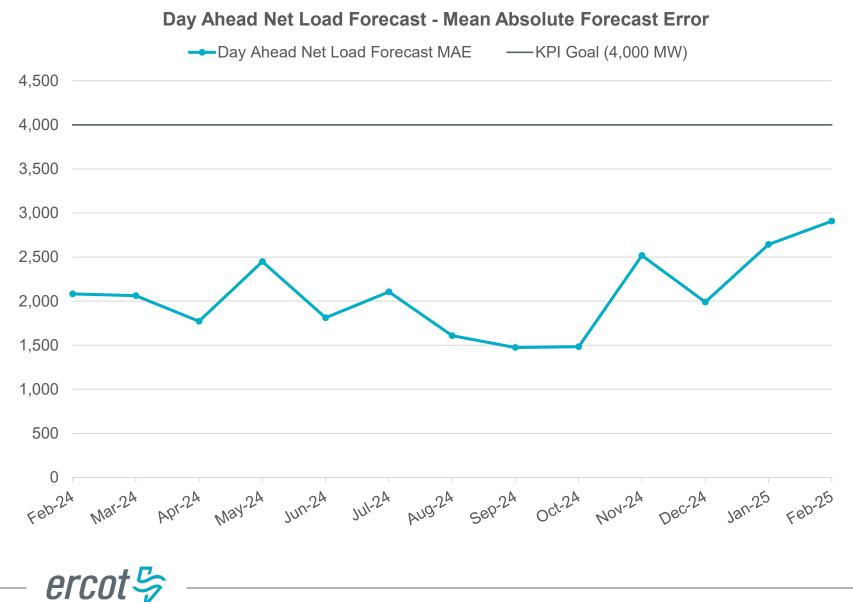
■ 2024 ■ 2025

\*Based on the maximum net system hourly value from the February 2025 Demand and Energy report. \*\*Based on the minimum net system 15-minute interval value from the February 2025 Demand and Energy report.

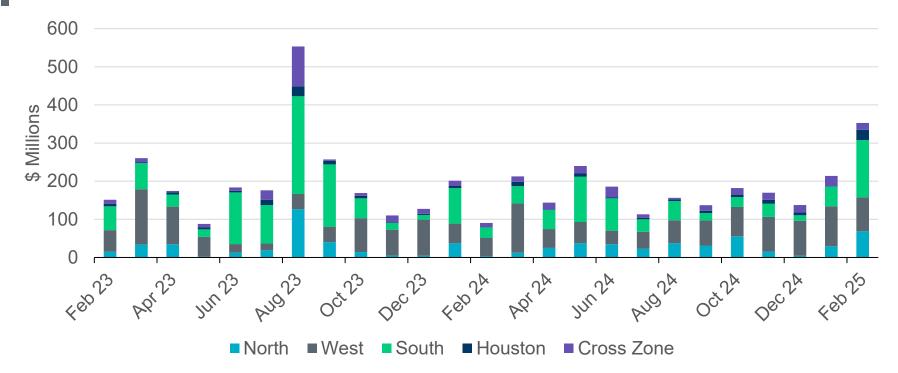
Data for latest two months are based on preliminary settlements.



#### **Net Load Forecast Performance**



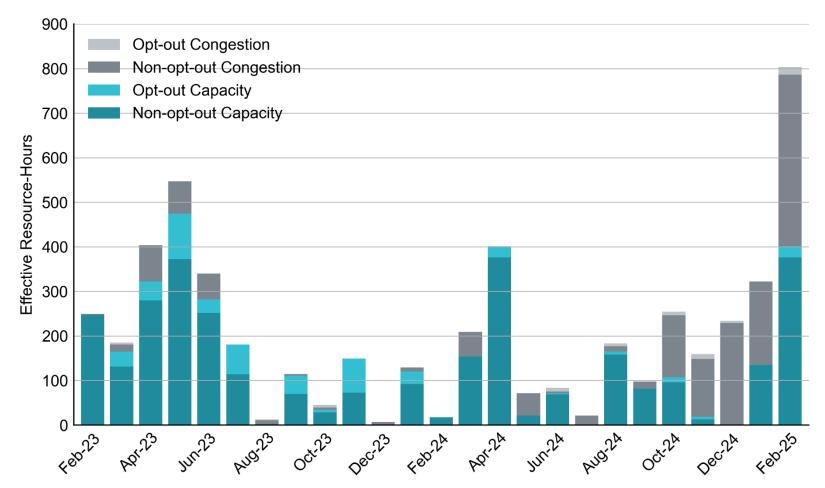
#### **Real-Time Congestion Rent by Zone**



- 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 increased in February compared to January, 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 line from Wolf Switching Station to Meteor Switch and 345kV line from Wolf Switching Station to Odessa EHV Switch overloads the 138kV line from Odessa EHV to Yarbrough Sub
  - Congestion rent in the South Zone was primarily driven by the loss of the 345kV line from Temple Switch to Knob Creek Switch and the 138kV line Temple Switch to Bell County overloads the 138kV line from Georgetown South to Round Rock Westinghouse.



## **Elevated RUC Activity Continues, Providing Capacity and Managing Congestion**

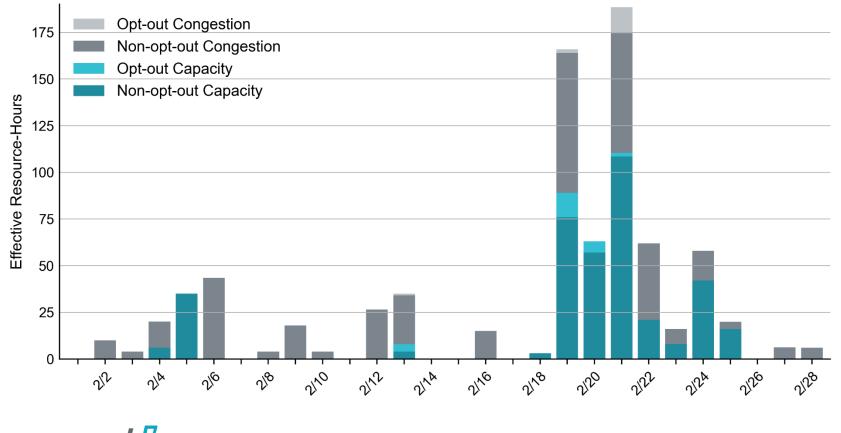


"Effective Resource-Hours" excludes any period during a Reliability Unit Commitment hour when the RUC-committed Resource was starting up, shutting down, off-line, or otherwise not available for dispatch by SCED.



#### **RUC Instruction Reasons in February 2025**

- 803.3 RUC effective Resource-hours.
  - 402.1 hours (50%) for congestion, 401.2 (50%) for capacity.
- Higher RUC activity for capacity and congestion centered on the winter weather event from February 19-21.



#### Fifty-one Resources were Committed in February to Manage Congestion and Provide Capacity

Resource #	Effective Resource-Hours	For Congestion		For Capacity	
		Opt-Out	Non-Opt-Out	Opt-Out	Non-Opt-Out
1	1.7	0.0	0.0	0.0	1.7
2	8.0	0.0	0.0	2.0	6.0
3	7.4	0.0	0.0	6.0	1.4
4	12.0	0.0	0.0	0.0	12.0
5	3.6	0.0	3.6	0.0	0.0
6	18.0	0.0	18.0	0.0	0.0
7	26.0	14.0	5.0	0.0	7.0
8	8.0	0.0	8.0	0.0	0.0
9	27.0	0.0	0.0	0.0	27.0
10	10.0	0.0	10.0	0.0	0.0
11	6.7	0.0	6.7	0.0	0.0
12	12.0	0.0	4.0	0.0	8.0
13	4.0	0.0	4.0	0.0	0.0
14	4.0	0.0	4.0	0.0	0.0
15	5.9	0.0	5.9	0.0	0.0
16	7.8	0.0	7.8	0.0	0.0
17	29.0	0.0	25.0	0.0	4.0
18	6.0	0.0	0.0	0.0	6.0
19	1.0	0.0	0.0	0.0	1.0
20	6.0	0.0	0.0	0.0	6.0
21	6.0	0.0	0.0	0.0	6.0
22	2.0	1.0	1.0	0.0	0.0
23	6.0	0.0	6.0	0.0	0.0
24	29.0	1.0	27.0	0.0	1.0
25	17.0	1.0	16.0	0.0	0.0
26	7.0	0.0	0.0	0.0	7.0

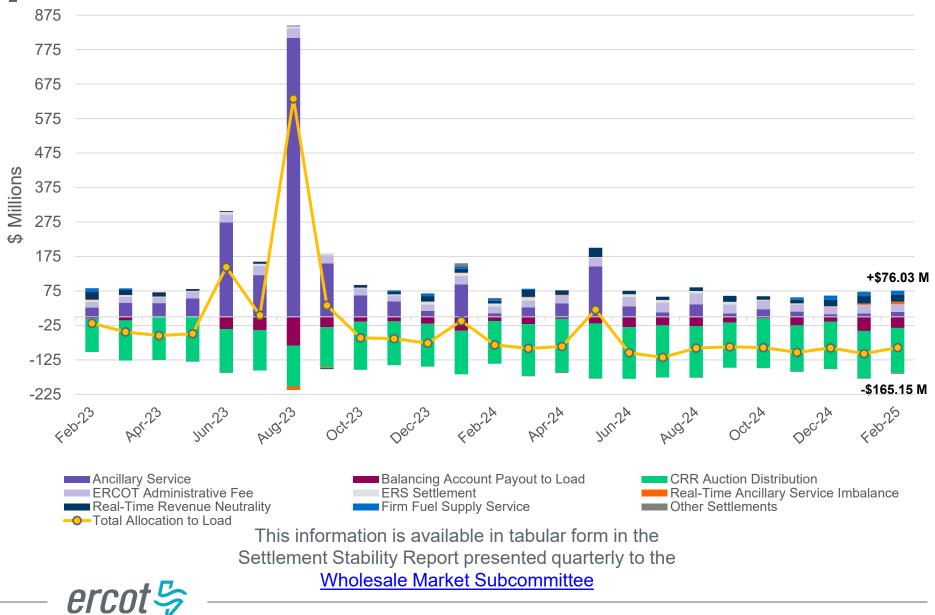
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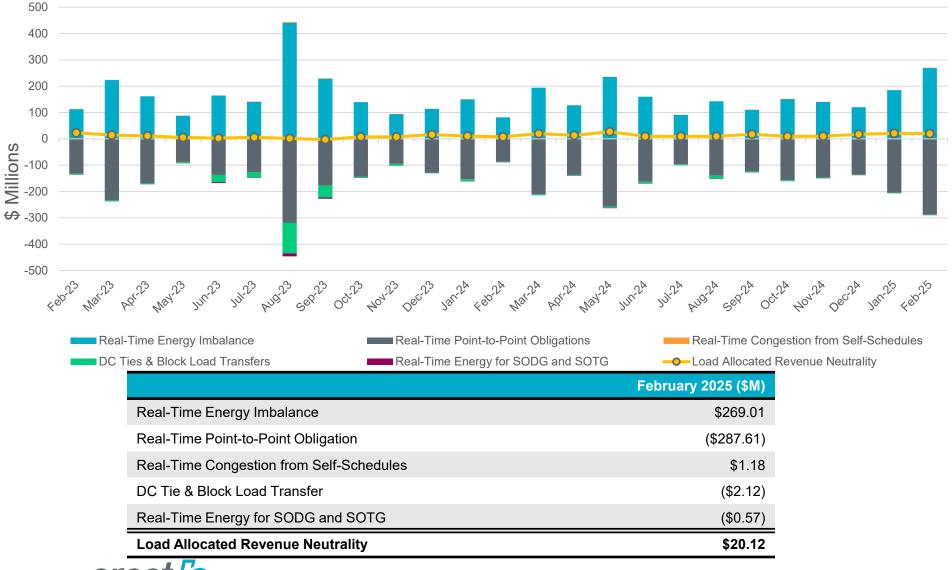
Resource #	Effective Resource-Hours	For Congestion		For Capacity	
		Opt-Out	Non-Opt-Out	Opt-Out	Non-Opt-Out
27	62.0	0.0	16.0	0.0	46.0
28	139.0	0.0	68.0	0.0	71.0
29	32.0	0.0	16.0	0.0	16.0
30	32.0	0.0	16.0	0.0	16.0
31	66.0	0.0	40.0	0.0	26.0
32	6.0	0.0	6.0	0.0	0.0
33	6.0	0.0	6.0	0.0	0.0
34	6.0	0.0	6.0	0.0	0.0
35	5.8	0.0	5.8	0.0	0.0
36	6.0	0.0	6.0	0.0	0.0
37	9.4	0.0	6.0	0.0	3.4
38	2.0	0.0	2.0	0.0	0.0
39	36.9	0.0	0.0	0.0	36.9
40	36.9	0.0	0.0	0.0	36.9
41	6.0	0.0	6.0	0.0	0.0
42	13.2	0.0	13.2	0.0	0.0
43	31.9	0.0	11.9	0.0	20.0
44	6.0	0.0	0.0	6.0	0.0
45	7.0	0.0	0.0	7.0	0.0
46	2.0	0.0	2.0	0.0	0.0
47	2.2	0.0	2.2	0.0	0.0
48	4.0	0.0	4.0	0.0	0.0
49	3.9	0.0	0.0	0.0	3.9
50	4.0	0.0	0.0	4.0	0.0
51	6.0	0.0	0.0	0.0	6.0
Total	803.3	17.0	385.1	25.0	376.2



#### Net Allocation to Load in February 2025 was (\$89.11) Million

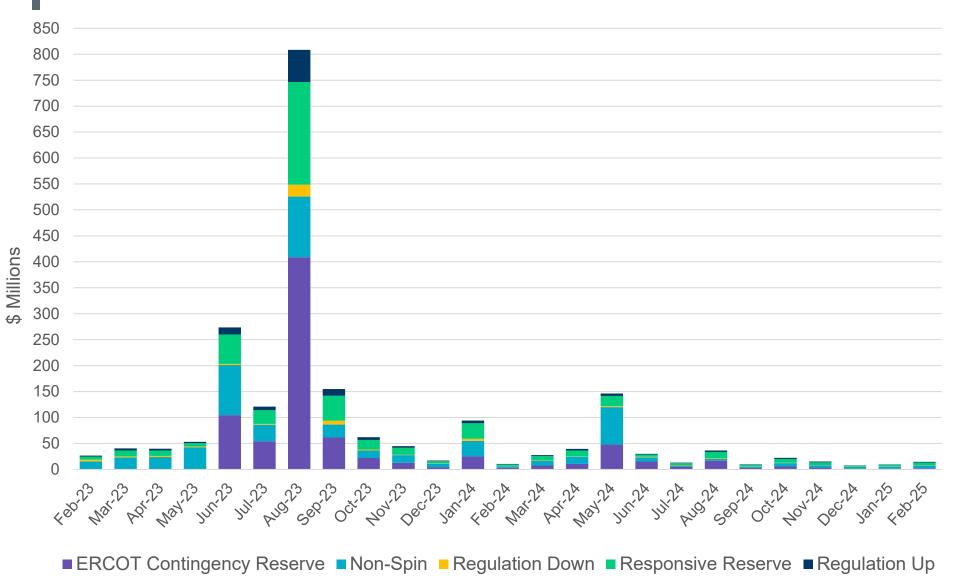


## **Real-Time Revenue Neutrality Allocated to Load was \$20.12 M for February 2025**



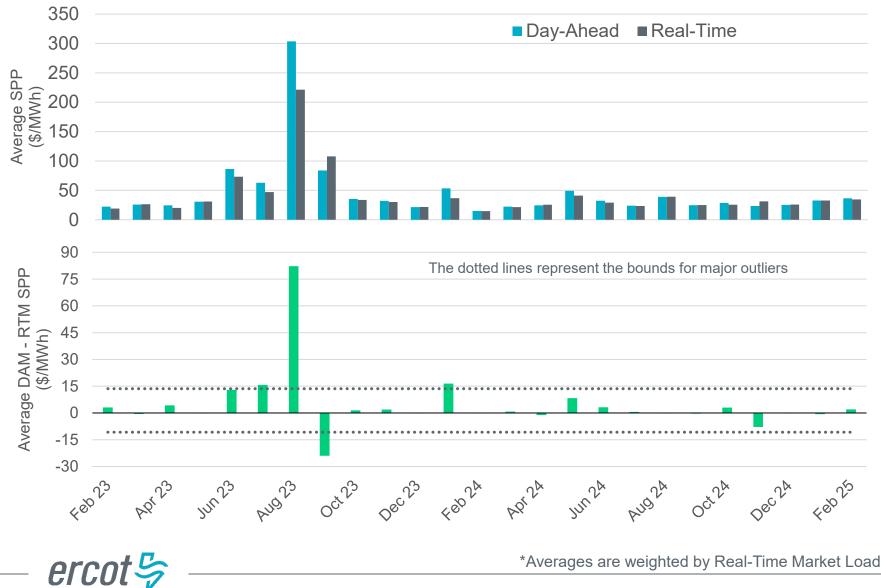


#### **Ancillary Services for February 2025 totaled \$14.5M**

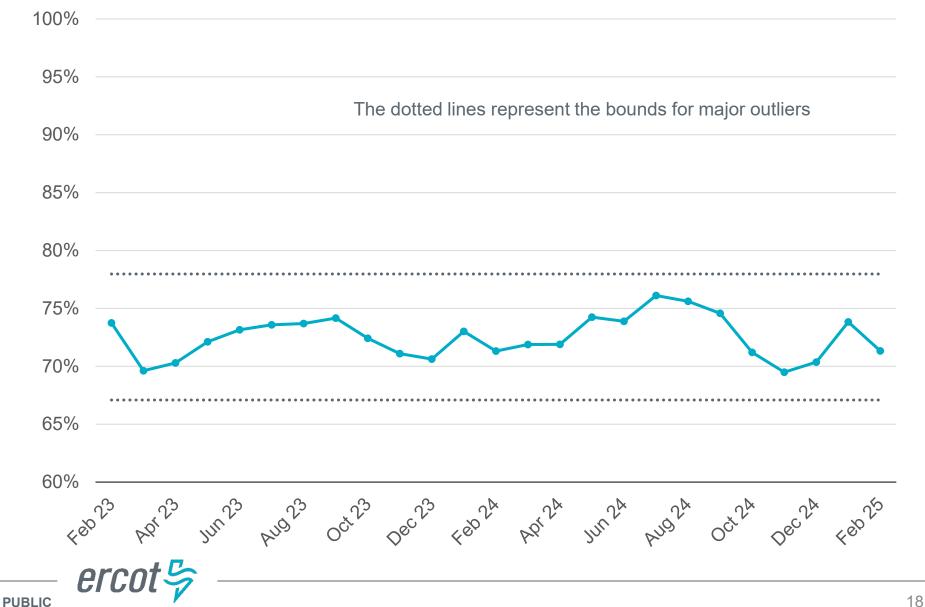




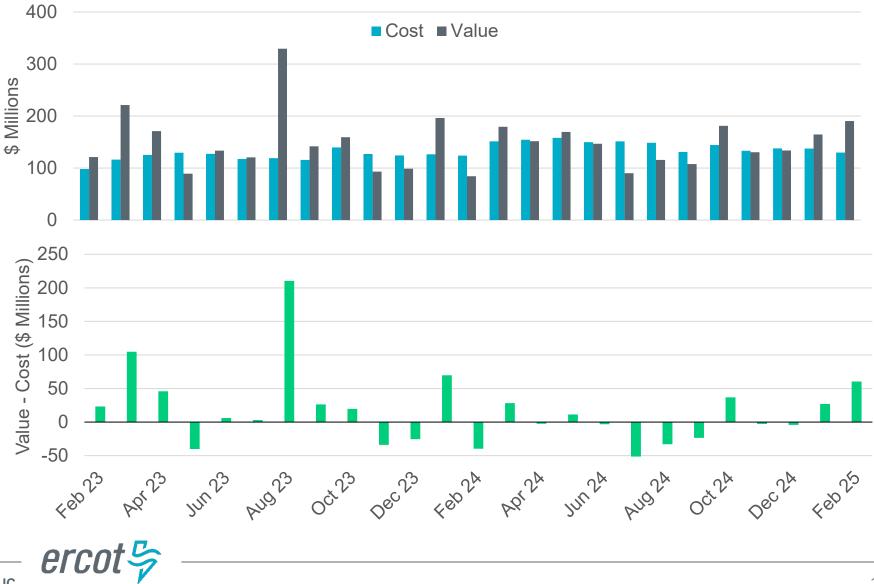
### **Real-Time prices were aligned with Day-Ahead prices, on average, in February**



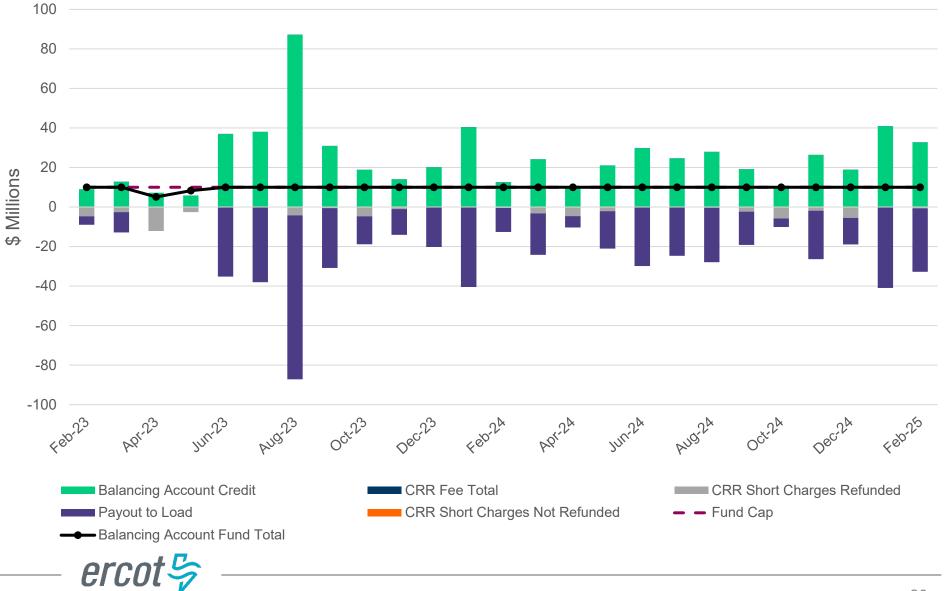
#### **Percentage of Real-Time Load Transacted in the Day-Ahead Market** decreased in February compared to January



## **Congestion Revenue Right (CRR) Value was Greater than Cost in February**



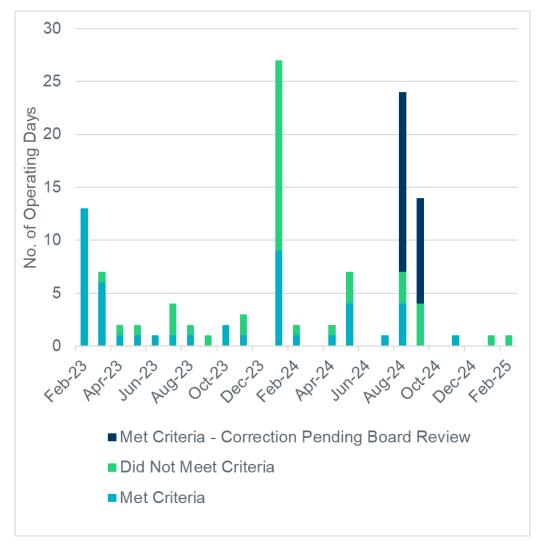
#### The CRR Balancing Account was fully-funded and excess amounts were allocated to Load



### 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**

#### **Pricing Impacts Not Meeting Criteria**

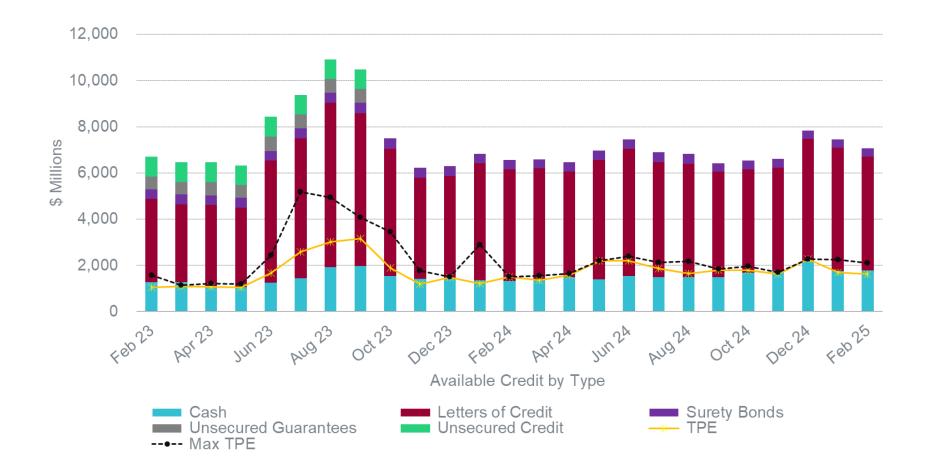
On Operating Day February 11, 2025, the Emergency Basepoint flag was activated during an unannounced constant frequency control test. The flag was active for approximately 4 minutes, impacting meter prices for the real-time settlement interval 11:00. The total estimated dollar impact was approximately \$30, not meeting the criteria of \$500 for performing a price correction.

#### **Update on Previous Price Impact Analysis**

On September 5, 2024, ERCOT discovered a software defect that affected a Resource's megawatt value when its data quality was suspect. The megawatt value is used in the calculation of a transmission constraint's mathematical limit (See Market Notice <u>M-A091124-01</u>). ERCOT has finished its impact analysis and found that 27 of the 31 days met criteria for pursuing ERCOT Board review for price correction. A more detailed review of the analysis results will be presented at the upcoming TAC meeting on March 26, 2025, and the ERCOT Board of Directors meeting on April 8, 2025.



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



\*Numbers are as of month end except for Max TPE

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#### **Retail Transaction Volumes – Summary – February 2025**

	Year-To-Date		Transactions Received	
Transaction Type	February 2025	February 2024	February 2025	February 2024
Switches	164,556	190,246	80,791	105,903
Acquisitions	0	0	0	0
Move - Ins	450,644	595,023	220,508	331,939
Move - Outs	214,143	219,321	104,304	110,856
Continuous Service Agreements (CSA)	59,605	53,008	27,788	30,761
Mass Transitions	0	0	0	0
Total	888,948	1,057,598	433,391	579,459

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