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# Item 15.1: Market Price Correction – Incorrect Generation to be Dispatched Values Used in SCED

Gordon Drake
Director, Market Design & Analysis

**Board of Directors Meeting** 

December 8-9, 2025

## Purpose

Provide a timeline of events related to impacted prices in the Real-Time Market (RTM) for Operating Day (OD) October 14, 2025, and present the results of our price impact analysis.

## Voting Items

Requesting approval to correct Real-Time Market Prices for Operating Day October 14, 2025.

## **Key Takeaways**

- A software malfunction affected Generation to be Dispatched values, impacting RTM prices for Operating Day October 14, 2025.
- The impact met the significance criteria for price correction and ERCOT is requesting Board approval to correct prices for OD October 14, 2025.
- Impact analysis showed a 3.8% change in statement charges due to ERCOT.

# **Price Correction Event**

- On Operating Day (OD) October 14, 2025, incorrect Generation to be Dispatched (GTBD) values were used in Security Constrained Economic Dispatch (SCED), impacting prices in the Real-Time Market.
  - The control room observed an abnormal load spike in the external Short-Term Load Forecast (STLF) and opted to switch to the internal STLF.
  - However, a software bug prevented the STLF switch from properly executing, resulting in the load forecast spike being included
    in the calculations for GTBD.
  - Incorrect GTBD values impacted prices between 8:10pm and 9:15pm and high system-wide prices were observed between 8:10pm and 8:15pm.
- ERCOT identified the issue on October 23, 2025 and thus could not correct prices within the 2-business day deadline for the Operating Day.
- The cause of the software bug has been identified, and a fix was deployed on October 28, 2025.
- We notified the market through two notices:
  - On October 24, 2025 an Operations Notice notified the market of an investigation into real-time market prices for October 14.
  - On November 17, 2025 a Market Notice (M-A111725-01) detailed the results of our analysis and communicated our intent to seek Board approval to correct prices for the Real-Time Market (RTM) as specified by Protocol Section 6.3(7)(b).



# **Real-Time Market Impact Analysis**

- ERCOT Protocol Section 6.3(7)(b) requires that the absolute value impact to any single Counter-Party meet one of the following two criteria before seeking approval from the Board.
  - i. 2% and also greater than \$20,000; or
  - ii. 20% and also greater than \$2,000.
- ERCOT determined that OD October 14, 2025 met criteria for significance for the RTM.

Operating Day	Counter-Parties meeting criteria in Protocol Section Section 6.3(7)(b)(i)	Counter-Parties meeting criteria in Protocol Section Section 6.3(7)(b)(ii)
10/14/2025	18	3

• The maximum absolute value impact to Counter-Parties is:

Operating Day	Maximum Amount	Maximum Percentage for Criteria (i)*	Maximum Percentage for Criteria (ii)**
10/14/2025	\$140,106.63	21.9%	146.4%



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# RTM Impact Analysis and Recommendation

The maximum estimated change in charges due to ERCOT is:

Operating Day	Change in Statement Charges Due to ERCOT	
10/14/2025	\$(812,752.86)	3.8%

Negative amounts are increased payments to Market Participants; positive amounts are increased charges. The percent amount is the absolute value of the percent impact to the previously settlement net amount due to/from ERCOT.

### **Key takeaways:**

- A software error impacted Real-Time Market (RTM) prices for Operating Day (OD) October 14, 2025.
- The impact of this error met the significance criteria for price correction in the Protocols.
- ERCOT requests Board approval to correct prices for the RTM for OD October 14, 2025.





**Date:** December 1, 2025 **To:** Board of Directors

From: Gordon Drake, Director, Market Design & Analysis

Subject: Real-Time Market Price Correction – Incorrect Generation To Be

Dispatched values used in SCED

#### **Issue for the ERCOT Board of Directors**

**ERCOT Board of Directors Meeting Date:** December 8-9, 2025

Item No.: 16.1

#### Issue:

Pursuant to paragraph 7 of Protocol Section 6.3, Adjustment Period and Real-Time Operations Timeline, and whether the Board of Directors (Board) of Electric Reliability Council of Texas, Inc. (ERCOT) should approve price corrections for Real-Time Locational Marginal Prices (RTLMPs), Real-Time Settlement Point Prices (RTSPPs), Real-Time Price for Energy Metered for Resources (RTRMPRs), and Real-Time Price for Energy Metered for Settlement Only Generators (RTESOGPRs) for Operating Day (OD) October 14, 2025, that were affected by incorrect Generation to be Dispatched (GTBD) values used in Security Constrained Economic Dispatch (SCED).

#### **Background/History:**

ERCOT staff has identified the need to correct prices in the Real-Time Market (RTM) for OD October 14, 2025. The impacted prices include:

- RTLMPs;
- RTSPPs;
- RTRMPRs;
- RTESOGPRs

The ERCOT Protocols require ERCOT to correct prices when invalid prices are identified in an otherwise valid market solution. If ERCOT determines that prices are erroneous, ERCOT must correct the prices before they are final. For the RTM, prices are final at 1600 on the second Business Day following the OD. However, if ERCOT determines that prices are erroneous and need correction after they are final, then ERCOT shall seek Board review of such prices provided that, within 30 days of the OD, ERCOT notifies Market Participants of the need for correction and that ERCOT intends to seek Board approval of the correction.

In considering a correction of prices, the Board may rely on the following reasons to find that prices should be corrected:



- <u>Data Input Error</u>: Missing, incomplete, stale, or incorrect versions of one or more data elements input to the market applications may result in an invalid market solution and/or prices.
- <u>Hardware/Software Error</u>: These include unpredicted hardware or software failures, planned market system or database outages, planned application or database upgrades, software implementation errors, and failure of the market run to complete.
- Inconsistency with the Protocols or Public Utility Commission of Texas (PUCT)
   Substantive Rules: Pricing errors may occur when specific circumstances result
   in prices that are in conflict with such Protocol language or the PUCT
   Substantive Rules.

See ERCOT Protocol Sections 6.3(4) - (7).

On October 14, 2025, the ERCOT control room observed an abnormal spike in the external Short Term Load Forecast (STLF), resulting in the decision to switch to an internal STLF. An Energy Management System (EMS) bug prevented this switch from properly executing, resulting in the forecast spike being included in the calculation for Generation to be Dispatched (GTBD). This resulted in high system lambda values between 8:10pm and 8:15pm. ERCOT identified the issue on October 23 and thus could not correct prices within the 2-business day timeframe for the impacted OD. An Operations Notice was issued on October 24 notifying the market of real-time prices under investigation and to preserve the eligibility of the ERCOT Board to review prices for the affected Operating Days that were within 30 days of the notice.

Market Notice M-A111725-01 was issued on November 17, 2025, notifying the market of the issue, the price impact results, and ERCOT's intent to seek ERCOT Board of Directors (Board) approval for price correction as specified by ERCOT Protocol Section 6.3(7)(b) for the Real-Time Market (RTM).

Accordingly, ERCOT requests that the Board:

- (a) Review RTLMPs, RTSPPs, RTRMPRs, and RTESOGPRs for OD October 14, 2025.
- (b) Make a determination as to whether such prices were significantly affected by the error; and
- (c) Direct/authorize ERCOT to correct the impacted RTLMPs, RTSPPs, RTRMPRs, and RTESOGPRs for OD October 14, 2025.

Attached hereto are documents containing corrected RTSPPs, RTRMPRs, and RTESOGPRs for OD October 14, 2025, as follows:



- Attachment A Corrected RTLMPs
- Attachment B Corrected RTSPPs
- Attachment C Corrected RTRMPRs
- Attachment D Corrected RTESOGPRs

#### **Relevant Protocol Sections:**

#### 6.3 Adjustment Period and Real-Time Operations Timeline

- (4) ERCOT shall correct prices for an Operating Day when accurate prices can be determined, the impact of the price correction is determined to be significant, and one of the following conditions has been met: a market solution is determined to be invalid, invalid prices are identified in an otherwise valid market solution, the Base Points received by Market Participants are inconsistent with the Base Points of a valid market solution, or the Security-Constrained Economic Dispatch (SCED) process experiences a failure as described in Section 6.5.9.2, Failure of the SCED Process. The following are some reasons that may cause these conditions:
  - (a) Data Input error: Missing, incomplete, stale, or incorrect versions of one or more data elements input to the market applications may result in an invalid market solution and/or prices.
  - (b) Data Output error: These include incorrect or incomplete data transfer, price recalculation error in post-processing, and Base Points inconsistent with prices due to the Emergency Base Point flag remaining activated even when the SCED solution is valid.
  - (c) Hardware/Software error: These include unpredicted hardware or software failures, planned market system or database outages, planned application or database upgrades, software implementation errors, and failure of the market run to complete.
  - (d) Inconsistency with the Protocols or Public Utility Commission of Texas (PUCT) Substantive Rules: Pricing errors may occur when specific circumstances result in prices that are in conflict with such Protocol language or the PUCT Substantive Rules.
- (7) All Real-Time LMPs, Real-Time Settlement Point Prices, Real-Time prices for energy metered, Real-Time On-Line Reliability Deployment Price Adders, Real-Time On-Line Reliability Deployment Prices, Real-Time Reserve Prices for On-Line Reserves, Real-Time Reserve Prices for Off-Line Reserves, Real-Time On-Line Reserve Price Adders, Real-Time Off-Line Reserve Price Adders and



SASM MCPCs are final at 1600 of the second Business Day after the Operating Day.

- (a) However, after Real-Time LMPs, Real Time Settlement Point Prices, Real-Time prices for energy metered, Real-Time On-Line Reliability Deployment Price Adders, Real-Time On-Line Reliability Deployment Prices, Real-Time Reserve Prices for On-Line Reserves, Real-Time Reserve Prices for Off-Line Reserves, Real-Time On-Line Reserve Price Adders, Real-Time Off-Line Reserve Price Adders and SASM MCPCs are final, if ERCOT determines that prices qualify for a price correction pursuant to paragraph (4) above and that ERCOT will seek ERCOT Board review of such prices, it shall notify Market Participants and describe the need for such correction as soon as practicable but no later than 30 days after the Operating Day. Failure to notify Market Participants within this timeline precludes the ERCOT Board from reviewing such prices. However, nothing in this section shall be understood to limit or otherwise inhibit any of the following:
  - (i) ERCOT's duty to inform the PUCT of potential or actual violations of the ERCOT Protocols or PUCT Rules and its right to request that the PUCT authorize correction of any prices that may have been affected by such potential or actual violations;
  - (ii) The PUCT's authority to order price corrections when permitted to do so under other law; or
  - (iii) ERCOT's authority to grant relief to a Market Participant pursuant to the timelines specified in Section 20, Alternative Dispute Resolution Procedure.
- (b) Before seeking ERCOT Board review of prices, ERCOT will determine if the impact of the price correction is significant, as that term is used in paragraph (4) above, by calculating the potential changes to the Real-Time Market (RTM) Settlement Statement(s) of any Counter-Party on a given Operating Day. ERCOT shall seek ERCOT Board review of prices if the change in RTM Settlement Statement(s) would result in the absolute value impact to any single Counter-Party, based on the sum of all original RTM Settlement Statement amounts of Market Participants assigned to the Counter-Party, to be greater than:
  - (i) 2% and also greater than \$20,000; or
  - (ii) 20% and also greater than \$2,000.
- (c) The ERCOT Board may review and change Real-Time LMPs, Real-Time Settlement Point Prices, Real-Time prices for energy metered, Real-Time



On-Line Reliability Deployment Price Adders, Real-Time On-Line Reliability Deployment Prices, Real-Time Reserve Prices for On-Line Reserves, Real-Time Reserve Prices for Off-Line Reserves, Real-Time On-Line Reserve Price Adders, Real-Time Off-Line Reserve Price Adders and SASM MCPCs if ERCOT gave timely notice to Market Participants and the ERCOT Board finds that such prices should be corrected for an Operating Day.

(d) In review of Real-Time LMPs, Real Time Settlement Point Prices, Real-Time prices for energy metered, Real-Time On-Line Reliability Deployment Price Adders, Real-Time On-Line Reliability Deployment Prices, Real-Time Reserve Prices for On-Line Reserves, Real-Time Reserve Prices for Off-Line Reserves, Real-Time On-Line Reserve Price Adders, Real-Time Off-Line Reserve Price Adders and SASM MCPCs, the ERCOT Board may rely on the same reasons identified in paragraph (4) above to find that the prices should be corrected for an Operating Day.

#### **Key Factors Influencing Issue:**

Due to the usage of incorrect Generation to be Dispatched values in SCED, RTLMPs, RTSPPs, RTRMPRs, and RTESOGPRs for OD October 14, 2025 were incorrect and cannot be corrected by ERCOT without authorization from the Board.

Analysis of the impacts of the pricing error for the impacted OD has shown that the largest dollar impact to any individual Counter-Party for a single OD is approximately \$140,107. For Counter-Parties meeting the dollar impact criteria, the largest percentage impact to a Counter-Party for a single OD is 146.42%

Notably, Nodal Protocol Revision Request (NPRR) 1024, Determination of Significance with Respect to Price Corrections, was approved by the Board in February 2021 and became effective on April 1, 2021. NPRR1024 requires ERCOT to seek Board review of prices if the change in Settlement Statement(s) would result in the absolute value impact to any single Counter-Party, based on the sum of all original Settlement Statement amounts of Market Participants assigned to the Counter-Party, to be greater than 2% and also greater than \$20,000, or 20% and also greater than \$2,000.

#### **Conclusion/Recommendation:**

ERCOT recommends that the Board make a determination that RTLMPs, RTSPPs, RTRMPRs, and RTESOGPRs for the identified intervals in OD October 14, 2025, were significantly affected by incorrect Generation to be Dispatched values used in SCED, and direct/authorize ERCOT to correct the impacted prices for the OD at issue.



# ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC. BOARD OF DIRECTORS RESOLUTION

WHEREAS, paragraph (7) of Protocol Section 6.3, Adjustment Period and Real-Time Operations Timeline, authorizes the Board of ERCOT to approve a price correction for certain prices if ERCOT has determined that such prices have been significantly affected by an error;

WHEREAS, paragraph (7) of Protocol Section 6.3, ERCOT staff gave timely notice to Market Participants that Real-Time Market Locational Marginal Prices (RTLMPs), Real-Time Market Settlement Point Prices (RTSPPs), Real-Time Price for Energy Metered for Resources (RTRMPRs), and Real-Time Price for Energy Metered for Settlement Only Generators (RTESOGPRs) for OD October 14, 2025 were incorrect; that a price correction for this OD met the criteria for "significance" in Protocol Section 6.3(7)(b); and ERCOT staff would be seeking Board review of such prices; and

WHEREAS, after due consideration of the alternatives, the Board deems it desirable and in the best interest of ERCOT to correct RTLMPs, RTSPPs, RTRMPRs, and RTESOGPRs for OD October 14, 2025, that were affected by the usage of incorrect GTBD values in SCED;

THEREFORE, BE IT RESOLVED, that the Board hereby (1) determines that RTLMPs, RTSPPs, RTRMPRs, and RTESOGPRs for OD October 14, 2025, were affected by the usage of incorrect GTBD values in SCED, and (2) directs ERCOT staff to implement the appropriate price corrections pursuant to Protocol Section 6.3.

#### **CORPORATE SECRETARY'S CERTIFICATE**

•	ant Corporate Secretary of ERCC he Board passed a motion approv	
IN WITNESS WHEREOF, I 2025.	have hereunto set my hand this _	day of,
Brandon Gleason Assistant Corporate Secreta	arv	