

**PUBLIC** 

Item 8.4: Market Price
Correction – Incorrect
Generic Transmission
Constraint Limit used in the
Day-Ahead Market

Gordon Drake
Director, Market Design & Analysis

**Board of Directors Meeting** 

September 22-23, 2025

### Purpose

Provide a timeline of events related to impacted prices in the Day-Ahead Market (DAM) for Operating Day June 27, 2025.

Present results of price impact analysis.

## Voting Item

Requesting approval to correct Day-Ahead Market Prices for Operating Day June 27, 2025.

### **Key Takeaways**

- A software malfunction affected a GTC Limit, impacting DAM prices for Operating Day June 27, 2025.
- The impact met the significance criteria for price correction.
- Impact analysis determined a 1.2% change in statement charges due to ERCOT.

## **Price Correction Event**

- The Day-Ahead Market (DAM) for Operating Day (OD) June 27, 2025, used an incorrect limit for the Sam Switch (SAMSW) Generic Transmission Constraint (GTC).
  - Due to outage conditions, the limit should have been set to 431 megawatts (MW)
  - However, a software malfunction resulted in the limit being erroneously set to 9999 MW.
- ERCOT identified the issue on July 8, 2025, and thus could not correct prices within the 2-business day deadline for the Operating Day.
- The cause of the software malfunction has been identified and a fix was implemented on August 12, 2025.
   ERCOT employed a manual workaround to perform the GTC limit calculation correctly while the fix was in development.
- We notified the market through two Market Notices:
  - On July 25, 2025 (M-C072525-01), describing the issue and the initiation of our impact analysis.
  - On August 19, 2025 (M-C072525-02), showing the results of our analysis and communicating our intent to seek Board approval to correct prices for the Day-Ahead Market (DAM) as specified by Protocol Section 4.5.3(6)(b).



## **DAM Impact Analysis**

- ERCOT Protocol Section 4.5.3(6)(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 June 27, 2025 met criteria for significance for the DAM.

Operating Day	Counter-Parties meeting criteria in Protocol Section 4.5.3(6)(b)(i)	Counter-Parties meeting criteria in Protocol Section 4.5.3(6)(b)(ii)
6/27/2025	1	8

The maximum absolute value impact to Counter-Parties is:

Operating Day	Maximum Amount	Maximum Percentage for Criteria (i)*	Maximum Percentage for Criteria (ii)**
6/27/2025	\$26,525.73	25.58%	116.25%



## **DAM Impact Analysis and Recommendation**

The maximum estimated change in charges due to ERCOT is:

Operating Day	Change in Statement Charges Due to ERCOT	
6/27/2025	\$124,385.98	1.2%

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 takeaway(s):**

- A software error impacted Day-Ahead Market (DAM) prices for Operating Day (OD) June 27, 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 DAM for OD June 27, 2025.





**Date:** September 15, 2025 **To:** Board of Directors

From: Gordon Drake, Director, Market Design & Analysis

Subject: Market Price Correction - Incorrect Generic Transmission Constraint

Limit used in the Day-Ahead Market

#### Issue for the ERCOT Board of Directors

ERCOT Board of Directors Meeting Date: September 22-23, 2025

Item No.: 8.4

#### Issue:

Pursuant to paragraph 6 of Protocol Section 4.5.3, Communicating DAM Results, and whether the Board of Directors (Board) of Electric Reliability Council of Texas, Inc. (ERCOT) should approve price corrections for Day-Ahead Market Clearing Prices for Capacity (DAMCPCs) and Day-Ahead Settlement Point Prices (DASPPs) for Operating Day (OD) June 27, 2025, that were affected by an incorrect Generic Transmission Constraint (GTC) limit in the Day-Ahead Market (DAM).

#### Background/History:

ERCOT has identified the need to correct prices in the DAM for OD June 27, 2025. The impacted prices include:

- DAMCPCs; and
- DASPPs.

The ERCOT Protocols require ERCOT to correct prices when invalid prices are identified in an otherwise valid market solution, accurate prices can be determined, and the impact of the price correction is significant. For the DAM, prices are final at 1000 on the second Business Day following the OD. If ERCOT determines that prices are invalid and seeks a price 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 following are some of the reasons that may cause an invalid market solution or invalid prices in a valid market solution:



- <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 paragraphs (4) and (6) of ERCOT Protocol Section 4.5.3.

On OD June 27, 2025, the DAM used an incorrect limit for the Sam Switch (SAMSW) Generic Transmission Constraint. Due to the outage conditions on the OD, the limit should have been set to 431 megawatts (MW). However, a software malfunction resulted in the limit being erroneously set to 9,999 MW.

The underlying cause of the software malfunction was identified and a fix was implemented on August 12, 2025. An alternative method of GTC limit calculation that is confirmed to work correctly was used while the fix was in development.

ERCOT issued Market Notice M-C072525-01 on July 25, 2025, notifying the market of the issue and ERCOT's intent to conduct an impact analysis to determine whether the event meets the criteria for seeking Board approval for a price correction for the DAM, as specified by ERCOT Protocol Section 4.5.3(6).

ERCOT issued Market Notice M-C072525-02 on August 19, 2025, notifying the market of the price impact results and ERCOT's intent to seek Board review.

Accordingly, ERCOT requests that the Board:

- a) Review DAMCPCs and DASPPs for OD June 27, 2025;
- b) Make a determination as to whether such prices were significantly affected by the error; and
- c) Authorize ERCOT to correct the impacted DAMCPCs and DASPPS for OD June 27, 2025.

Attached hereto are documents containing corrected DAMCPCs and DASPPS for OD June 27, 2025, as follows:



- Attachment A Corrected DAMCPCs
- Attachment B Corrected DASPPs

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

#### 4.5.3 Communicating DAM Results

- (4) ERCOT shall correct prices for an Operating Day when a market solution is determined to be invalid or invalid prices are identified in an otherwise valid market solution, accurate prices can be determined, and the impact of the price correction is significant. The following are some reasons that may cause an invalid market solution or invalid prices in a valid market solution.
  - (a) Data Input error: Missing, incomplete, or incorrect versions of one or more data elements input to the DAM application may result in an invalid market solution and/or prices.
  - (b) Software error: Pricing errors may occur due to software implementation errors in DAM pre-processing, DAM clearing process, and/or DAM post processing.
  - (c) Inconsistency with these Protocols or the 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.
- (6) All DAM LMPs, MCPCs, and Settlement Point Prices are final at 1000 of the second Business Day after the Operating Day.
  - (a) However, after DAM LMPs, MCPCs, and Settlement Point Prices are final, if ERCOT determines that prices qualify for a 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 DAM Settlement Statement(s) of any Counter-Party on the given Operating Day. ERCOT shall seek ERCOT Board review of prices if the change in DAM Settlement Statement(s) would result in the absolute value impact to any single Counter-Party, based on the sum of all original DAM 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 DAM LMPs, MCPCs, or Settlement Point Prices 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 DAM LMPs, MCPCs, or Settlement Point Prices, 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 use of an incorrect Generic Transmission Constraint limit in DAM, DAMCPCs and DASPPs for OD June 27, 2025 were incorrect and cannot be corrected by ERCOT at this time 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 \$26,525. For Counter-Parties meeting the dollar-impact criteria, the largest percentage impact to a Counter-Party for a single OD is 116.25%.

ERCOT is required 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 DAMCPCs and DASPPs for the identified intervals from OD June 27, 2025, were significantly affected by the incorrect Generic Transmission Constraint limit in the DAM, and authorize ERCOT to correct the impacted prices in the DAM for that OD.



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

WHEREAS, paragraph (6) of Protocol Section 4.5.3, Communicating DAM Results, authorizes the Board of Directors (Board) of Electric Reliability Council of Texas, Inc. (ERCOT) to approve a price correction for certain prices if ERCOT has determined that such prices are invalid and that the impact of a price correction is significant;

WHEREAS, in accordance with paragraph (6) of Protocol Section 4.5.3, ERCOT gave timely notice to Market Participants that prices in the Day-Ahead Market (DAM) for OD June 27, 2025, were incorrect; that a price correction for this OD meets the criteria for "significance" in Protocol Section 4.5.3(6)(b); and that ERCOT would be seeking Board review of such prices; and

WHEREAS, after due consideration of the alternatives, the Board of Directors (Board) of Electric Reliability Council of Texas, Inc. (ERCOT) deems it desirable and in the best interest of ERCOT to correct DAMCPCs and DASPPs for OD June 27, 2025, that were impacted by the usage of an incorrect GTC limit in the DAM.

THEREFORE, BE IT RESOLVED, that the Board hereby (1) determines that DAMCPCs and DASPPs for OD June 27, 2025, were significantly impacted by the usage of an incorrect GTC limit in the DAM, and (2) directs ERCOT to implement the appropriate price corrections pursuant to Protocol Section 4.5.3.

#### CORPORATE SECRETARY'S CERTIFICATE

I, Brandon Gleason, Assistant Corporate Secretary of ERCOT, do hereby certify that, at its meeting, the Board passed a motion approving the above Resolution by
IN WITNESS WHEREOF, I have hereunto set my hand this day of2025.
Brandon Gleason Assistant Corporate Secretary