

## May 30, 2019 Pricing Event – Questions and Answers

### What data does ERCOT rely on to manage the wholesale market?

ERCOT manages the electric wholesale market using complex models that rely on millions of data points provided by power generators, transmission companies, and other market participants. The data requirements are established in governing rules called the ERCOT Protocols and Other Binding Documents. Software validation rules and ERCOT staff help monitor the quality of the data that goes into the models.

Managing the reliability of the grid and executing the ERCOT market requires the use of these models combined with automated electronic measurements, known as “telemetry.” Tens of thousands of telemetry values are received and assimilated by ERCOT computer systems in two- and 10-second intervals – 24 hours a day, seven days a week. The temporary price increase that occurred at 2:50 p.m. on May 30, 2019 was due to an incorrect submission of telemetry data by Calpine.

### Calpine has admitted the data it sent was wrong. Why is that data considered “valid” in ERCOT systems?

ERCOT systems have filters that prevent certain incorrect data from being included in the dispatch engine (e.g., if Calpine had submitted negative values for its units). In this case, even though the data was incorrect, the telemetered value of zero megawatts was considered valid since off-line generators reflect zero as a value in ERCOT’s dispatch system. However, if the data submitted by Calpine had been correct, ERCOT’s dispatch system would have indicated a rapid decline in power available from all of Calpine’s generating units.

During this event, automatic calculations made in ERCOT’s grid management systems using Calpine’s data made it appear as if the capacity available for dispatch had decreased significantly below the ERCOT-wide demand for power. When the amount of supply available to serve demand decreases, ERCOT systems automatically generate higher prices to reflect the change, which motivates generators to make additional resources available to help re-balance the system.

ERCOT operators saw the mismatch between Calpine’s telemetry data and what was actually happening on the grid and conducted a manual run of the dispatch engine. The manual run occurred at 2:52 p.m., which was three minutes before the next automatic run at 2:55 p.m. Accurate telemetry for Calpine’s generating units was captured in the 2:52 p.m. run, and prices returned to lower levels at that time.

### Why did ERCOT not issue a price correction following the May 30 pricing event?

ERCOT’s actions are governed by the ERCOT Protocols and Other Binding Documents. The Protocols define when ERCOT can make price corrections. The language in the Protocols and ERCOT’s interpretation of it calls for a price correction if a data error is made by ERCOT; not for external data errors made by market participants. For this reason, ERCOT does not have the discretion to correct external data errors by market participants.

### How do price corrections work, and what are the impacts to the market?

Wholesale prices in the ERCOT real-time market are settled every 15 minutes. Price corrections rely on a re-creation of the circumstances on the ERCOT system at a point in time, and a change in any interval affects all market participants who were buying or selling power at that time. Re-running market outcomes involves many players with various positions and interrupts settlement of the ERCOT wholesale market. A correction to a price

changes winners and losers, reduces price certainty, and may impact positions parties take in the day-ahead market, including ancillary services and congestion revenue rights.

### **Are market participants required to submit accurate data?**

Yes, the ERCOT Protocols require market participants to send ERCOT accurate telemetry data that ERCOT must use in its dispatch and pricing engine, known as Security-Constrained Economic Dispatch (SCED). Given the amount of data submitted to ERCOT every few seconds, telemetry and other external data input errors can occur. Whether those errors are material to management of the grid and markets depends entirely on the nature and timing of the data submissions. Nevertheless, market participants have a duty to provide accurate data to ERCOT, and ERCOT has a duty to use that data in calculating prices.

### **Who reviews ERCOT Protocol violations?**

For wholesale market issues, the Independent Market Monitor (IMM) is an organization independent of ERCOT that is primarily responsible for monitoring and investigating potential abuses of market power or market manipulation. The IMM is accountable to the Public Utility Commission of Texas (PUC). Decisions about whether ERCOT Protocols have been violated are ultimately within the jurisdiction of the PUC.

### **Should the ERCOT Protocols be changed to address situations like the May 30 pricing event in the future?**

ERCOT regularly reviews its Protocols and works with stakeholders and the PUC to make changes that policy makers or market participants believe would improve ERCOT's administration of the grid and markets. ERCOT staff have and will continue to discuss with stakeholders any improvements to the ERCOT market and whether Protocol changes are appropriate to address situations like the May 30 pricing event.

### **Has anyone challenged the outcome of the May 30 pricing event?**

Yes. On Jun. 25, 2019, Aspire Commodities, LLC filed a complaint against ERCOT with the PUC for ERCOT's determination that a correction for the May 30 pricing event was not permissible under the ERCOT Protocols. Interested parties may monitor the status of that contested case for additional details. See [PUC Docket No. 49673, Complaint of Aspire Commodities LLC against ERCOT.](#)