



Review of Pricing Issue for Day Ahead Market December 3, 2010 to April 5, 2011

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Review of Pricing Issue for Day Ahead Market 12/3/10 - 4/5/11

- **Identification of a Day Ahead Market software issue where Settlement Points were incorrect related to certain PTP scenarios**
 - On April 6, 2011 it was discovered that under certain scenarios, if there is a single DAM PTP Obligation Bid between an energized and a de-energized Settlement Point, and there is no other PTP at the energized Settlement Point then the energized Settlement Point price may be the wrong price.
 - The economic impacts of this software issue are much smaller than previous Board approved price correction since scenario limited to Settlement Points where there was only a single PTP Obligation bid
 - Settlement Points with little or no liquidity for DAM transactions
 - Key dates and summary:
 - December 3, 2010 first instance of pricing error scenario occurred
 - January 21, 2011 first instance where pricing error impacts settlement values
 - Most price corrections had no settlement impacts as there were no CRRs owned or awarded DAM transactions
 - April 5- last instance of pricing error in final prices
 - April 6- ERCOT identifies issue and begins correcting any pricing errors by 10am next business day
 - April 8- ERCOT implements manual work-around to correct prior to posting results
 - April 20- emergency patch from vendor resolves issue
 - May- ERCOT re-runs all Day-Ahead Markets since go-live on to identify price errors:
 - 72 Operating Days with instances of price errors involving 73 settlement points
 - 29 Operating Days where price error impacted DAM or CRR settlement (ie potential re-settlement)
 - \$331,000 estimated re-settlement impacts
 - Average price error was \$0.06 too high, and largest price error was \$36.86

Potential Price Correction Consideration

- **The root cause of this issue was due to a software error which has been resolved**
- **The financial impacts are smaller than the previous price correction**
 - Although issue spanned 4 months of nodal operations, impacted 29 days for \$331,000 settlement impact
- **Protocols allow for Board corrections where prices “significantly affected by software or data error “**
 - Paragraph 5 of Protocol Section 4.5.3 states the following: All DAM LMPs, MCPCs, and Settlement Point Prices are final at 1000 of the next Business Day after the Operating Day. After DAM LMPs, MCPCs, and Settlement Point Prices are final, if ERCOT determines that prices are in need of correction, it shall notify Market Participants and describe the need for such correction. DAM LMPs, MCPCs, and Settlement Point Prices cannot be changed unless the ERCOT Board finds that the DAM LMPs, MCPCs, or Settlement Point Prices are significantly affected by a software or data error.