

ERCOT Market Watch by LCG

November 2016



ERCOT Market Watch by LCG is a monthly summary of prices, congestion, and important events in the ERCOT market.

Contact LCG Consulting for further information and outlooks for future months.

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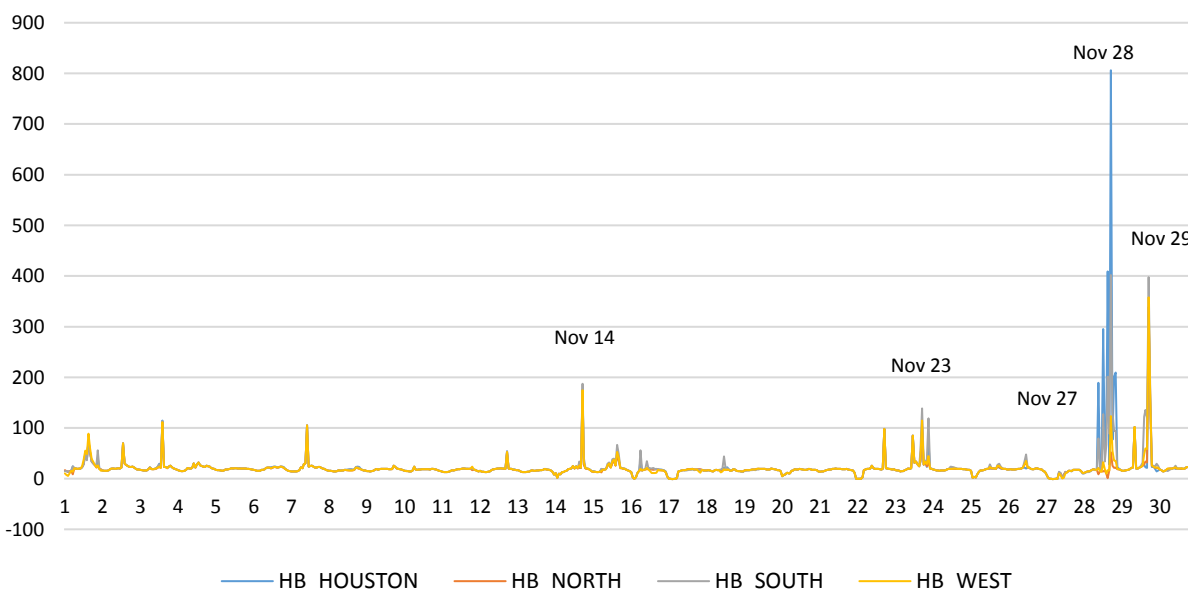
Average Monthly Real-Time Hub Price Summary

	HB_HOUSTON	HB_NORTH	HB_SOUTH	HB_WEST
Weekday ON Peak	\$30.63	\$24.04	\$29.68	\$25.17
Weekend ON Peak	\$18.45	\$18.48	\$18.66	\$18.40
OFF Peak	\$14.04	\$13.97	\$14.07	\$13.90

Release Date: December 14, 2016 – In November, the ERCOT Real-Time market experienced even lower prices than were seen October. November 27 set a wind generation record was set when 15,033 MW of system-wide wind power was provided to the ERCOT market representing 45 percent of system demand at the time.¹ The Panhandle Interface was the most frequently congested constraint in RT and accrued the most congestion rent of any constraint by a large margin. The Schertz to Cibolo 138 kV line (293T304_1) near San Antonio and the Jewett to Singleton 345 kV line (240__A) associated with Houston import also accrued high rent in RT.

See below for a summary of congested elements and hub prices. LCG's MarketVision reports daily peak and off-peak real-time market nodal price forecasts available at: <http://energyonline.com/marketvision/>

ERCOT November 2016 Average Hourly Hub Prices (Real-Time)



¹ Source: ERCOT 2016 <<http://www.ercot.com/news/releases/show/113533>>

NOVEMBER 2016 REAL-TIME EVENT SUMMARIES

November 14 – This day saw high prices at all four trading hubs in RT during hour 18 when all four hubs reached hourly averages of greater than \$168. The highest hourly average price occurred at the South hub at \$187.53. During this hour System Lambda reached \$741.38 for one interval.

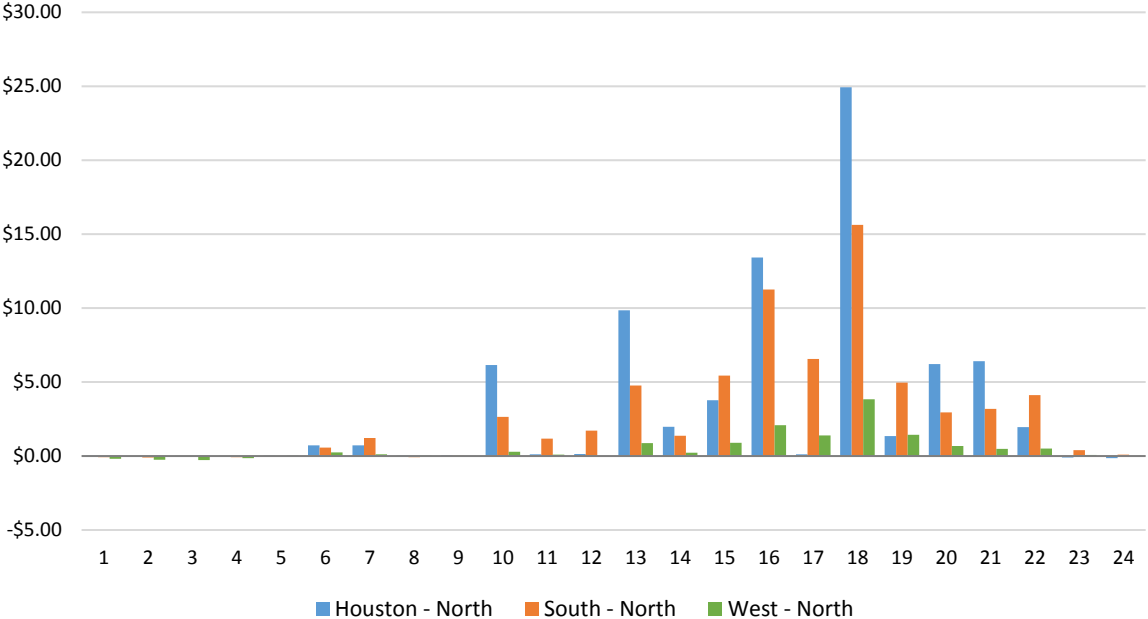
November 23 – High hourly average trading hub prices were seen on this day during hours 12, 18, and 22. The highest hourly average prices were during hour 18 when all hubs were above \$99 with the south hub reaching \$138.76. Notably, the West hub was also high at this time at \$115.03 with Houston hub being the lowest at \$99.67. At that time the 293T304_1 line was highly congested. On this day System Lambda reached \$757.14 for one interval during hour 18. On this day the RTORPA reached \$1.63 for one interval.

November 27 – This day had the longest period of sustained negative hourly average prices. Hourly average prices at all four hubs were negative from hour 3 through hour 8. On this day ERCOT set a new record for highest wind generation output, at one point representing 45 percent of system demand.

November 28 – This day experienced the highest hourly average trading hub prices for the month when the Houston hub reached an hourly average of \$806.20 during hour 16. At this time, the South hub hourly average was \$402.02, which the North hub hourly average was only \$52.30. The 240__A 345 kV associated with Houston import was one of many lines congested during this hour. On this day, during hour 18, system lambda reached its highest value for the month at \$1,129.39 for one interval.

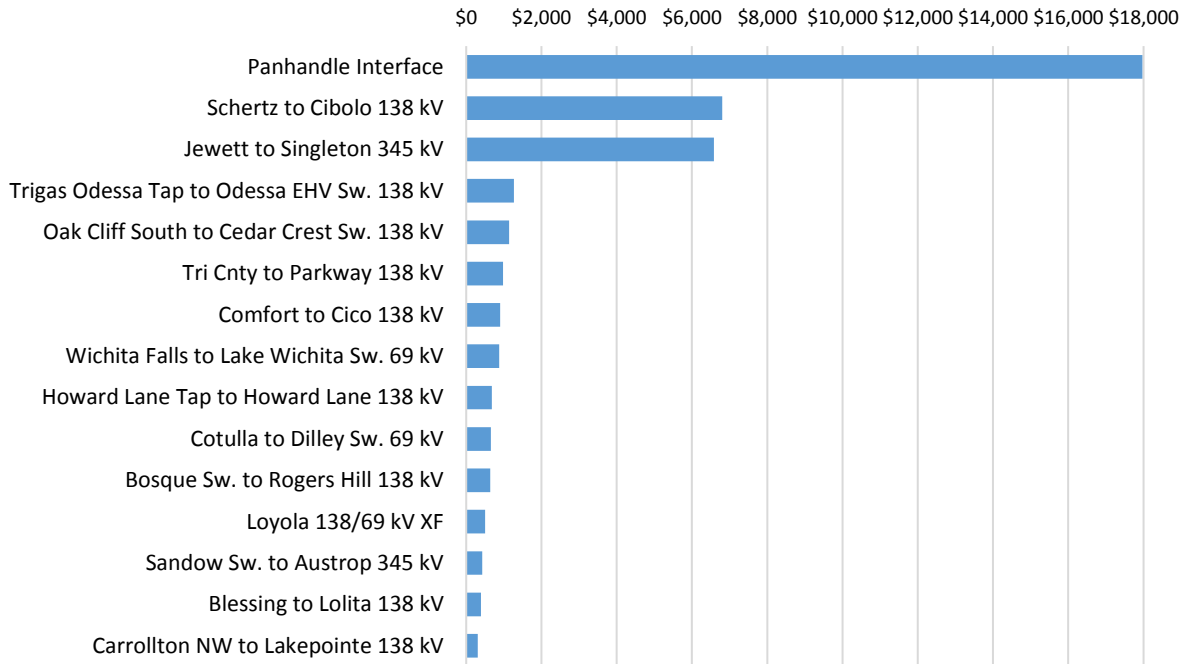
November 29 – This day saw high system-wide hourly prices in hours 9, 18, and 29 with the highest occurring during hour 18 when prices at all four hubs were above \$324. The highest prices were seen at the South hub where prices reached \$397.56. On this day System Lambda reached \$766.40 for one interval during hour 18. The RTORPA reached \$4.51 for one interval on this day.

Hourly Average Basis to North Hub - November 2016

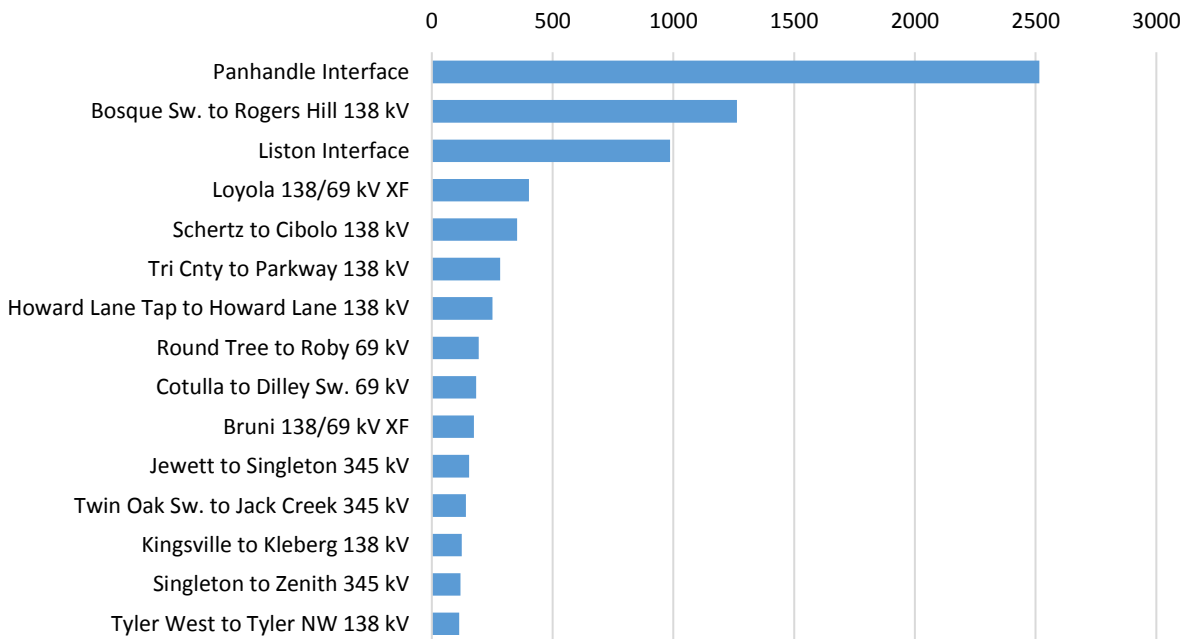


NOVEMBER REALTIME MARKET CONGESTION REPORT

November 2016 - Top 15 Branches Congested
(Congestion Rent - Thousands \$)



November 2016 - Top 15 Branches Congested
(Periods Congested- 5 min intervals)



LCG Consulting provides consulting services, forecasting and software for detailed modeling in the ERCOT region. We offer valuable insights for market participants in the day ahead and real-time markets and CRR auctions. For more information contact Julie Chien: julie.chien@energyonline.com

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