

ERCOT Market Watch by LCG

September 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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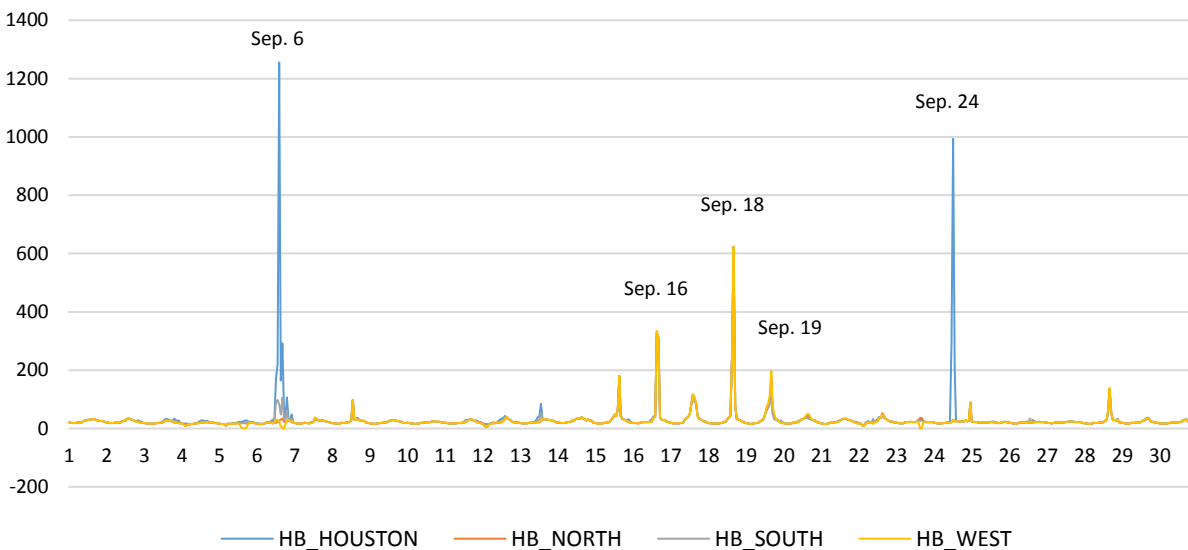
Average Monthly Real-Time Hub Price Summary

	HB_HOUSTON	HB_NORTH	HB_SOUTH	HB_WEST
Weekday ON Peak	\$35.95	\$29.10	\$30.34	\$28.85
Weekend ON Peak	\$44.14	\$32.08	\$32.62	\$32.23
OFF Peak	\$19.06	\$18.37	\$18.70	\$18.41

Release Date: October 17, 2016 – In September, the ERCOT Real-Time market experienced increased Houston area congestion, with two days (Sep. 6 and Sep. 24) seeing very high price spikes in RT at the Houston Hub. This congestion led to a very high average RT Houston to North basis in the afternoon hours (see plot below). The three top RT constraints for the month in terms of congestion rent accrued were associated with serving Houston load. The top constraint for the month in terms of RT congestion rent was the Singleton to Zenith 345 kV line (SNGZEN99_A). The most frequently congested element for the month was the Twin Oak Sw. to Jack Creek 345 kV line (JK_TOKSW_1) which is also associated with serving Houston load.

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 September 2016 Average Hourly Hub Prices (Real-Time)



SEPTEMBER 2016 REAL-TIME EVENT SUMMARIES

September 6 – This day saw the highest hourly average trading hub price with a high price spike at the Houston hub which reached an hourly average of \$1,255.21 in hour 15. Houston area constraints SNGZEN99_A, DOWOAS18_A, and JK_TOKSW_1 were highly congested in RT. A 345 kV transmission outage (DOWOAS27_A) contributed to the Houston import congestion on this day. System Lambda was also high on this day, reaching \$655.70 for one interval.

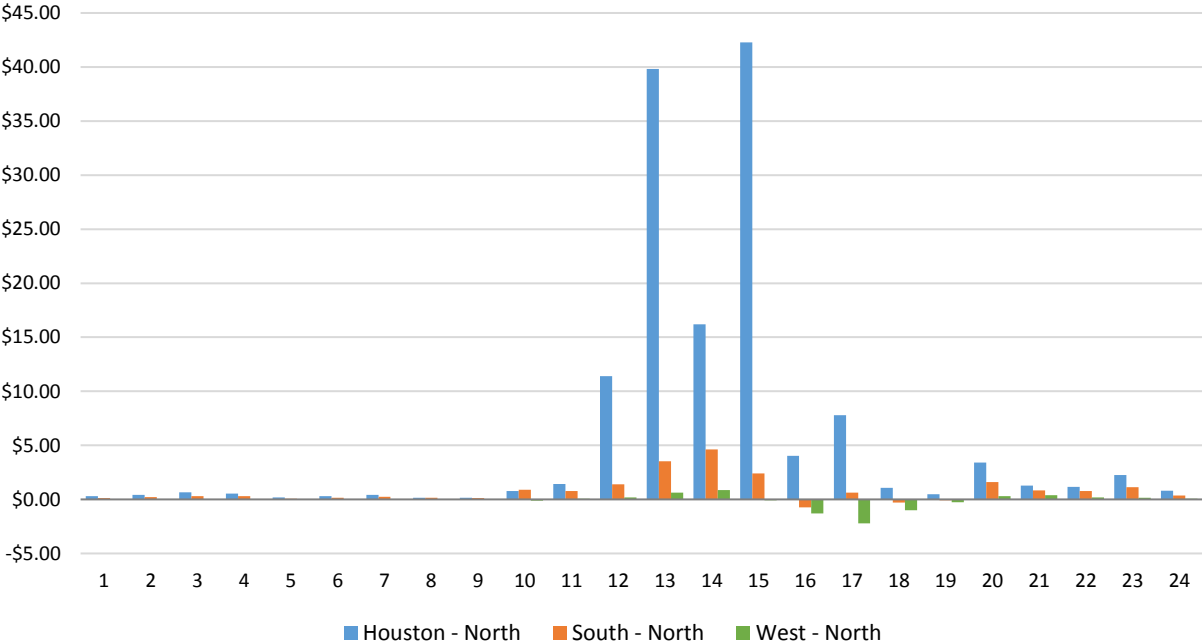
September 16 – High system-wide prices occurred on this day in the afternoon hours. Prices at all four trading hubs had an hourly average price of over \$300 for hours 16 and 17 with highest hourly average price at the West hub (\$334.75). This day saw System Lambda climb to its highest value for the month when it reached \$973.65 for one interval during hour 17.

September 18 – This day also saw high system-wide prices. In hour 17 hourly average price at all four trading hubs reached \$622.94. System Lambda was again high on this day, reaching \$967.75 for one interval during hour 17. The RTORPA reached \$93.14 for one interval during hour 17 on this day.

September 19 – In hour 17 on this day hourly average price reached over \$150 at all four trading hubs with the West hub climbing to an hourly average of \$198.03. During this hour the RTORPA reached its highest value for the month at \$161.52 for one interval. System Lambda reached \$723.48 for one interval during hour 17 on this day.

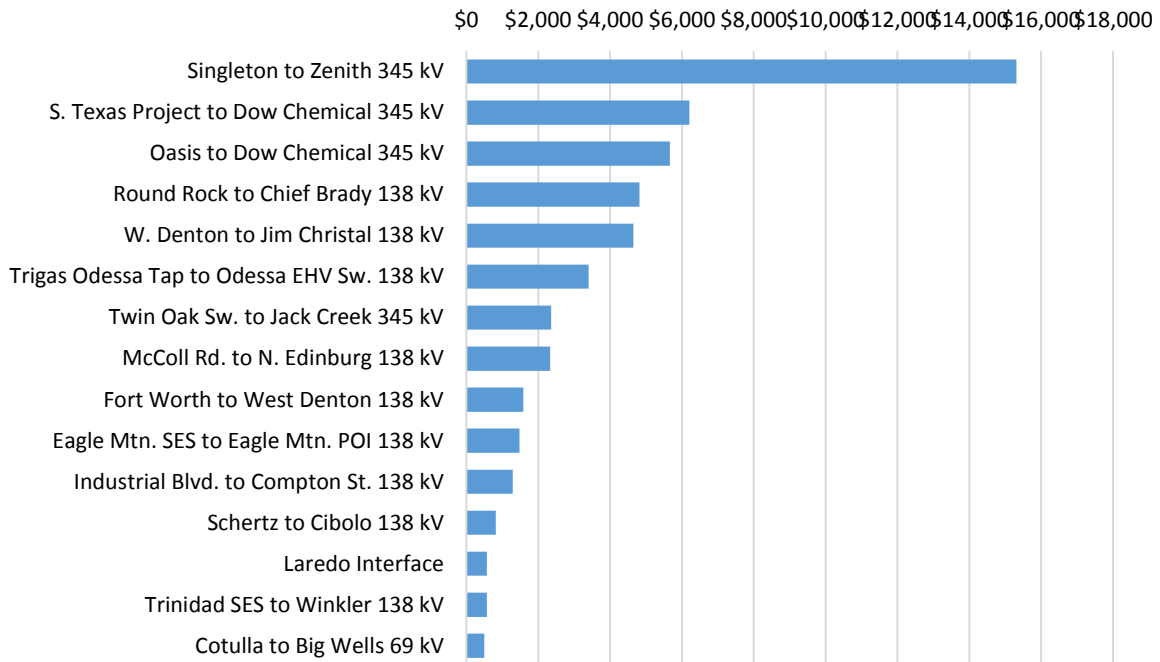
September 24 – This day saw another high price spike at the Houston trading hub. In hour 13 hourly average price at the Houston hub reached \$993.23 while the three other hubs remained under \$31 (hourly average). On this day, many constraints associated with serving Houston load were very active including: DOWSTP27_A, SNGZEN99_A, BETHK_66_A, and JK_TOKSW_1. Similar to Sep. 6, this day also had a major 345 kV Houston area transmission outage (DOWSTP18_A) that constrained flows into the Houston area. Late on this day, during hour 24, System Lambda reached \$810.45 for one interval.

Hourly Average Basis to North Hub - September 2016

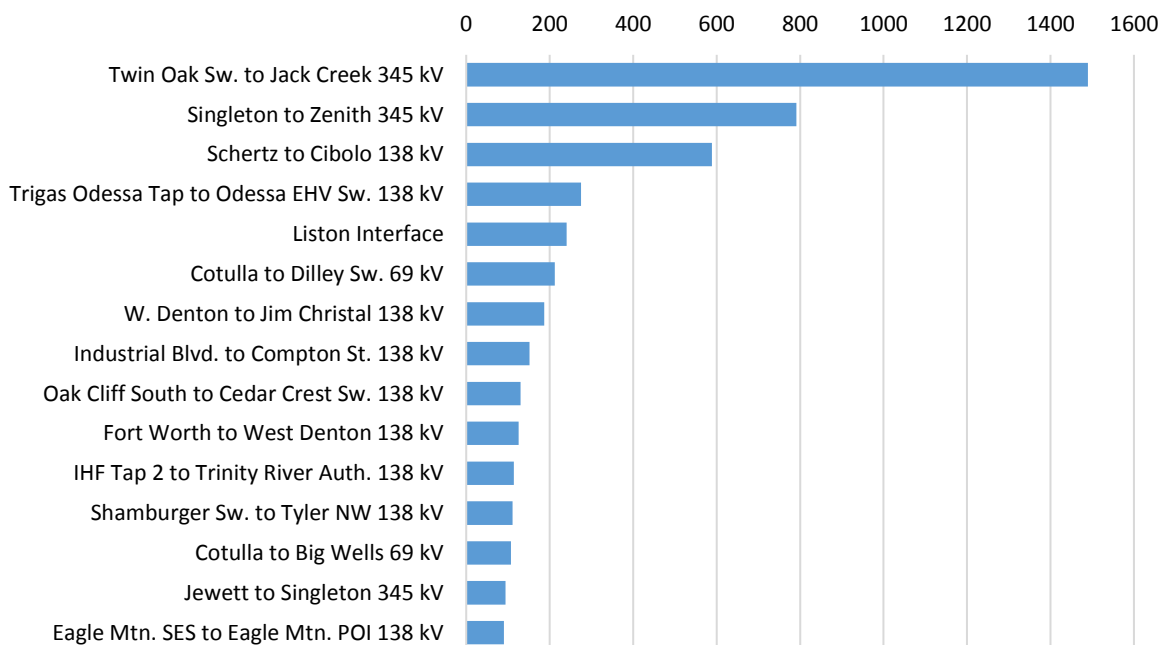


SEPTEMBER REALTIME MARKET CONGESTION REPORT

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



September 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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