

ERCOT Market Watch by LCG

August 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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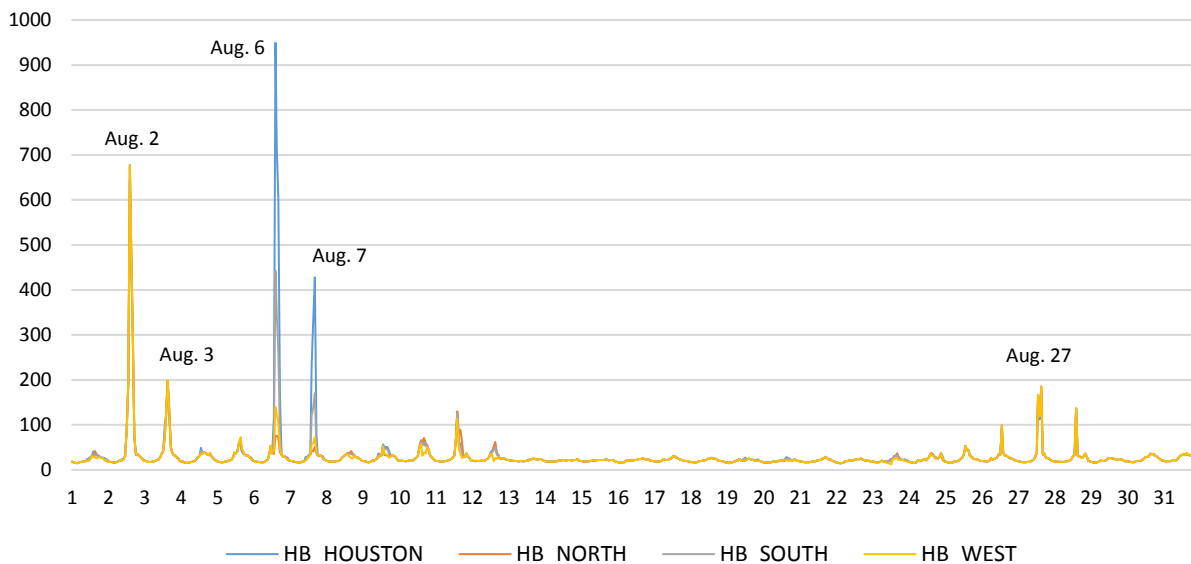
Average Monthly Real-Time Hub Price Summary

| | HB_HOUSTON | HB_NORTH | HB_SOUTH | HB_WEST |
|-----------------|------------|----------|----------|---------|
| Weekday ON Peak | \$33.79 | \$33.86 | \$33.59 | \$32.67 |
| Weekend ON Peak | \$54.47 | \$29.67 | \$39.20 | \$31.40 |
| OFF Peak | \$18.76 | \$18.61 | \$18.71 | \$18.62 |

Release Date: September 20, 2016 – In August, the ERCOT Real-Time market experienced higher average prices than in July. The highest price spike occurred on August 6 when Real-Time hourly average prices reached over \$949 at the Houston Hub in hour 15. The high prices at the Houston Hub on Aug. 6 and Aug. 7 caused much higher prices at the Houston Hub relative to the North Hub for the weekend on-peak monthly average. In contrast to previous months, average price at the North Hub was higher than the Houston Hub for weekday on-peak hours by \$0.07. Higher prices at the North Hub were driven primarily by congestion in the North region, pressure was put on transmission in this area by the coincidence of high load in the area and high wind output in the West-North region. The Singleton to Zenith 345 kV (SNGZEN99_A) Houston Import line again accrued the highest congestion rent for the month in RT, followed by the Fort Worth to West Denton 138 kV line (AIR_W_DE_1) in the North. The most frequently binding constraint was again the Liston Interface driven by wind output in the South.

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 August 2016 Average Hourly Hub Prices (Real-Time)



AUGUST 2016 REAL-TIME EVENT SUMMARIES

August 2 – This day saw high RT hourly average (HA) prices in hours 14 through 17 as prices at all four trading hubs were above \$180 for all four hours. Highest prices occurred in hour 15 when all four hubs reached over \$640 HA with the South Hub highest at \$677.98. In hour 15 System Lambda reached its peak for the day at \$855.00. The RTORPA reached its highest value for the month during hour 16 at \$76.41.

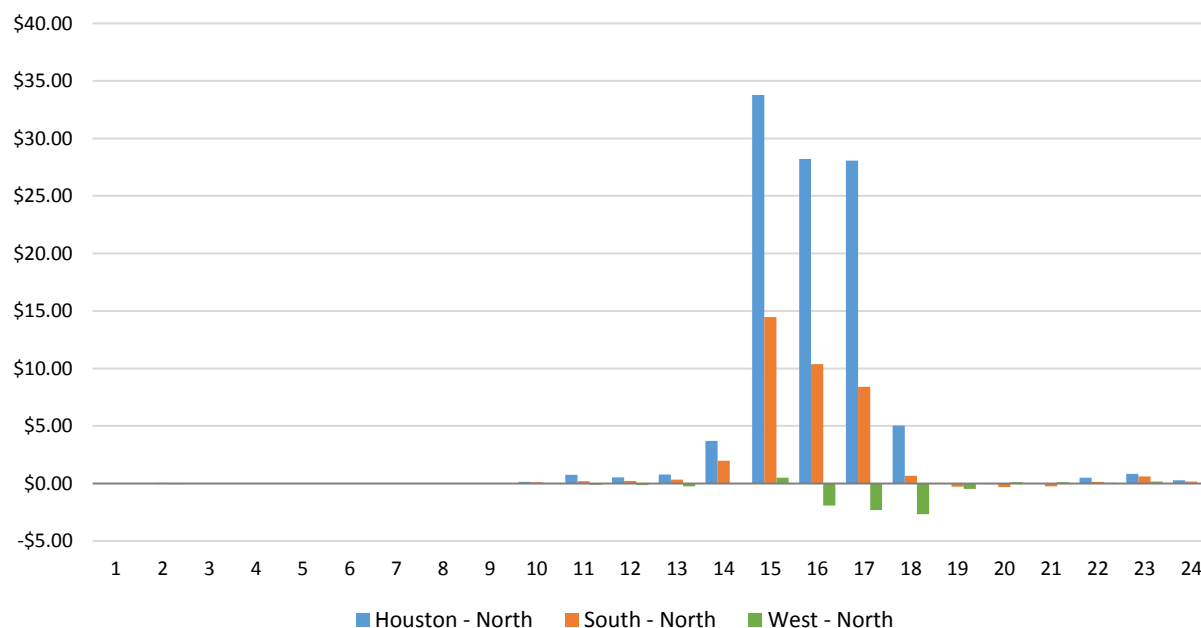
August 3 – On this day, in hour 16 RT HA price at all four hubs reached over \$194. System Lambda reached its highest value for the day near the end of hour 15, reaching \$500. The RTORPA reached \$62.90 for one interval on this day.

August 6 – This day experienced the highest RT HA trading hub price for the month when the Houston Hub saw an hourly average of \$949.34. The Singleton to Zenith 345 kV, Twin Oak to Jack Creek 345 kV, and Blessing to Lolita 138 kV lines, associated with serving Houston load, were all very active on this day. System Lambda reached its highest value during hour 15 on this day when it was \$1,074.25 for one interval.

August 7 – The Houston Hub again experienced a price spike on this day when HA price reached \$427.82 in hour 17. This same elements as noted for August 6 were again congested on this day.

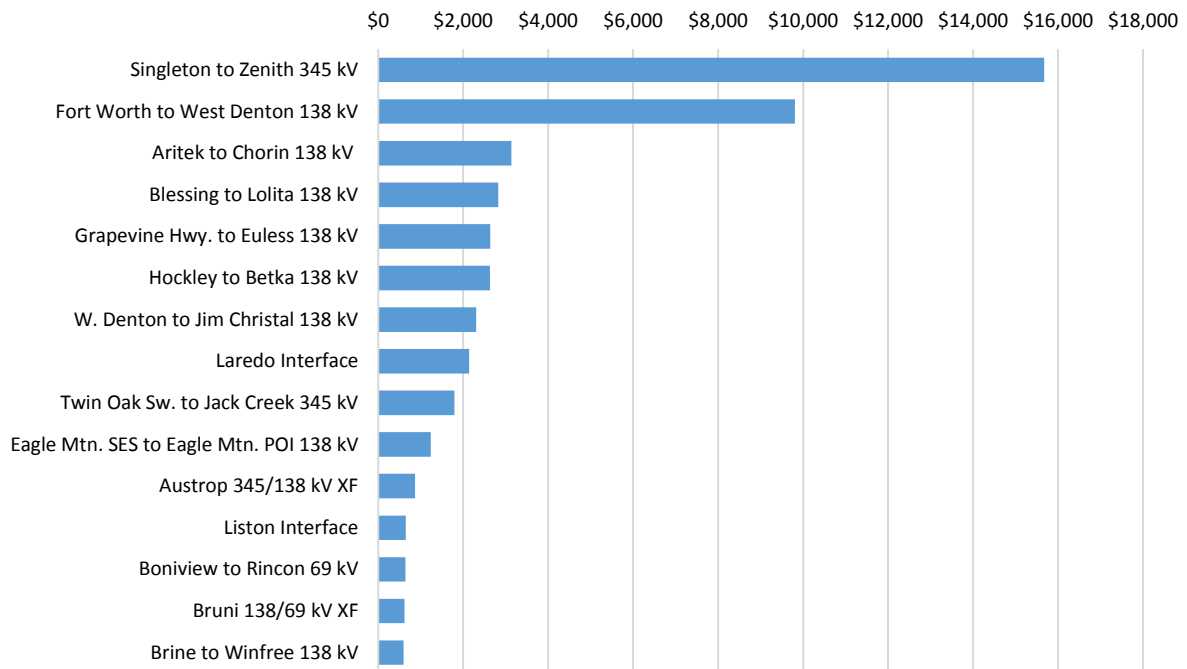
August 27 – This day experienced high system wide prices in hours 14 through 16 when RT HA prices at all four trading hubs reached over \$112. Highest prices occurred at the North Hub in hour 16 when price reached \$185.33. System Lambda reach its highest value of \$821.11 during hour 14 on this day. During the same hour the RTORPA reached \$44.16 for one interval.

Hourly Average Basis to North Hub - August 2016

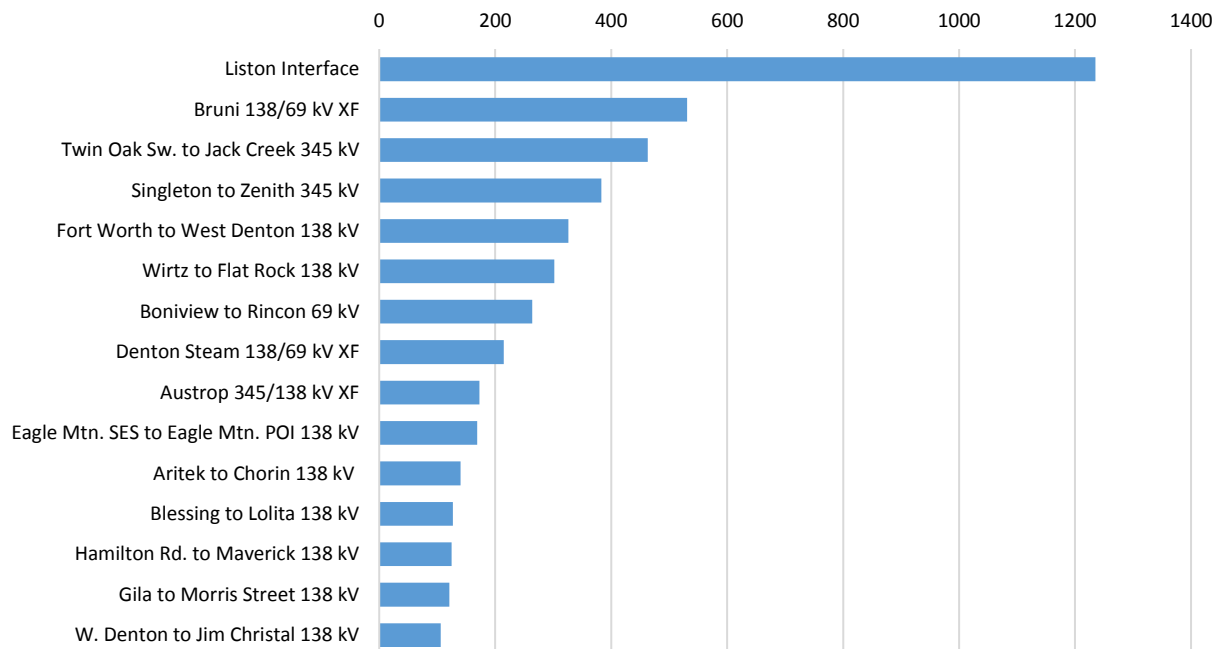


AUGUST REALTIME MARKET CONGESTION REPORT

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



August 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

LCG Consulting
4962 El Camino Real, Suite 112
Los Altos, CA 94022
Tel: (+1) 650 962 9670

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