

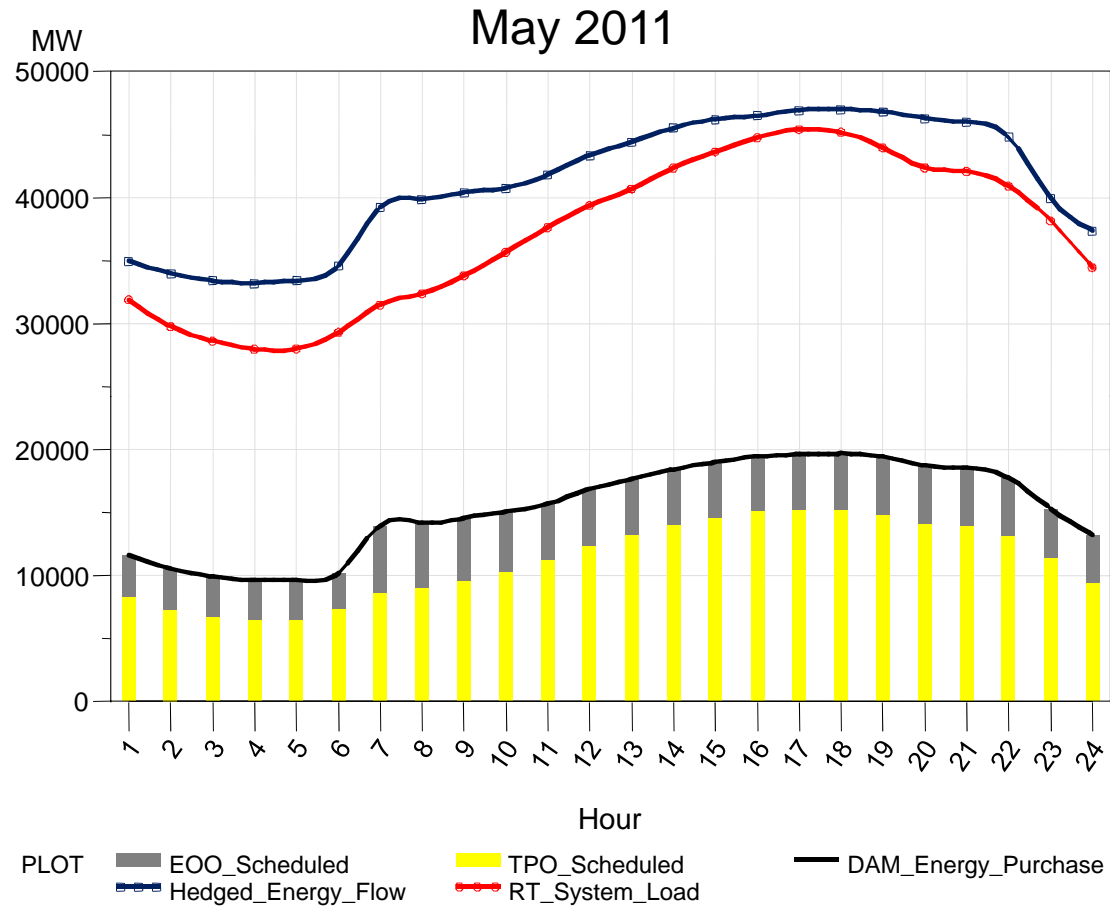


Wholesale Market Operations Update

John Dumas
Director Wholesale Market Operations

ERCOT Board Meeting
June 21, 2011

Day-Ahead Schedule



- **Hedged Energy exceeded the day ahead load forecast on average for all 24 hours**

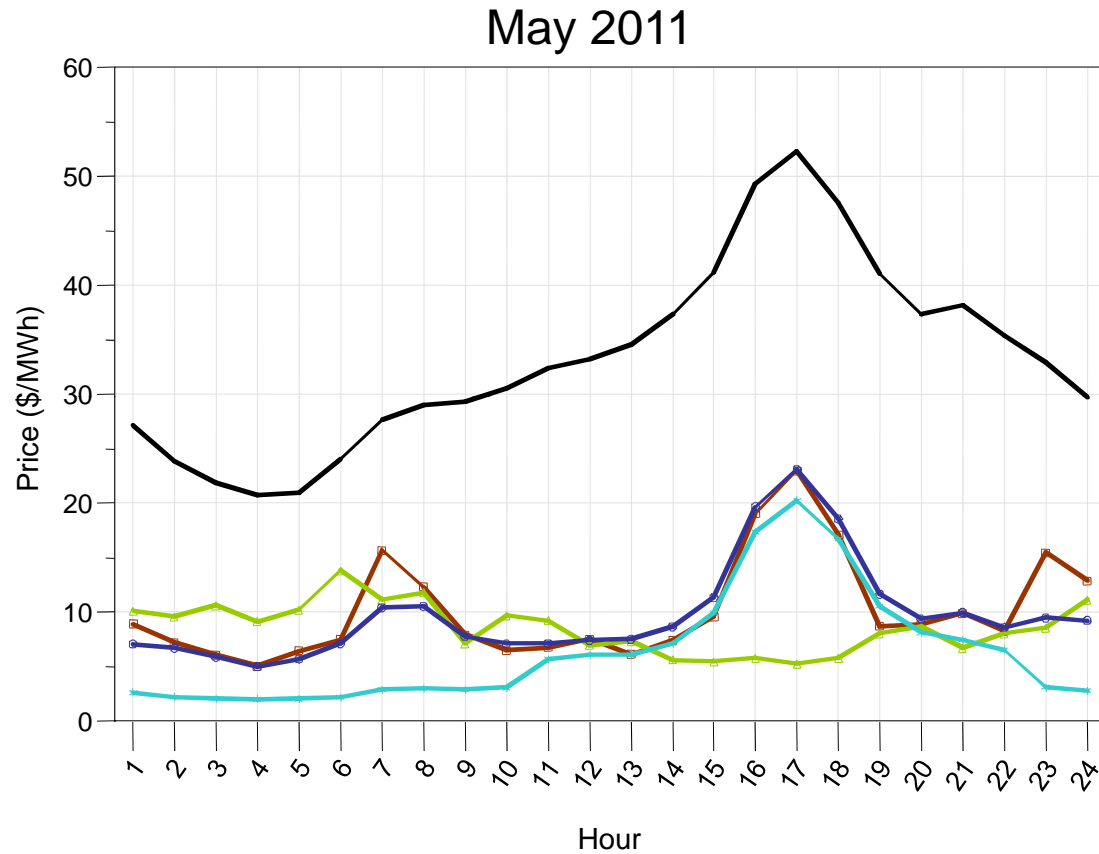
Average DAM Schedule

01MAY2011-31MAY2011

Acronym : TPO - Three Part Offer; EOO – Energy Only Offer;
 Hedged Energy = Energy purchased /sold in Day-Ahead Market plus Point –to-Point Obligations and Options carried forward to real-time.



Day-Ahead Electricity And Ancillary Service Hourly Average Prices



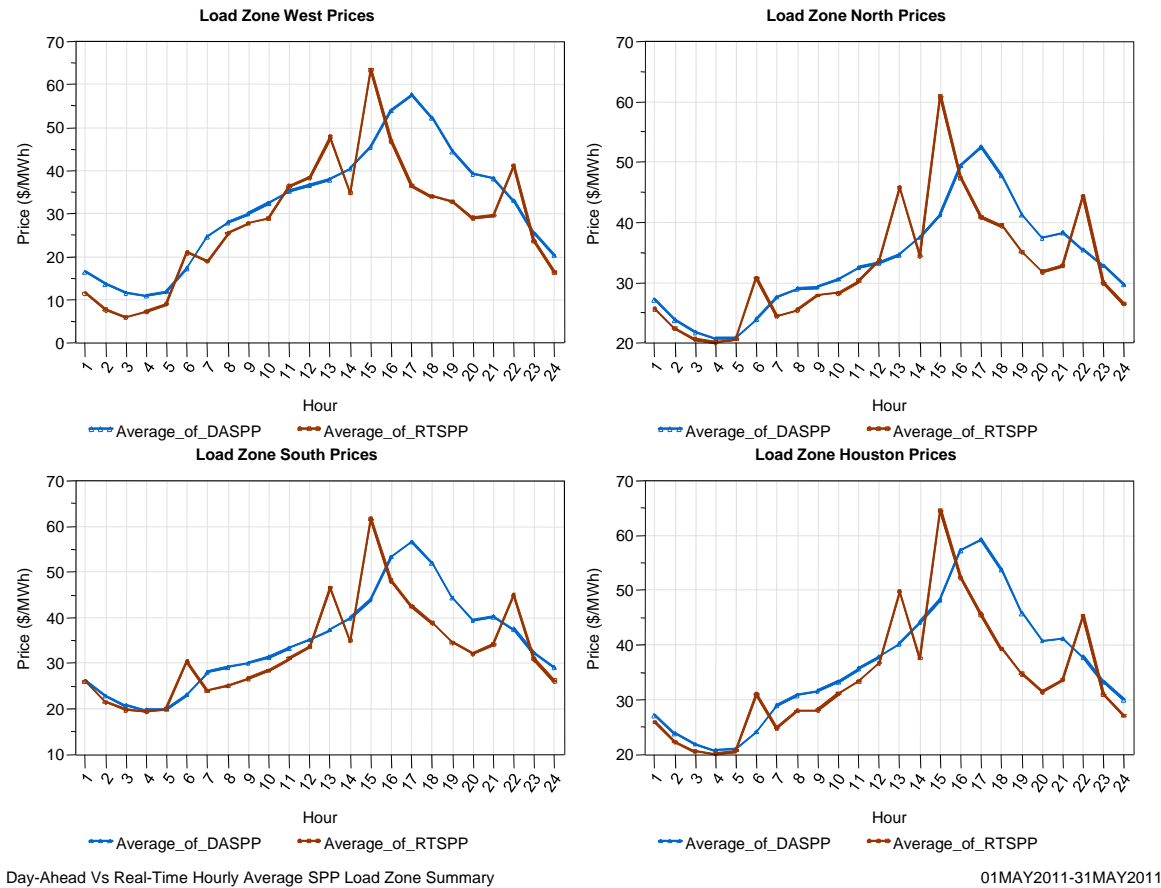
- Both Energy and AS prices followed the trend of load profile on average.

PLOT — System_Lambda — Reg_Up — Reg_Down
— Responsive_Reserve — Non_Spin

Day-Ahead Electricity and Ancillary Service Hourly Average Prices

01MAY2011-31MAY2011

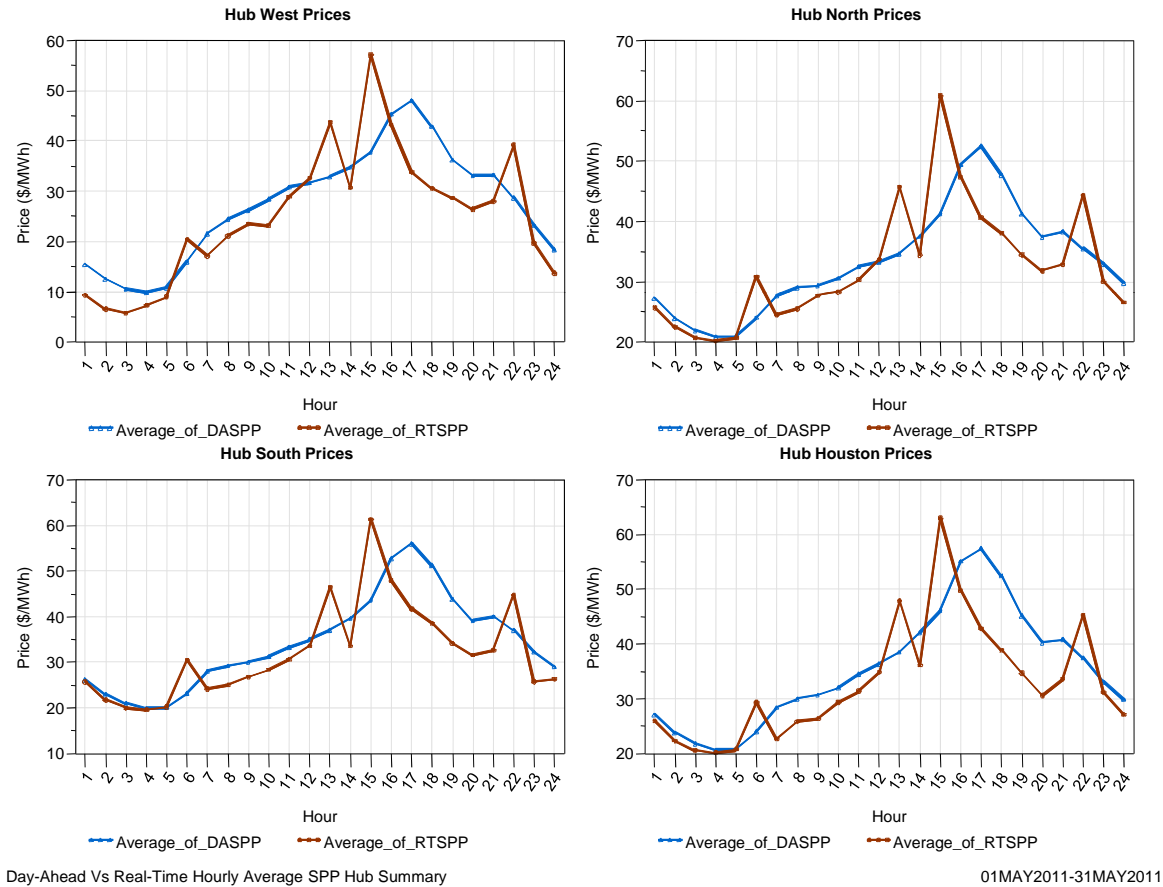
Day-Ahead Vs Real-Time Load Zone SPP (Hourly Average)



Day-Ahead Vs Real-Time Hourly Average SPP Load Zone Summary

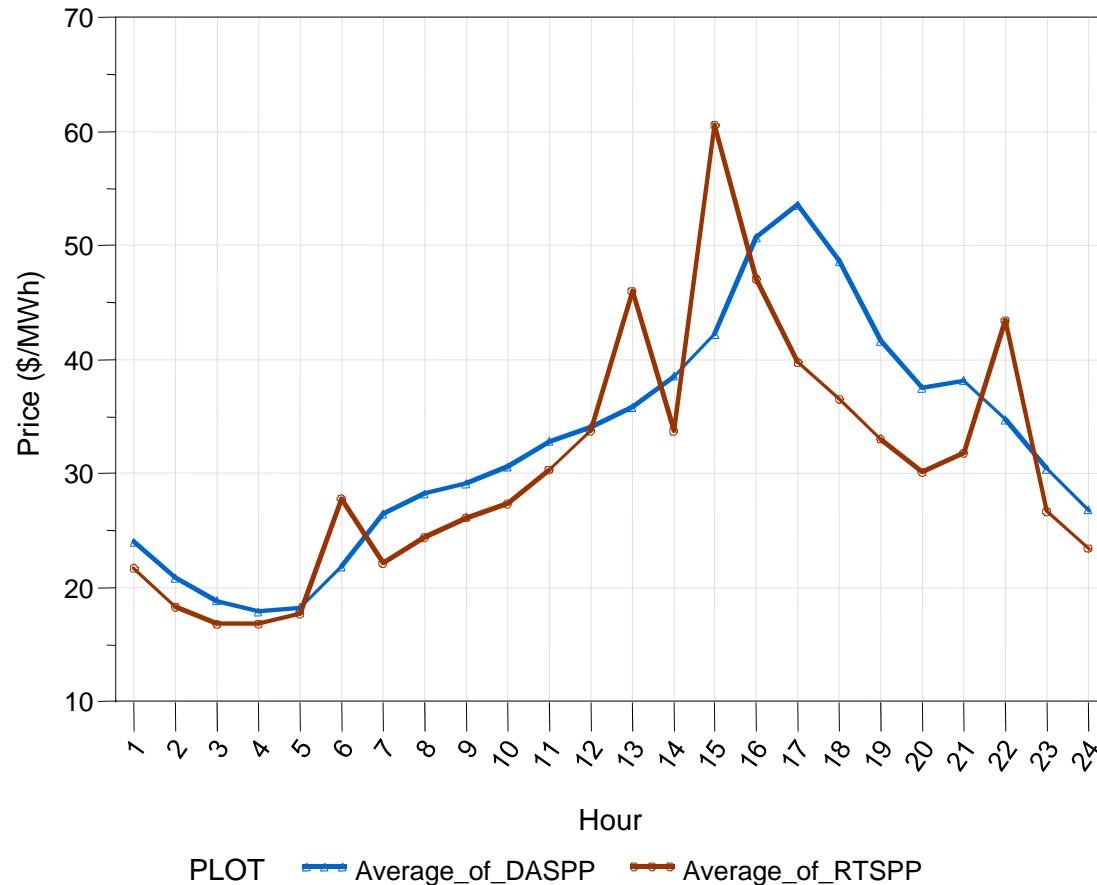
- SPPs in all four zones were very close.

Day-Ahead vs Real-Time HUB SPP (Hourly Average)



- HUB SPPs in all four hubs were very close.

Day-Ahead Vs Real-Time Hub Average SPP (Hourly Average)

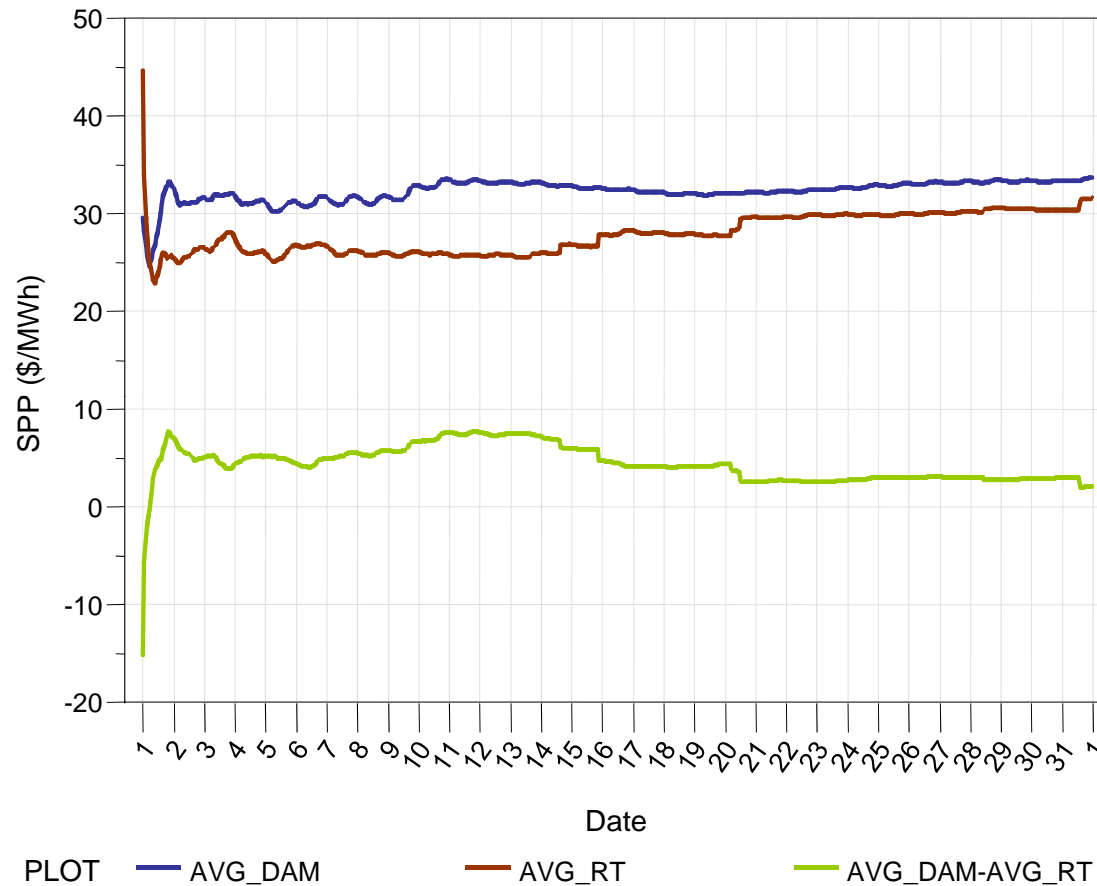


Day-Ahead Vs Real-Time Hourly Average SPP of Hub Hub-Average Prices

01MAY2011-31MAY2011

- Day Ahead prices were on average higher than real-time prices, especially during peak hours.
- Real-Time prices were much higher than Day Ahead prices for a few hours mainly due to violated constraints.

Day-Ahead Vs Real-Time Cumulative Average SPP

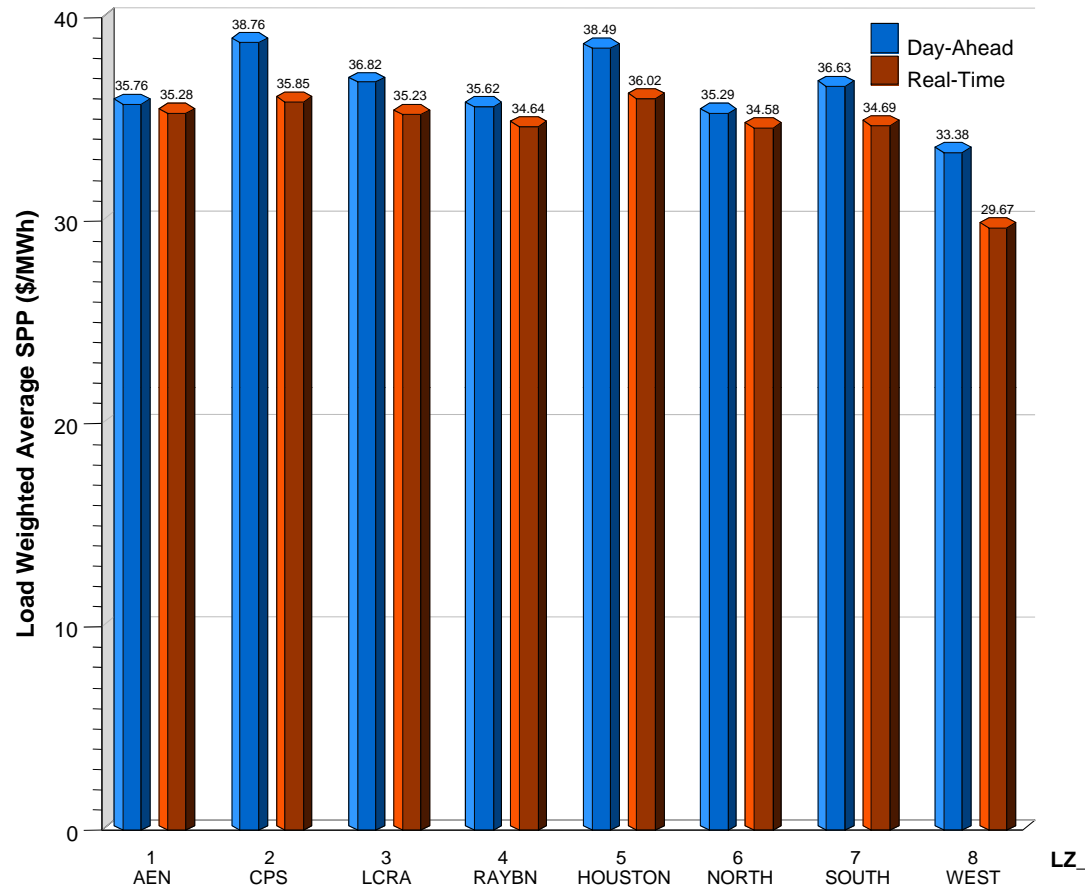


Day-Ahead Vs Real-Time Cumulative Average SPP for Simple Average Prices

01MAY2011-31MAY2011

- **Overall the difference between Day Ahead prices and Real Time prices in May was slightly lower than in April.**

Load Weighted Average SPP



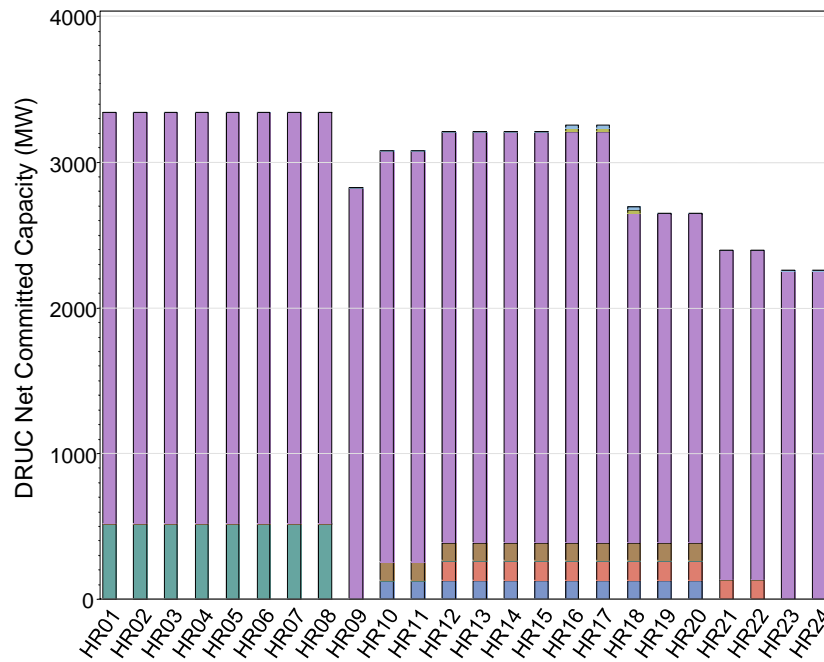
Load Weighted Average SPP for Each Zone

01MAY2011-31MAY2011

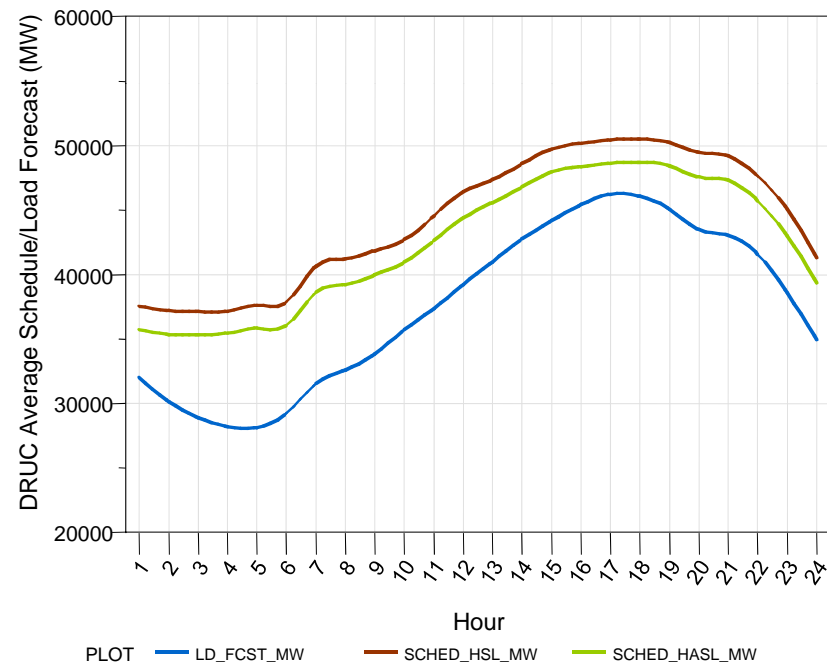
- The load weighted average RT SPPs were slightly lower than the load weighted average DAM SPPs. The difference of DAM SPPs and RT SPPs in May was slightly lower than in April.

DRUC

- **31 Executions (0 Missed; 3 Published after 1600; 0 Published after 1800)**
- **17.7-Min Average Execution Time**
- **72363 MWh Committed (7 Resources for 160 Hours)**



Net Committed Capacity in DRUC

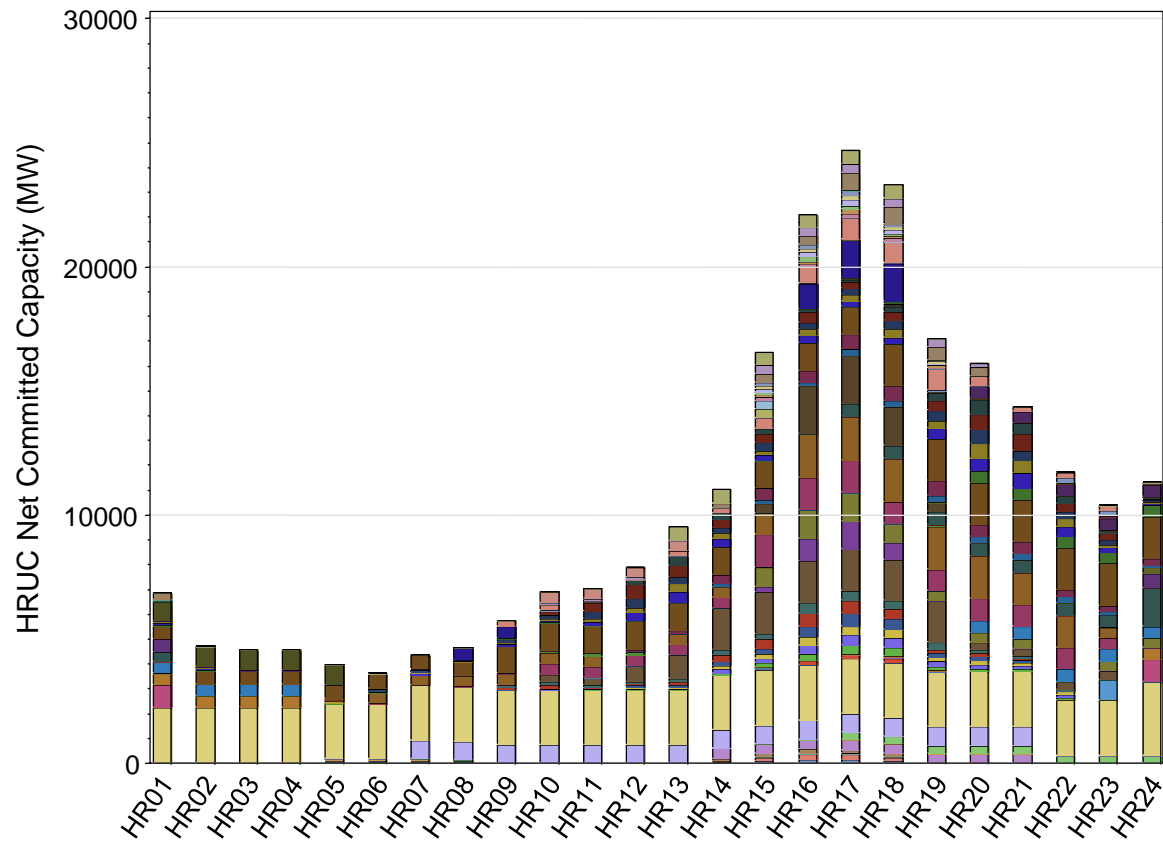


01MAY2011-31MAY2011 DRUC Average QSE Scheduled Capacity/Load Forecast

01MAY2011-31MAY2011

HRUC

- **738 Executions (6 Missed)**
- **14.1-Min Average Execution Time**

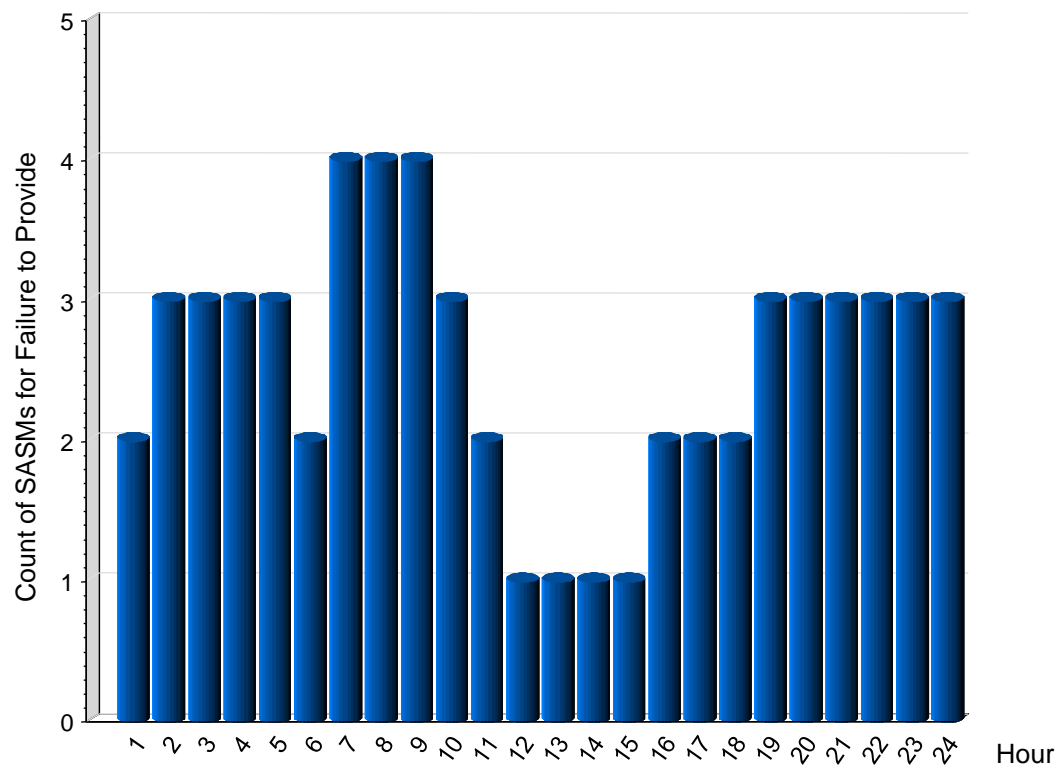


Net Committed Capacity in HRUC

01MAY2011-31MAY2011

Supplemental Ancillary Service Market (SASM)

- **8 SASMs Executions in May**
 - ❑ **8 SASMs for AS Failure to Provide**
 - ❑ **0 SASMs for AS Undeliverability**



Count of SASMs for Failure to Provide by Hour

01MAY2011-31MAY2011

CRR Auction for Operating Month June 2011

- **175,560 Bids/Offers**
- **19,927 Auction Awards**
 - **415,216.2 MW**
 - **157,821.4 Peak WD**
 - **130,943.3 Peak WE**
 - **126,451.5 Off-peak**
- **Total Auction/Allocation Revenue = \$ 31.691M**

CRR Balance of Year Auction (July thru December 2011)

- **63,642 Bids/Offers**
- **16,240 Auction Awards**
 - **571,277.9 MW**
 - **205,605.6 Peak WD**
 - **189,731.2 Peak WE**
 - **175,941.1 Off-peak**
- **Total Auction/Allocation Revenue = \$ 147.992 M**
- **Award Fee related to NPRR 320 (Less than a penny)**
= \$170k

CRR Price Convergence

	May 2011	April 2011	March 2011	February 2011	January 2011
Net Amount Paid for CRRs (Cost)		\$20.43M	\$20.2M	\$15.0M	\$16.4M
Net Amount Paid to Account Holders for TCRs/CRRs (Value)		\$24.82M	\$19.6M	\$80.2M	\$17.8M
Convergence (Value/Cost)		121.5%	96.8%	534%	109%

Nodal Market Challenges after Six Months of Operation

- **March CRR Market Shortfall**
 - Conducted a workshop June 9th with Market Participants to discuss the effectiveness and possible improvements of the outages submission process
 - Note that April, May, and June (so far) have not had net shortfalls
- **Pricing of De-energized Resource Nodes**
 - Affected intervals will be resettled after appeal on BOD decision to do price correction is resolved.
- **Settlement Points may be incorrect related to certain PTP scenarios**
 - Under certain scenarios, the post processing of some Settlement Points may be incorrect. If there is a single PTP 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 may have a wrong price. ERCOT is submitting ERCOT's recommendation to correct prices which has an estimated impact of \$331,000