

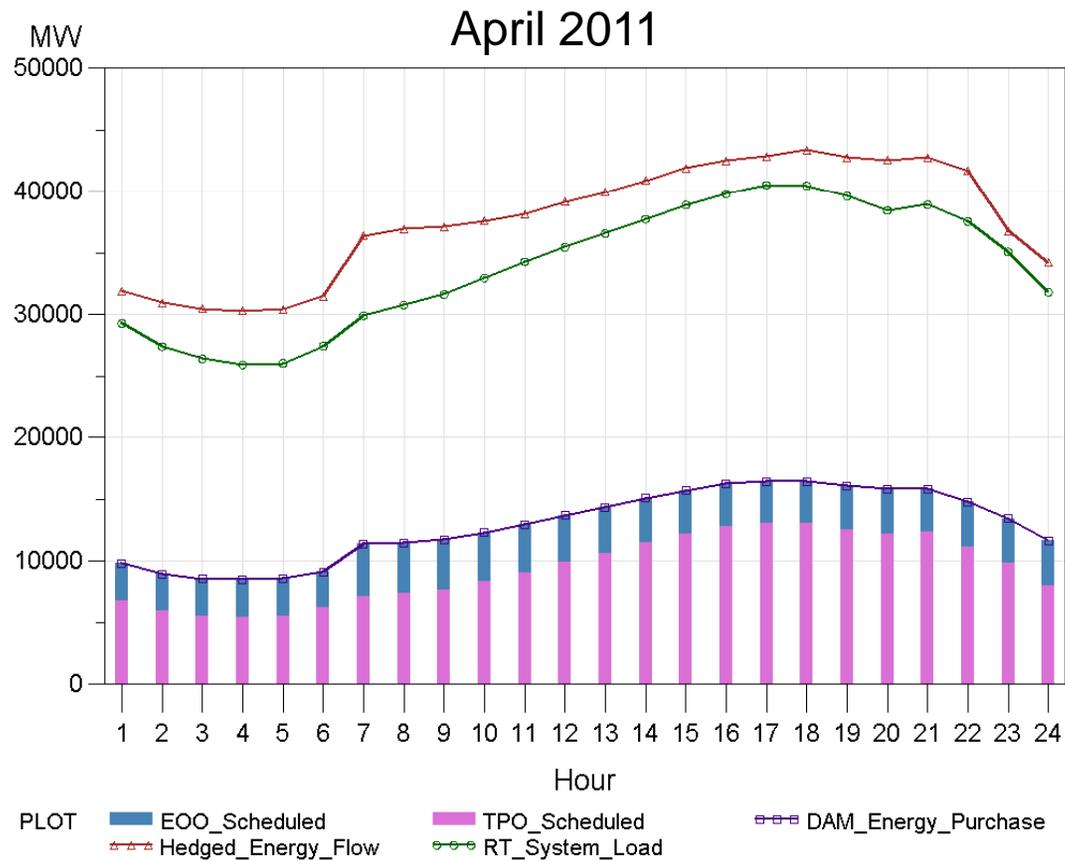


Wholesale Market Operations  
Update  
Updated as of May 13, 2011

John Dumas  
Director Wholesale Market Operations

**ERCOT Board Meeting**  
**May 17, 2011**

# Day-Ahead Schedule



Average DAM Schedule

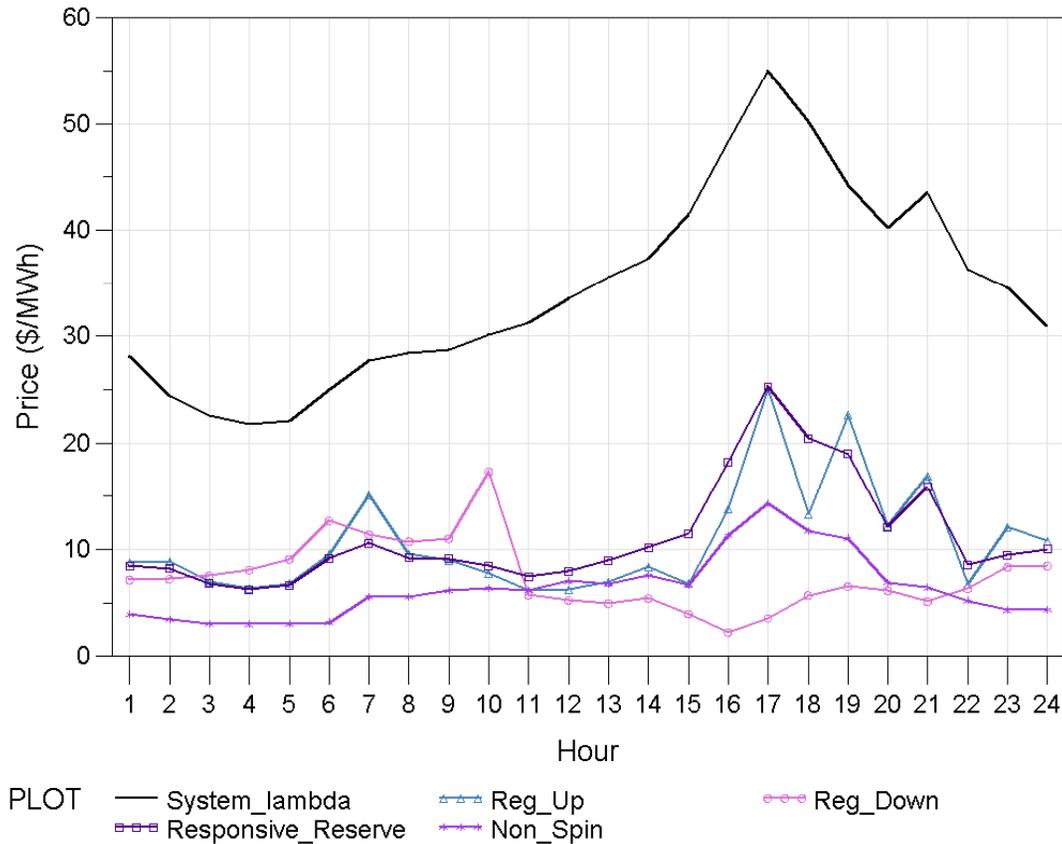
01APR2011-30APR2011

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.

- Hedged Energy exceeded the day ahead load forecast on average for all 24 hours
- Indicating a conservative approach

# Day-Ahead Electricity And Ancillary Service Hourly Average Prices

April 2011

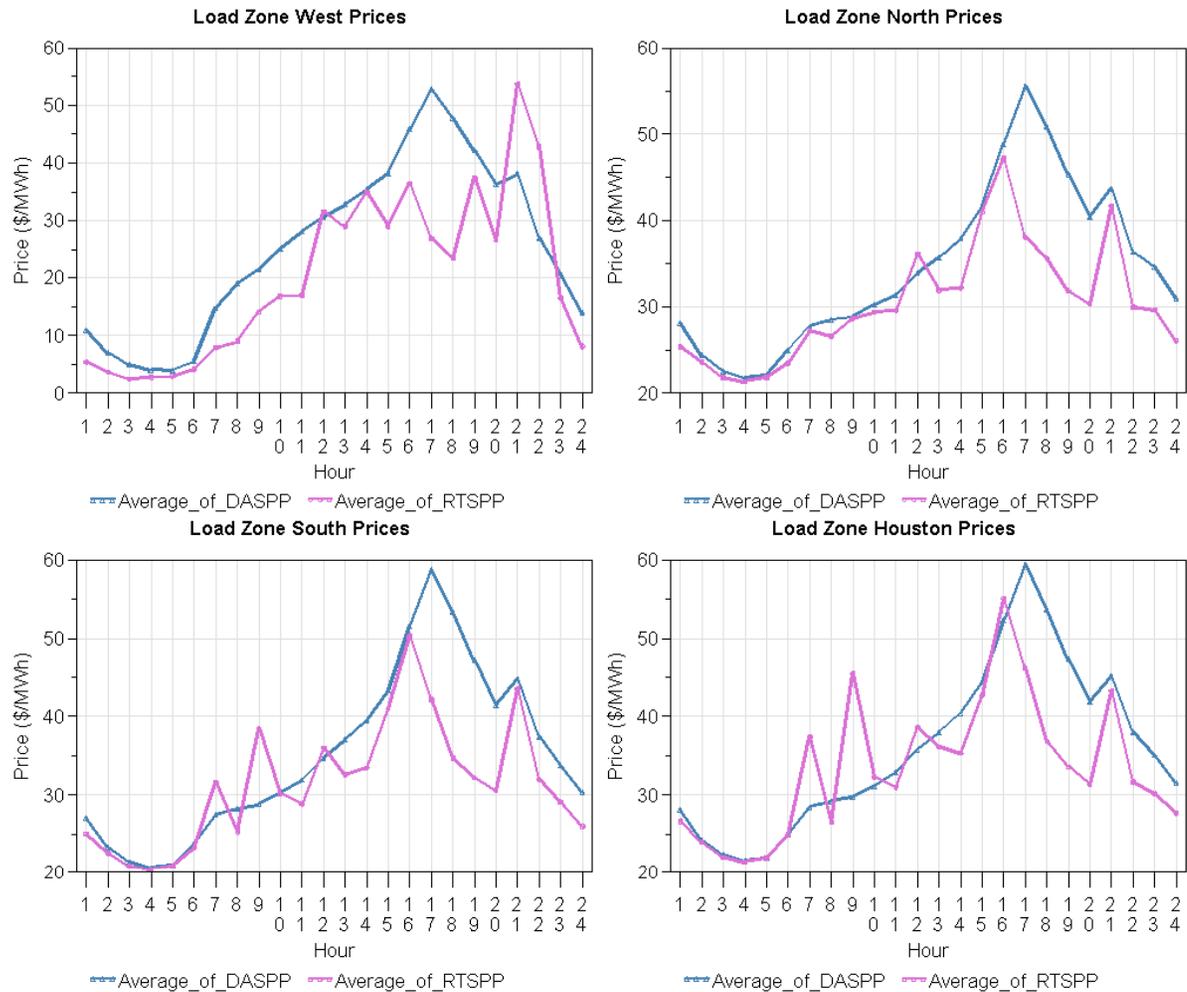


- Both Energy and AS prices followed the trend of load profile on average.

Day-Ahead Electricity and Ancillary Service Hourly Average Prices

01APR2011-30APR2011

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

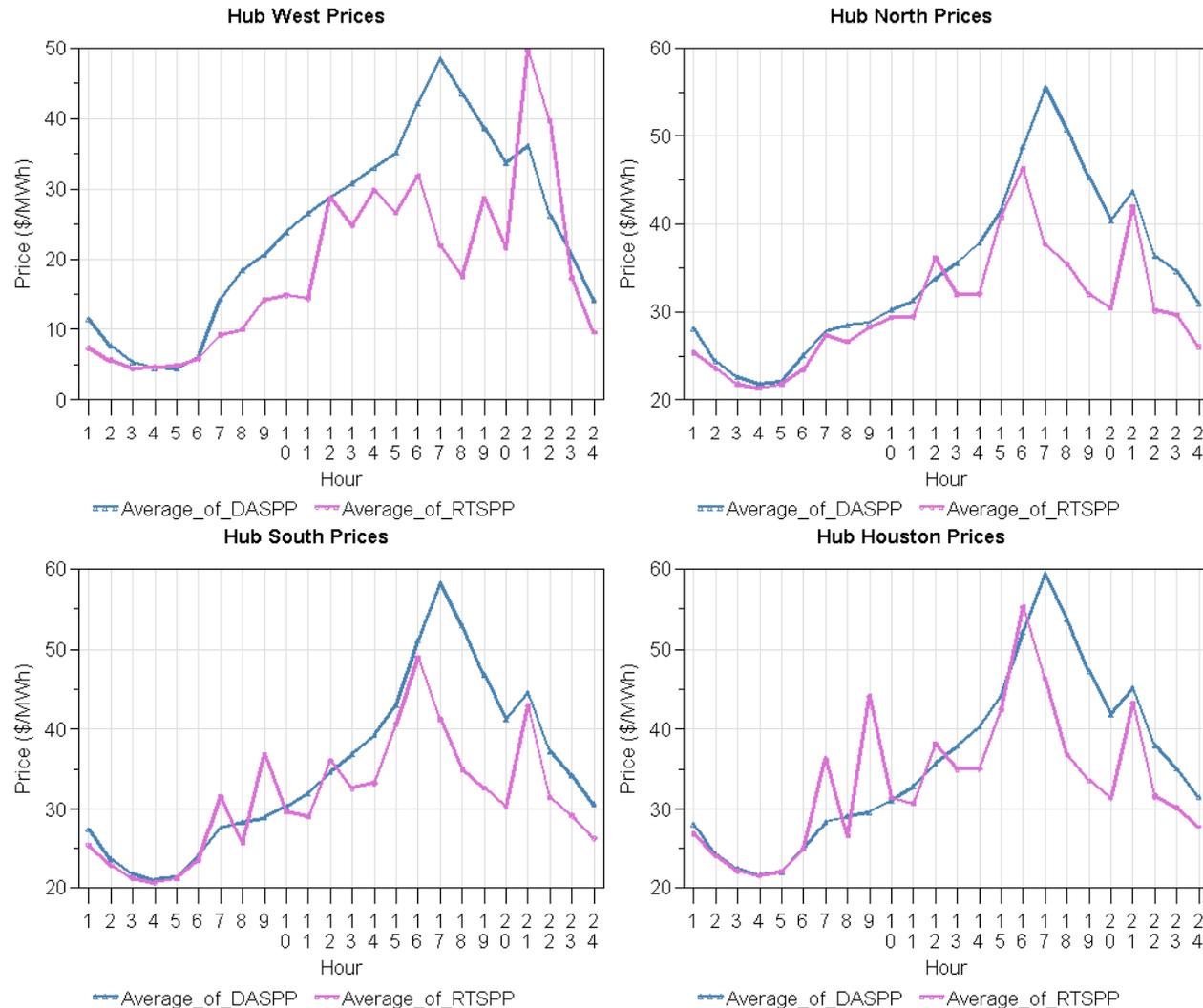


Day-Ahead Vs Real-Time Hourly Average SPP Load Zone Summary

01APR2011-30APR2011

- **SPPs in all four zones were very close, indicating another mild month for load.**

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



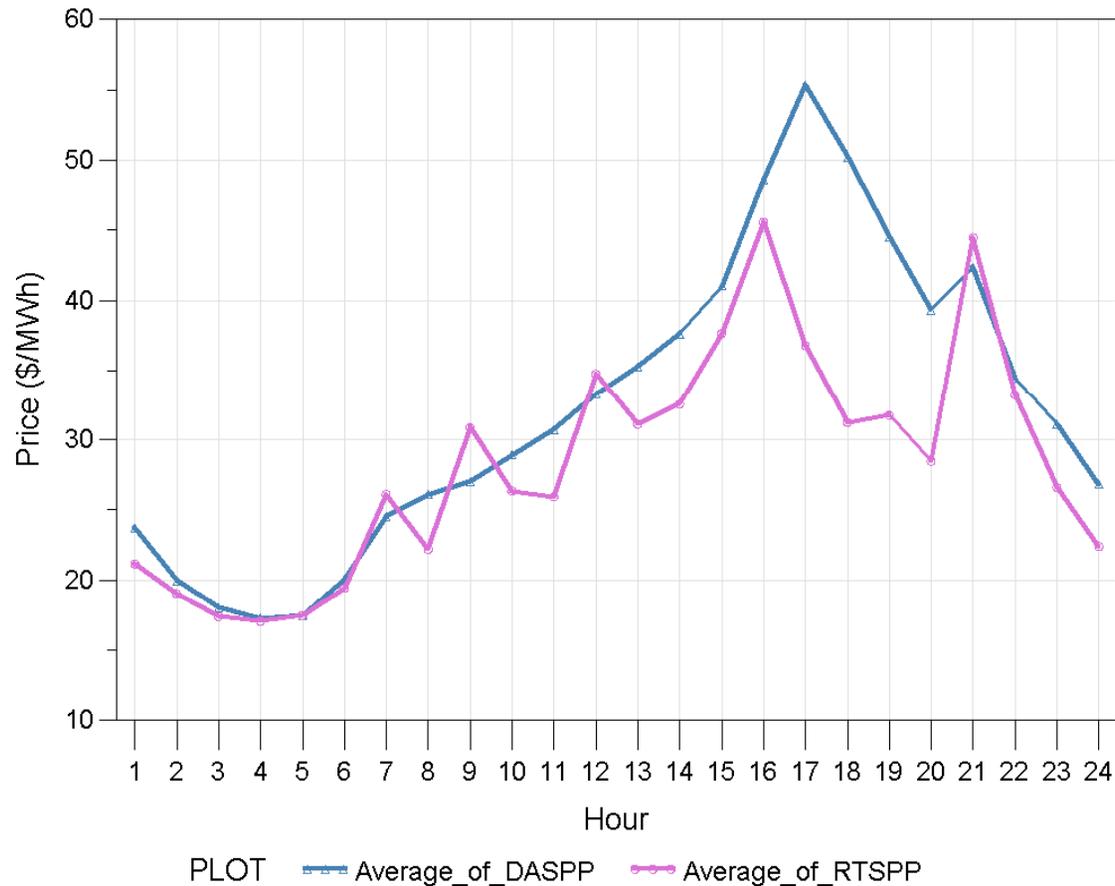
Day-Ahead Vs Real-Time Hourly Average SPP Hub Summary

01APR2011-30APR2011

- HUB SPPs in all four hubs were very close, with SPPs in Hub West slightly lower



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

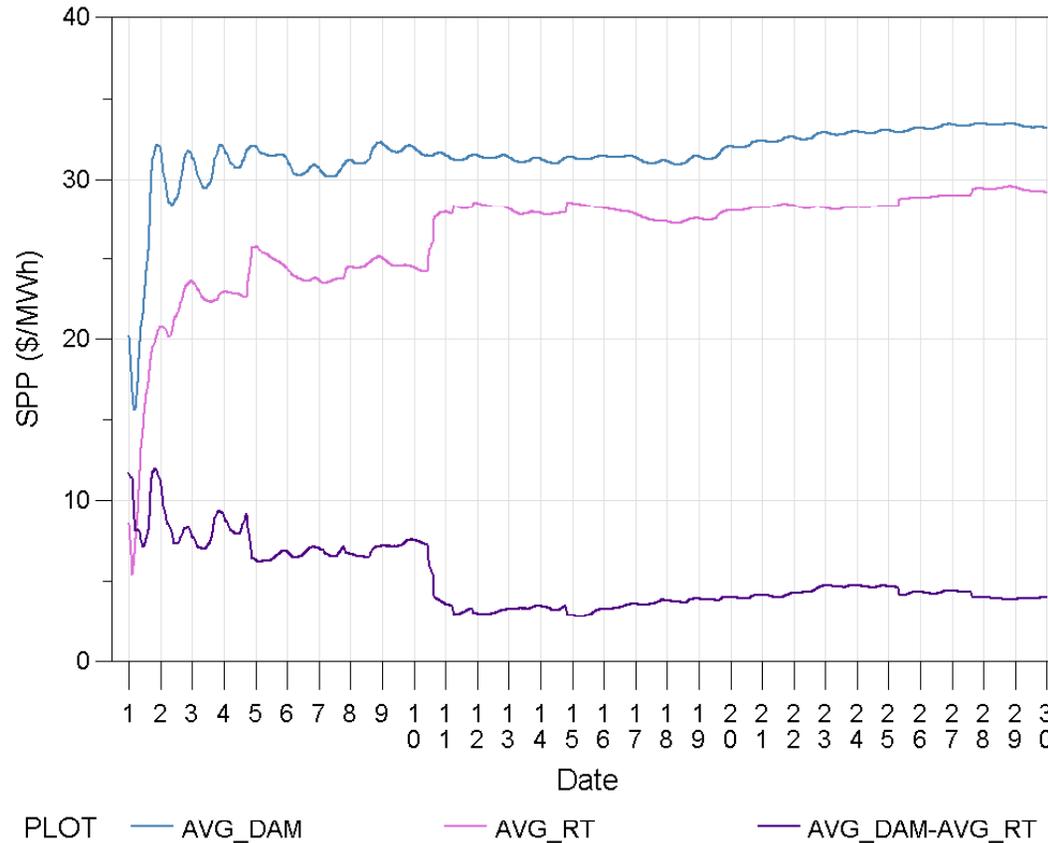


Day-Ahead Vs Real-Time Hourly Average SPP of Hub Hub-Average Prices

01APR2011-30APR2011

- Day Ahead prices are on average slightly higher than real-time prices
- Real-Time prices are dependent on real-time ramp rate capability

# Day-Ahead Vs Real-Time Cumulative Average SPP

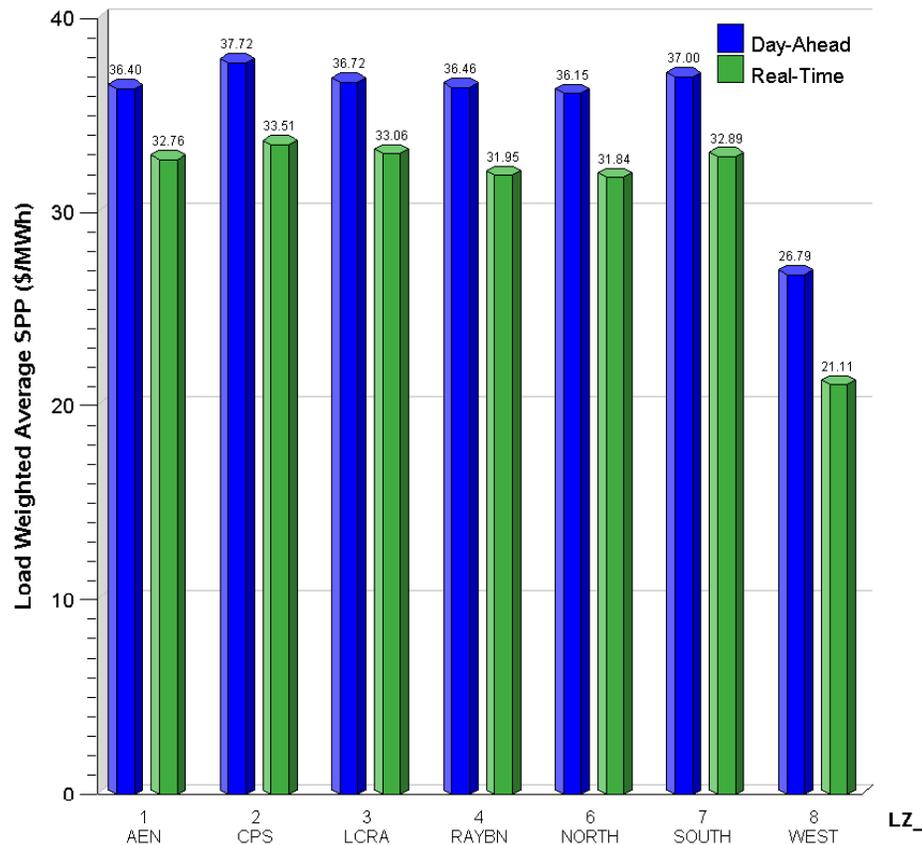


Day-Ahead Vs Real-Time Cumulative Average SPP for Simple Average Prices

01APR2011-30APR2011

- Overall the difference between Day Ahead prices and Real Time prices was slightly higher in April than previous months.

# Load Weighted Average SPP



Load Weighted Average SPP for Each Zone

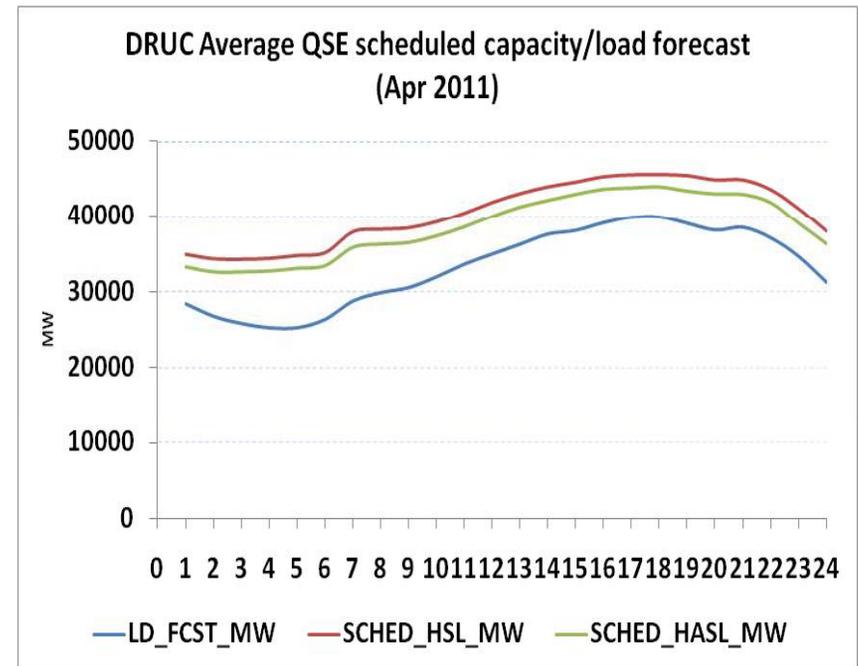
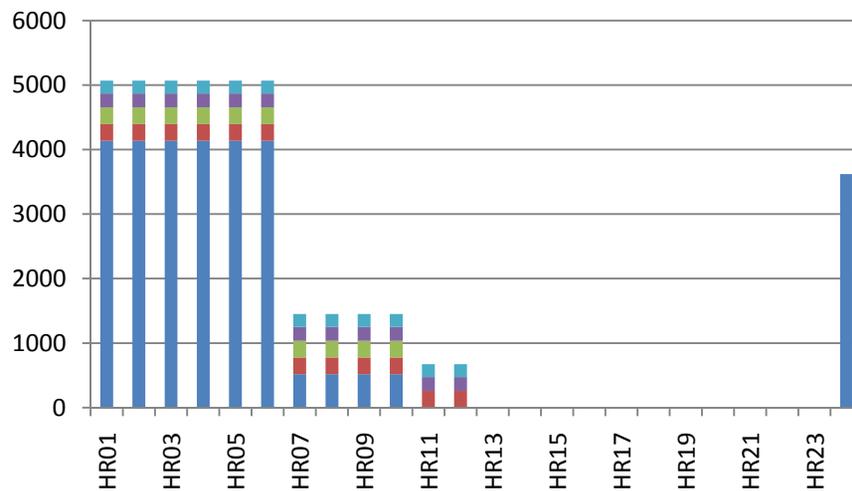
01APR2011-30APR2011

- The load weighted average RT SPPs were slightly lower than the load weighted average DAM SPPs, which indicates a conservative approach.

# DRUC

- **30 executions (none miss, 4 published after 1600; 0 published after 1800)**
- **13 min average execution time**
- **Resource commit/decommit**
  - 41181 MWh committed (5 resources for 105 hours)
  - no DRUC de-commitment

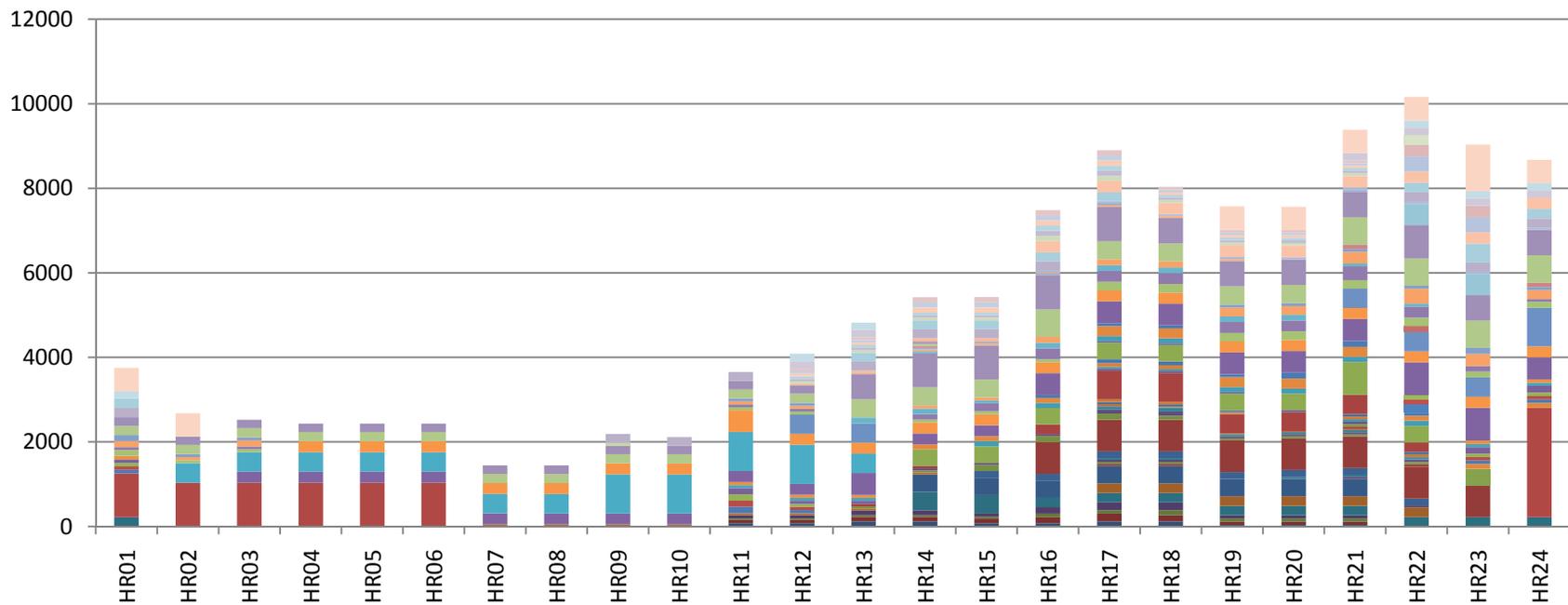
### Net committed capacity in DRUC (Apr 2011)



# HRUC

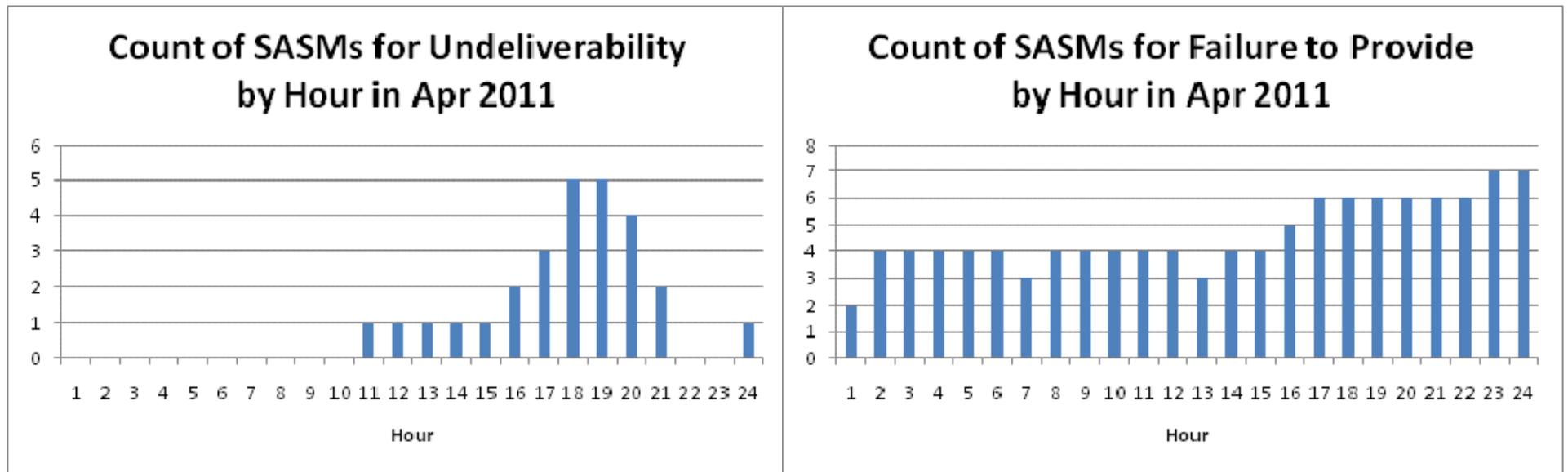
- **718 executions (2 missed)**
- **12.24 minutes average execution time**
- **Resource commit/decommit**
  - no HRUC de-commitment

**Net committed capacity in HRUC (Apr 2011)**



# Supplemental Ancillary Service Market (SASM)

- **18 SASMs were run in April, 2011**
  - **7 for undeliverable AS**
  - **11 for AS failure to provide**



## CRR Price Convergence

	<b>April 2011</b>	<b>March 2011</b>	<b>February 2011</b>	<b>January 2011</b>
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 Five Months of Operation

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- **CRR Market Shortfall**
  - Reviewing the impact of different factors that could cause shortfall
  - Meetings with Market Participants to discuss the effectiveness and possible improvements of the outages submission process
- **Pricing of De-energized Resource Nodes**
  - Affected intervals will be resettled
- **Oscillation of West to North Constraint**
  - Submitted urgent NPRR 352 which was approved by TAC
- **Settlement Points may be incorrect related to certain PTP scenarios**
  - Under certain scenarios, the post processing of some Settlement Points may be incorrect. The scenario is related to 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.
    - DAM MW awards are correct
    - Implemented a fix
    - Current estimated impact is approximately \$384,000

# CRR Market Shortfall

