Coordinated Transaction Scheduling – NYISO/PJM

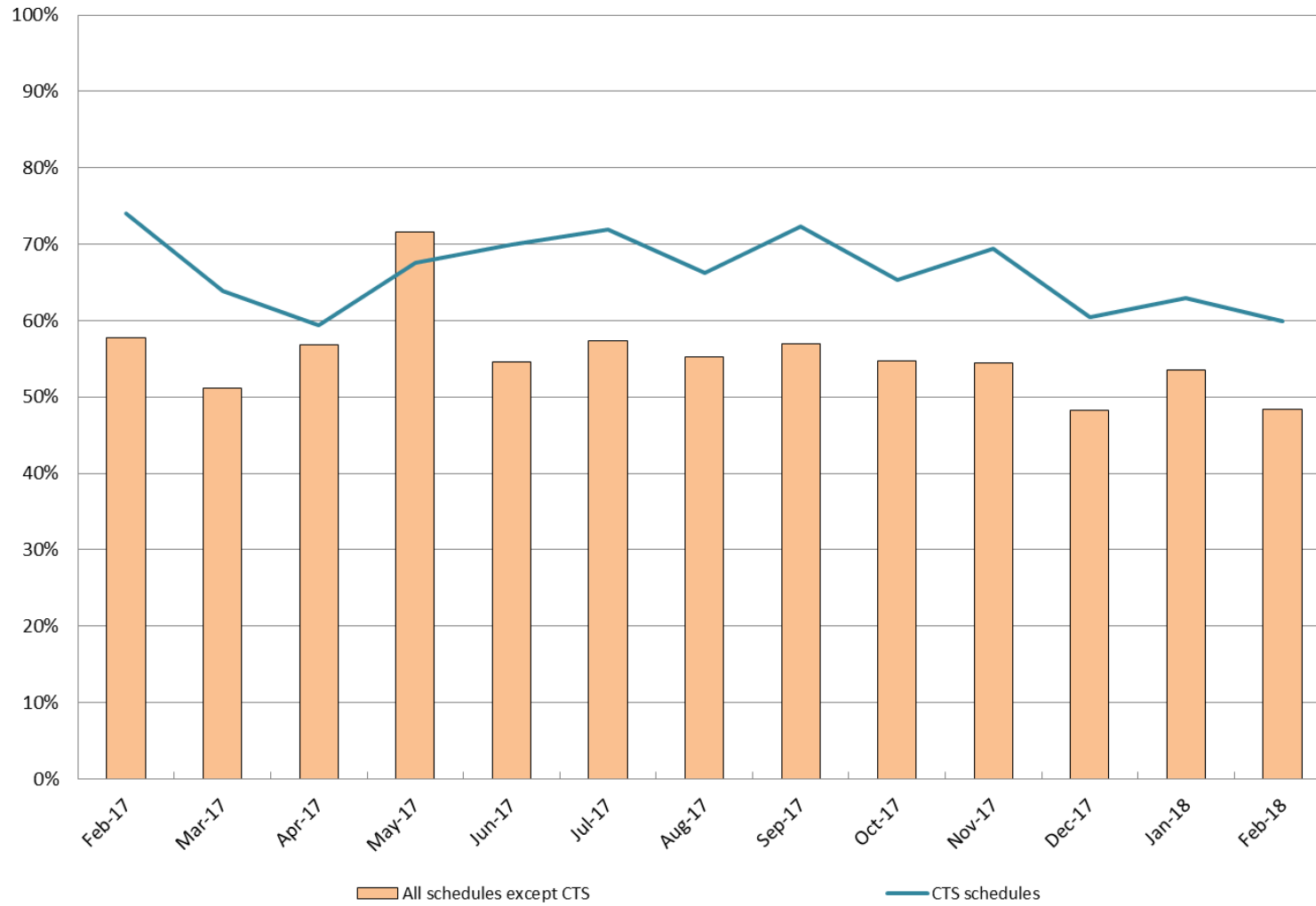Joint Stakeholder Meeting

April 2, 2018

Background

- NYISO and PJM implemented Coordinated Transaction Scheduling in November 2014. This feature is used only in our respective real-time markets.
- How it works:
  - PJM provides NYISO with its forward looking prices from IT-SCED for each NY-PJM interface.
  - Market participants may submit CTS offers into the NYISO's Joint Energy Scheduling System, for evaluation in NYISO's real-time energy markets.
    - Market Participants may still submit traditional incremental/decremental offers for evaluation rather than CTS offers.
  - NYISO incorporates the PJM forecasted prices into its Real-Time Commitment (RTC) process that economically evaluates interchange transaction offers every 15-minutes.
  - NYISO and PJM confirm the cleared MWs associated with CTS and non-CTS offers and set a final Desired Net Interchange to be implemented in the upcoming interval.
  - Both NYISO and PJM settle transactions against LMPs developed in their respective real-time dispatch algorithms (RTD and RT-SCED).
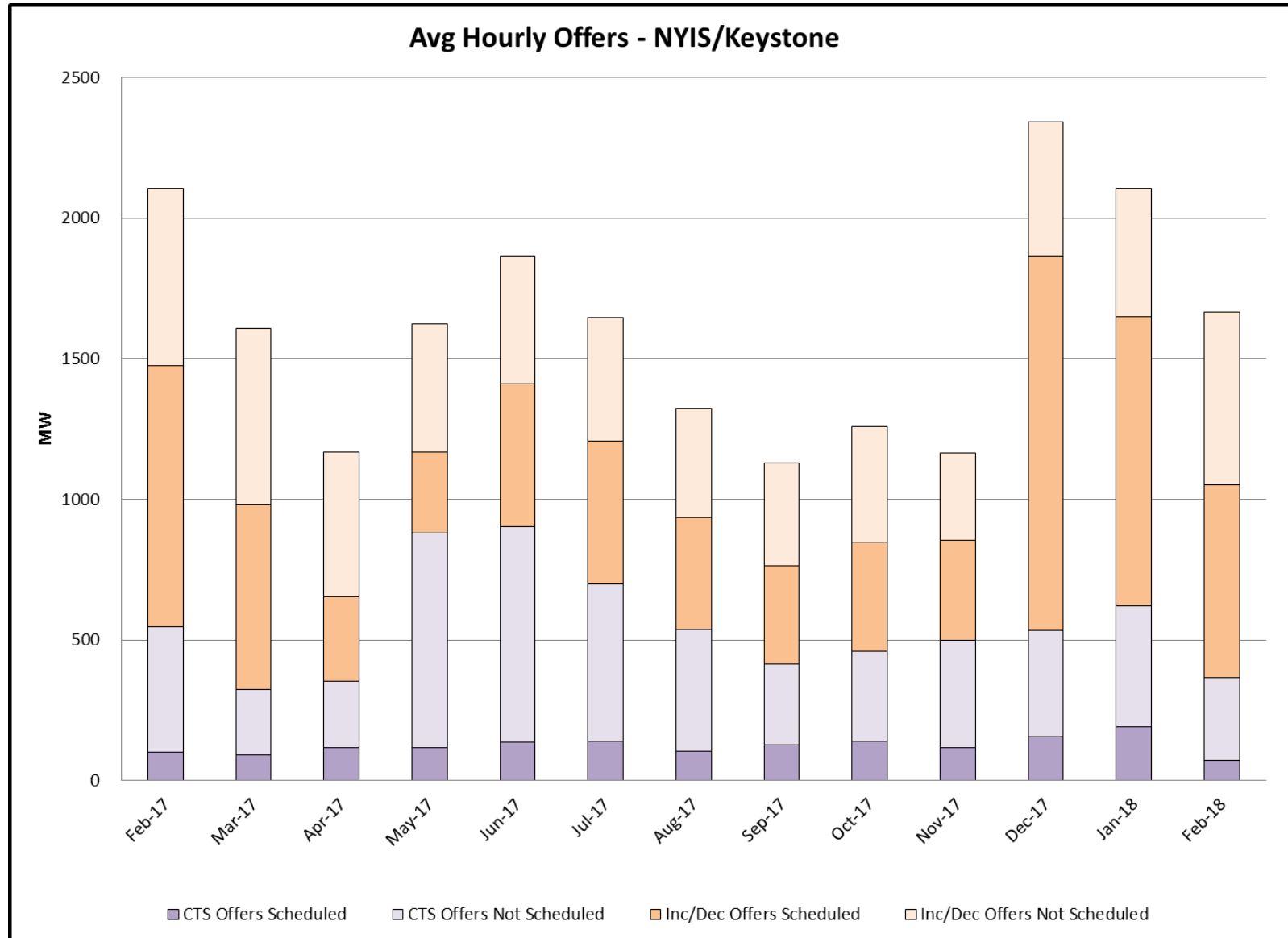
CTS Metrics

Notes about the metrics:

1. All MW Values include the absolute sum of both imports + exports. Wheels-through NYISO have been excluded.

2. Forecasted Prices refer to NYISO's RTC LBMP and PJM's IT-SCED LMP. Forecasted Prices are used to schedule interchange transactions, including CTS transactions.

3. Real-time Prices refer to NYISO's RTD LBMP and PJM's RT-SCED. Real-time Prices are used to settle interchange transactions.

4. Forecasted Price Spreads are calculated as NYISO's RTC LBMP minus PJM's IT-SCED LMP.

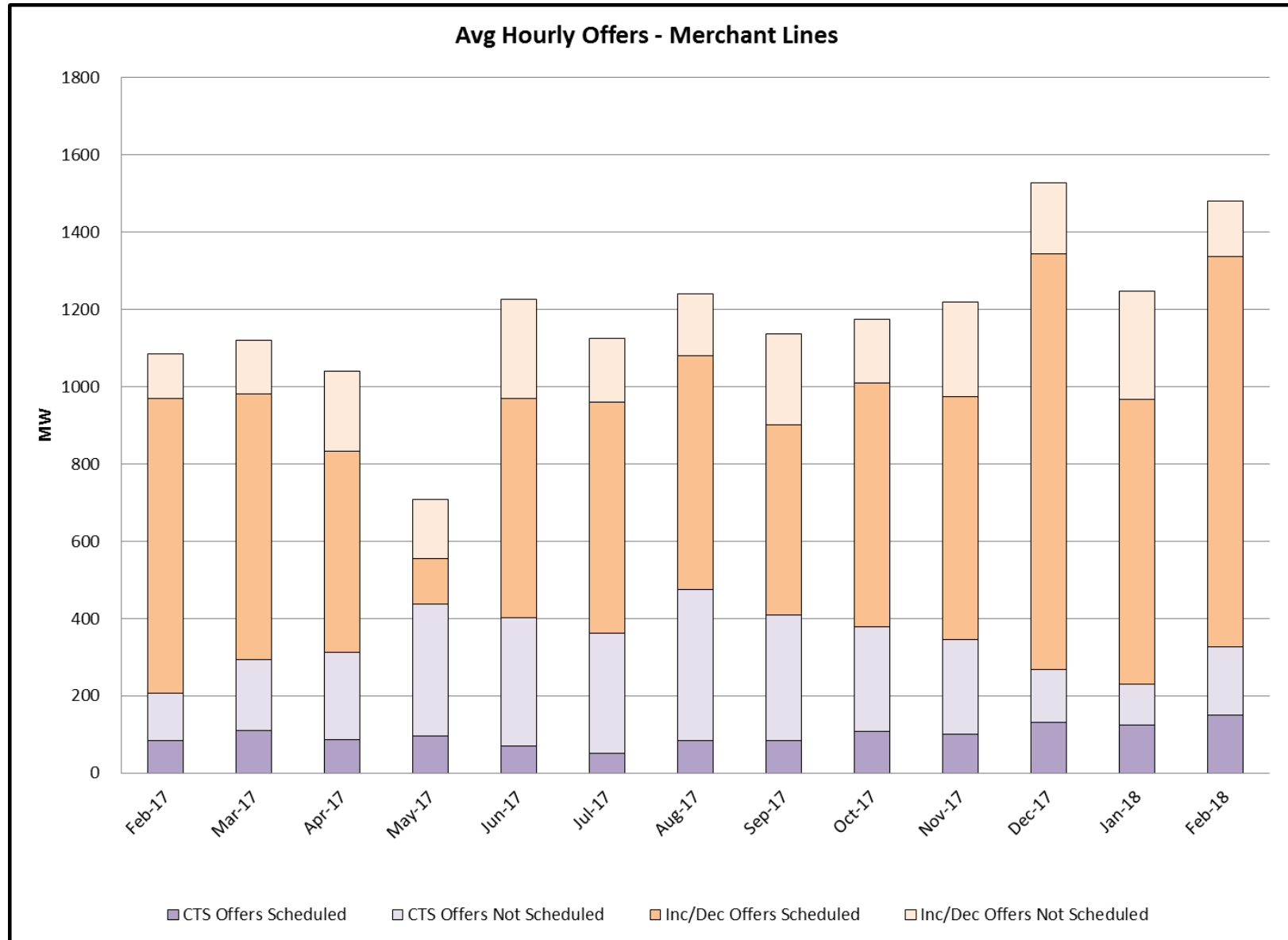5. Real-time Price Spreads are calculated as NYISO's RTD LBMP minus PJM's RT-SCED LMP.
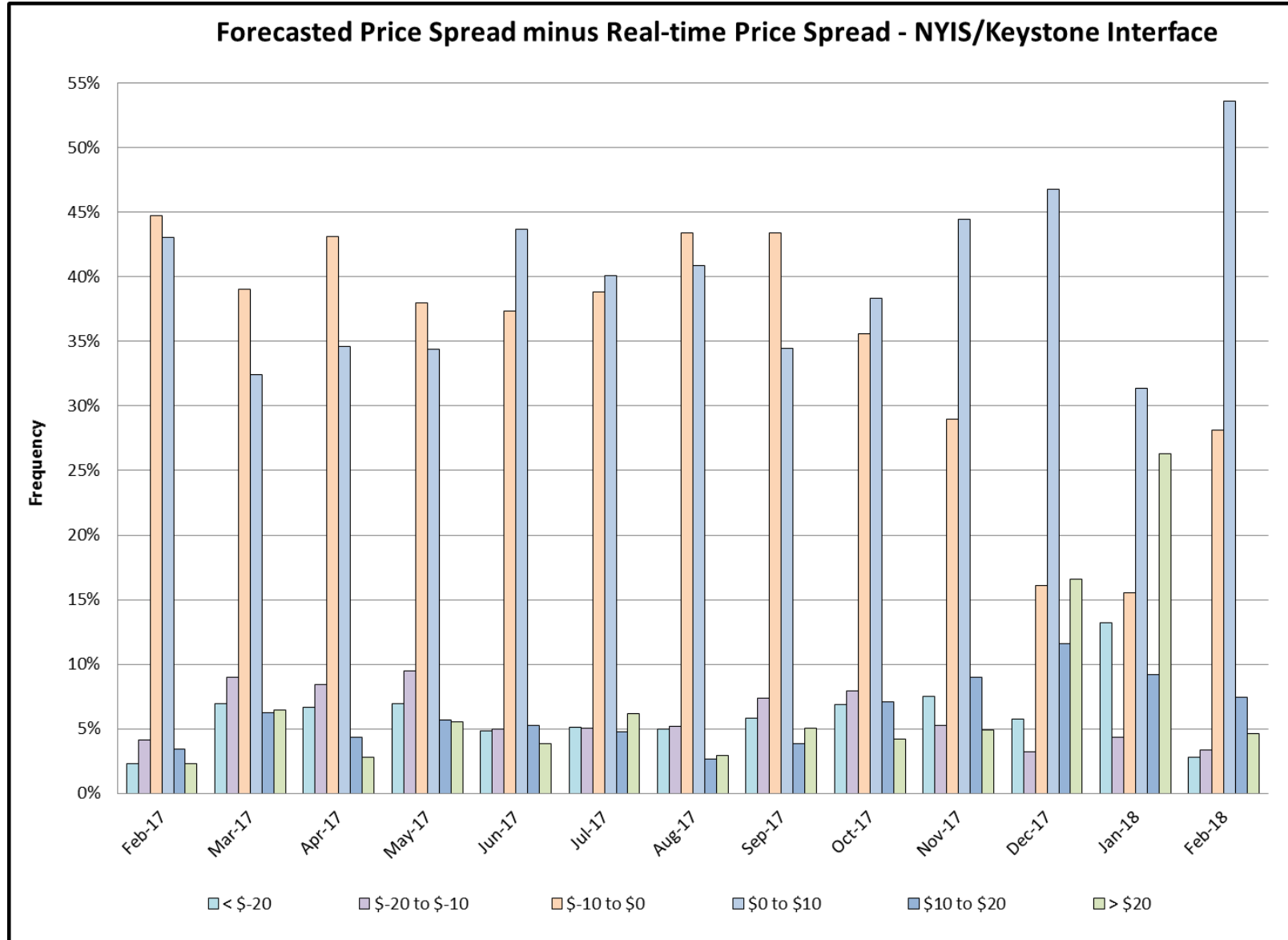
Net Interchange In Economic Direction - NYIS/Keystone

*Note: The % of Real-time intervals where Net Interchange is flowing from the lower priced region to the higher priced region using real-time prices
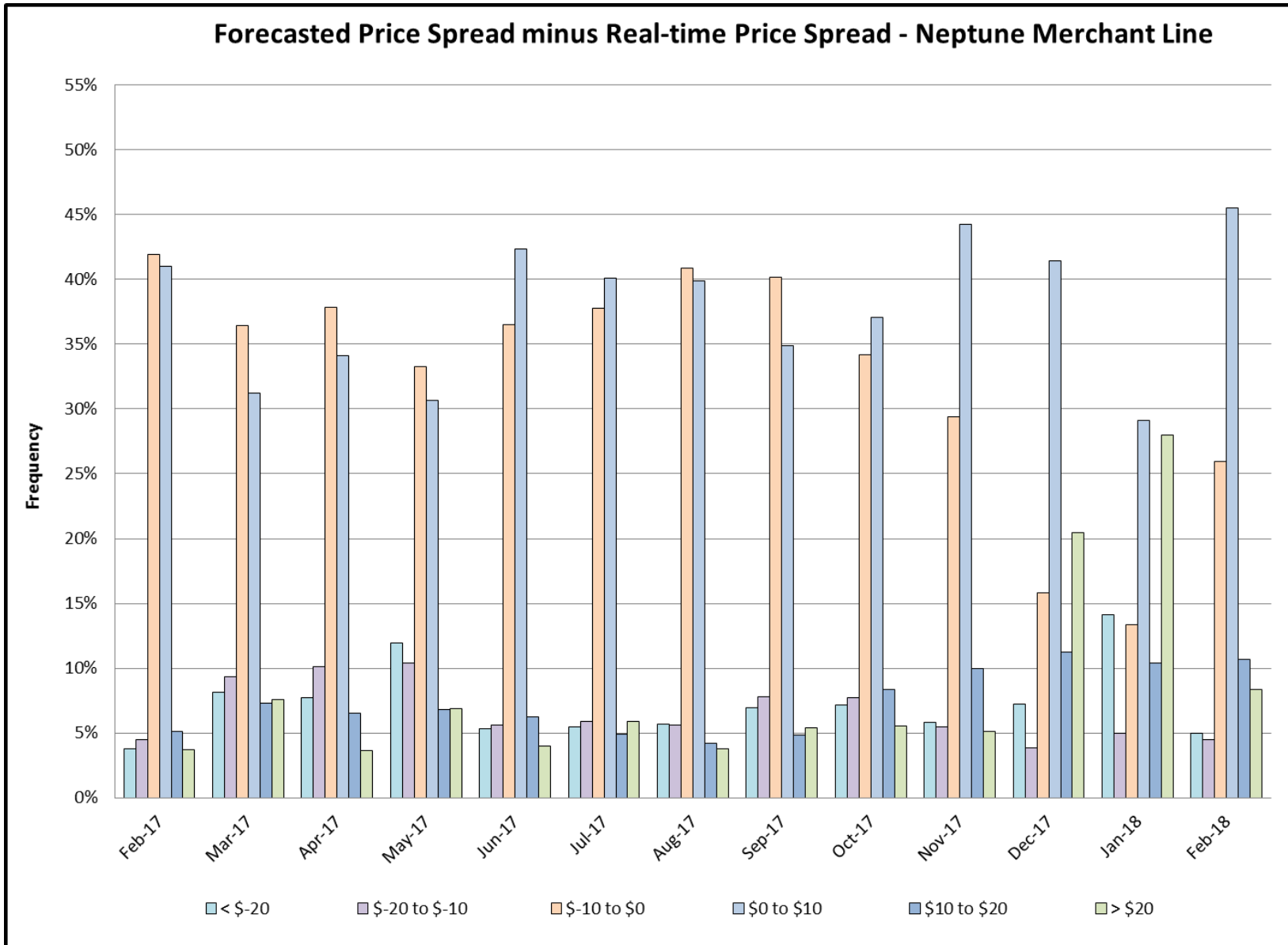
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Avg Hourly Offers - NYIS/Keystone

*Note - Chart shows the absolute sum total of both import MW and export MW.
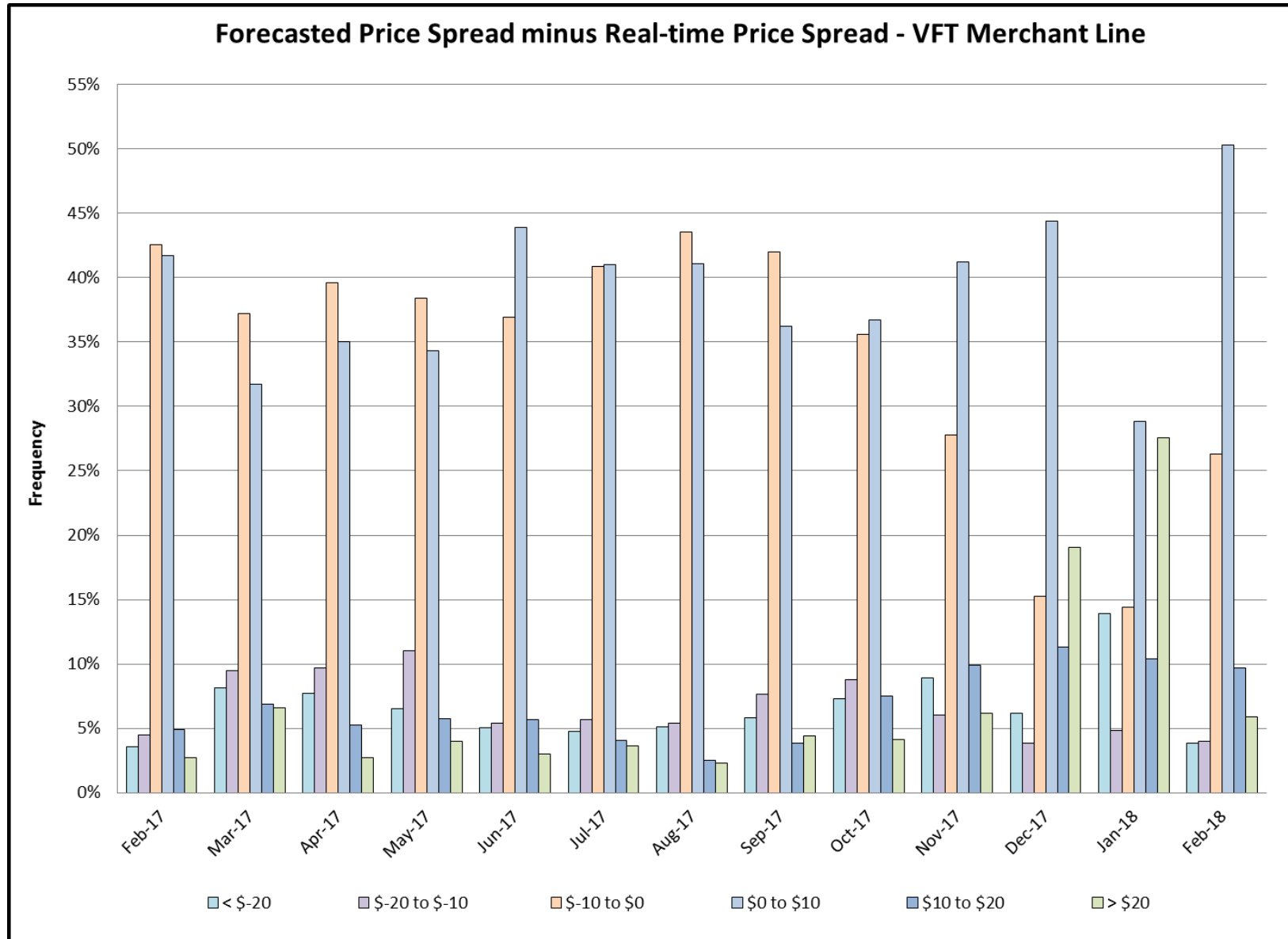
Avg Hourly Offers - Merchant Lines
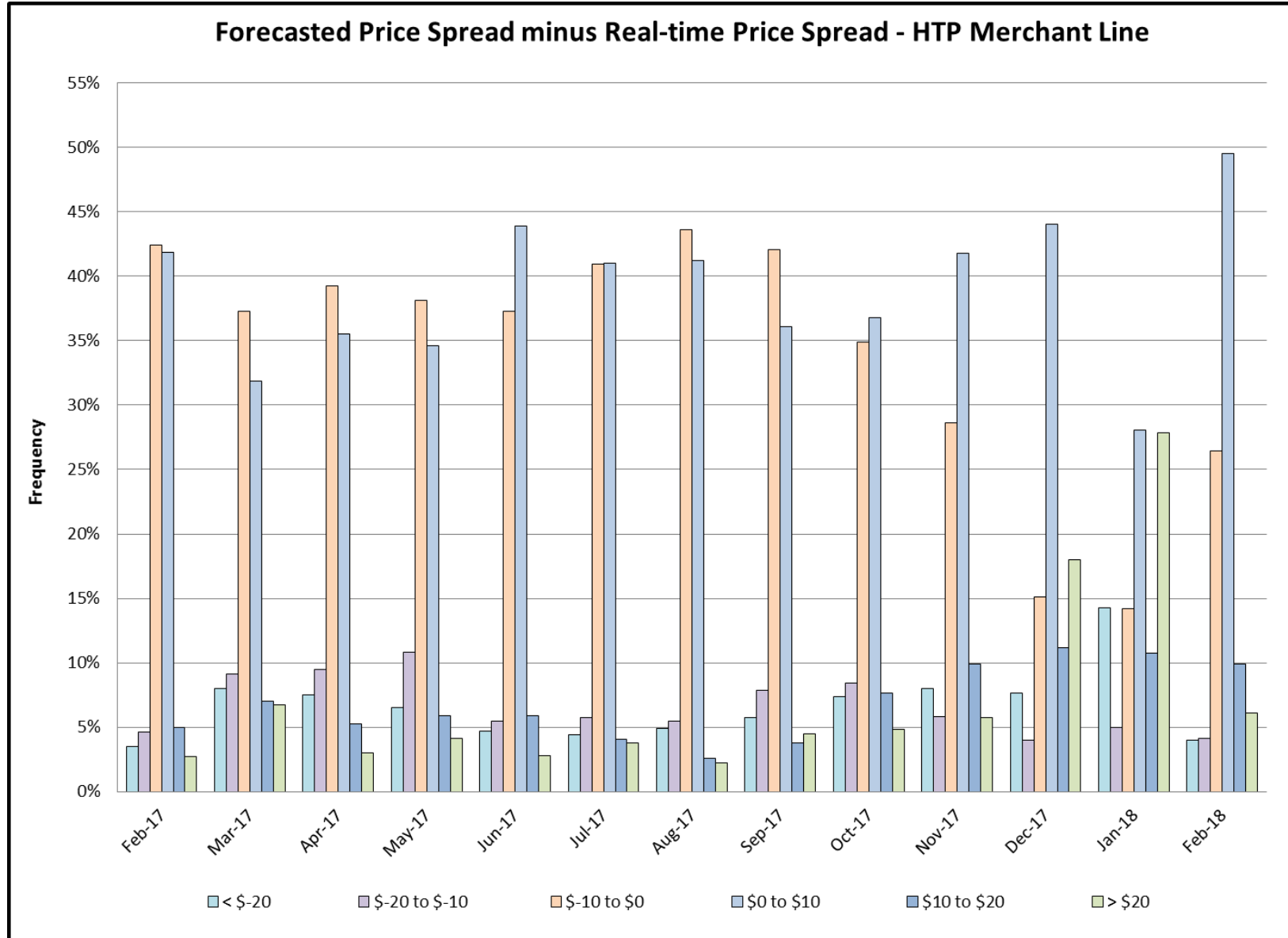
*Note - Chart shows the absolute sum total of both import MW and export MW.

Legend: ■ CTS Offers Scheduled □ CTS Offers Not Scheduled ■ Inc/Dec Offers Scheduled □ Inc/Dec Offers Not Scheduled

Forecasted Price Spread minus Real-time Price Spread - NYIS/Keystone Interface

Forecasted Price Spread minus Real-time Price Spread - Neptune Merchant Line

Forecasted Price Spread minus Real-time Price Spread - VFT Merchant Line

Forecasted Price Spread minus Real-time Price Spread - HTP Merchant Line

Questions?