

FTR Auction Prices and DA CLMP Differences

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FTR Auction Prices and DA Prices

- **ARRs can be an effective offset for congestion only if FTR prices are a reasonable approximation of actual price differences on the FTR paths.**
 - **Necessary but not sufficient condition.**
- **Differences between FTR prices and actual price differences on the FTR paths are a measure of risk.**



FTR Auction Prices and DA Prices

- **Differences result from observed inability to accurately forecast price differences which increases with time before FTR period.**
- **Differences between the FTR model and the day ahead model cause significant risk and price differences**

FTR Auction Prices Reveal Risk

- **Prices in FTR auctions beyond the prompt quarter do not reflect actual DA price differences.**
- **Increasing the number of auctions beyond the prompt quarter will not improve price discovery or decrease risk.**
 - Does not improve the valuation of ARRAs.
- **Prices in long term auctions show that long term auctions are an ineffective and inefficient way to value forward values of FTRs.**
 - Does not improve the valuation of ARRAs.
- **Increasing the number of long term auctions will not improve price discovery of FTRs or mitigate risk.**
 - Does not improve the valuation of ARRAs.



Comparing FTR Auction and Day Ahead Market

- **Auction value for a period, per MW**

$$\textit{Period Value}_{\textit{Auction}} = \textit{Cleared Price}$$

- **Average day ahead value for a period, per MW**

$$\textit{Period Value}_{\textit{DA}} = \textit{Avg DA Hourly CLMP}_{\textit{path}} * \textit{hours}_{\textit{period}}$$

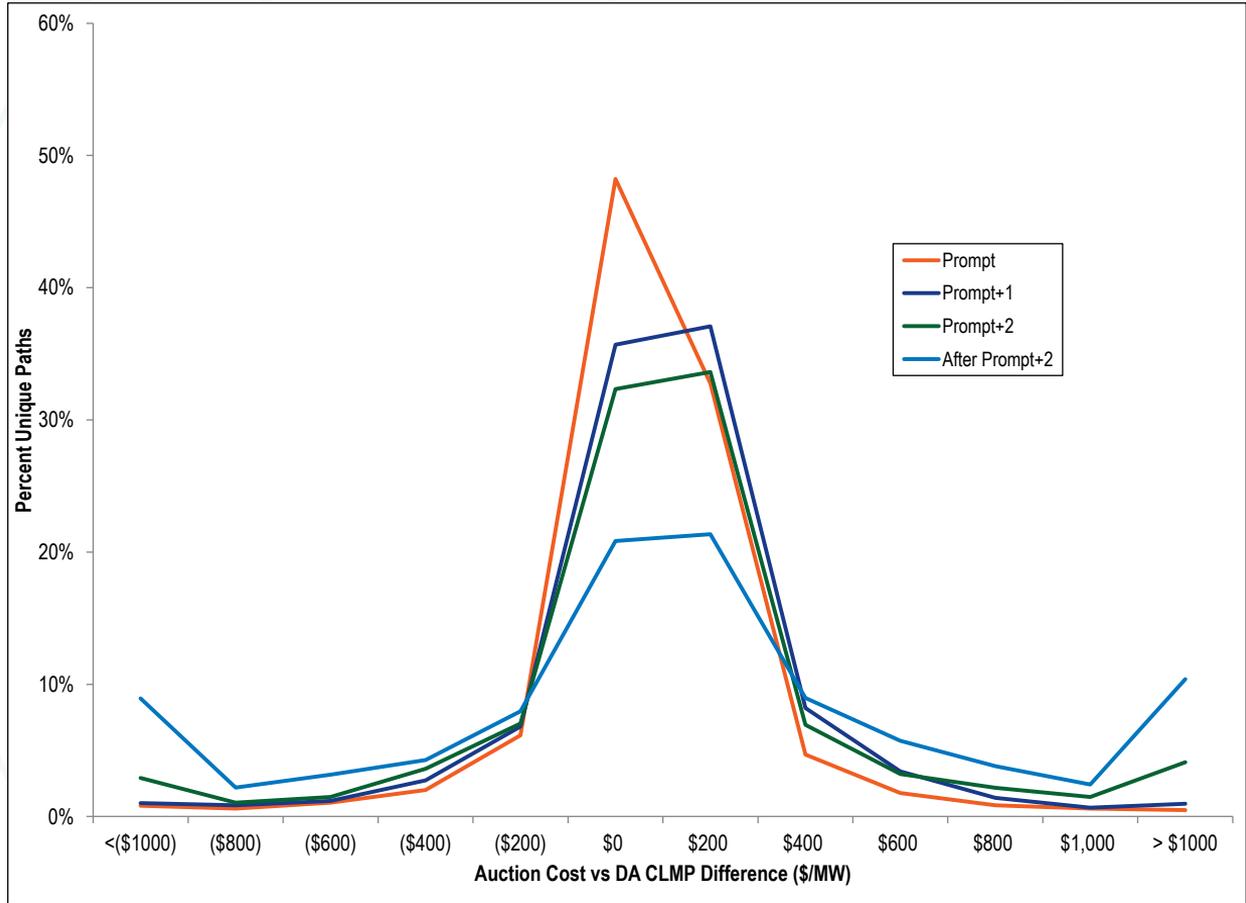
- **Comparison of FTR auction and day ahead market**

$$\textit{Difference} = \textit{Period Value}_{\textit{Auction}} - \textit{Period Value}_{\textit{DA}}$$

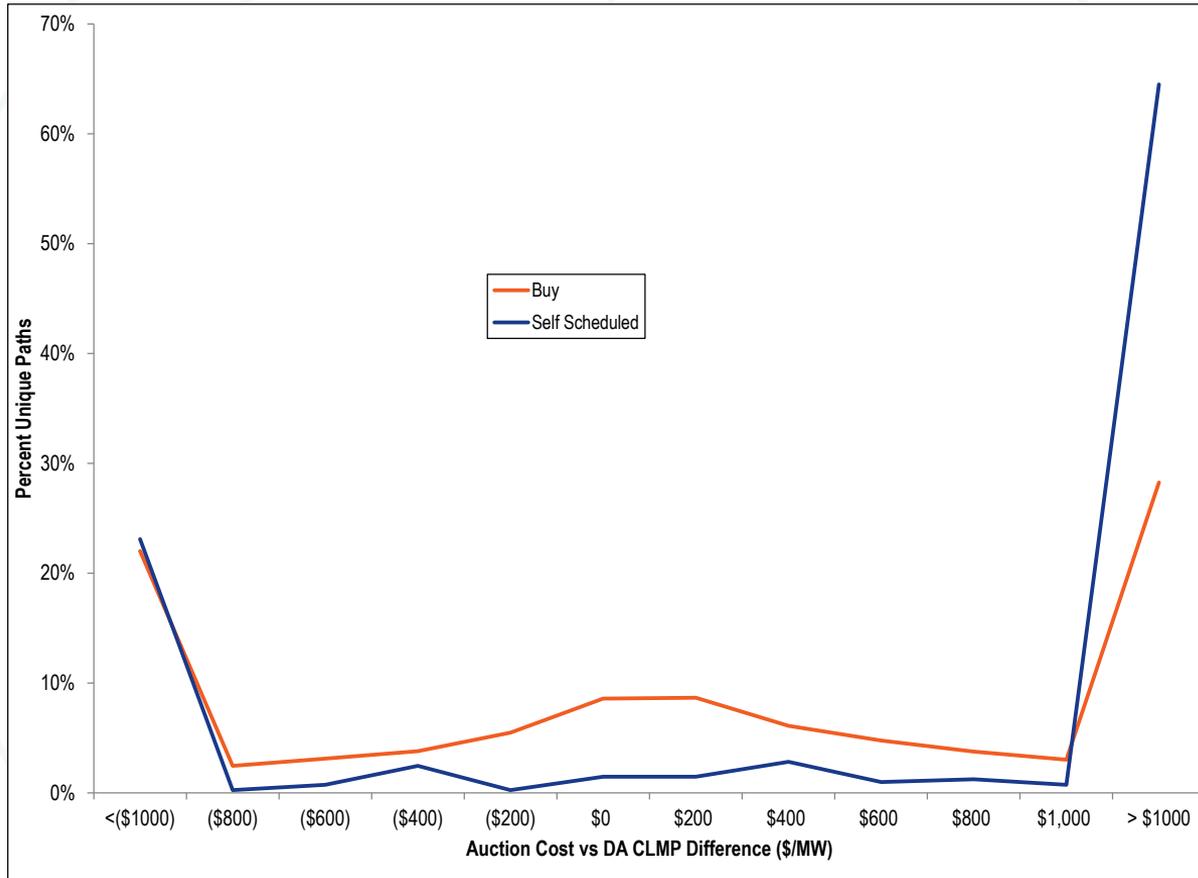
Results

- **Figures show frequency distribution of FTR auction prices to day-ahead price differences over the same paths.**
- **If distribution were 100 percent at \$0, FTR auction prices would be a perfect way to value ARR.**
- **As distribution moves away from \$0, FTR auction prices decrease in value as an effective and efficient way to value ARR.**

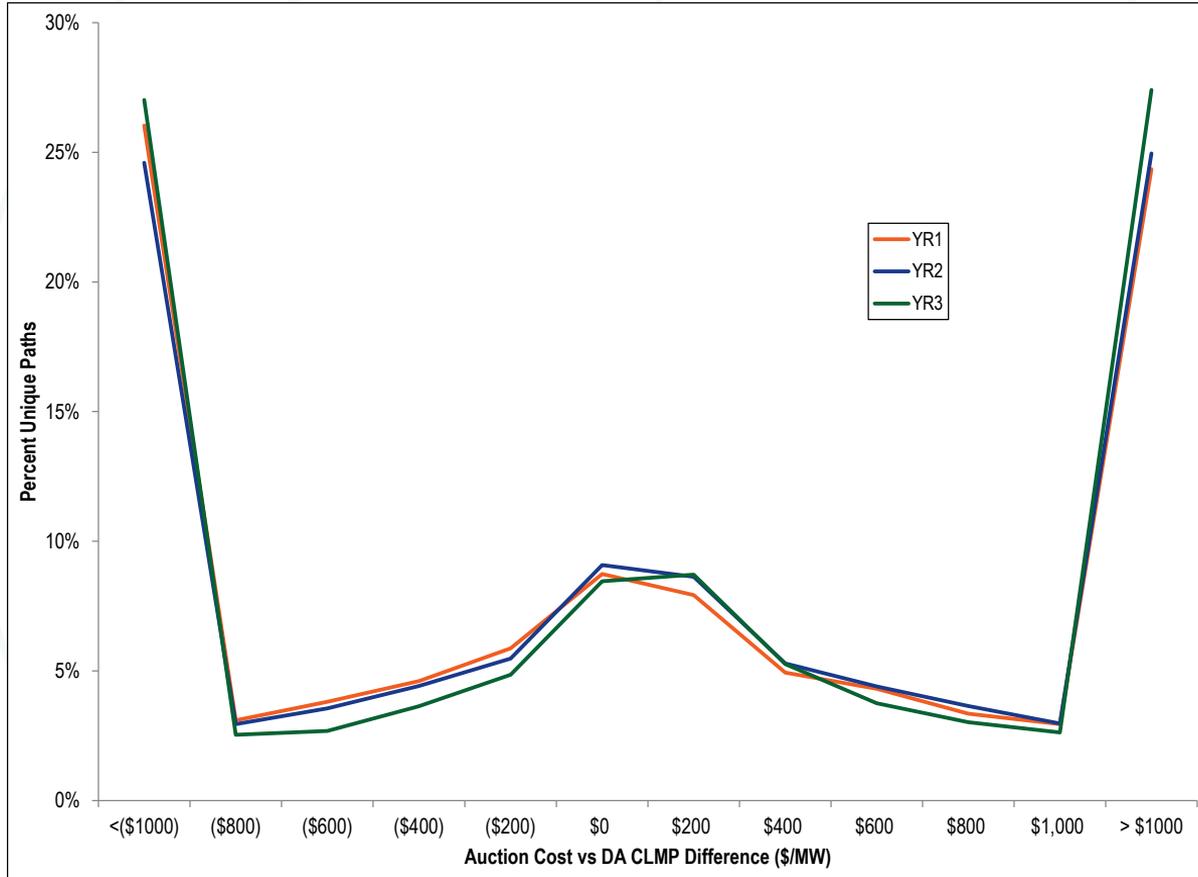
18/19 Monthly Auction: FTR Price/DA Price Difference



18/19 Annual Auctions: FTR Price/DA Price Difference



Effective 18/19 Long Term Auction: FTR Price/DA Price Difference



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