Hourly Offers - Fixed Markup Examples

GOFSTF September 3, 2015 Joe Bowring



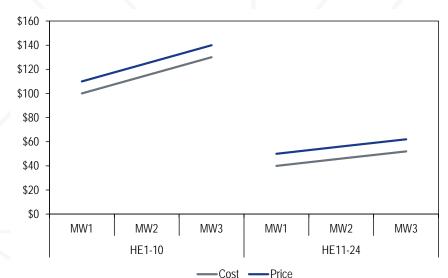
Fixed (Constant) Markup

Markup (\$/MWh) = Price Offer – Cost Offer Reasons for constant markup:

- Enable effective offer capping. TPS test determines suppliers that have market power. PJM offer caps based on lower of price or cost. Because of markup differences, price could appear lower at one output level but more expensive at another output level. Hourly offers exacerbate this issue.
- Maintain incentives for competitive behavior that result from current single offer per day rule. Eliminate ability to use markup to engage in day-ahead economic withholding.

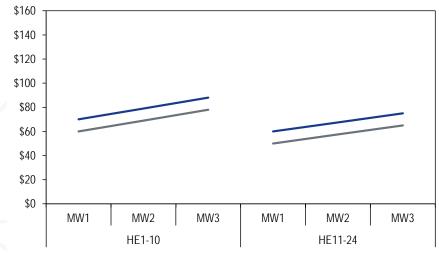
Example: Constant Positive Markup

- One offer for HE01 through HE10.
- One offer for HE11 through HE24.
- Constant \$10 per MWh markup.



Example: Constant Positive Markup

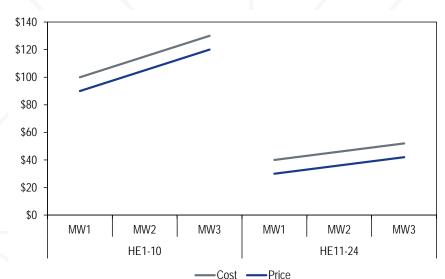
- Unit does not clear. Unit updates its offers.
- Gas price from HE01 through HE10 decreases.
- Gas price from HE11 through HE24 increases.
- Constant \$10 per MWh markup.



Cost — Price

Example: Constant Negative Markup

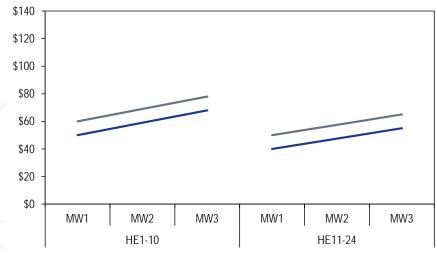
- One offer for HE01 through HE10.
- One offer for HE11 through HE24.
- Constant -\$10 per MWh markup.





Example: Constant Negative Markup

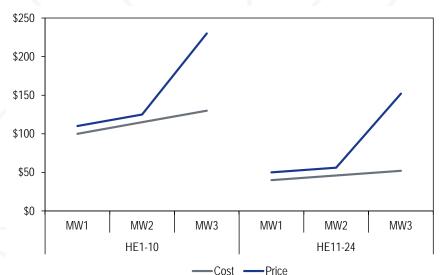
- Unit does not clear. Unit updates its offers.
- Gas price from HE01 through HE10 decrease.
- Gas price from HE11 through HE24 increase.
- Constant -\$10 per MWh markup.



Cost — Price

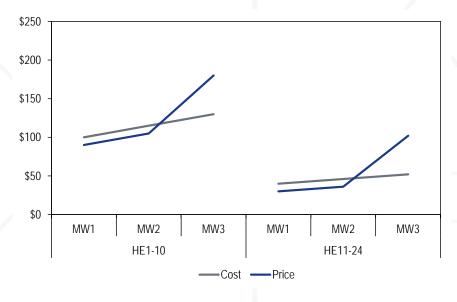
Example: Variable Positive Markup

- Tail blocks due to markup not allowed.
 - \$10 per MWh markup for step MW1 and MW2.
 - \$100 per MWh markup for step MW3.



Example: Positive and Negative Markups

Crossing curves not allowed.



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