



Multi-Hour Block Transactions

**Implementation Discussion with
Market Structures Working Group**

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Agenda

- ↘ **Gaming Opportunities with BPCG**
- ↘ **Day-Ahead Checkout Failures**
- ↘ **Accepted Day-Ahead Transactions in BME**
- ↘ **BPCG Limitations**



Gaming Opportunities with BPCG

↘ Concern

- *Bid a transaction with several hours at \$0, to preference whole transaction, then fail checkout for select hours. Could BPCG offset costs of settling transaction?*

↘ Review

- *Unable to identify gaming opportunity. Existence of low cost hours would function to lower BPCG and failed hours would be subject to settlement policies. Mitigated by single bid value.*



Day-Ahead Checkout Failures

↘ Can an accepted Day-Ahead transaction fail checkout for single hour(s) or only all hours?

- *NYISO proposal to allow single hour(s) to fail.*



Accepted Day-Ahead Transactions in BME

- ↘ **Working group recommended that accepted transactions not be re-evaluated in BME**
 - *Operational concerns if interface binds and counter-flow bids do not exist.*
 - *NYISO proposes to achieve MP desires with an economic evaluation.*



Accepted Day-Ahead Transactions in BME

- ↘ **Automate means for MP to indicate BME evaluation price**
 - *Automatically to \pm \$1000*
 - *Component of Bid*
- ↘ **At other than \pm \$1000, Day-Ahead and Hour-Ahead transactions will compete equally for access. Ties will be resolved by pro-rata scheduling.**
- ↘ **At \pm \$1000, Day-Ahead transactions given priority over Hour-Ahead bids.**
 - *Hour-Ahead pro-rata scheduling, then*
 - *Day-Ahead pro-rata scheduling.*



Accepted Day-Ahead Transactions in BME

↘ Impact

- *Counter-flow transaction fully utilized*
- *Accepted Day-Ahead transaction prioritized over Hour-Ahead.*
- *Day-Ahead accepted transaction schedules maintained per MP desires, up to network capacity.*



BPCG Limitations PJM Implementation

↘ Background

- *During declared maximum generation emergencies, PJM will accept any bids. Generators were bidding at the maximum \$1000/MW-hr bid cap with extended minimum run times. Required PJM to pay offer price for a period of time longer than the emergency.*



BPCG Limitations

PJM Implementation

↘ During times of maximum generation emergencies or maximum generation emergency alerts:

- *Calculate an Effective Offer Price (EOP)*
 - ♦ Uplift / MW-hr during Specified Hour(s) + Offer Price
- *Day-Ahead*
 - ♦ Specified Hour(s) is lesser of offer minimum run time, and 6 hrs for steam units or 2 hours for GT. Allocated to consecutive hours of highest day-ahead prices
- *Real-Time*
 - ♦ Specified Hour(s) is the number of hours the offer is economic.



BPCG Limitations

PJM Implementation

↘ Compare EOP to Bid Cap

- *Day-Ahead*
 - ♦ If MaxGen declared before 12:00 and $EOP > Bid\ Cap \Rightarrow No\ Uplift$
- *Real-Time*
 - ♦ $EOP > Bid\ Cap \Rightarrow No\ Uplift$



BPCG Limitations

PJM Implementation

↘ Limitation

- *Maximum compensation during Specified Hour(s) limited to \$1000/MW-hr.*

↘ Exception

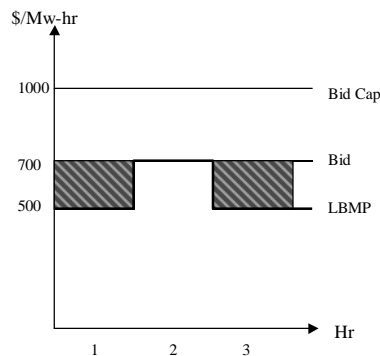
- *Cost based bid*



BPCG Limitations

Example

↘ Uplift = \$200 + \$200
= \$400

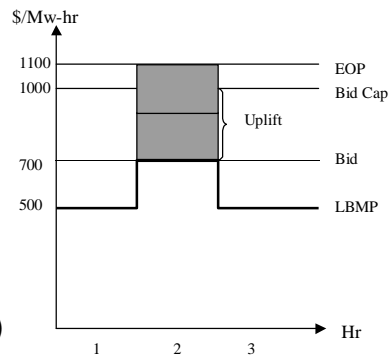


BPCG Limitations Example

↘ $EOP = \$700 + \400
 $= \$1100$

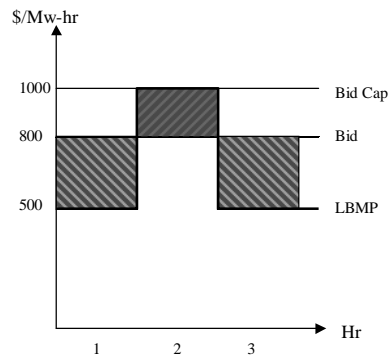
↘ If announcement pre-12:00 or real-time then no uplift for any hour.

↘ Otherwise, uplift = \$300 (max. compensation limit)



BPCG Limitations Example

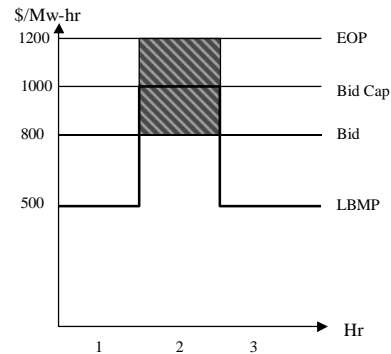
↘ $Uplift = \$300 - \$200 + \$300$
 $= \$400$



BPCG Limitations Example

↘ EOP = \$800 + \$400
= \$1200

- ↘ If announcement pre-12:00 or real-time then no uplift for any hour.
- ↘ Otherwise, uplift = \$0 (max. compensation limit)



BPCG Limitations

↘ **NYISO Position**

- *Multi-Hour Block Transaction project creating a situation in which gaming opportunities witnessed in PJM will exist in NY.*
- *Adequate protections required.*

