

## Considerations for Gas Contingencies and Market Power

MIC Special Session: Gas Contingency Costs Meeting October 30, 2018



Modeling of Gas Contingencies

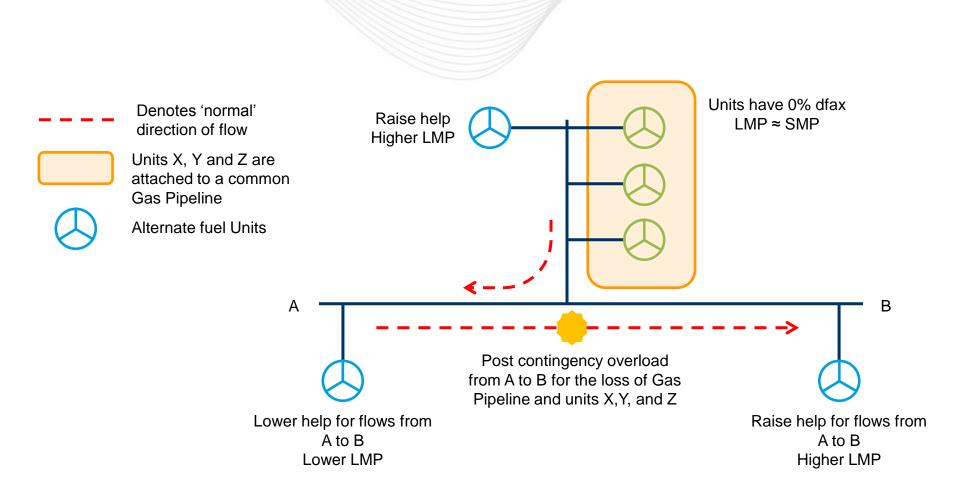
- PJM proposes treating Gas Contingencies the same as Electrical Contingencies in the Day Ahead (DA) and Real Time (RT) Markets
  - Unit Contingencies there is no impact on the Three Pivotal Supplier Test (TPS)
  - Actual over loads resources subject to TPS test



- Unit(s) that are defined as the contingent element
  - example: Line A B for the loss of Units X, Y and Z
  - Post contingency the unit(s) are off-line (security analysis)
    - Have no effect on the post contingency flows
    - Therefore the distribution factor (dfax) = Zero
    - For this constraint unit(s) would have no effect on the owners TPS score and can not set LMP for this constraint
- Actual over loads
  - Example: Line A B actual over load
  - All unit(s) would have some dfax, would contribute to the owners TPS score and are eligible to set LMP for this constraint

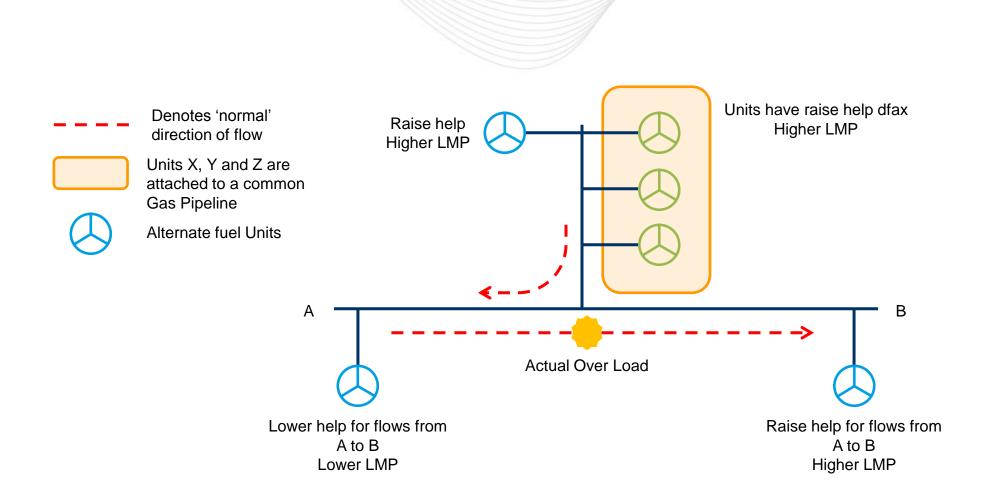


## Example: Gas Unit Contingency



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## **Example: Actual Over Load**





## Appendix



- Off-line units which can be committed in RT are TPS tested for Market Power
- Online TPS Test
  - Self Scheduled units in the RT Market are subject to on online TPS test every hour after their first hour of operation
  - Self Scheduled resources in the DA or RAC run are included in the in the hourly RT on-line TPS test but are not eligible for offer capping until its DA commitment period has been met.



- Units call on in RT are TPS tested after their minimum run has been met
- Day-ahead units are TPS tested after their DA commitment period has been met



 If the market participant at any time updates any part of its three part offer (Incremental Energy Offer, No Load Cost or Startup Cost) for the given market day for any available schedule after DA clearing or in Real Time for the hours of its DA committment period or if committed in real time during its min run time the resource is to be re-checked offer capping and if a cost schedule is determined to be the cheapest schedule the resource should be switched to it effective for the hour the change is effective for.