

## Three Pivotal Supplier Test: Regulation Market Examples

**TPSTF** 

Wilmington, DE

PJM MMU

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- Three pivotal supplier test includes eligible supply
- Definition of eligible supply to conform with the selection criteria used by PJM Markets software
- Regulation offers are submitted daily, but parameters may be modified on an hourly basis
- Market participation is voluntary



- The MMU reviewed proposed modifications to the definition of eligible supply used in the three pivotal supplier test
- The MMU evaluated the impact on 2007 regulation market results
- The proposed modifications resulted in minor changes to the pivotal supplier results
- The MMU evaluated the sensitivity of pivotal supplier results to various components of the definition of eligible regulation supply



- Offered Regulation Supply is Eligible Except Where:
  - Unit is designated as unavailable to provide regulation for the day or the hour (e.g. Offer MW=0)
  - Resource is an offline non-hydro unit
  - Resource is a non-hydro unit with regulation max = regulation minimum
  - Resource is a non-hydro unit with economic maximum = economic minimum
  - Unit selected to provide tier-2 spinning reserves
  - Unit with (Regulation Offer Price + Regulation LOC)> RMCP\*1.5



- Removal of ineligibility for:
  - Offline non-hydro unit resources
  - Resources selected to provide tier-2 spinning reserves



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  - Resource is a non-hydro unit with regulation max = regulation minimum
  - Resource is a non-hydro unit with economic maximum = economic minimum
  - Unit with (Regulation Offer Price + Regulation LOC)> RMCP\*1.5

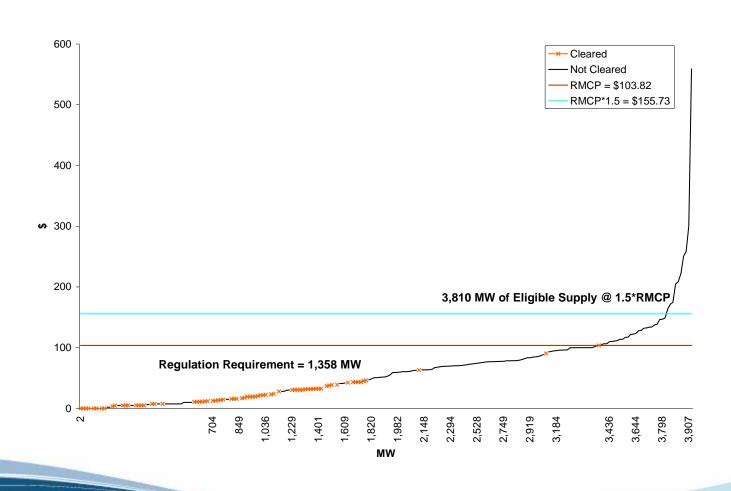


## Comparison of Regulation Market Pivotal Supplier Results (2007 through August 31st)

Eligible Supply Definition	Percent Hours 1- Pivotal Supplier	Percent Hours 2- Pivotal Supplier	Percent Hours 3- Pivotal Supplier
Current Definition	9%	52%	75%
Sensitivity Definition	6%	41%	70%



## Regulation Market Hourly Eligible Supply Curve Example with Current Eligibility Criteria





## Regulation Market Hourly Eligible Supply Curve Example with Eligibility Criteria Modifications

