



# Report on PJM Demand Response Symposium III - Integrating Price Responsive Demand -

FERC-NARUC Demand Response Collaborative  
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Andrew Ott  
Senior Vice President, Markets  
PJM Interconnection, LLC

- Purpose
  - “to consider the challenges posed by and plans for integrating Price Responsive Demand into the Wholesale and Retail markets”
- Discuss adaptations to PJM Demand Response Roadmap
- Roadmap is a tool for collaboration between wholesale and retail to facilitate and develop demand response
- MADRI states have supported development and adaptation of Roadmap for the past three years

- Report on Baltimore Gas and Electric pilots
  - Price Responsive Demand does work if implemented correctly
  - Immediate feedback to customers on savings is essential to successful program
- Report on PEPCO pilot
  - 92% of participants saved
  - Average of 7.8% savings
  - Education was key
- Report on ComEd pilot

# What is Price Responsive Demand?

From a Market/Regulatory perspective:

- Deploying automation and advanced metering technology to allow voluntary customer response to price.
- Implementing dynamic and time-differentiated retail rate structures to incent customer response
- Ensuring full value of technology and customer flexibility is reflected in market and reliability criteria

From an grid operational perspective:

- Enhance reliable operations by modeling aggregate, locational customer flexibility in real-time operational tools
- Account for beneficial impact of PRD in planning and capacity market



From a customer perspective:

- Provides opportunity for customer action to reduce electricity costs
- Permits innovation and customer choice
- Technology can be extendable to environmental drivers

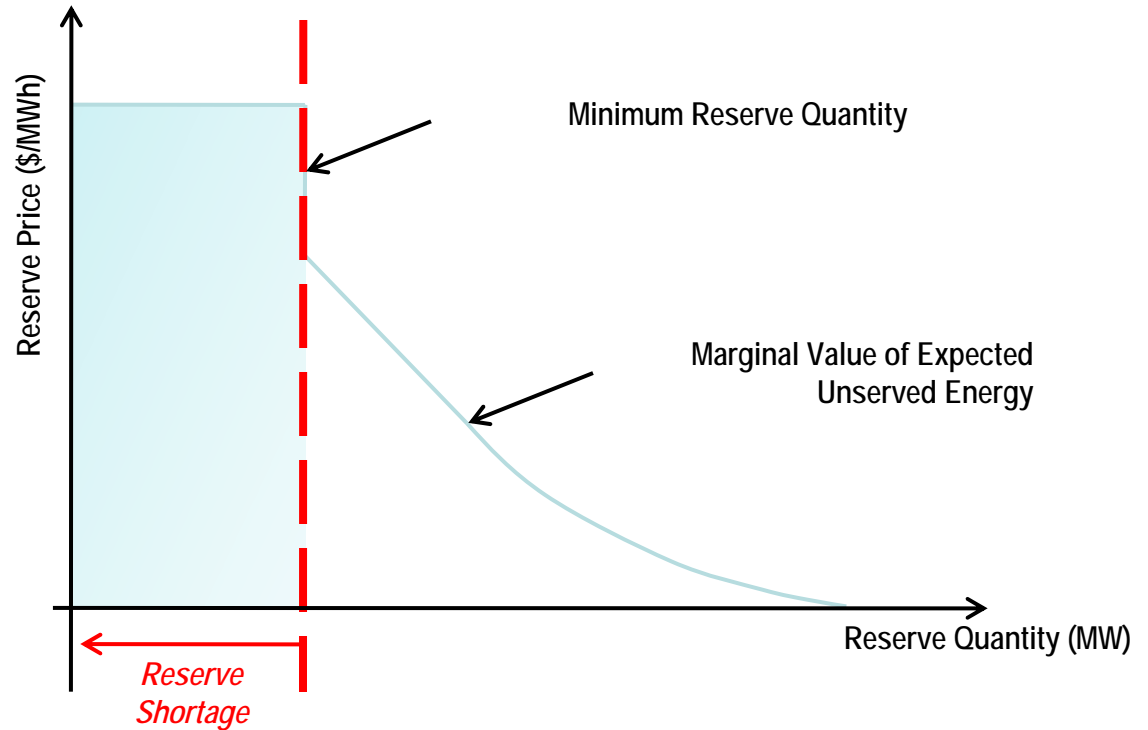
# Scarcity Pricing, A Necessary Step for PRD Implementation

- Align real-time market prices with system conditions
- Prices
  - Stable
  - Transparent
  - Predictable
- Enhance reliable operations - All resources respond with full capability
- **Facilitate demand response and price-responsive demand**
- Compliance with FERC Order 719

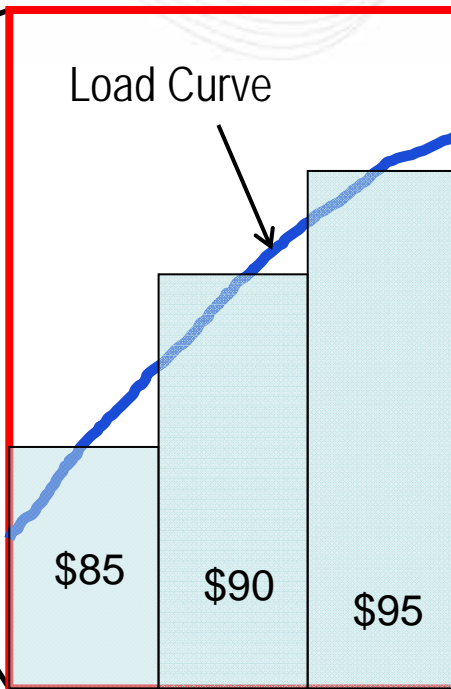
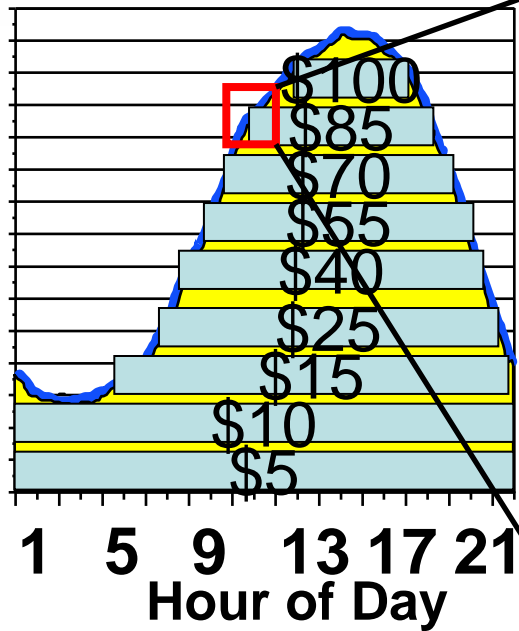


## *Incorporating an Operating Reserve Demand Curve*

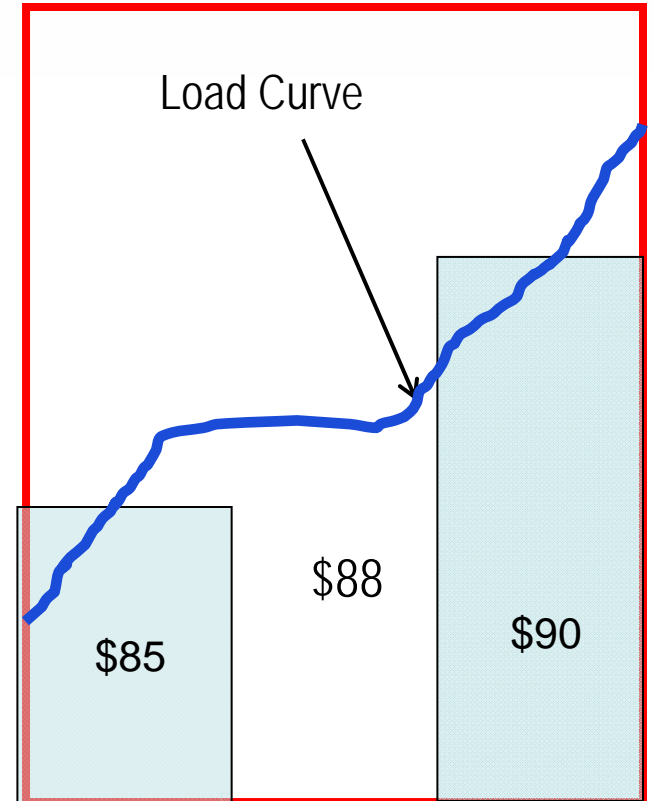
- Stability
- Transparency
- Gradual Transitions



## Dispatch w/o Price Responsive Demand



## Dispatch With PRD





# Requirements to Incorporate PRD Into Dispatch

Close coordination  
with EDCs on  
quantities  
and prices

Locational  
detail of PRD  
quantities

Recognition in  
dispatch  
and pricing  
software

# PRD Reduces Demand For Capacity

