

IURC Summer Reliability

May 12, 2009

Discussion Outline

- Enhancements Since Last Year
 - Ancillary Service Market
 - Resource Adequacy / Module E
- Historical Context
 - Load Levels
 - Resources Available
 - Reserves Available
- 2009 Summer Assessment
 - Establishing Planning Reserve Margin Requirements
 - Meeting Planning Reserve Margin Requirements
- Value Proposition Update

Ancillary Service Market operations have reduced requirements and added value

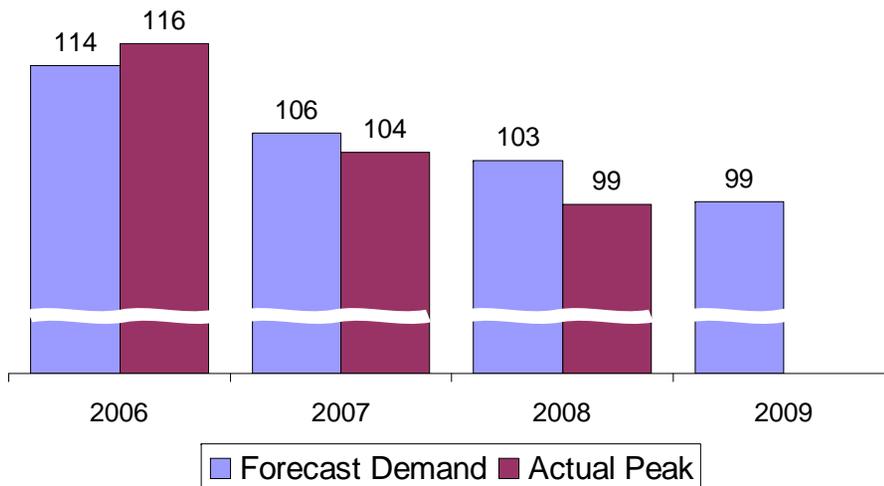
- Launched January 6, 2009
- Initial savings results (1st four months) have exceeded forecast results
 - Total Estimated Value = \$212 Million per year
 - Regulation: (\$165 Million)
 - Requirement reduced from 1,188 MW to 464 MW (724 MW)
 - Annual cost reduced \$55.5 million
 - Energy production cost reduced \$109.5 million per year
 - Spinning Reserves: (\$47 Million)
 - Energy production cost reduced \$46.6 million per year
 - In addition to the savings gained from the implementation of the Contingency Reserve Sharing Group
- Execution against NERC Controlled Performance Standards are consistent with Pre-ASM operations

Resource Adequacy / Module E has changed the way Planning Reserve Margins requirements are established

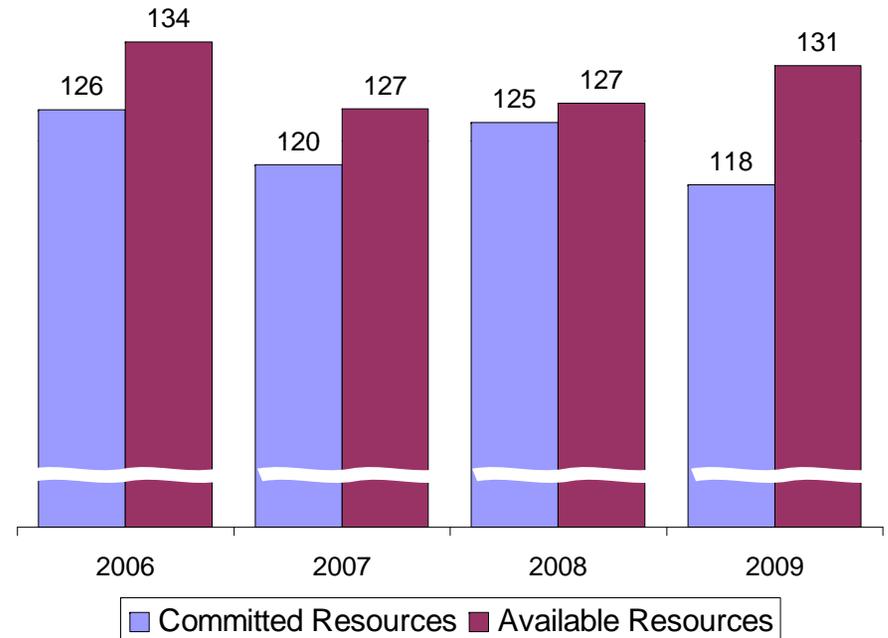
- Midwest ISO sets Planning Reserve Margin requirement
 - Loss of Load Expectation Study – 1 day in 10 years
 - Considers unique characteristics of footprint
- Load Serving Entities demonstrate compliance through submission of regular forecasts and resource plans
- Financial settlement charge for Load Serving Entities with insufficient capacity
 - Calculated annually by Midwest ISO and Independent Market Monitor
 - Based on Cost of New Entry (CONE)
 - Set at \$80,000 per MW-month for initial planning year
- States are responsible for enforcement

Midwest ISO demand has declined while capacity has been relatively stable

Midwest ISO Peak Demand (in GWs)



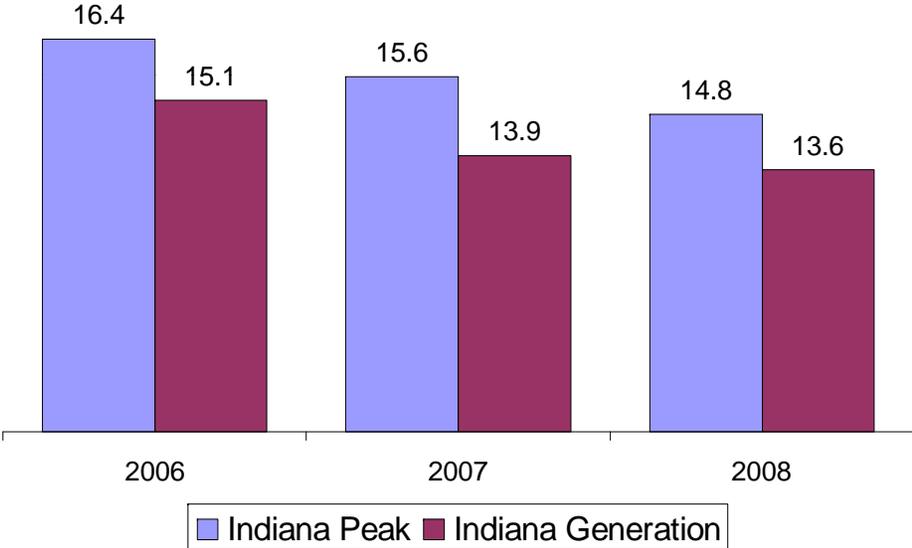
Midwest ISO Resources (in GWs)



Note: Available resources includes 100% of nameplate capacity for all resources, including wind.

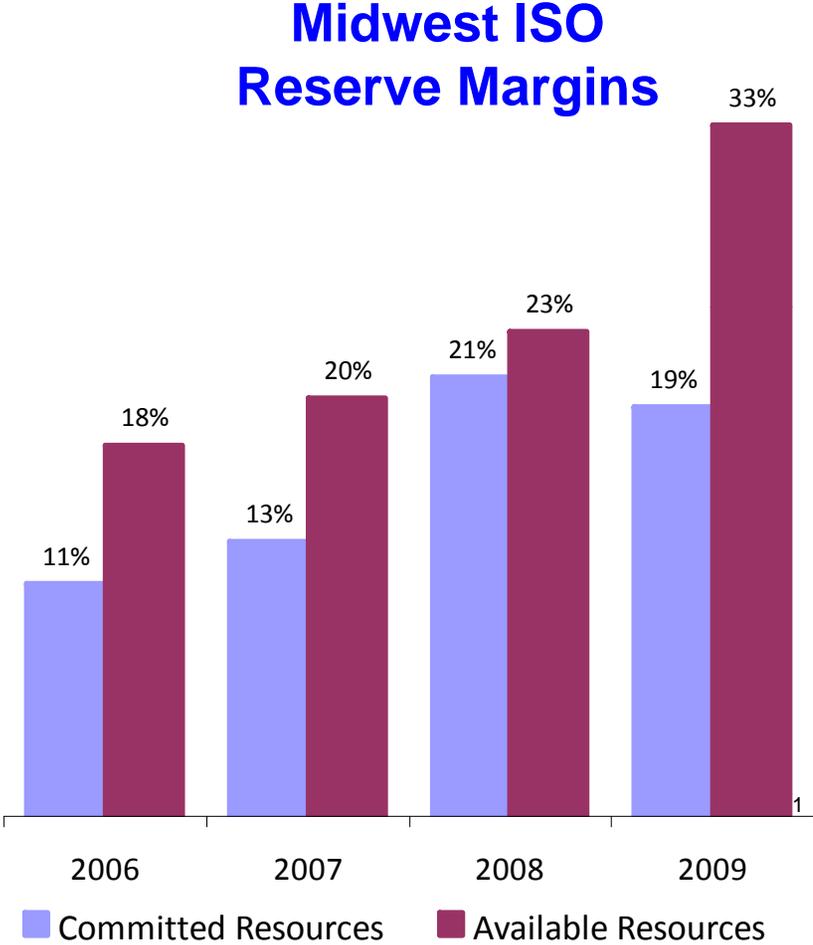
Indiana continues to benefit from importing resources from outside the state

**Indiana's Supply and Demand
(at Midwest ISO Peak)
(in GWs)**



	2006	2007	2008
Net Imports at Peak (GWs)	1.3	1.7	1.2
Net Imports as % of Demand	8%	11%	8%

The Midwest ISO reserve margins are improving – in terms of both committed resources and available resources



Note: Available Resources includes 100% of nameplate capacity for all resources including wind.)

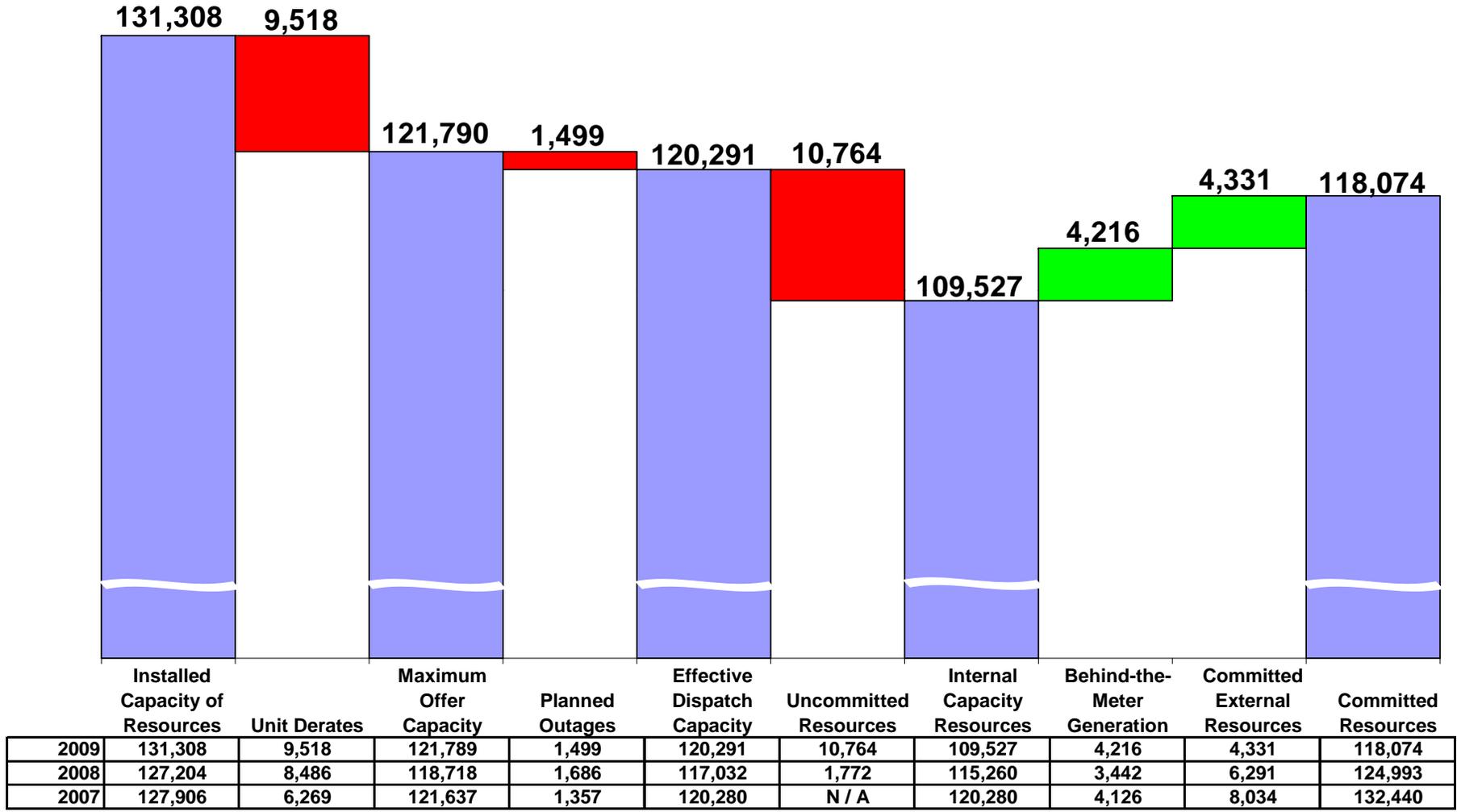
The Planning Reserve Margin (PRM) Requirements were established via a Loss of Load Expectations (LOLE) Study

- Parallels work done by Purdue University's State Utility Forecasting Group
- Uses a 1 day in 10 years Loss of Load Expectation criteria
- Considers the unique characteristics of the Midwest ISO footprint
 - 2.35% - Load Diversity Factor
 - Based on the lowest actual diversity in the past four years
 - In comparison, the past four year average is 4.41%
 - 6.514% - System-wide average Equivalent Forced Outage Rate

Planning Reserve Margin Requirements reconcile with Unforced Capacity Resources

- System Planning Reserve Margin Requirements
 - 15.4% of Installed Capacity
 - Midwest ISO's footprint coincident peak
 - 12.7% of Installed Capacity
 - Midwest ISO Load Serving Entities' non-coincident peak; accounts for load diversity in the footprint
 - 5.35% of the System's Unforced Capacity
 - Average forced outage rate of the system-wide supply resources (including demand response)
 - Equitable distribution of reserve requirement across generation fleet with varying outage rates
- Load Serving Energy (LSE) Planning Reserve Margin Requirements
 - 5.35% of Unforced Capacity of each LSE's Committed Resources
 - Forced outage rates of the specific resources committed

Midwest ISO Resource Overview - 2009



Midwest ISO Value Proposition

- Preliminary Update Based on ASM Results to Date

