



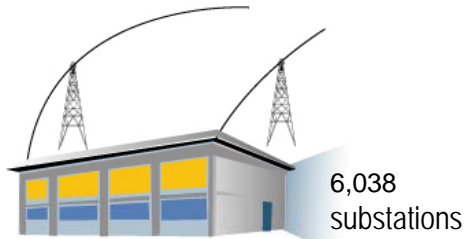
# 2010 IURC Summer Reliability Assessment

PJM Interconnection LLC  
May 20, 2010

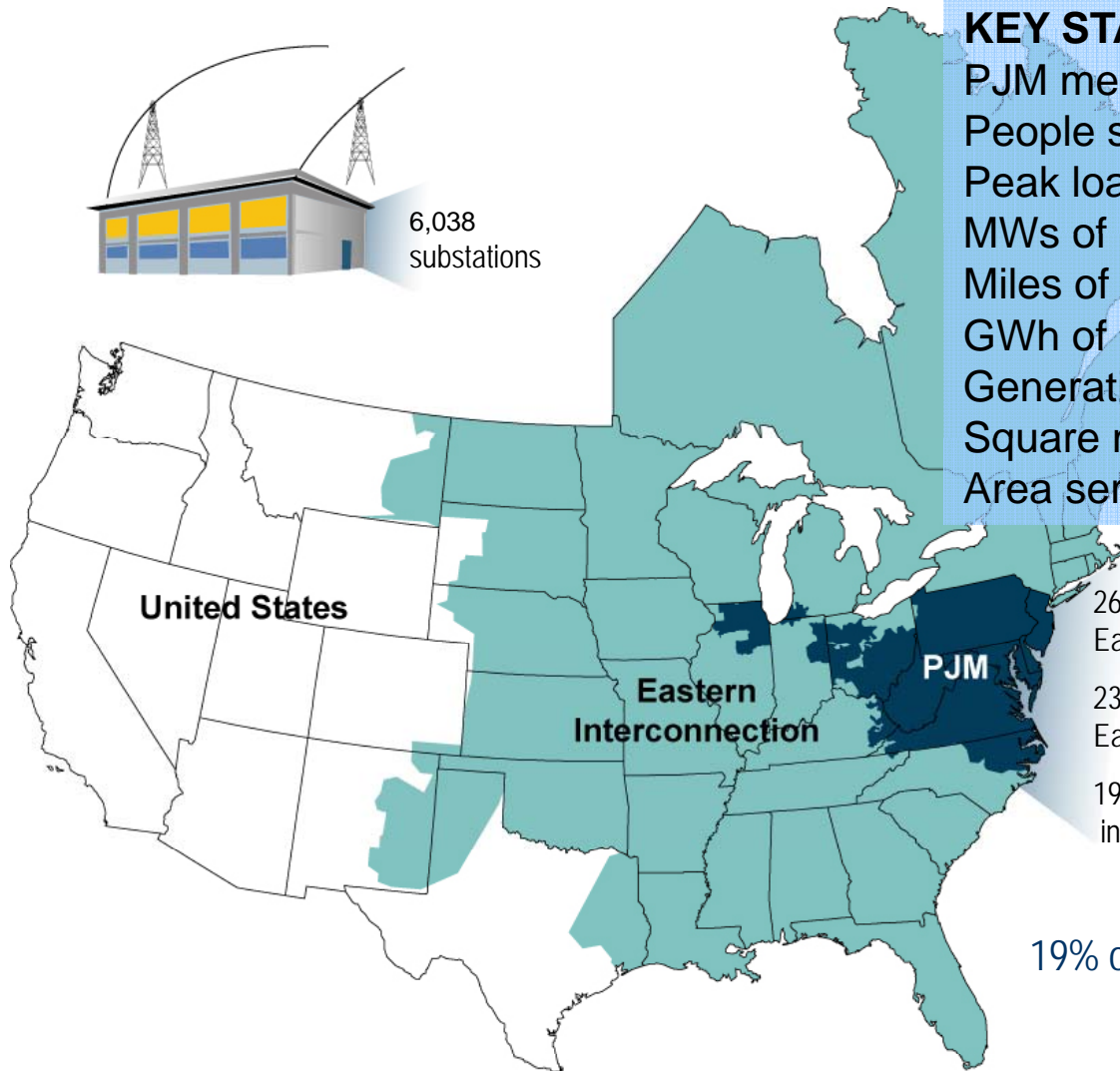




# PJM as Part of the Eastern Interconnection



<b>KEY STATISTICS</b>	
PJM member companies	565
People served (millions)	51
Peak load (MWs)	144,644
MW of generating capacity	167,326
Miles of transmission lines	56,500
GWh of annual energy	682,189
Generation sources	1,500+
Square miles of territory	168,500
Area served	13 states + DC



26% of generation in Eastern Interconnection  
23% of load in Eastern Interconnection  
19% of transmission assets in Eastern Interconnection

19% of U.S. GDP produced in PJM



- PJM expects to be able to reliably serve expected peak loads—peak loads are expected to be slightly higher this summer vs. last summer
- Demand response has increased significantly.
- At peak load conditions, significant transmission congestion can be expected on the paths into Washington/Baltimore/Northern Virginia and on the ComEd/Wisconsin interface





# PJM Load and Capacity Comparison: 2010 vs. 2009 vs. 2008

## 2010

Forecast Load (MW) Total	Demand Response (MW)	Forecast Load (MW) Less Demand Response	Installed Generation Capacity (MW)	Reserve Margin (MW)	Reserve Margin	Required Reserve Margin
135,750	8,525 (est.)	127,225	162,903	35,678	28.0%	15.5%

## 2009

Forecast Load (MW)	Demand Response (MW)	Forecast Load (MW) Less Demand Response	Installed Generation Capacity (MW)	Reserve (MW)	Reserve Margin	Required Reserve Margin
134,430	7,294	127,136	165,200	38,064	30.0%	15.0%

## 2008

Forecast Load (MW)	Demand Response (MW)	Forecast Load (MW) Less Demand Response	Installed Generation Capacity (MW)	Reserve (MW)	Reserve Margin	Required Reserve Margin
137,950	4,467	133,483	165,300	31,817	23.8%	15.0%





## Glossary for Load and Capacity Comparison Slide

**Forecast Load** – Expected peak demand, based on normal weather (Total Internal Demand-TID)

**Demand Response** – Contractually interruptible load and other customer load willing to be interrupted at the direction of PJM.

**Forecast Load Less Load Management** – Expected peak demand after demand response has been implemented (Net Internal Demand-NID)

**Installed Generation Capacity** – Total MW output of all of the generators that cleared in RPM and are committed to serve PJM load (Installed Capacity—ICAP)

**Reserve (MW)** – Installed Generation Capacity minus Net Internal Demand

**Reserve Margin (%)** – Reserve expressed as a percent of Net Internal Demand

**Required Reserve Margin (%)** – PJM required planning reserve, as determined by the RPM process (Installed Reserve Margin-IRM)





## Some PJM Summer Preparations

- PJM Operating Analysis Task Force (OATF) Summer Operating Study
- Reliability *First* Summer Assessment
- Joint MISO/PJM Operations Coordination Meeting
- PJM Spring Operator Seminar (9 sessions – over 700 operators attended)
- PJM Emergency Procedures Drill—May 26





## **Normal Sequence of Emergency Procedures**

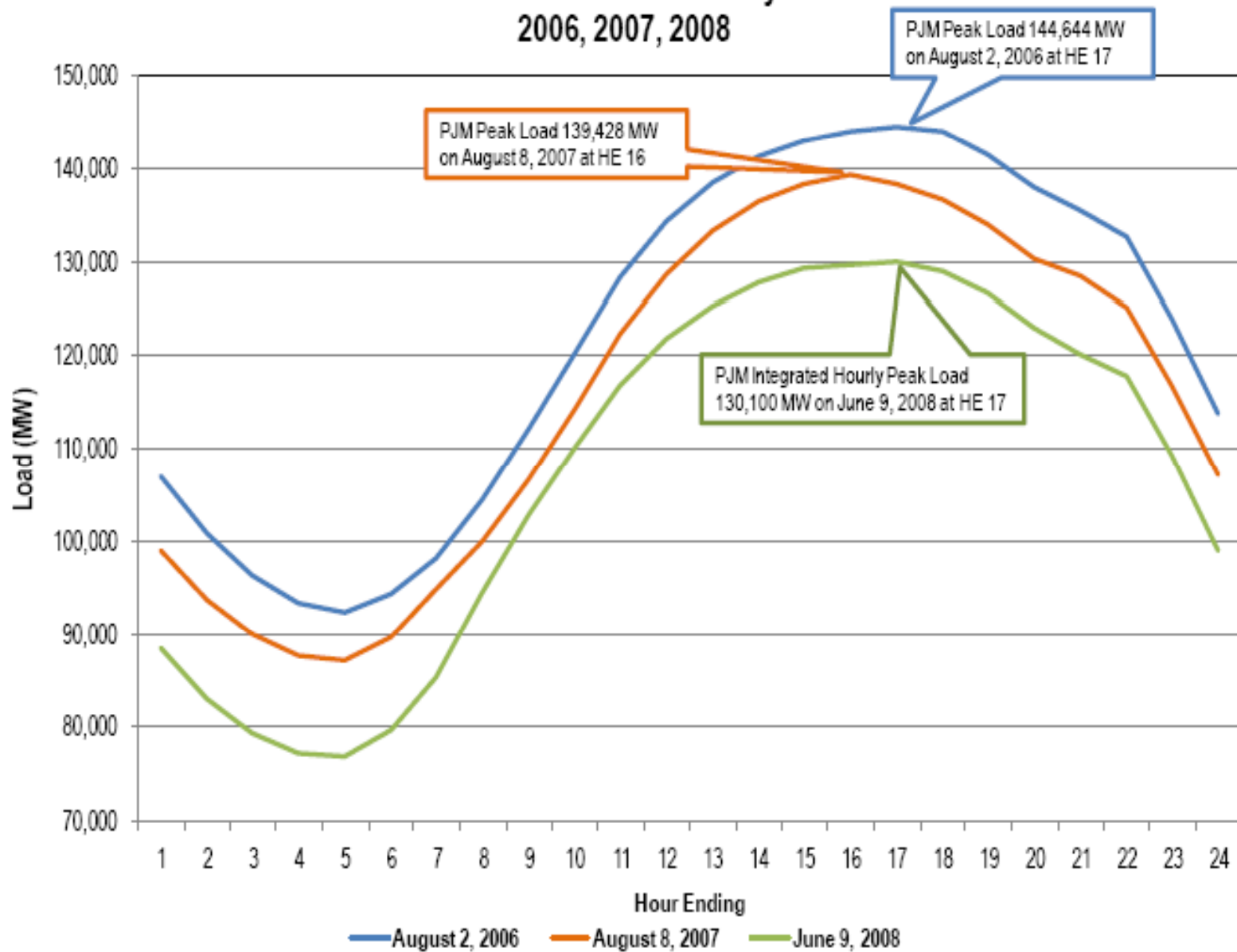
- Alerts – Usually, issued the day before the operating day
- Warnings – Usually, issued the morning of the operating day or when the event is imminent
- Actions – At the onset of the event





# PJM RTO Peak Load Comparison

## PJM RTO Peak Load Days 2006, 2007, 2008







## **Emergency Condition “Considerations”**

- How much notice of condition (few hours / days)
- Were there similar conditions recently
- What month / day did the condition begin
- How long did it last
- Was it RTO wide

