PJM Summer Reliability Assessment
Illinois Commerce Commission

June 6, 2012
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PJM Interconnection, LLC
KEY STATISTICS

- PJM member companies: 750+
- Millions of people served: 60
- Peak load in megawatts: 163,848
- MWs of generating capacity: 185,600
- Miles of transmission lines: 65,441
- GWh of annual energy: 832,331
- Generation sources: 1,365
- Square miles of territory: 214,000
- Area served: 13 states + DC
- Internal/external tie lines: 142

21% of U.S. GDP produced in PJM

As of 1/4/2012
• PJM expects to be able to reliably serve expected peak load.
• Demand response commitments may be slightly lower.
• The 2012 forecast of peak loads reflects lower peak loads than forecast in 2011.
# PJM Load and Capacity Comparison: 2012 vs. 2011

## 2012 (with DEOK)

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<tbody>
<tr>
<td>153,780</td>
<td>10,230¹ (est.)</td>
<td>143,550</td>
<td>185,180</td>
<td>41,630</td>
<td>29.0%</td>
<td>15.6%</td>
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¹Includes 654MW of Energy Efficiency

## 2011 (without DEOK)

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<td>148,940</td>
<td>11,897</td>
<td>137,043</td>
<td>180,400</td>
<td>43,357</td>
<td>31.6%</td>
<td>15.5%</td>
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¹Includes 75 MW of Energy Efficiency

### 2011 (Actual Peak Load: 158,016 MW on July 21, 2011 at HE 17)
**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. Compliance check is performed at end of summer.

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

**Installed Generation Capacity** – Total MW amount of deliverable generation inside PJM (Installed Capacity)

**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 Operations Assessment Task Force (OATF) Summer Operating Study

• ReliabilityFirst Summer Assessment

• Joint MISO/PJM Operations Coordination Meeting

• PJM Spring Operator Seminar (10 sessions – over 700 operators attended)

• PJM Emergency Procedures Drill – May 22, 2012
Normal Sequence of Emergency Communications

- **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
- In Illinois, PJM **notifies only** the ICC
Nearly 25 GW coal generation at risk based on economic analysis

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<th>Capacity Revenue Needed</th>
<th>PJM RTO</th>
<th>MAAC</th>
<th>Rest of PJM</th>
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<tr>
<td>&lt; ½ Net CONE</td>
<td>38,334</td>
<td>12,634</td>
<td>25,700</td>
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<td>½ Net CONE – Net CONE</td>
<td>14,147</td>
<td>2,908</td>
<td>11,239</td>
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<td>&gt; Net CONE</td>
<td>11,051</td>
<td>3,194</td>
<td>7,857</td>
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Note: CONE is the Cost of New Entry (Simple Cycle Combustion Turbine)

Over 16,400 MW of Pending Deactivations
(~13,800 MW since 11/2011)
Environmental Retrofit Outages and Typical Maintenance Outages

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*Some retrofit outages may be included in typical maintenance outages.
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